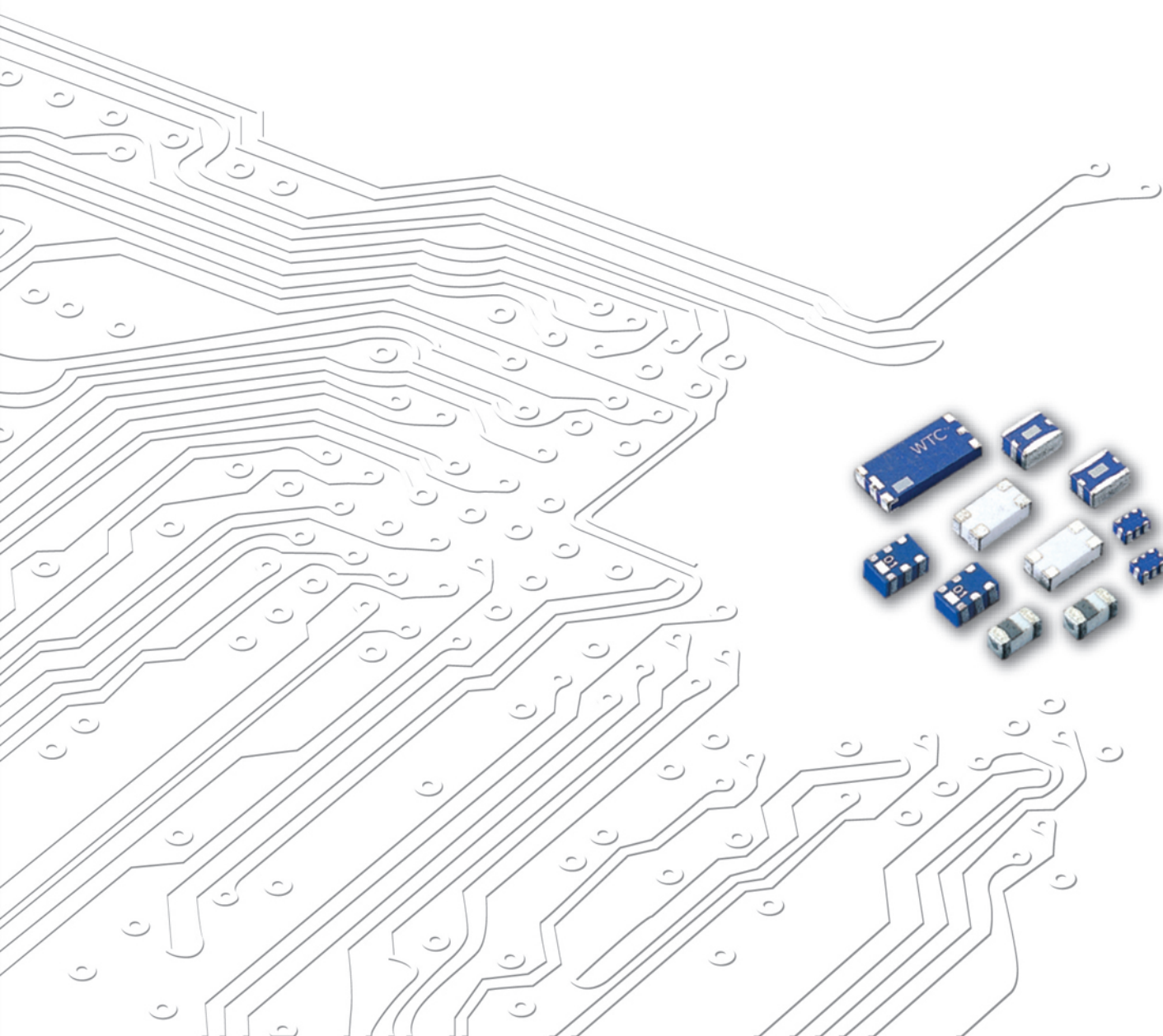


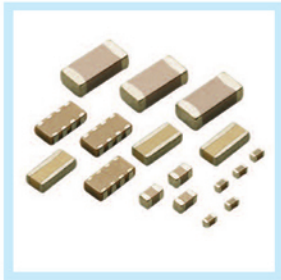
RF Devices and Customer made Antenna

Product catalog

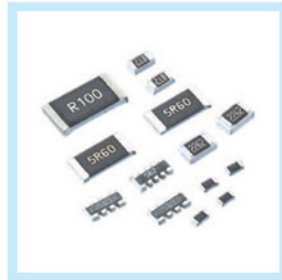
www.passivecomponent.com



Product Portfolio



Multilayer Ceramic Capacitors (MLCC)



Chip-Resistor



Disc Capacitors



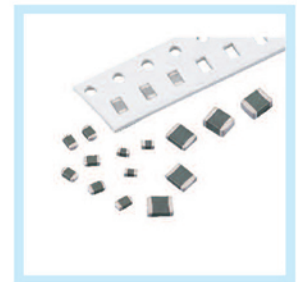
RF Device and High Frequency Inductors



Antenna



Inductors



Varistors and SMD-Varistors

IEC-63 Nominal Resistance / Capacitance

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| E1 | 100 | | | | | | | | | | | | | | | | | | | | | | | |
| E3 | 100 | | | 220 | | | | 470 | | | | | | | | | | | | | | | | |
| E6 | 100 | 150 | 220 | 330 | 470 | 680 | | | | | | | | | | | | | | | | | | |
| E12 | 100 | 120 | 150 | 180 | 220 | 270 | 330 | 390 | 470 | 560 | 680 | 820 | | | | | | | | | | | | |
| E24 | 100 | 110 | 120 | 130 | 150 | 160 | 180 | 200 | 220 | 240 | 270 | 300 | 330 | 360 | 390 | 430 | 470 | 510 | 560 | 620 | 680 | 750 | 820 | 910 |
| E96 | 100 | 102 | 121 | 124 | 147 | 150 | 178 | 182 | 215 | 221 | 261 | 267 | 316 | 324 | 383 | 392 | 464 | 475 | 562 | 576 | 681 | 698 | 825 | 845 |
| | 105 | 107 | 127 | 130 | 154 | 158 | 187 | 191 | 226 | 232 | 274 | 280 | 332 | 340 | 402 | 412 | 487 | 499 | 590 | 604 | 715 | 732 | 866 | 887 |
| | 110 | 113 | 133 | 137 | 162 | 165 | 196 | 200 | 237 | 243 | 287 | 294 | 348 | 357 | 422 | 432 | 511 | 523 | 619 | 634 | 750 | 768 | 909 | 931 |
| | 115 | 118 | 140 | 143 | 169 | 174 | 205 | 210 | 249 | 255 | 301 | 309 | 365 | 374 | 442 | 453 | 536 | 549 | 649 | 665 | 787 | 806 | 953 | 976 |

E6: $\sqrt[6]{10} \approx 1.46$ E12: $\sqrt[12]{10} \approx 1.21$

E1 series resistance: 1Ω, 10Ω, 100Ω, 1000Ω, 10000Ω, 100000Ω

INDEX

| Subject | Page |
|---|-------------|
| ORDERING CODE | 1~5 |
| CHIP ANTENNA | 6~12 |
| ■ 1.575GHz GPS BAND WORKING FREQUENCY | |
| ■ Bluetooth/WiFi BAND WORKING FREQUENCY | |
| ■ WiMAX BAND WORKING FREQUENCY | |
| HIGH FREQUENCY MULTILAYER BAND PASS FILTER | 13~27 |
| ■ 2.4GHz BAND WORKING FREQUENCY | |
| ■ WiMAX BAND WORKING FREQUENCY | |
| ■ 5GHz BAND WORKING FREQUENCY | |
| ■ 1558 ~ 1606 MHz GNSS Band Applications | |
| ■ 860~960MHz/1805~2025 MHz Band Application | |
| ■ MoCA / Docsis Application | |
| ■ LTE BAND Application | |
| HIGH FREQUENCY MULTILAYER BALANCED FILTER | 28~30 |
| ■ 2.4GHz BAND WORKING FREQUENCY | |
| HIGH FREQUENCY MULTILAYER LOW PASS FILTER | 31~39 |
| ■ GSM850/900GHz BAND WORKING FREQUENCY | |
| ■ DCS/PCS BAND WORKING FREQUENCY | |
| ■ 2.4GHz BAND WORKING FREQUENCY | |
| ■ 5GHz BAND WORKING FREQUENCY | |
| ■ LTE BAND APPLICATION | |
| ■ MoCA Application | |
| HIGH FREQUENCY MULTILAYER HIGH PASS FILTER | 40~41 |
| ■ 2496 ~ 2690 MHz BAND WORKING FREQUENCY | |
| ■ 5GHz BAND WORKING FREQUENCY | |
| ■ MoCA Application | |
| BALUN TRANSFORMERS | 42~50 |
| ■ ISM Band 2.4GHz Application | |
| ■ ISM Band 5GHz Application | |
| ■ LTE Band Application | |
| ■ GSM 850/ GSM 900/ DCS1800/ PCS1900 Application | |
| DIPLEXER | 51~58 |
| ■ ISM Band 2.4GHz Application | |
| ■ GPS 1.575GHz/ISM 2.4GHz/5GHz Band Application | |
| ■ 892 MHz & 1.94GHz Band Working Frequency | |
| TRIPLEXER | 59 |
| ■ GPS 1.575GHz/ISM 2.4GHz/5GHz Band Application | |
| COMMON MODE FILTER | 60 |
| ■ DISCRETE CMF for HIGH SPEED TRANSMISSION LINES · USB2.0 · IEEE1394 · LVDS(mini) | |
| COUPLER | 61~64 |
| ■ ISM Band 2.4GHz Application | |
| ■ ISM Band 2.4/5GHz Application | |
| ■ LTE BAND Application | |
| SAW FILTER | 65~70 |
| ANTENNA SWITCH (GPIO) | 71~72 |
| ANTENNA SWITCH (MIPI) | 73 |
| ANTENNA SWITCH MODULE (MIPI) | 74 |
| Customer made Antenna | 75~85 |
| ■ Dipole Antenna (None Cable and With Cable) | |
| ■ PCB Antenna | |
| ■ FPA Antenna | |
| ■ Metal Antenna | |
| ■ NFC Antenna | |
| ■ Connector | |

*The specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.

*This catalog has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

ORDERING CODE

■ CHIP ANTENNA

| RF | ANT | 321612 | 0 | A | 5 | T |
|---------------|--|---|--------------------------|---|---|-------------------------------|
| Type code | Product code | Dimension code | Unit of dimension | Application | Specification | Packing |
| RF/RG: device | ANT : Antenna FRA : Free Antenna ECA : SMD Antenna | Per 2 digits of Length, Width, Thickness 321612 = Length = 32 Width = 16 Thickness = 12 | 0 : 0.1 mm 1 : 1.0 mm | A : 2.4GHz ISM Band E : GPS 1.5GHz L : 2.4/5.2/5.8GHz Tri Band W : WiMAX | Code from 0~9 dependent on different electrical specification | T: 7" Reeled G: 13" Reeled |

■ HIGH FREQUENCY MULTILAYER BAND PASS FILTER

| RF | BPF | 322515 | 0 | A | 4 | T |
|-----------|------------------------|---|--------------------------|---|---|-------------------------------|
| Type code | Product code | Dimension code | Unit of dimension | Application | Specification | Packing |
| RF device | BPF : Band Pass Filter | Per 2 digits of Length, Width, Thickness 322515 = Length = 32 Width = 25 Thickness = 15 | 0 : 0.1 mm 1 : 1.0 mm | A : 2.4GHz ISM Band W : WiMAX K : ISM 5.2/5.8 Dual Band | Code from 0~9 dependent on different electrical specification | T: 7" Reeled G: 13" Reeled |

■ HIGH FREQUENCY MULTILAYER BALANCED FILTER

| RF | BPB | 252009 | 0 | A | 7 | T |
|---------------|--------------------------------------|---|--------------------------|----------------------------------|---|-------------------------------|
| Type code | Product code | Dimension code | Unit of dimension | Application | Specification | Packing |
| RF/RG: device | BPB : Balanced Type Band Pass Filter | Per 2 digits of Length, Width, Thickness 252009 = Length = 25 Width = 20 Thickness = 09 | 0 : 0.1 mm 1 : 1.0 mm | A : 2.4GHz ISM Band W : WiMAX | Code from 0~9 dependent on different electrical specification | T: 7" Reeled G: 13" Reeled |

■ HIGH FREQUENCY MULTILAYER LOW PASS FILTER

| RF | LPF | 201211 | 0 | A | 0 | T |
|-----------|-----------------------|---|--------------------------|--|---|-------------------------------|
| Type code | Product code | Dimension code | Unit of dimension | Application | Specification | Packing |
| RF device | LPF : Low Pass Filter | Per 2 digits of Length, Width, Thickness 201211 = Length = 20 Width = 12 Thickness = 11 | 0 : 0.1 mm 1 : 1.0 mm | A : 2.4GHz ISM Band K : ISM 5.2/5.8 Dual Band | Code from 0~9 dependent on different electrical specification | T: 7" Reeled G: 13" Reeled |

■ HIGH FREQUENCY MULTILAYER HIGH PASS FILTER

| RF | HPF | 252009 | 0 | L | 0 | T |
|-----------|------------------------|--|--------------------------|--|---|-------------------------------|
| Type code | Product code | Dimension code | Unit of dimension | Application | Specification | Packing |
| RF device | HPF : High Pass Filter | Per 2 digits of Length, Width, Thickness 252009 = Length = 2.5 Width = 2.0 Thickness = 0.9 | 0 : 0.1 mm 1 : 1.0 mm | L : 2.4/4.9/5.2/5.8GHz Multiband Application | Code from 0~9 dependent on different electrical specification | T: 7" Reeled G: 13" Reeled |

■ BALUN TRANSFORMERS

| RF | BLN | 201208 | 0 | A | 4 | T |
|---------------|--------------|---|--------------------------|--|---|-------------------------------|
| Type code | Product code | Dimension code | Unit of dimension | Application | Specification | Packing |
| RF/RG: device | BLN : BALUN | Per 2 digits of Length, Width, Thickness 201208 = Length = 20 Width = 12 Thickness = 08 | 0 : 0.1 mm 1 : 1.0 mm | A : 2.4GHz ISM Band K : ISM 5.2/5.8 Dual Band | Code from 0~9 dependent on different electrical specification | T: 7" Reeled G: 13" Reeled |

■ DIPLEXER

| RF | DIP | 201210 | 0 | L | 0 | T |
|-----------|----------------|--|--------------------------|---|---|-------------------------------|
| Type code | Product code | Dimension code | Unit of dimension | Application | Specification | Packing |
| RF device | DIP : Diplexer | Per 2 digits of Length, Width, Thickness 201210 = Length =20 Width = 12 Thickness = 10 | 0 : 0.1 mm 1 : 1.0 mm | L : 2.4/4.9/5.2/5.8GHz Multiband Application | Code from 0-9 dependent on different electrical specification | T : 7" Reeled G:13" Reeled |

■ TRIPLEXER

| RF | TIP | 2109 | A | T | M0T63 |
|-----------|-----------------|--|-------------|--------------------------|---------------|
| Type code | Product code | Dimension code | Pin Define | Application | Specification |
| RF device | TIP : Triplexer | Per 2 digits of Length, Width, Thickness e.g. : 21 = Length 2.0 mm, Width 1.2 mm, 09= Thickness 0.9 mm | Design Code | T: GPS/ ISM 2.4GHz/5 GHz | Design Code |

■ COMMON MODE FILTER

| RF | CMF | 122010 | 0 | M | 3 | T |
|------------------|-----------------------------|--|--------------------------|----------------------|---|---------------|
| Type code | Product code | Dimension code | Unit of dimension | Application | Specification | Packing |
| RF/RG: device | CMF : Common Mode Filter | Per 2 digits of Length, Width. 122010 = Length =12 Width = 20 Thickness = 10 | 0 : 0.1 mm 1 : 1.0 mm | M: USB 2.0/ IEEE1394 | Code from 0-9 dependent on different electrical specification | T : 7" Reeled |

■ COUPLER

| RF | CPL | 18 | 10 | B | 2450 | T |
|-----------|--------------|---|-----------------|------|------------------|---------------|
| Type code | Product code | Dimension code | Coupling Factor | Unit | Application | Packing |
| RF device | Coupler | e.g. : 18 = Length 16, Width 08, 15= Length 10, Width 05, | 10 dB | dB | 2.4 GHZ ISM Band | T : 7" Reeled |

■ SAW FILTER

| SF | 1411 | 2595 | B38 | 03 | T |
|-------------------------------------|---|----------------------------|-------------|---------------|--------------|
| Product code | Dimension code | Frequency | Application | Serial Number | Packing |
| SF:SAW Filter DF:SAW DUPLEXER | Per 2 digits of Length, Width 1411= Length 1.4mm Width 1.1mm | 2595:Center Freq (2595MHz) | B38:Band38 | Design Code | T: 7" Reeled |

■ ANTENNA SWITCH

| RF | ASW | D | H2418A | T |
|-----------|---------------------|-------------|---------------|--------------|
| Type code | Product code | Application | Serial Number | Packing |
| RF device | ASW: Antenna Switch | D: SP8T | Design Code | T: 7" Reeled |

■ ANTENNA SWITCH MODULE

| RM | ASM | N | T1492A | T |
|--------------------------------|----------------------------|-------------|---------------|--------------|
| Type code | Product code | Application | Serial Number | Packing |
| RM: Walsin RF Module Device | ASM: Antenna Switch Module | N: SP16T | Design Code | T: 7" Reeled |

ORDERING CODE

■ Dipole Antenna

| RF | DPA | 8709 | 00 | S | B | A | B | 8 | 01 |
|-----------|-------------------------|--|--|---|---|--|---------------------------------------|---|---------------------|
| Type code | Product code | Dimension code | Cable Length code | Connector Brand code | Type of Connector code | Application code | Project status code | Wire Diameter code | Project code |
| RF device | DPA : Dipole Antenna | Per 2 digits of Length, Width 8709 = Length = 87 Width = 9.95 | 2 digits for cable length 00= None Cable | A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX K:F M: MMCX S: SMA T: TNC U:MURATA N: None | A: Reverse Female B: Reverse Male F: Female M: Male N: None | 0: 0GHz 5: 5 GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band T:LTE band U:UHF W: WCDMA band | B: MP T:During Test X: Pile Run | 0:None 1:Ø0.81 2:Ø1.32 3:Ø1.13 4:Low LossØ1.13 5:Ø0.50 6:RG316 7:Ø1.37 8:RG178 9:Low LossØ1.37 A:RG174 B:1.5C-2V | 01-99 series number |

■ PCB Antenna

| RF | PCA | 4305 | 10 | N | N | A | B | 4 | 01 |
|-----------|----------------------|---|---|---|---|--|---------------------------------------|--|---------------------|
| Type code | Product code | Dimension code | Cable Length code | Connector Brand code | Type of Connector code | Application code | Project status code | Wire Diameter code | Project code |
| RF device | PCA : PCB Antenna | Per 2 digits of Length, Width 4305 = Length = 43 Width = 5 | 2 digits for cable length 10= Cable Length: 10cm | A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX K:F M: MMCX S: SMA T: TNC U:MURATA N: None | A: Reverse Female B: Reverse Male F: Female M: Male N: None | 0: 0GHz 5: 5 GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band T:LTE band U:UHF W: WCDMA band | B: MP T:During Test X: Pile Run | 0:None 1:Ø0.81 2:Ø1.32 3:Ø1.13 4:Low LossØ1.13 5:Ø0.50 6:RG316 7:Ø1.37 8:RG178 9: Low LossØ1.37 A:RG174 B:1.5C-2V | 01-99 series number |

■ FPA Antenna

| RF | FPA | 3025 | 10 | I | M | A | B | 3 | 01 |
|-----------|----------------------|--|---|---|---|--|---------------------------------------|--|---------------------|
| Type code | Product code | Dimension code | Cable Length code | Connector Brand code | Type of Connector code | Application code | Project status code | Wire Diameter code | Project code |
| RF device | FPA : FPA Antenna | Per 2 digits of Length, Width 3025 = Length = 30 Width = 25 | 2 digits for cable length 10= Cable Length: 10cm | A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX K:F M: MMCX S: SMA T: TNC U:MURATA N: None | A: Reverse Female B: Reverse Male F: Female M: Male N: None | 0: 0GHz 5: 5 GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band T:LTE band U:UHF W: WCDMA band | B: MP T:During Test X: Pile Run | 0:None 1:Ø0.81 2:Ø1.32 3:Ø1.13 4:Low LossØ1.13 5:Ø0.50 6:RG316 7:Ø1.37 8:RG178 9: Low LossØ1.37 A:RG174 B:1.5C-2V | 01-99 series number |

■ Metal Antenna

| RF | MTA | 3109 | 10 | I | M | L | B | 7 | 01 |
|-----------|------------------------|---|---|---|---|--|---------------------------------------|--|---------------------|
| Type code | Product code | Dimension code | Cable Length code | Connector Brand code | Type of Connector code | Application code | Project status code | Wire Diameter code | Project code |
| RF device | MTA : Metal Antenna | Per 2 digits of Length, Width 3109 = Length = 31 Width = 9 | 2 digits for cable length 10= Cable Length: 10cm | A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX K:F M: MMCX S: SMA T: TNC U:MURATA N: None | A: Reverse Female B: Reverse Male F: Female M: Male N: None | 0: 0GHz 5: 5 GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band T:LTE band U:UHF W: WCDMA band | B: MP T:During Test X: Pile Run | 0:None 1:Ø0.81 2:Ø1.32 3:Ø1.13 4:Low LossØ1.13 5:Ø0.50 6:RG316 7:Ø1.37 8:RG178 9: Low LossØ1.37 A:RG174 B:1.5C-2V | 01-99 series number |

■ Cable Assembly

| RF | CBA | 1613 | 10 | I | M | 3 | B | 7 | 01 |
|-----------|----------------------|---|---|---|---|-------------------------------|--|--|---------------------|
| Type code | Product code | Dimension code | Cable Length code | Connector Brand code | Type of Connector code | Application code | Project status code | Wire Diameter code | Project code |
| RF device | CBA : Cable Assembly | Per 2 digits of Length, Width 1613 = Length = 16.8 Width = 13.7 | 2 digits for cable length 10= Cable Length: 10cm | A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX K:F M: MMCX S: SMA T: TNC U:MURATA N: None | A: Reverse Female B: Reverse Male F: Female M: Male N: None | 0: 0GHz 3: 3GHz 6: 6GHz | B: MP T: During Test X: Pile Run | 0:None 1:Ø0.81 2:Ø1.32 3:Ø1.13 4:Low LossØ1.13 5:Ø0.50 6:RG316 7:Ø1.37 8:RG178 9: Low LossØ1.37 A:RG174 B:1.5C-2V | 01-99 series number |

■ Connector

| RF | CON | 0201 | 00 | D | F | 6 | B | 0 | 01 |
|-----------|-----------------|---|---|---|---|-------------------------------|--|--|---------------------|
| Type code | Product code | Dimension code | Cable Length code | Connector Brand code | Type of Connector code | Application code | Project status code | Wire Diameter code | Project code |
| RF device | CON : Connector | Per 2 digits of Length, Width 0201 = Length = 2.05 Width = 1.40 | 2 digits for cable length 00= None Cable | A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX K:F M: MMCX S: SMA T: TNC U:MURATA N: None | A: Reverse Female B: Reverse Male F: Female M: Male N: None | 0: 0GHz 3: 3GHz 6: 6GHz | B: MP T: During Test X: Pile Run | 0:None 1:Ø0.81 2:Ø1.32 3:Ø1.13 4:Low LossØ1.13 5:Ø0.50 6:RG316 7:Ø1.37 8:RG178 9: Low LossØ1.37 A:RG174 B:1.5C-2V | 01-99 series number |

■ NFC Antenna

| RF | NFC | 0201 | 00 | N | N | N | B | 0 | 01 |
|-----------|--|---|---|---|---|------------------|--|--|---------------------|
| Type code | Product code | Dimension code | Cable Length code | Connector Brand code | Type of Connector code | Application code | Project status code | Wire Diameter code | Project code |
| RF device | NFC : Near Field Communication Antenna | Per 2 digits of Length, Width 5339 = Length = 53.7 Width = 39.7 | 2 digits for cable length 00= None Cable | A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX K:F M: MMCX S: SMA T: TNC U:MURATA N: None | A: Reverse Female B: Reverse Male F: Female M: Male N: None | N: NFC | B: MP T: During Test X: Pile Run | 0:None 1:Ø0.81 2:Ø1.32 3:Ø1.13 4:Low LossØ1.13 5:Ø0.50 6:RG316 7:Ø1.37 8:RG178 9: Low LossØ1.37 A:RG174 B:1.5C-2V | 01-99 series number |

■ WPC Antenna

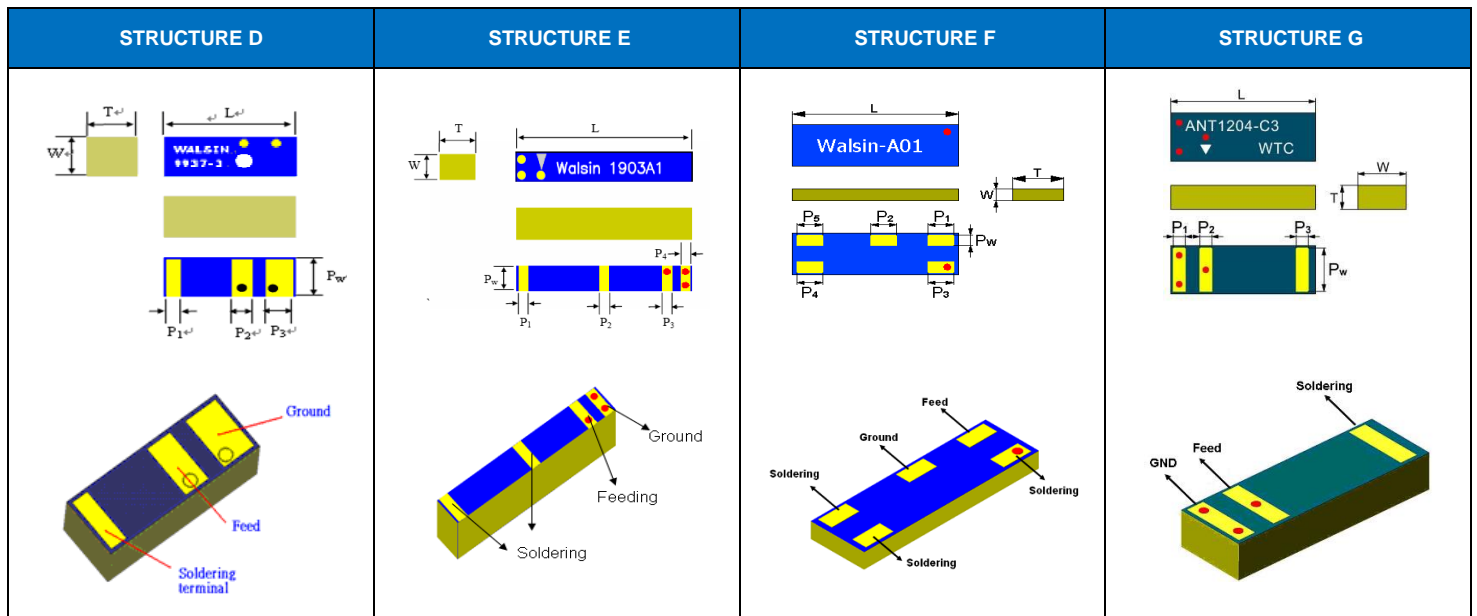
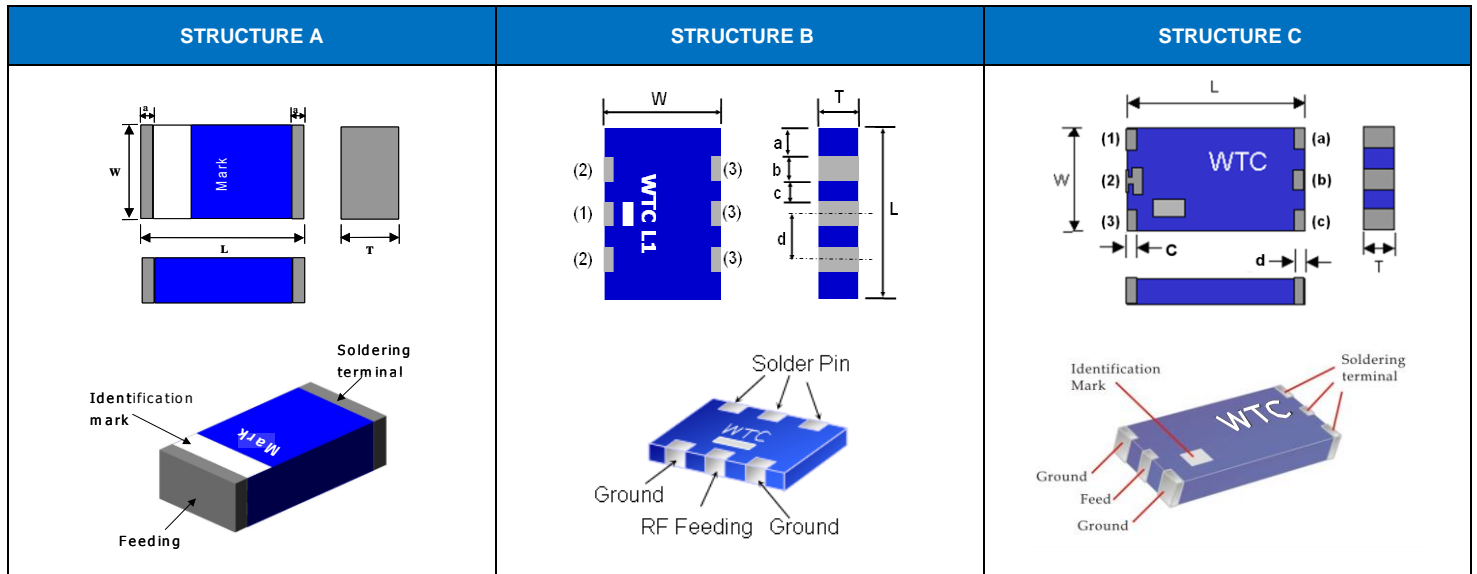
| RF | WPC | 5830 | 00 | N | N | N | B | 0 | 01 |
|-----------|---------------------------------------|---|---|---|---|------------------|--|--|---------------------|
| Type code | Product code | Dimension code | Cable Length code | Connector Brand code | Type of Connector code | Application code | Project status code | Wire Diameter code | Project code |
| RF device | WPC : Wireless Power Charging Antenna | Per 2 digits of Length, Width 5830 = Length = 58 Width = 30 | 2 digits for cable length 00= None Cable | A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX K:F M: MMCX S: SMA T: TNC U:MURATA N: None | A: Reverse Female B: Reverse Male F: Female M: Male N: None | N: NFC | B: MP T: During Test X: Pile Run | 0:None 1:Ø0.81 2:Ø1.32 3:Ø1.13 4:Low LossØ1.13 5:Ø0.50 6:RG316 7:Ø1.37 8:RG178 9: Low LossØ1.37 A:RG174 B:1.5C-2V | 01-99 series number |

Remark:

1. Central Frequency should be defined after customers' application approval.

CHIP ANTENNA

■ STRUCTURE AND PIN ASSOCIATED



■ STRUCTURE AND DIMENSION

Unit: mm

| Structure\ Dimension | L | W | T | a | b | c | d | 1 | 2 | 3 |
|----------------------|--------------------|-----------------|-----------------|-------------|---------|---------|---------|---------|---------|----------|
| A | 10 ± 0.20 | 3.2 ± 0.20 | 0.8 ± 0.10 | 0.8 ± 0.10 | | | | | | |
| | 2.0 ± 0.20 | 1.25 ± 0.20 | 0.90 ± 0.10 | 0.25 ± 0.15 | - | - | - | - | - | - |
| | 3.20 ± 0.20 | 1.60 ± 0.20 | 0.60 ± 0.10 | 0.25 ± 0.20 | - | - | - | - | - | - |
| | | | 1.20 ± 0.10 | 0.25 ± 0.15 | - | - | - | - | - | - |
| | 5.20 ± 0.20 | 2.00 ± 0.20 | 1.15 ± 0.10 | 0.40 ± 0.25 | - | - | - | - | - | - |
| | | | 1.15 ± 0.15 | 0.40 ± 0.25 | - | - | - | - | - | - |
| | 5.8 + 0.1 - 0.3 | 3.0+0.1 -0.3 | 1.1+0.2 -0.1 | 0.4 ± 0.25 | - | - | - | - | - | - |
| | 8.00 ± 0.20 | 1.05 ± 0.20 | 0.80 ± 0.10 | 0.30 ± 0.20 | - | - | - | - | - | - |
| | 9.10 ± 0.20 | 3.00 ± 0.20 | 2.00 ± 0.10 | 0.20 ± 0.20 | - | - | - | - | - | - |
| | 9.50 ± 0.20 | 2.10 ± 0.20 | 1.15 ± 0.10 | 0.50 ± 0.30 | - | - | - | - | - | - |
| B | 5.9±0.3 | 5.1±0.3 | 1.1±0.1 | 0.45±0.2 | 1.0±0.2 | 1.0±0.2 | 2.0±0.2 | 1.0±0.2 | 1.0±0.2 | 1.0±0.2 |
| C | 7.6±0.3 | 3.5±0.2 | 1.1±0.1 | 0.8±0.2 | 0.8±0.2 | 0.8±0.2 | 0.5±0.2 | 0.5±0.2 | 0.8±0.2 | 0.50±0.2 |

| Structure\ Dimension | L | W | T | P _w | P ₁ | P ₂ | P ₃ | P ₄ | P ₅ |
|----------------------|-----------|-----------|-----------|----------------|----------------|----------------|----------------|----------------|----------------|
| D | 9.90±0.15 | 3.70±0.15 | 3.80±0.20 | 3.48±0.10 | 1.4±0.10 | 1.9±0.10 | 2.4±0.15 | - | - |
| E | 19.0±0.15 | 3.00±0.15 | 3.80±0.20 | 3.00±0.10 | 1.0±0.10 | 1.0±0.10 | 1.0±0.10 | 1.0±0.10 | - |
| F | 12.8±0.15 | 3.90±0.15 | 1.10±0.10 | 1.00±0.10 | 2.0±0.10 | 2.0±0.10 | 2.0±0.10 | 2.0±0.10 | 2.0±0.10 |
| G | 12.0±0.15 | 4.00±0.15 | 2.00±0.10 | 3.60±0.10 | 1.0±0.10 | 1.0±0.10 | 1.0±0.10 | - | - |

■ ELECTRICAL SPECIFICATION

1.575GHz BAND WORKING FREQUENCY

| Part Number | Frequency Range (GHz) | Azimuth Beamwidth (MHz) | Gain (dBi) | VSWR (max.) | Impedance (Ω) | Polarization | Size (mm) | Structure |
|-----------------|-----------------------|---------------------------|------------|-------------|---------------|--------------|----------------|-----------|
| RFANT5830110E0T | 1.575 | Omni-directional | 0 ~ 2 | 2.0 | 50 | Linear | 5.80x3.00x1.10 | A |
| RFECA1003011E0T | 1.575 | Omni-directional | 2 ~ 3 | 2.0 | 50 | Linear | 10.0x3.20x0.80 | A |
| RFECA3216060E□T | 1.575 | Omni-directional | 3 | 2.0 | 50 | Linear | 3.20x1.60x0.60 | A |

Bluetooth/WiFi BAND WORKING FREQUENCY

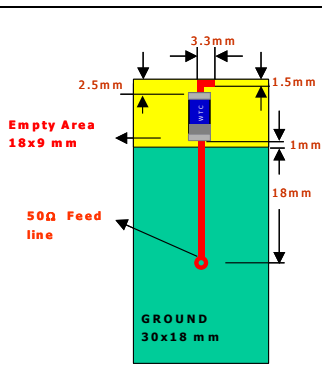
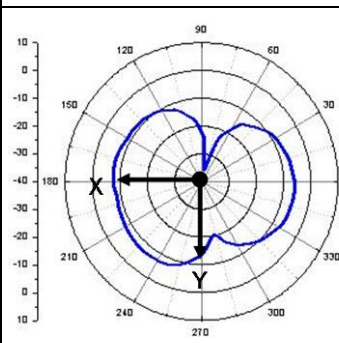
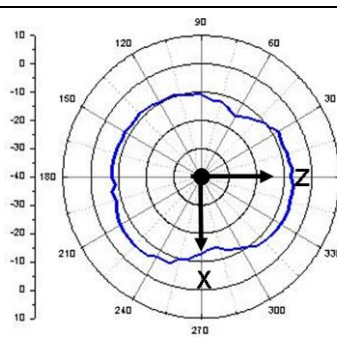
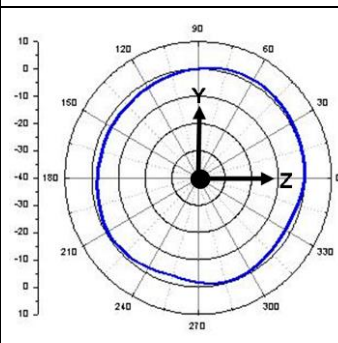
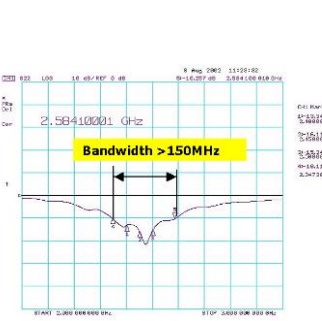
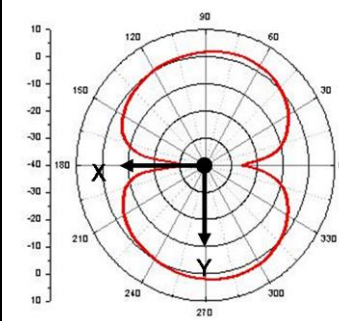
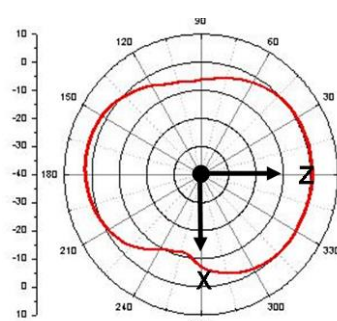
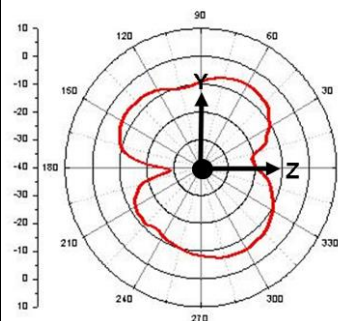
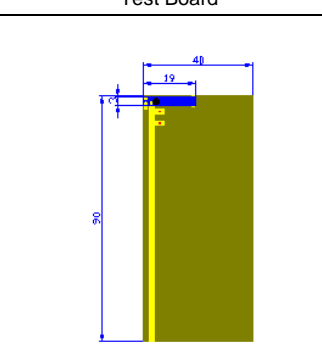
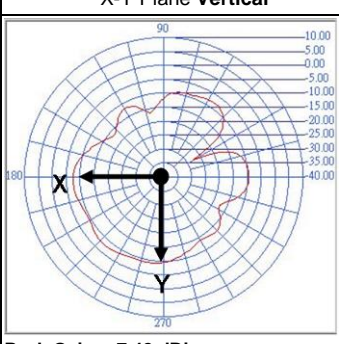
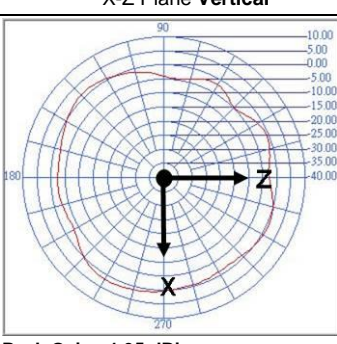
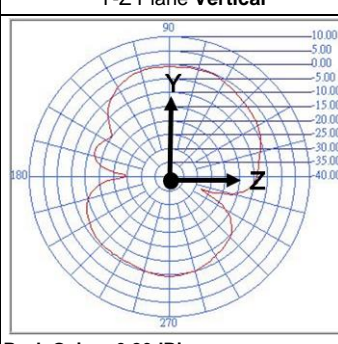
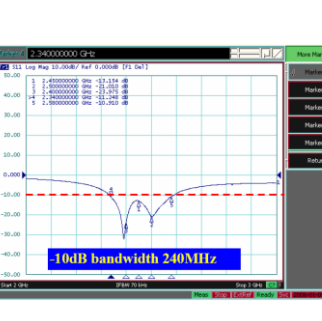
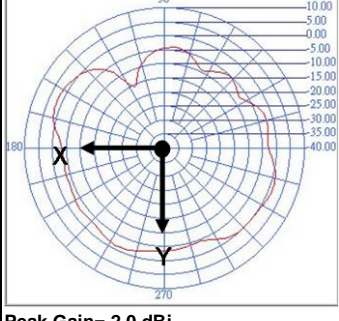
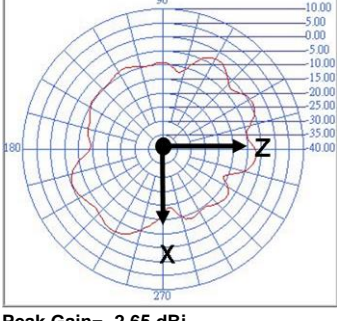
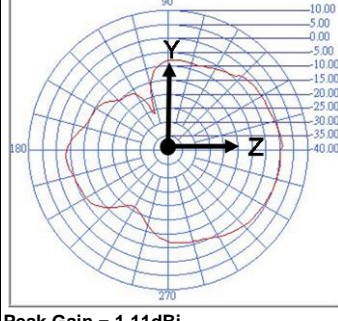
| Part Number | Frequency Range (GHz) | Azimuth Beamwidth (MHz) | Gain (dBi) | VSWR (max.) | Impedance (Ω) | Polarization | Size (mm) | Structure |
|-----------------|-----------------------|---------------------------|------------|-------------|---------------|--------------|-----------------|-----------|
| RFECA3216060L1T | 2.4~2.5 5.25~5.85 | Omni-directional | 0.6/2 | 2.1 | 50 | Linear | 3.20x1.60x0.60 | A |
| RFANT6050110L0T | 2.4~2.5 4.9~5.9 | Omni-directional | 4 | 2.0 | 50 | Linear | 5.90x5.10x1.10 | B |
| RFANT6050110L1T | 2.4~2.5 4.9~5.9 | Omni-directional | 4 | 2.0 | 50 | Linear | 5.90x5.10x1.10 | B |
| RFANT2012090A0T | 2.4~2.5 | Omni-directional | 1.72 | 2.0 | 50 | Linear | 2.00x1.25x0.90 | A |
| RFANT3216120A1T | 2.4~2.5 | Omni-directional | 2 | 2.0 | 50 | Linear | 3.20x1.60x1.20 | A |
| RFANT3216120A3T | 2.4~2.5 | Omni-directional | 2 | 2.0 | 50 | Linear | 3.20x1.60x1.20 | A |
| RFANT3216120A5T | 2.4~2.5 | Omni-directional | 2 | 2.0 | 50 | Linear | 3.20x1.60x1.20 | A |
| RFANT5220110A0T | 2.4~2.5 | Omni-directional | 2 | 2.0 | 50 | Linear | 5.20x2.00x1.10 | A |
| RFANT5220110A2T | 2.4~2.5 | Omni-directional | 2 | 2.0 | 50 | Linear | 5.20x2.00x1.10 | A |
| RFANT7635110A1T | 2.4~2.5 | Omni-directional | 0 ~ 2 | 2.0 | 50 | Linear | 7.60x3.50x1.10 | C |
| RFANT8010080A3T | 2.4~2.5 | Omni-directional | 2 | 2.0 | 50 | Linear | 8.00x1.00x0.80 | A |
| RFANT9520120A0T | 2.4~2.5 | Omni-directional | 2 | 2.0 | 50 | Linear | 9.50x2.00x1.20 | A |
| RFECA3216060A1T | 2.4~2.5 | Omni-directional | 2 | 2.1 | 50 | Linear | 3.20x1.60x0.60 | A |
| RFECA3216060K1T | 4.9~5.85 | Omni-directional | 2.8 | 2.0 | 50 | Linear | 3.20x1.60x0.60 | A |
| RFANT9030200A1T | 2.4~2.4835 | Omni-directional | 2 | 2.1 | 50 | Linear | 9.00x 3.00x2.00 | A |
| RGFRA1903041A1T | 2.4~2.5 | Omni-directional | 2 | 2.0 | 50 | Linear | 19.0x3.00x3.80 | E |
| RGFRA1903041A5T | 2.4~2.5 | Omni-directional | 2 | 2.0 | 50 | Linear | 19.0x3.00x3.80 | E |
| RGFRA9937380A3T | 2.4~2.55 | Omni-directional | 2 | 2.0 | 50 | Linear | 9.90x3.70x3.80 | D |
| RGFRA1304011A1T | 2.4~2.5 | Omni-directional | 2 | 2.1 | 50 | Linear | 12.8x3.90x1.10 | F |
| RGFRA1204021A1T | 2.4~2.5 | Omni-directional | 2 | 2.0 | 50 | Linear | 12.0x4.00x2.00 | G |

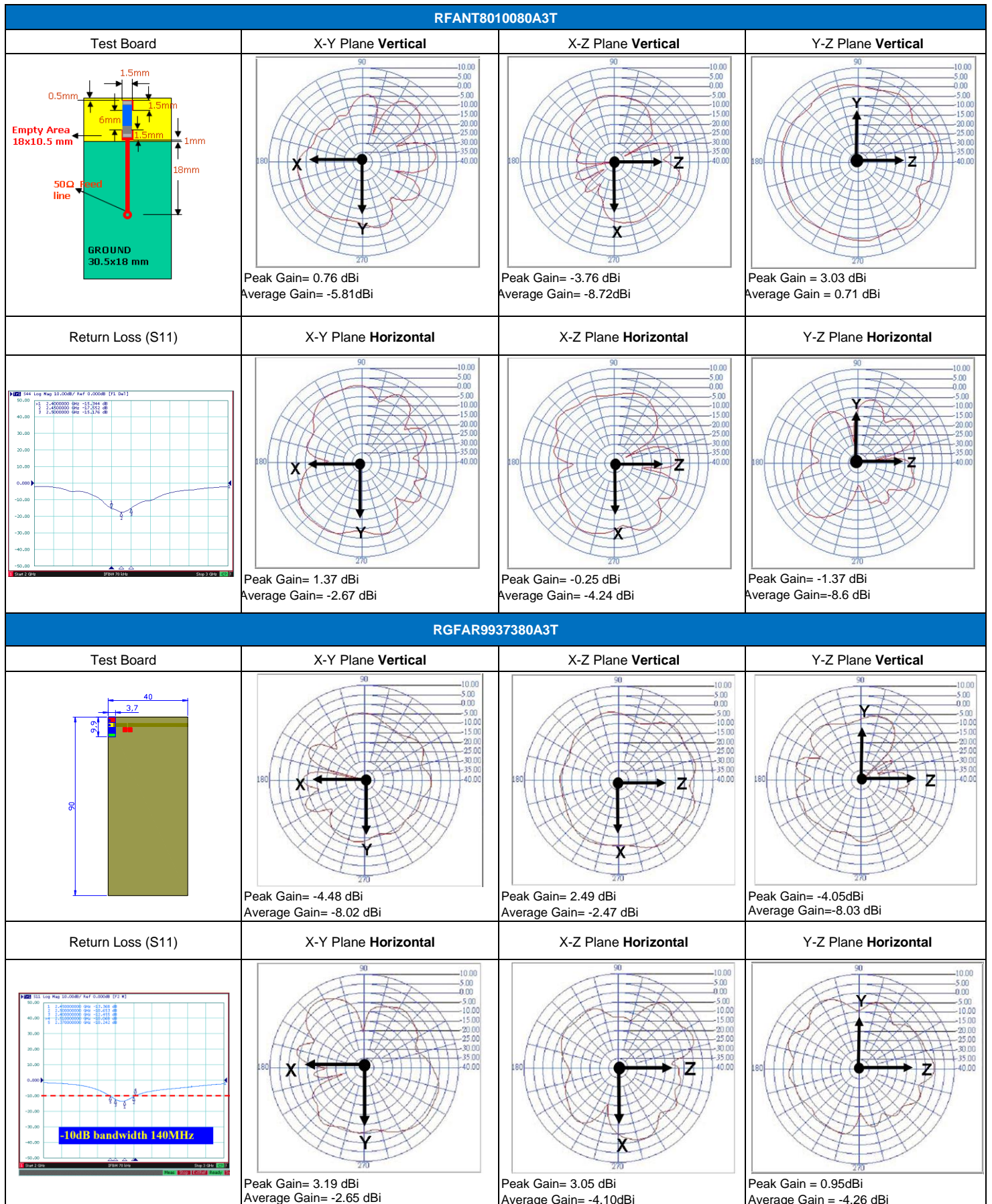
WiMAX BAND WORKING FREQUENCY

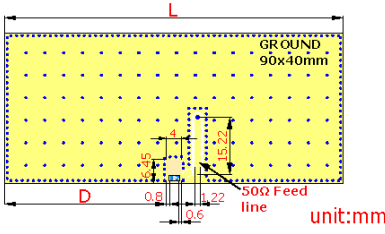
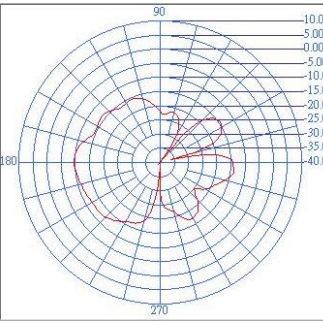
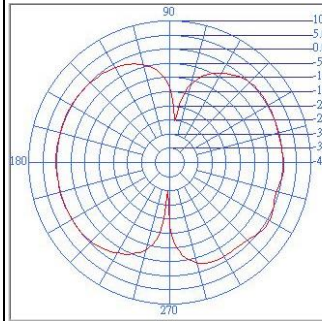
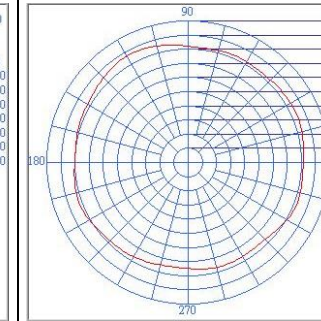
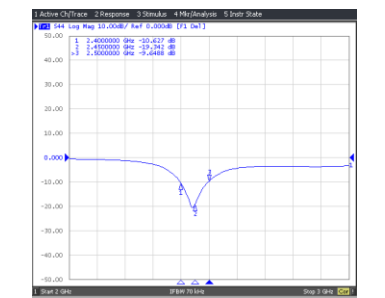
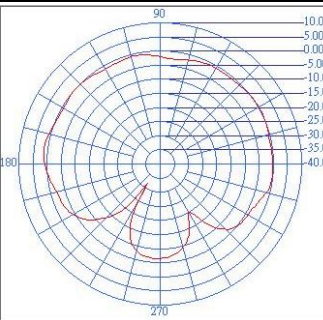
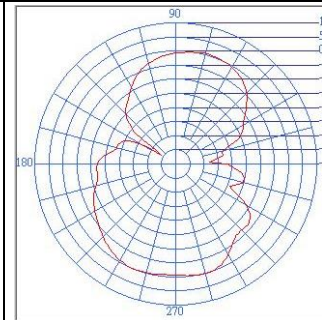
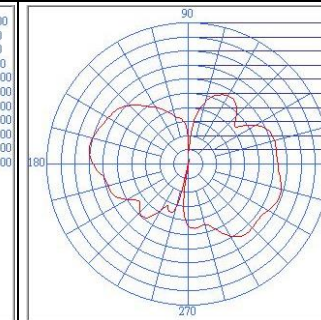
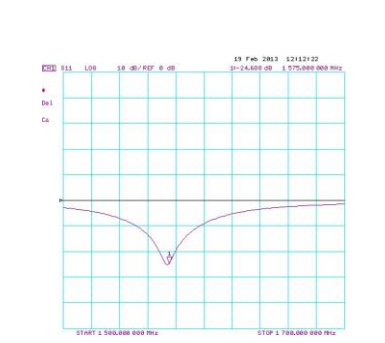
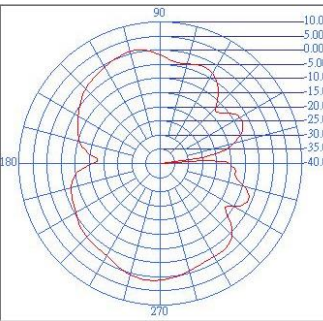
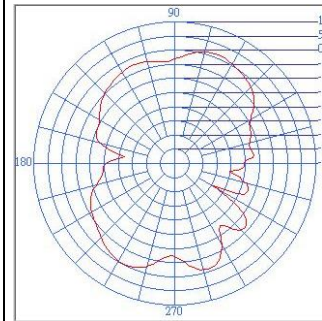
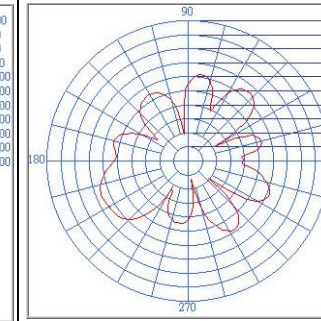
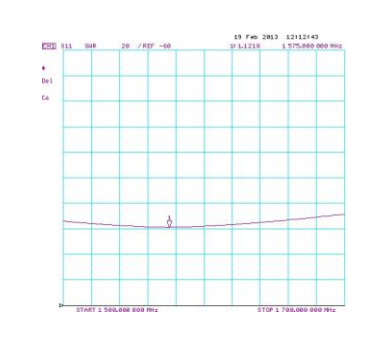
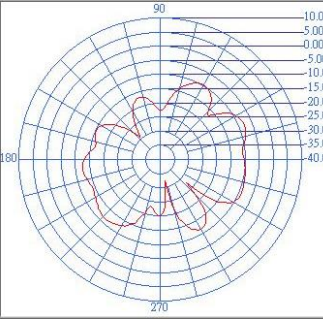
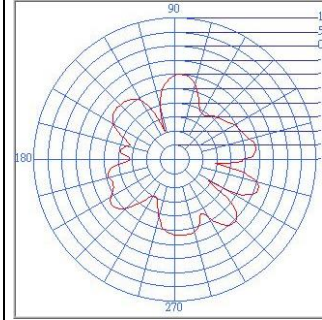
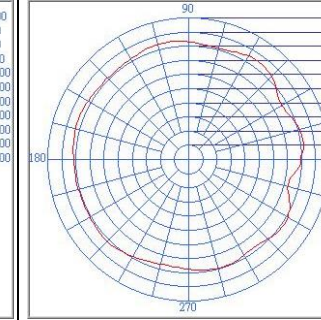
| Part Number | Frequency Range (GHz) | Azimuth Beamwidth (MHz) | Gain (dBi) | VSWR (max.) | Impedance (Ω) | Polarization | Size (mm) | Structure |
|-----------------|-----------------------|--------------------------|------------|-------------|---------------|--------------|----------------|-----------|
| RFANT32162G6W0T | 2.5~2.69 | Omni-directional | 1 | 3.0 | 50 | Linear | 3.20x1.60x1.20 | A |
| RFANT32163G5W0T | 3.3~3.8 | Omni-directional | 2~3 | 2.0 | 50 | Linear | 3.20x1.60x1.20 | A |

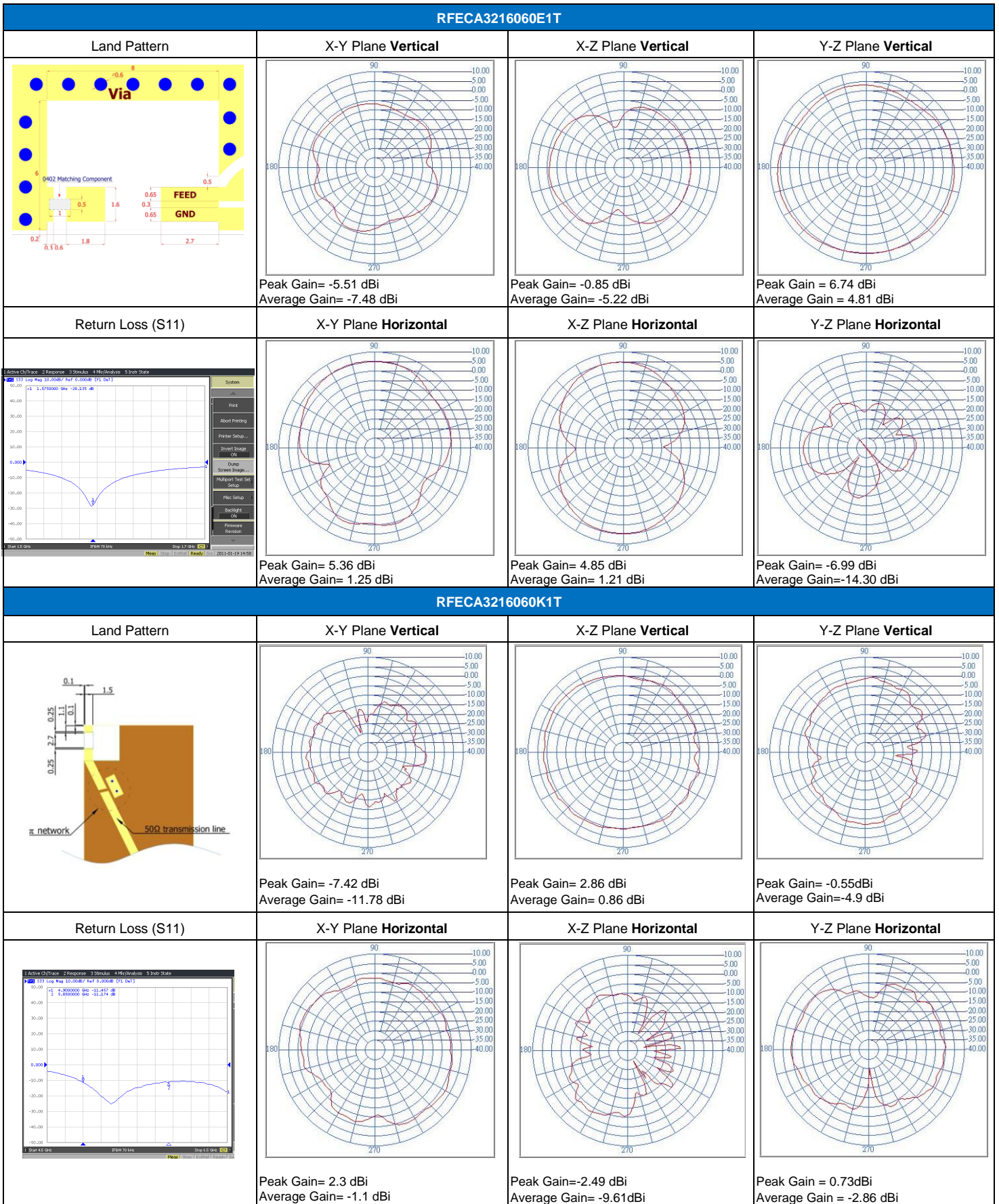
- For more information, please contact with local sales representative
- All specifications are subject to change without notice

■ TYPICAL ELECTRICAL CHARACTERISTICS

| RFANT5220110A0T | | | |
|--|--|---|---|
| Test Board | X-Y Plane Vertical | X-Z Plane Vertical | Y-Z Plane Vertical |
|  <p>Empty Area 18x9 mm 50Ω Feed line GROUND 30x18 mm</p> |  <p>Peak Gain= -5.97dBi Average Gain=-3.12 dBi</p> |  <p>Peak Gain= -5.97dBi Average Gain=-3.24 dBi</p> |  <p>Peak Gain= 1.69dBi Average Gain=-3.22 dBi</p> |
| Return Loss (S11) | X-Y Plane Horizontal | X-Z Plane Horizontal | Y-Z Plane Horizontal |
|  <p>Bandwidth > 150MHz</p> |  <p>Peak Gain= 2.59dBi Average Gain=-9.24 dBi</p> |  <p>Peak Gain= 2.66dBi Average Gain=-8.61 dBi</p> |  <p>Peak Gain= -5.42dBi Average Gain=-8.98 dBi</p> |
| RGFAR1903041A1T | | | |
| Test Board | X-Y Plane Vertical | X-Z Plane Vertical | Y-Z Plane Vertical |
|  |  <p>Peak Gain= -7.42 dBi Average Gain= -10.48 dBi</p> |  <p>Peak Gain= 1.95 dBi Average Gain= -0.81 dBi</p> |  <p>Peak Gain= -0.26dBi Average Gain=-5 dBi</p> |
| Return Loss (S11) | X-Y Plane Horizontal | X-Z Plane Horizontal | Y-Z Plane Horizontal |
|  <p>-10dB bandwidth 240MHz</p> |  <p>Peak Gain= 2.0 dBi Average Gain= -2.31 dBi</p> |  <p>Peak Gain= -2.65 dBi Average Gain= -8.4dBi</p> |  <p>Peak Gain = 1.11dBi Average Gain = -4.37 dBi</p> |



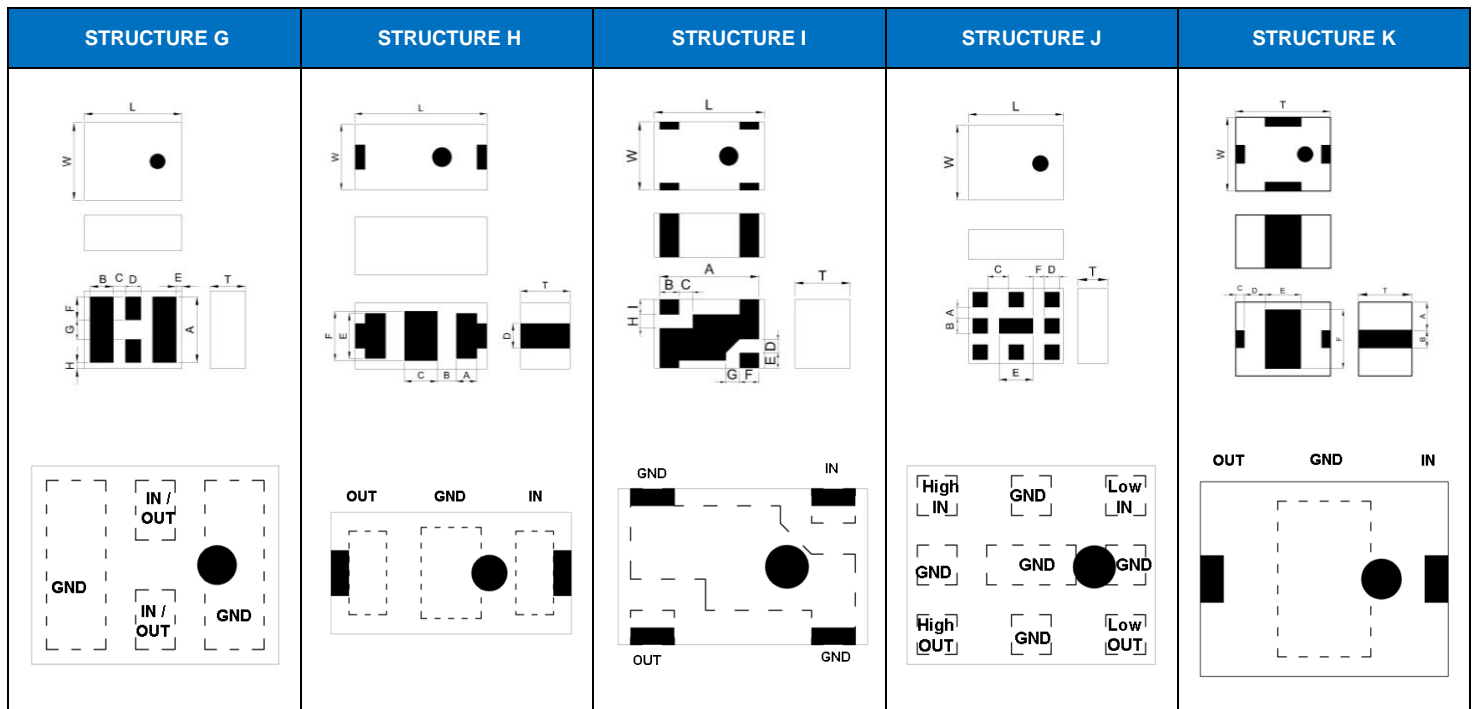
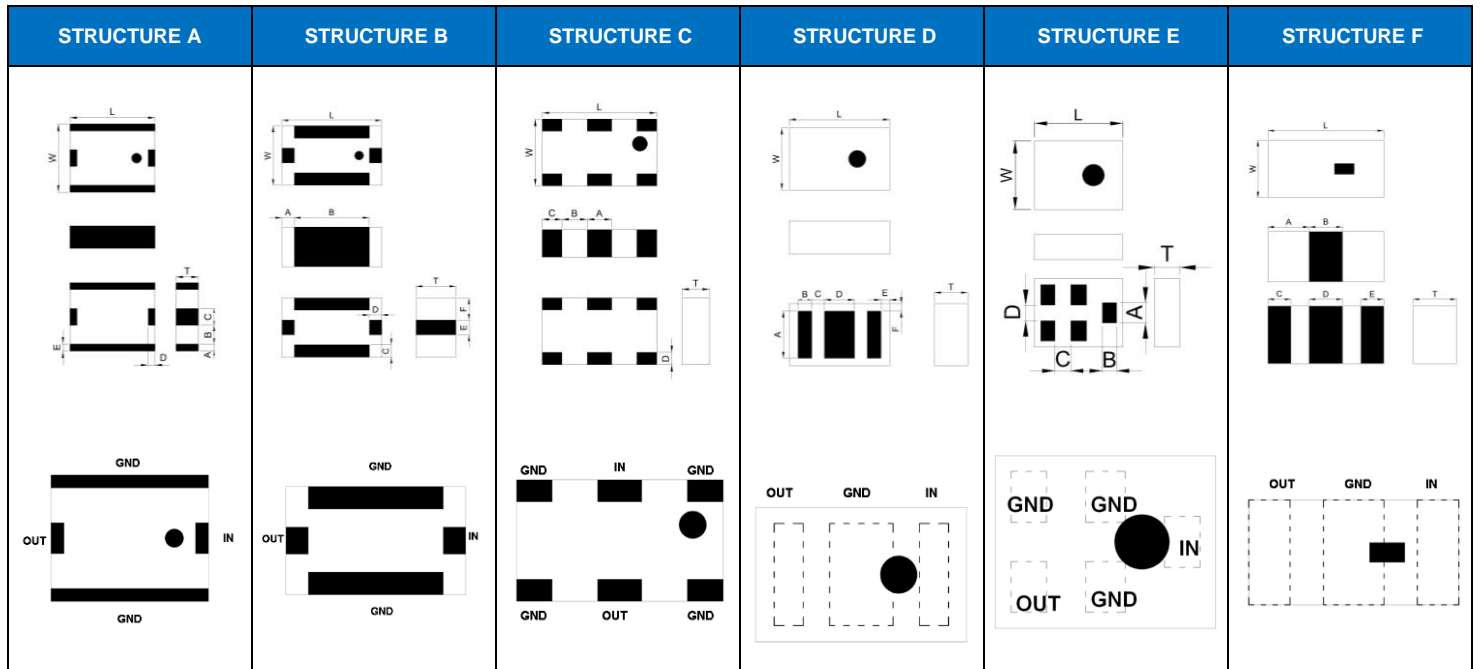
| RFECA3216060A1T | | | |
|---|---|--|---|
| Test Board | X-Y Plane Vertical | X-Z Plane Vertical | Y-Z Plane Vertical |
|  <p>unit:mm</p> |  <p>Peak Gain = 3.37 dBi Average Gain = -0.65 dBi</p> |  <p>Peak Gain= 0.83 dBi Average Gain= -1.35 dBi</p> |  <p>Peak Gain= -9.59 dBi Average Gain= -15.40 dBi</p> |
| Return Loss (S11) | X-Y Plane Horizontal | X-Z Plane Horizontal | Y-Z Plane Horizontal |
|  |  <p>Peak Gain= -4.62 dBi Average Gain=-10.42 dBi</p> |  <p>Peak Gain= 0.51 dBi Average Gain= -4.07 dBi</p> |  <p>Peak Gain= 1.39 dBi Average Gain= -2.07 dBi</p> |
| RFECA1003011E0T | | | |
| Antenna S11 on Test Board | X-Y Plane Vertical | X-Z Plane Vertical | Y-Z Plane Vertical |
|  |  <p>Peak Gain = 3.12dBi Average Gain = -3.99 dBi</p> |  <p>Peak Gain= 1.97dBi Average Gain= -1.44 dBi</p> |  <p>Peak Gain = 3.32dBi Average Gain = 1.02 dBi</p> |
| Antenna VSWR on Test Board | X-Y Plane Horizontal | X-Z Plane Horizontal | Y-Z Plane Horizontal |
|  |  <p>Peak Gain = +0.48dBi Average Gain = -4.59dBi</p> |  <p>Peak Gain = +4.99dBi Average Gain = -1.31dBi</p> |  <p>Peak Gain = +3.02dBi Average Gain = -0.85dBi</p> |



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HIGH FREQUENCY MULTILAYER BAND PASS FILTER

■ STRUCTURE AND PIN ASSOCIATED



HIGH FREQUENCY MULTILAYER BAND PASS FILTER

■ STRUCTURE AND DIMENSION

Unit: mm

| Structure\ Dimension | L | W | T | A | B | C | D | E | F | G | H | I |
|----------------------|-----------|-----------|-----------|------------|------------|------------|-----------|------------|------------|-----------|-----------|------------|
| A | 2.50±0.20 | 2.00±0.20 | 0.70±0.10 | 0.20±0.20 | 0.55±0.20 | 0.50±0.20 | 0.25±0.20 | 0.20±0.20 | - | - | - | - |
| | | | 0.80±0.10 | 0.20±0.20 | 0.55±0.20 | 0.50±0.20 | 0.20±0.20 | 0.20±0.20 | - | - | - | - |
| | | | 1.00±0.10 | 0.20±0.20 | 0.50±0.20 | 0.50±0.20 | 0.25±0.20 | 0.20±0.20 | - | - | - | - |
| | | | 1.05±0.10 | 0.25±0.20 | 0.50±0.20 | 0.50±0.20 | 0.25±0.20 | 0.25±0.20 | - | - | - | - |
| | | | 1.20±0.10 | 0.25±0.20 | 0.50±0.20 | 0.50±0.20 | 0.25±0.20 | 0.25±0.20 | - | - | - | - |
| | 2.05±0.20 | 0.70±0.20 | 0.25±0.20 | 0.50±0.20 | 0.50±0.20 | 0.25±0.20 | 0.25±0.20 | - | - | - | - | |
| | 3.20±0.20 | 2.50±0.10 | 1.50±0.10 | 0.40±0.20 | 0.60±0.20 | 0.70±0.20 | 0.20±0.15 | 0.40±0.20 | - | - | - | - |
| B | 1.00±0.10 | 0.50±0.10 | 0.40±0.10 | 0.30±0.10 | 0.30±0.10 | 0.35±0.10 | 0.15±0.10 | 0.15±0.10 | - | - | - | - |
| | 1.60±0.15 | 0.80±0.15 | 0.50±0.10 | 0.35±0.10 | 0.30±0.10 | 0.15±0.10 | 0.15±0.10 | 0.30±0.10 | - | - | - | - |
| | | | 0.60±0.10 | 0.45±0.15 | 0.45±0.15 | 0.20±0.15 | 0.20±0.15 | 0.30±0.15 | - | - | - | - |
| | | | 0.70±0.10 | 0.45±0.15 | 0.70±0.15 | 0.20±0.10 | 0.20±0.10 | 0.30±0.15 | - | - | - | - |
| | | | | 0.45±0.15 | 0.70±0.15 | 0.15±0.10 | 0.15±0.10 | 0.30±0.15 | - | - | - | - |
| | 2.00±0.15 | 1.20±0.15 | 0.50±0.10 | 0.40±0.15 | 0.80±0.15 | 0.20±0.10 | 0.20±0.10 | 0.30±0.15 | - | - | - | - |
| | | | 0.90±0.10 | 0.45±0.15 | 1.10±0.15 | 0.25±0.15 | 0.25±0.15 | 0.30±0.15 | - | - | - | - |
| | | | | 0.50±0.15 | 1.00±0.15 | 0.20±0.15 | 0.20±0.15 | 0.30±0.15 | 0.45±0.15 | - | - | - |
| | | 1.25±0.15 | 0.60±0.10 | 0.45±0.15 | 1.10±0.15 | 0.25±0.15 | 0.25±0.15 | 0.30±0.15 | - | - | - | - |
| | | | | 0.45±0.15 | 0.70±0.15 | 0.20±0.15 | 0.20±0.15 | 0.30±0.15 | - | - | - | - |
| | | | 0.80±0.10 | 0.50±0.15 | 1.00±0.15 | 0.25±0.15 | 0.25±0.15 | 0.30±0.15 | - | - | - | - |
| | | | 0.90±0.10 | 0.50±0.15 | 1.00±0.15 | 0.25±0.15 | 0.25±0.15 | 0.30±0.15 | - | - | - | - |
| | | | 0.95±0.10 | 0.35±0.15 | 1.30±0.15 | 0.25±0.15 | 0.25±0.15 | 0.30±0.15 | - | - | - | - |
| | | | | 0.50±0.15 | 1.00±0.15 | 0.25±0.15 | 0.25±0.15 | 0.30±0.15 | - | - | - | - |
| C | | | 2.00±0.15 | 1.20±0.20 | 0.55±0.10 | 0.40±0.20 | 0.40±0.20 | 0.40±0.20 | 0.40±0.20 | 0.20±0.10 | - | - |
| | 0.60±0.10 | 0.40±0.20 | | | 0.40±0.20 | 0.40±0.20 | 0.20±0.10 | - | - | - | - | |
| | 0.80±0.10 | 0.40±0.20 | | | 0.40±0.20 | 0.40±0.20 | 0.40±0.20 | 0.20±0.10 | - | - | - | - |
| D | 1.60±0.15 | 0.80±0.15 | 0.60±0.10 | 0.55±0.10 | 0.25±0.10 | 0.23±0.10 | 0.40±0.10 | 0.12±0.10 | 0.125±0.10 | - | - | - |
| | 2.00±0.15 | 1.25±0.10 | 0.45±0.10 | 0.95±0.10 | 0.275±0.20 | 0.25±0.10 | 0.60±0.10 | 0.175±0.10 | 0.15±0.10 | - | - | - |
| | | | 0.70 max | 0.95±0.10 | 0.275±0.10 | 0.25±0.10 | 0.60±0.10 | 0.175±0.10 | 0.15±0.10 | - | - | - |
| | | | 0.80±0.10 | 0.95±0.10 | 0.275±0.10 | 0.25±0.10 | 0.60±0.10 | 0.175±0.10 | 0.15±0.10 | - | - | - |
| E | 1.10±0.10 | 0.90±0.10 | 0.60±0.10 | 0.25±0.10 | 0.18±0.10 | 0.205±0.10 | 0.25±0.10 | - | - | - | - | |
| | 1.40±0.15 | 1.10±0.15 | 0.70±0.10 | 0.325±0.10 | 0.25±0.10 | 0.25±0.10 | 0.25±0.10 | - | - | - | - | |
| | 2.00±0.20 | 1.25±0.20 | 1.00 max. | 0.325±0.10 | 0.25±0.10 | 0.25±0.10 | 0.25±0.10 | - | - | - | - | |
| F | 1.60±0.15 | 0.80±0.15 | 0.40±0.10 | 0.55±0.15 | 0.50±0.15 | 0.35±0.15 | 0.50±0.15 | 0.20±0.15 | - | - | - | - |
| | | | 0.60±0.10 | 0.55±0.15 | 0.50±0.15 | 0.35±0.15 | 0.50±0.15 | 0.20±0.15 | - | - | - | - |
| G | 2.00±0.15 | 1.25±0.10 | 0.80±0.10 | 0.95±0.10 | 0.40±0.10 | 0.30±0.10 | 0.30±0.10 | 0.15±0.10 | 0.30±0.10 | 0.35±0.10 | 0.15±0.10 | - |
| | | | 0.90±0.10 | 0.95±0.10 | 0.40±0.10 | 0.30±0.10 | 0.30±0.10 | 0.15±0.10 | 0.30±0.10 | 0.35±0.10 | 0.15±0.10 | - |
| | 2.50±0.20 | 2.00±0.20 | 0.90±0.10 | 1.70±0.20 | 0.60±0.20 | 0.30±0.20 | 0.40±0.20 | 0.15±0.10 | 0.60±0.10 | 0.50±0.10 | 0.15±0.10 | - |
| H | 1.60±0.15 | 0.80±0.10 | 0.60 max. | 0.25±0.10 | 0.23±0.05 | 0.40±0.10 | 0.30±0.10 | 0.55±0.10 | 0.60±0.10 | - | - | - |
| I | 2.00±0.15 | 1.25±0.10 | 1.00 max. | 1.80±0.10 | 0.35±0.10 | 0.25±0.10 | 0.25±0.10 | 0.275±0.10 | 0.35±0.10 | 0.25±0.10 | 0.25±0.10 | 0.275±0.10 |
| J | 2.50±0.15 | 2.00±0.15 | 0.90±0.10 | 0.30±0.10 | 0.40±0.10 | 0.55±0.10 | 0.40±0.10 | 0.90±0.10 | 0.30±0.10 | - | - | - |
| K | 3.20±0.20 | 2.50±0.20 | 1.80±0.20 | 0.95±0.20 | 0.60±0.20 | 0.30±0.15 | 0.70±0.15 | 1.20±0.15 | 2.00±0.15 | - | - | - |

■ ELECTRICAL SPECIFICATION

2.4GHz BAND WORKING FREQUENCY

| Part Number | Frequency Range(GHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | STRUCTURE |
|--------------------|----------------------|-------------------------------------|---|-------------|---------------|-----------------|-----------|
| RBBPF1005040A1T | 2.4~2.5 | 2.5 | 25(824~960 MHz) 20(1710~1910 MHz) 20(4800~5000 MHz) 15(7200~7500 MHz) | 2.0 | 50 | 1.00x0.50x0.40 | B |
| RFBPF1005040A3T | 2.4~2.5 | 1.5max.(25℃) 1.7max.(-40~+85℃) | 13(824~915MHz) 5(1545~1605MHz) 34(4800~5000MHz) 20(7200~7500 MHz) | 2.1 | 50 | 1.00x0.50x0.40 | B |
| RFBPF1109060A0T | 2.4~2.5 | 1.8 | 35(824~960MHz) 38(1545~1605MHz) 20(1710~1990MHz) 8(2110~2170MHz) 35(3600 MHz) 35(4800~5000 MHz) 35(7200~7500 MHz) | 2.0 | 50 | 1.10x 0.90x0.60 | E |
| RFBPF1411060A1T | 2.4~2.5 | 1.8 | 40(824~960MHz) 40(1545~1605MHz) 20(1710~1990MHz) 8(2110~2170MHz) 35(3600 MHz) 35(4800~5000 MHz) 35(7200~7500 MHz) | 2.0 | 50 | 1.40x1.10x0.60 | E |
| RFBPF1411060A2T | 2.4~2.5 | 1.5 | 30(500~960MHz) 25(1500~1650MHz) 19(3200~3300MHz) 40(4800~5000 MHz) 30(7200~7500 MHz) | 2.0 | 50 | 1.40x1.10x0.60 | E |
| RBBPF1411060A3T | 2.4~2.5 | 1.1 | 20(50~960MHz) 10(1710~1990MHz) 9(3600 MHz) 22(4800~7200 MHz) | 2.0 | 50 | 1.40x1.10x0.60 | E |
| RFBPF1608060AA7M1U | 2.4~2.5 | 0.95max.(25℃) 1.25max.(-40~+85℃) | 20(500~960 MHz) 23(3200 MHz) 30(4800~5000 MHz) 32(7200~7500 MHz) | 2.0 | 50 | 1.60x0.80x0.60 | H |
| RFBPF1608060ADT | 2.4~2.5 | 1.8max.(25℃) 2.1max.(-40~+85℃) | 22.5(200~1300MHz) 5.5(2000MHz) 10.5(3000MHz) 23.5(3600~3800MHz) 35(4800~5000MHz) 35(7200~7500MHz) | 2.0 | 50 | 1.60x0.80x0.60 | B |
| RFBPF1608060AET | 2.4~2.5 | 1.7max.(25℃) 2.0max.(-40~+85℃) | 25(880 MHz) 20(3200 MHz) 35(4800~5000 MHz) 25(7200~7500 MHz) | 2.0 | 50 | 1.60x0.80x0.60 | F |
| RFBPF1608070AFT | 2.4~2.5 | 2.4max.(25℃) 2.7max.(-40~+85℃) | 24.5(80~960MHz) 20(1710~1990 MHz) 8.5(2170 MHz) 15(4800~5000 MHz) 20(7200~7500 MHz) | 2.0 | 50 | 1.60x0.80x0.70 | B |
| RFBPF1608070AWT | 2.4~2.5 | 2.0max.(25℃) 2.2max.(-40~+85℃) | 30 (960 MHz) 25(1910 MHz) 20(1990 MHz) 25(4800 MHz) 15(7200 MHz) | 2.0 | 50 | 1.60x0.80x0.70 | B |
| RFBPF1608050A0T | 2.4~2.5 | 2.0max.(25℃) 2.2max.(-40~+85℃) | 20(960 MHz) 20(1910 MHz) 15(1990 MHz) 18(4800 MHz) 25(7200 MHz) | 2.0 | 50 | 1.60x0.80x0.50 | B |
| RFBPF1608060A1T | 2.4~2.5 | 2.8 | 25(695~800MHz) 20(1910MHz) 35(3200MHz) 20(4800~5000MHz) 20(7200~7500MHz) | 2.0 | 50 | 1.60x0.80x0.60 | B |
| RFBPF1608060A7T | 2.4~2.5 | 3.0 | 25(695~800MHz) 20(1910MHz) 35(3200MHz) 20(4800~5000MHz) 20(7200~7500MHz) | 2.0 | 50 | 1.60x0.80x0.60 | B |
| RFBPF1608060A8T | 2.4~2.5 | 1.7 | 30(880~915MHz) 30(1710~1785MHz) 25(1850~1910MHz) 25(4800~5000MHz) 15(7200~7500MHz) | 2.0 | 50 | 1.60x0.80x0.60 | B |
| RFBPF1608070A3T | 2.4~2.5 | 1.8max.(25℃) 2.1max.(-40~+85℃) | 27(800~900 MHz) 25(4800~5000 MHz) 30(7200~7500 MHz) | 2.0 | 50 | 1.60x0.80x0.70 | B |

HIGH FREQUENCY MULTILAYER BAND PASS FILTER

2.4GHz BAND WORKING FREQUENCY

| Part Number | Frequency Range(GHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | STRUCTURE |
|--------------------|----------------------|-------------------------------------|---|-------------|---------------|----------------|-----------|
| RFBPF2012080AM0T62 | 2.4~2.5 | 1.8max.(25°C) 2.0max.(-40~+85°C) | 30(860~960MHz) 30(1545~1605MHz) 35(1710~1990MHz) 30(2170MHz) 30(4800~5000MHz) | 2.0 | 50 | 2.00x1.20x0.80 | D |
| RFBPF2012080AC2T00 | 2.4~2.5 | 1.35max. | 30(804~828MHz) 20(1608~1656MHz) 30(3216~3312MHz) 40(4020~4140MHz) 20(4824~4968MHz) 20(5628~5796MHz) 20(6432~6624MHz) 35(7200~7500MHz) 20(7500~10000MHz) | 2.0 | 50 | 2.00x1.25x0.80 | G |
| RFBPF2012090AS1T35 | 2.4~2.5 | 0.9max.(25°C) 1.1max.(-40~+85°C) | 28(824~960MHz) 30(1570~1580MHz) 15(1710~1910MHz) 9.5(1910~1990MHz) 25(4800~5000MHz) 25(7200~7500MHz) | 2.0 | 50 | 2.00x1.25x0.90 | G |
| RFBPF2012060AAT | 2.4~2.5 | 1.5max.(25°C) 1.8max.(-40~+85°C) | 30(880~960MHz) 25(1710~1910MHz) 25(4800~5000MHz) 30(7200~7500MHz) | 2.0 | 50 | 2.00x1.20x0.60 | C |
| RFBPF2012040ABT | 2.4~2.5 | 2.5 | 30(824~849MHz) 30(880~915MHz) 30(1545~1605MHz) 30(1565~1585MHz) 35(1710~1785MHz) 40(1850~1910MHz) 32(1920~1980MHz) 7(3168~4752MHz) 11(3300~3800MHz) 35(4800~4967MHz) 26(5150~6000MHz) 23(7200~7450MHz) | 2.0 | 50 | 2.00x1.20x0.40 | D |
| RFBPF2012050ACT | 2.4~2.5 | 2.5 | 35(824~960MHz) 38(1710~1910MHz) 25(4880~5000MHz) 20(7200~7500MHz) | 2.0 | 50 | 2.00x1.20x0.55 | C |
| RFBPF2012080ADT | 2.4~2.5 | 1.5max.(25°C) 1.7max.(-40~+85°C) | 30(860~960MHz) 30(1545~1605MHz) 30(1710~1990MHz) 30(2170MHz)(typical) 30(4800~5000MHz) | 2.0 | 50 | 2.00x1.25x0.80 | D |
| RFBPF2012080AFT | 2.4~2.5 | 1.8max.(25°C) 2.0max.(-40~+85°C) | 30(824~915MHz) 30(1545~1605MHz) 35(1710~1990MHz) 30(2170MHz) 30(4800~4967MHz) 25(5150~6000MHz) 20(7200~7450.5MHz) | 2.0 | 50 | 2.00x1.25x0.80 | D |
| RFBPF2012080AGT | 2.4~2.5 | 1.8max.(typ.1.5) | 35(824~960MHz) 28(1545~1605MHz) 30(1710~1990MHz) 30(2170MHz) 6(3200MHz) 30(4800~4967MHz) 20(5150~6000MHz) 18(7200~7450MHz) | 2.0 | 50 | 2.00x1.25x0.80 | D |
| RFBPF2012040AHT | 2.4~2.5 | 2.5 | 25(746~764MHz) 30(824~849MHz) 26(869~960MHz) 28(1570~1580MHz) 28(1710~1785MHz) 30(1850~1910MHz) 30(1930~1990MHz) 30(2110~2170MHz) 15(3300~3800MHz) 35(4800~5000MHz) 20(7200~7450.5MHz) | 2.0 | 50 | 2.00x1.25x0.45 | D |
| RBBPF2012050AHT | 2.4~2.5 | 2.5max.(typ.2.2) | 25(746~764MHz) 30(824~849MHz) 26(869~960MHz) 28(1570~1580MHz) 28(1710~1785MHz) 30(1850~1910MHz) 30(1930~1990MHz) 25(2110~2170MHz) 15(3300~3800MHz) 35(4800~5000MHz) | 2.0 | 50 | 2.00x1.25x0.45 | D |

2.4GHz BAND WORKING FREQUENCY

| Part Number | Frequency Range(GHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | STRUCTURE |
|------------------|----------------------|-------------------------------------|--|-------------|---------------|----------------|-----------|
| RFBPF2012090ALT | 2.4~2.5 | 1.0max.(25°C) 1.2max.(-40~+85°C) | 28(824~960MHz) 28(1570~1580MHz) 23(1710~1910MHz) 17(1920~1990MHz) 25(4800~5000MHz) | 2.0 | 50 | 2.00x1.25x0.90 | G |
| RFBPF2012090AMT | 2.4~2.5 | 2.6 | 40(880~960MHz) 38(1710~1990MHz) 16(2170MHz) 30(4800~5000MHz) 25(7200~7500MHz) | 2.0 | 50 | 2.00x1.20x0.90 | B |
| RFBPF2012100ANT | 2.4~2.5 | 2.3max.(25°C) 2.6max.(-40~+85°C) | 40(699~960MHz) 40(1428~1448MHz) 40(1476~1607MHz) 40(1710~1785MHz) 33(1805~1880MHz) 30(1880~1915MHz) 30(1920~1990MHz) 22(2110~2170MHz) 25(4800~5000MHz) 35(7200~7500MHz) | 2.0 | 50 | 2.00x1.20x1.00 | I |
| RFBPF2012090AQT | 2.4~2.5 | 1.2 | 20(1600MHz) 25(3200MHz) 20(4800~5000MHz) | 2.0 | 50 | 2.00x1.20x0.90 | B |
| RFBPF2012090ART | 2.4~2.5 | 1.0 | 20(1600MHz) 25(3200MHz) | 2.0 | 50 | 2.00x1.20x0.90 | B |
| RFBPF2012100AVT | 2.4~2.5 | 2.3max.(25°C) 2.6max.(-40~+85°C) | 40(699~960MHz) 40(1428~1448MHz) 40(1476~1607MHz) 40(1710~1785MHz) 33(1805~1880MHz) 30(1880~1915MHz) 30(1920~1990MHz) 25(4800~5000MHz) 30(7200~7500MHz) | 2.0 | 50 | 2.00x1.20x1.00 | I |
| RBBPF2010A108Q1C | 2.4~2.5 | 1.3 | 38(50~960MHz) 17(1710~1910MHz) 5(3200MHz) 30(4800~5000MHz) 25(7200~7500MHz) | 2.0 | 50 | 2.00x1.20x0.90 | E |
| RFBPF2012090A1T | 2.4~2.5 | 1.7 | 30(900MHz) 20(1850MHz) 30(4800MHz) | 2.0 | 50 | 2.00x1.20x0.90 | B |
| RFBPF2012090A2T | 2.4~2.5 | 1.4 | 30(824~960MHz) 30(1710~1910MHz) 20(1920~1990MHz) 6(2110~2170MHz) 20(4800~5000MHz) | 2.0 | 50 | 2.00x1.20x0.90 | B |
| RFBPF2012040A3T | 2.4~2.5 | 2.0max.(25°C) 2.2max.(-40~+85°C) | 25(746~764MHz) 30(824~849MHz) 26(869~960MHz) 28(1570~1580MHz) 28(1710~1785MHz) 30(1850~1910MHz) 30(1930~1990MHz) 25(2110~2170MHz) 15(3300~3800MHz) 35(4800~5000MHz) 20(7200~7450.5MHz) | 2.0 | 50 | 2.00x1.25x0.45 | D |
| RFBPF2012080A6T | 2.4~2.5 | 3.5 | 30(880~960MHz) 30(1710~1990MHz) 20(2110~2170MHz) 30(4800~5000MHz) 30(7200~7500MHz) | 2.0 | 50 | 2.00x1.20x0.80 | C |
| RFBPF2012080A7T | 2.4~2.5 | 2.8 (typ.2.5) | 40(DC~1600MHz) 35(1710MHz) 25(1900MHz) 12(2100MHz) 8(2170MHz) 30(3100MHz) 40(4800~5000MHz) 20(7200~7500MHz) | 2.0 | 50 | 2.00x1.20x0.80 | B |
| RFBPF2012060A9T | 2.4~2.5 | 2.8 | 30(960MHz) 30(1600MHz) 20(1990MHz) 35(3200MHz) 40(4800MHz) 25(7200MHz) | 2.0 | 50 | 2.00x1.20x0.60 | B |

HIGH FREQUENCY MULTILAYER BAND PASS FILTER

2.4GHz BAND WORKING FREQUENCY

| Part Number | Frequency Range(GHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | STRUCTURE |
|-----------------|----------------------|-------------------------------------|---|-------------|---------------|----------------|-----------|
| RFBPF2520090ACT | 2.4~2.5 | 2.1max.(25°C) 2.3max.(-40~+85°C) | 43(806~960MHz) 43(1570~1580 MHz) 43(1710~1990 MHz) 20(2110~2170MHz) 30(4800~5000 MHz) 25(7200~7500MHz) | 2.0 | 50 | 2.50x2.00x0.90 | G |
| RFBPF2520070AMT | 2.4~2.5 | 2.0max.(25°C) 2.2max.(-40~+85°C) | 45(824~960 MHz) 45(1570~1580 MHz) 45(1710~1785 MHz) 40(1805~1850 MHz) 35(1850~1910 MHz) 35(1920~1990 MHz) 25(2110~2170 MHz) 5(2750~3000 MHz) 15(3000~4800 MHz) 30(4800~5000 MHz) 30(5150~5850 MHz) 20(7200~7500 MHz) | 2.0 | 50 | 2.50x2.00x0.70 | A |
| RFBPF2520080AUT | 2.4~2.5 | 2.2 | 30(900 MHz) 30(1850 MHz) 33(2170 MHz) 35(4800 MHz) 25(7200 MHz) | 2.0 | 50 | 2.50x2.00x0.80 | A |
| RFBPF2520120A1T | 2.4~2.5 | 1.7 | 30(900/1850 MHz) 20(2100 MHz) 40(4800 MHz) 25(7200 MHz) | 2.0 | 50 | 2.50x2.00x1.20 | A |
| RFBPF2520120A2T | 2.4~2.5 | 2.1 | 30(900/1850 MHz) 30(4800 MHz) | 2.0 | 50 | 2.50x2.00x1.20 | A |
| RFBPF2520120A3T | 2.4~2.5 | ≤1.2(25°C) | 30(900/1850 MHz) 25(4800 MHz) | 2.0 | 50 | 2.50x2.00x1.20 | A |
| RFBPF2520120A4T | 2.4~2.5 | ≤1.7(25°C) | 30(900/1850 MHz) 25(4800 MHz) | 2.0 | 50 | 2.50x2.00x1.20 | A |
| RFBPF2520100A5T | 2.4~2.5 | 2.0 | 40(900 MHz) 35(3200 MHz) 30(1990 MHz) 20(2100 MHz) 40(4800 MHz) 25(7200 MHz) | 2.0 | 50 | 2.50x2.00x1.00 | A |
| RFBPF2520100A6T | 2.4~2.5 | 1.4 | 35(1900/4800 MHz) | 2.0 | 50 | 2.50x2.00x1.00 | A |
| RFBPF3225150A3T | 2.4~2.5 | 2.5 | 40(1500 MHz) 30(2100 MHz) 30(4800 MHz) | 1.7 | - | 3.20x2.50x1.50 | A |
| RFBPF3225150A4T | 2.4~2.5 | 2.0 | 30(900 MHz) 30(1850 MHz) 20(2100 MHz) 30(4800 MHz) | 2.0 | 50 | 3.20x2.50x1.50 | A |
| RFBPF3225150A5T | 2.4~2.5 | 1.8 | 30(900 MHz) 30(1850MHz) 20(2100 MHz) 30(4800 MHz) | 2.0 | 50 | 3.20x2.50x1.50 | A |

1558 ~ 1606 MHz GNSS Band Applications

| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | STRUCTURE |
|-----------------|-----------------------|---------------------|--|-------------|---------------|----------------|-----------|
| RFBPF1109060E0T | 1550~1610 | 1.9max. | 25(960MHz) 8(1850MHz) 15(1990MHz) 20(2170MHz) 35(2400~2500MHz) 35(3400~3800MHz) | 2.0 | 50 | 1.10x0.90x0.60 | E |
| RFBPF1411070E0T | 1558~1606 | 1.8max. | 30(824~849 MHz) 30(880~915 MHz) 22(1850~1910 MHz) 22(1920~1980 MHz) 30(2400MHz) | 2.0 | 50 | 1.40x1.10x0.70 | E |

860~960MHz/1805~2025 MHz Band Application

| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | STRUCTURE |
|--------------------|-----------------------|--------------------------------------|---|-------------|---------------|----------------|-----------|
| RFBPF2520090B08Q1C | 869~960 | 0.7max.(25°C) 0.75max.(-40~+85°C) | 25(430~490MHz) 10(1700~1900MHz) 20(2400~2500MHz) 20(4905~5845MHz) | 1.9 | 50 | 2.50x2.00x0.90 | J |
| | 1805~2025 | 1.1max.(25°C) 1.2max.(-40~+85°C) | 25(900~1015MHz) 15(2400~2500MHz) 15(3610~3980MHz) 20(4905~5845MHz) | 2.0 | | | |

5GHZ BAND WORKING FREQUENCY

| Part Number | Frequency Range(GHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | STRUCTURE |
|--------------------|----------------------|--|---|-------------|---------------|----------------|-----------|
| RFBPF1608060K2T | 4.9~5.84 | 1.5max.(25°C) 1.7max.(-40~+85°C) | 33(100~2170 MHz) 29(2170~2500 MHz) 32(9800~12000 MHz) | 2.0 | 50 | 1.60x0.80x0.70 | B |
| RFBPF1608060K68Q1C | 4.9~5.9 | 1.3 | 38(30~2700MHz) 16(3453~3547MHz) 33(3667~3883MHz) 9(6900~7093MHz) 32(7333~7750MHz) 40(10600~11650MHz) 18(15540~17760MHz) | 2.0 | 50 | 1.60x0.80x0.60 | D |
| RFBPF1608060K78D1T | 5.15~5.95 | 0.8 | 40(30~2700MHz) 45(3400~3800MHz) 20(7250~7800MHz) 20(10300~11700MHz) | 1.67 | 50 | 1.60x0.80x0.60 | D |
| RFBPF1608060K88Q1C | 5.15~5.95 | 0.7 (typ.0.6) | 35(30~2700MHz) 30(3400~3800MHz) 12(7250~7800MHz) 20(10300~11700MHz) | 1.5 | 50 | 1.60x0.80x0.60 | D |
| RFBPF1608060KG8D1T | 5.15~5.95 | 0.8 | 40(30~2700MHz) 45(3400~3800MHz) 20(6900MHz) 20(7250~7800MHz) 20(10300~11700MHz) | 1.67 | 50 | 1.60x0.80x0.60 | D |
| RFBPF2012100KST | 4.9~5.9 | 1.5(4.90GHz) 1.5(5.25GHz) 1.5(5.85GHz) | 30(3450 MHz) 20(11000 MHz) | 2.0 | 50 | 2.00x1.20x1.00 | B |
| RFBPF2012100K0T | 4.9~5.9 | 1.7(4.90GHz) 1.5(5.25GHz) 1.5(5.85GHz) | 30(3450 MHz) 20(11000 MHz) | 2.0 | 50 | 2.00x1.20x1.00 | B |
| RFBPF2012100K1T | 5.15~5.9 | 3.0 (typ.2.5) | 35(4000MHz) 35(4500MHz) 40(4600MHz) | 2.0 | 50 | 2.00x1.20x1.00 | B |
| RFBPF2012090K5T | 4.9~5.85 | 2.2 | 35(340~1195 MHz) 19(2140~3580 MHz) 25(6855~7150 MHz) 20(8570~8930 MHz) | 2.0 | 50 | 2.00x1.20x0.90 | B |
| RFBPF2012100K3T | 4.9~5.85 | 1.8max.(25°C) 2.1max.(-40~+85°C) | 30(500 MHz) 35(3450 MHz) 30(4000 MHz) 20(4200 MHz) 15(9800 MHz) 15(11700 MHz) | 2.0 | 50 | 2.00x1.20x0.95 | B |
| RFBPF2012100K6T | 5.15~5.85 | 1.6max.(25°C) 1.8max.(-40~+85°C) | 30(500 MHz) 40(2000 MHz) 35(3450 MHz) 30(4000 MHz) 20(4200 MHz) | 2.0 | 50 | 2.00x1.20x0.95 | B |
| RFBPF2012090K9T | 5.725~5.85 | 2.0 | 30(500 MHz) 30(4000 MHz) 20(4200 MHz) 32(5000 MHz) 15(9800 MHz) 15(11750 MHz) | 2.0 | 50 | 2.00x1.20x0.95 | B |
| RFBPF2520090K1T | 4.9~5.85 | 1.2 | 47(824 MHz) 47(1500 MHz) 47(1910 MHz) 15(9800 MHz) | 2.0 | 50 | 2.50x2.00x0.90 | A |

WiMAX BAND WORKING FREQUENCY

| Part Number | Frequency Range(GHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | STRUCTURE |
|-----------------|----------------------|---------------------|--|-------------|---------------|----------------|-----------|
| RFBPF16082G3W0T | 2.3~2.39 | 2.0 | 29(880~915 MHz) 29(1710~1785 MHz) 21(1850~1910 MHz) 15(1920~1980 MHz) 18(4600~4780 MHz) 23(6900~7170 MHz) | 2.0 | 50 | 1.60x0.80x0.70 | B |

HIGH FREQUENCY MULTILAYER BAND PASS FILTER

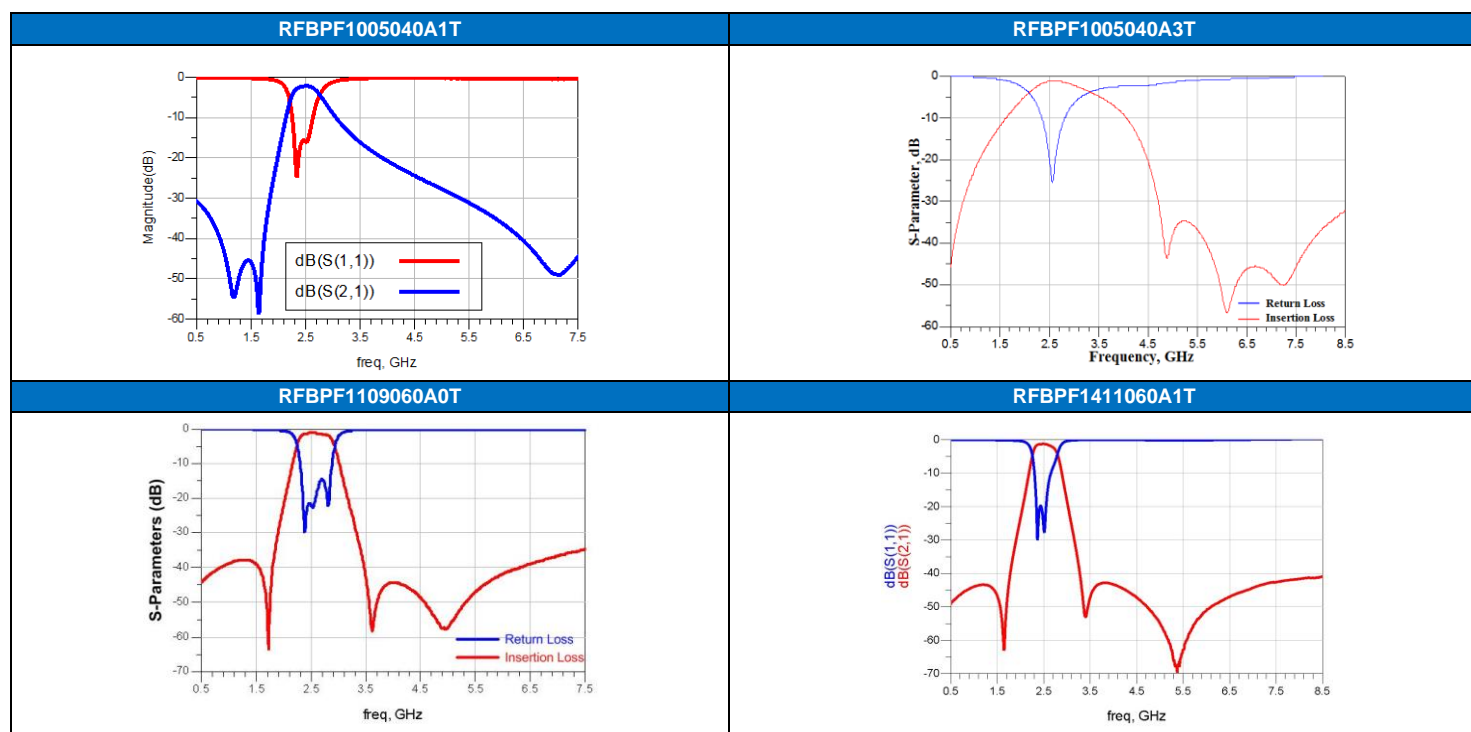
MoCA / Docsis Application

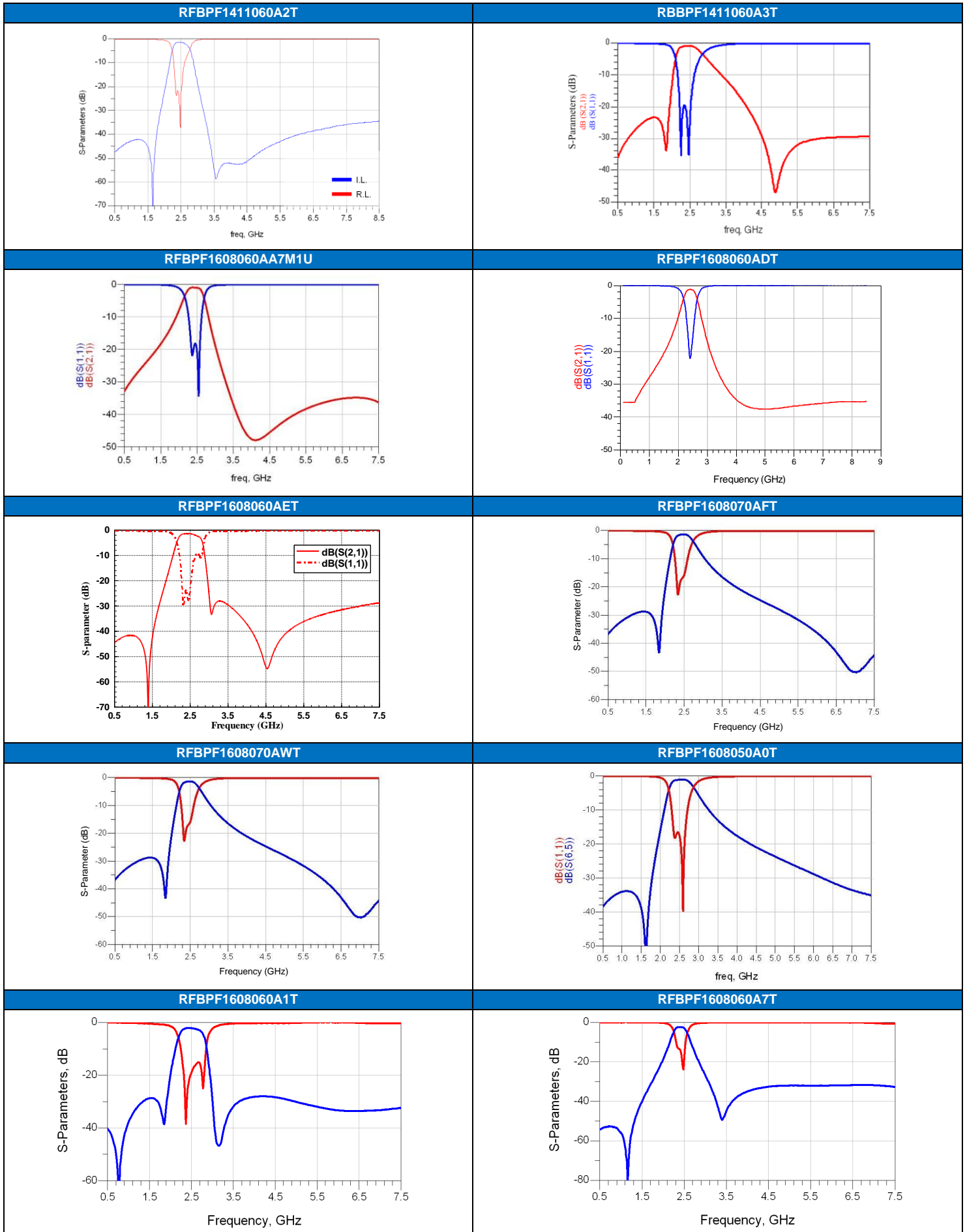
| Part Number | Frequency Range(MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | STRUCTURE |
|--------------------|----------------------|-------------------------------------|---|-------------|---------------|----------------|-----------|
| RFBPF3225180Y1T | 975~1025 | 3.0 | 30(54~870 MHz) 30(1125~1675 MHz) 30(2300 MHz) | 2.0 | 75 | 3.20x2.50x1.80 | K |
| RFBPF3225200Y07B1U | 475~675 | 2.5max.(25°C) 2.7max.(-40~+85°C) | 60(2.5 MHz) 40(2.5~100 MHz) 35(100~200 MHz) 35(200~300 MHz) 8(300~400 MHz) 57(950 MHz) 47(950~2025 MHz) 41(2025~2500 MHz) 35(2500~3000 MHz) | 2.0 | 75 | 3.20x2.50x1.80 | K |
| RBBPF3225180Y27B1U | 400~700 | 2.0 | 42(1~200 MHz) 30(950~2150 MHz) 35(2150~3000 MHz) 27(3000~5900 MHz) | 2.0 | 50 | 3.20x2.50x1.80 | K |
| RFBPF3225180C07B1U | 1125~1675 | 1.8max.(25°C) 2.0max.(-40~+85°C) | 30(5~864 MHz) 34(864~1002 MHz) 32(2300~3000 MHz) | 2.0 | 75 | 3.20x2.50x1.80 | K |
| RBBPF3225180C67B1U | 1125~1675 | 2.0 | 40(1~900 MHz) 25(900~1002 MHz) 35(2000~2500 MHz) 27(2500~5900 MHz) | 2.0 | 50 | 3.20x2.50x1.80 | K |
| RBBPF3225180C77B1U | 1125~1225 | 2.0 | 33(1~900 MHz) 25(900~1002 MHz) 25(1350~1675 MHz) 35(2000~2500 MHz) 27(2500~5900 MHz) | 2.0 | 50 | 3.20x2.50x1.80 | K |

LTE Band Application

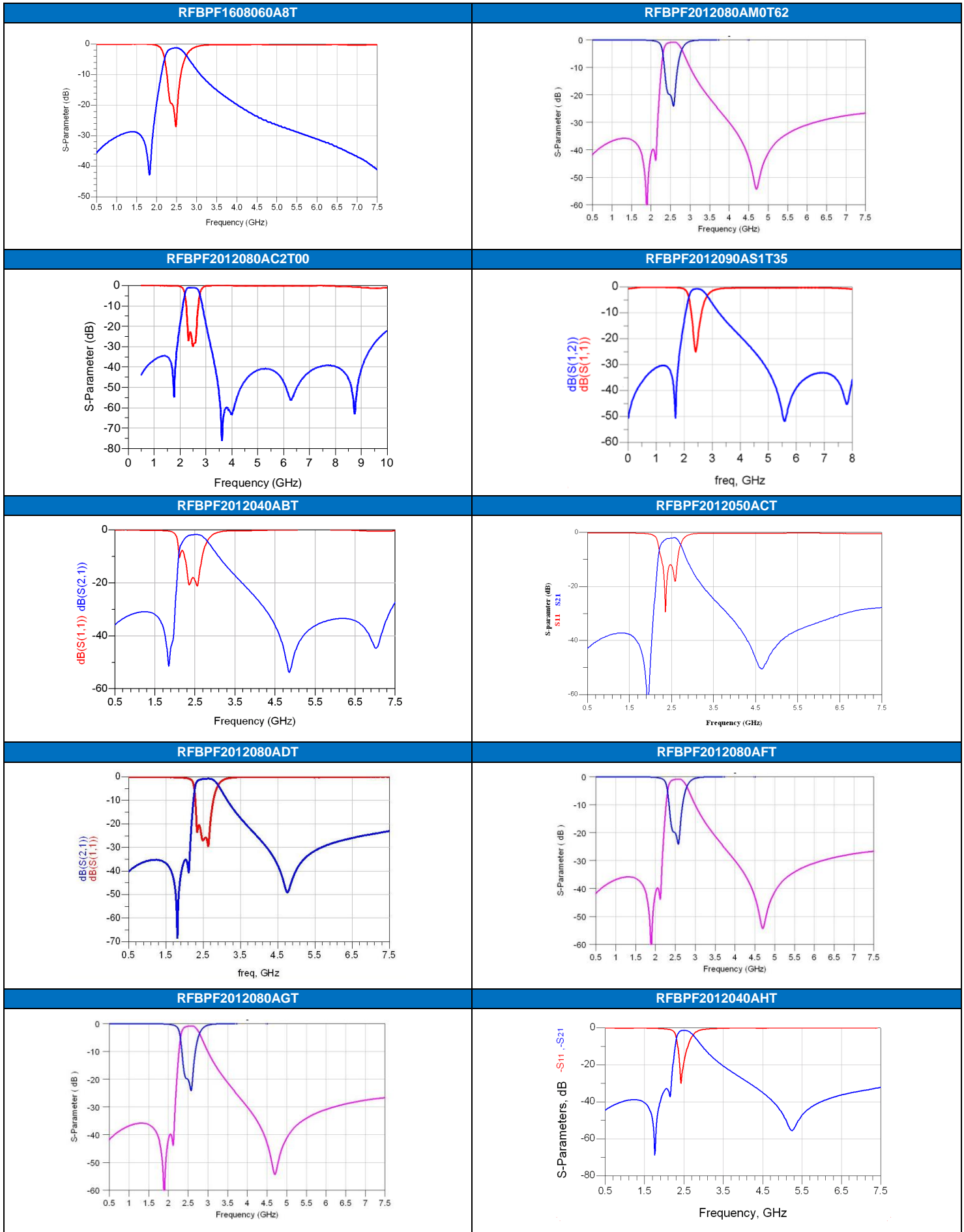
| Part Number | Frequency Range(MHz) | Band | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | STRUCTURE |
|----------------|----------------------|------|---------------------|-------------------------|-------------|---------------|----------------|-----------|
| RFBPF1109B101T | 2110~2170 | B1 | 1.7 | 25(4280MHz) | 2 | 50 | 1.10x0.90x0.60 | E |
| RFBPF1109B201T | 1930~1990 | B2 | 1.7 | 25(3920MHz) | 2 | 50 | 1.10x0.90x0.60 | E |
| RFBPF1109B301T | 1805~1880 | B3 | 1.4 | 25(3685MHz) | 2 | 50 | 1.10x0.90x0.60 | E |
| RFBPF1109B501T | 869~894 | B5 | 0.9 | 12(1763MHz) | 2 | 50 | 1.10x0.90x0.60 | E |
| RFBPF1109B701T | 2620~2690 | B7 | 1.2 | 25(5310MHz) | 2 | 50 | 1.10x0.90x0.60 | E |
| RFBPF1109B801T | 925~960 | B8 | 0.9 | 12(1885MHz) | 2 | 50 | 1.10x0.90x0.60 | E |

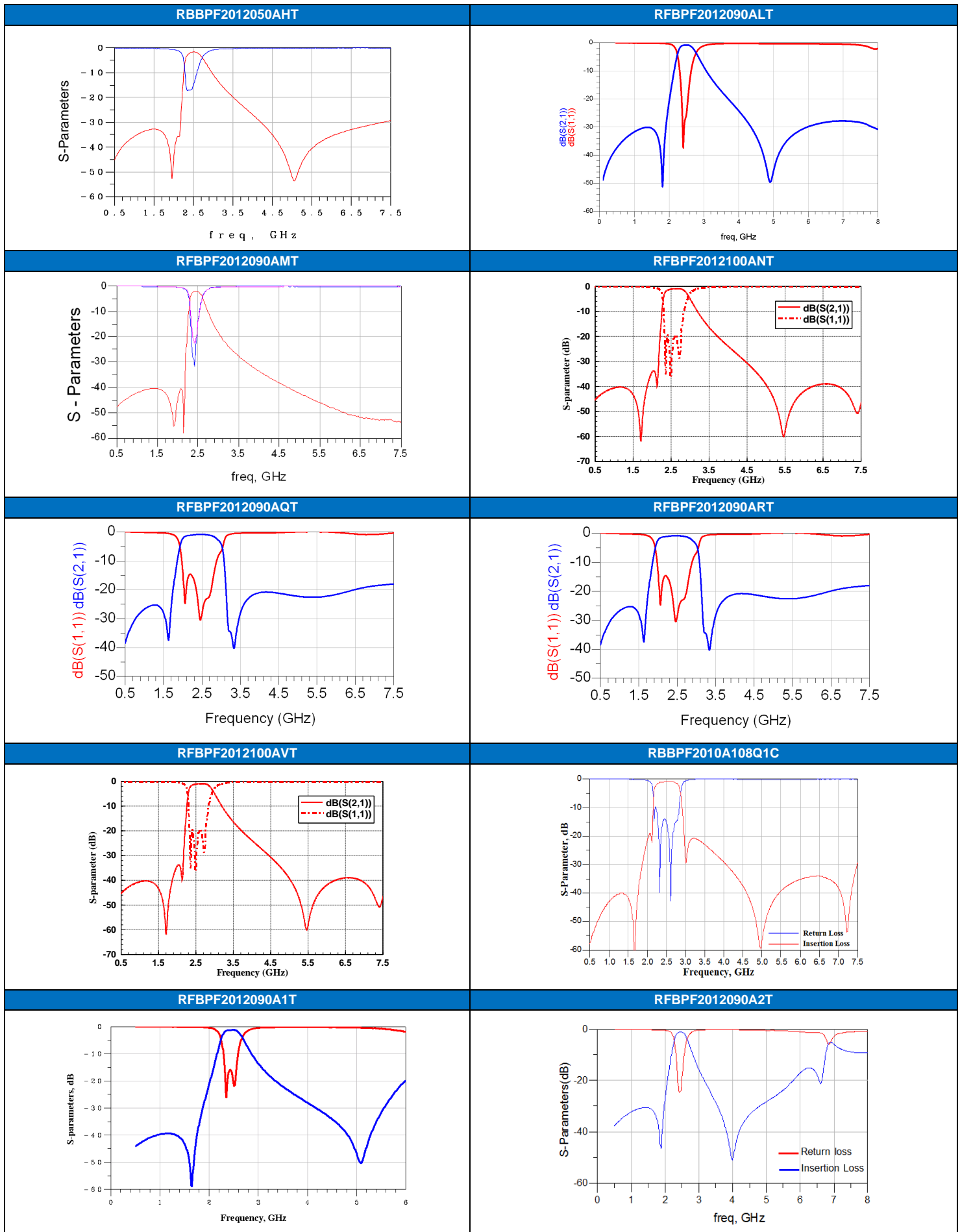
■ TYPICAL ELECTRICAL CHARACTERISTICS



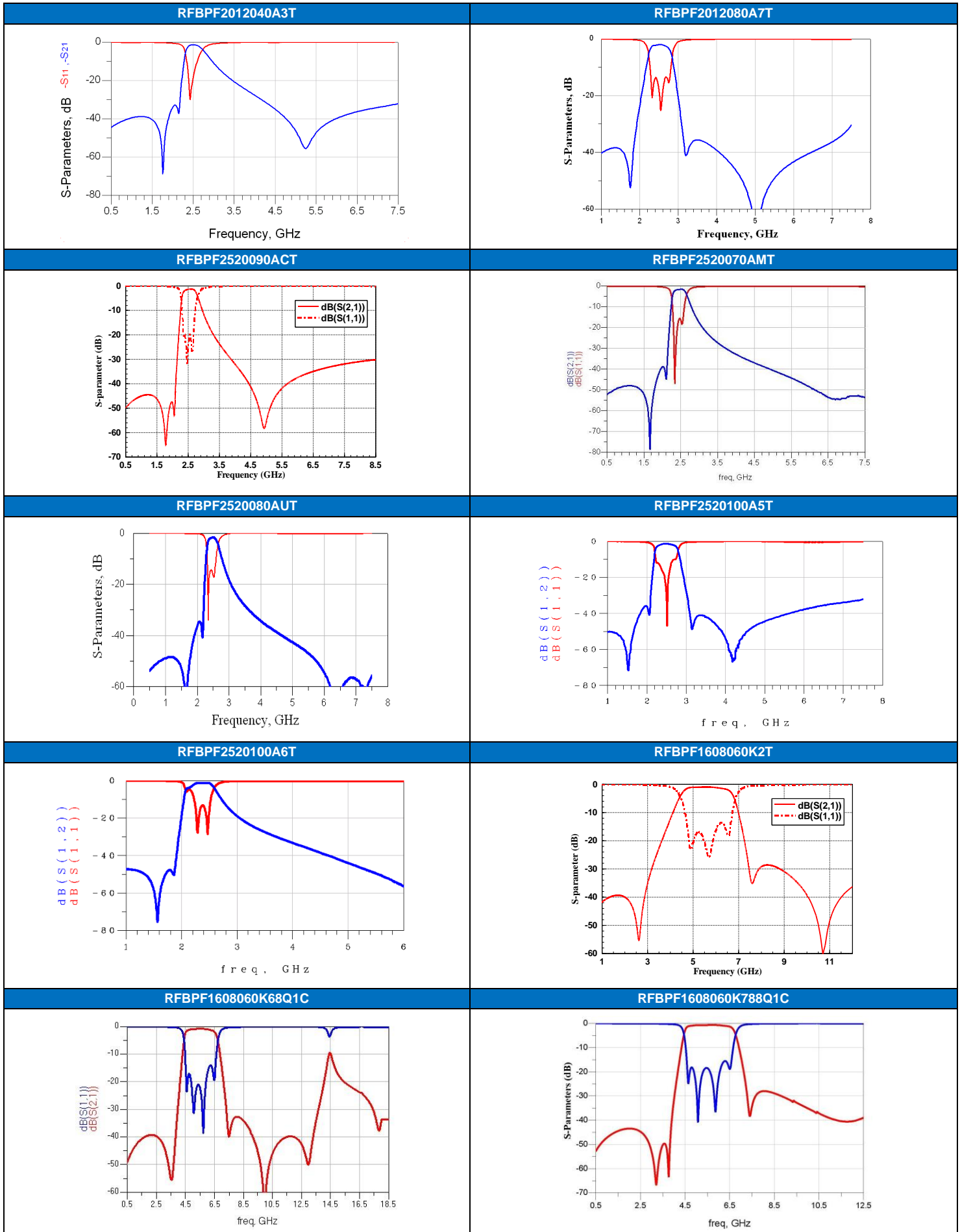


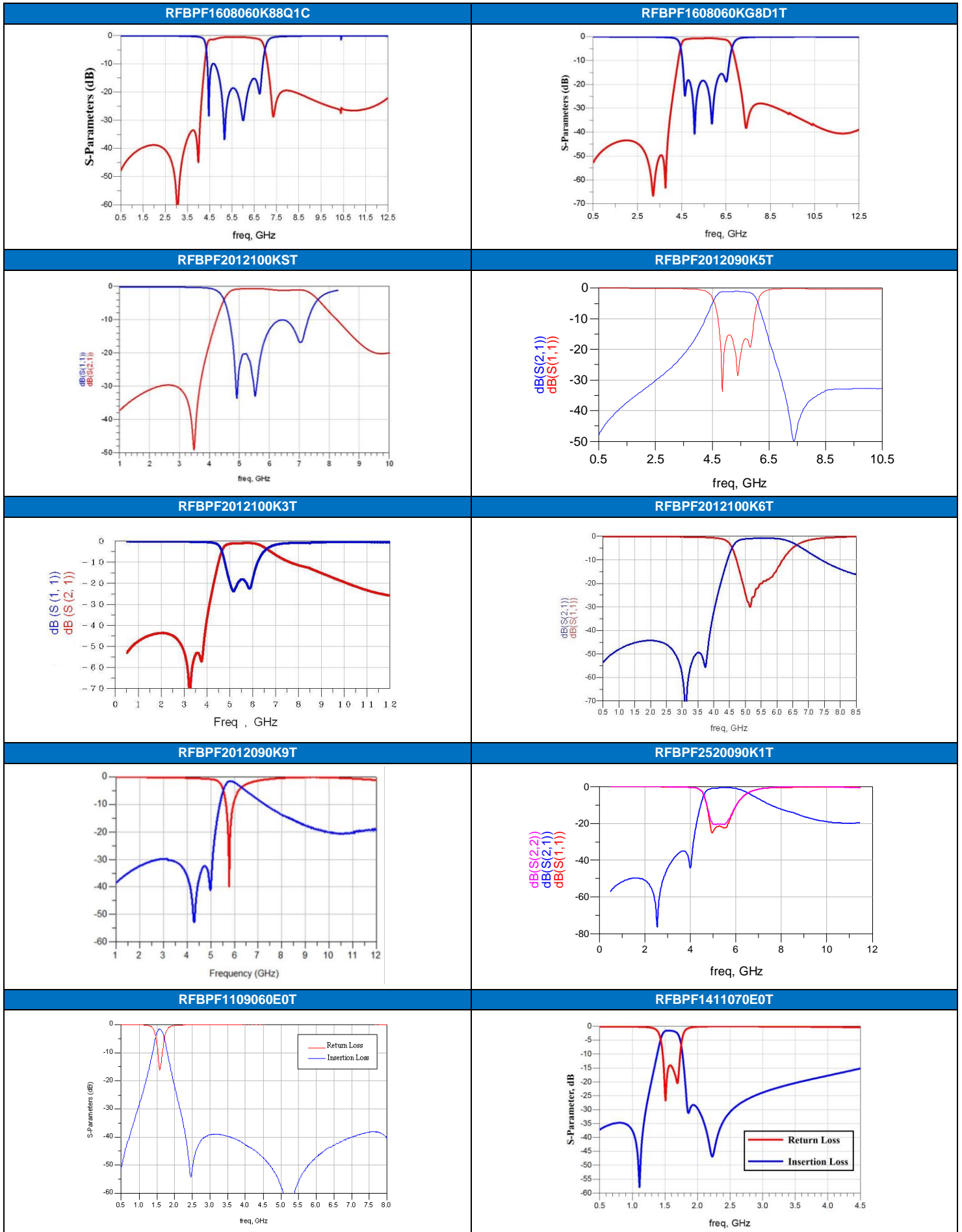
HIGH FREQUENCY MULTILAYER BAND PASS FILTER





HIGH FREQUENCY MULTILAYER BAND PASS FILTER

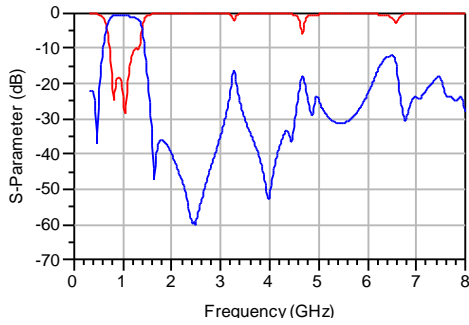




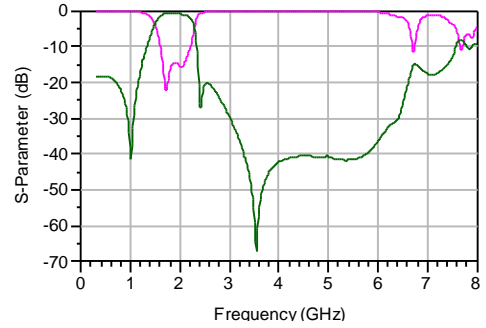
HIGH FREQUENCY MULTILAYER BAND PASS FILTER

RFBPF2520090B08Q1C

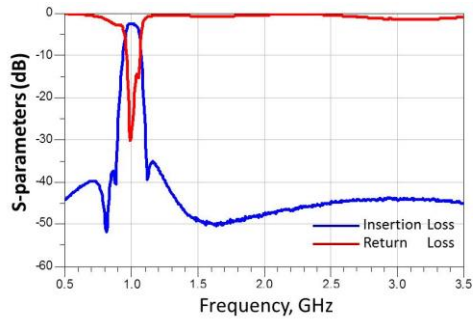
Low Band



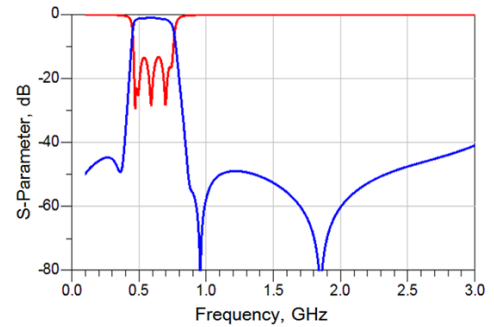
High Band



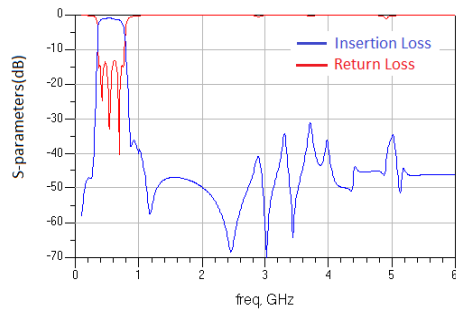
RFBPF3225180Y1T



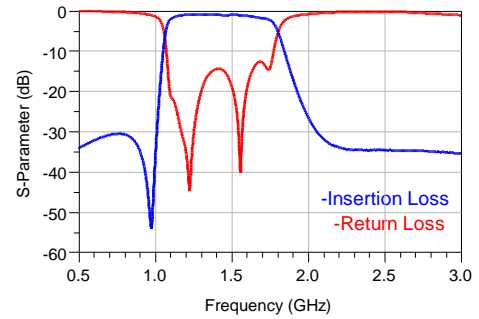
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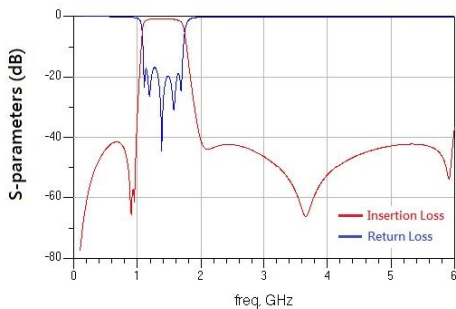
RBBPF3225180Y27B1U



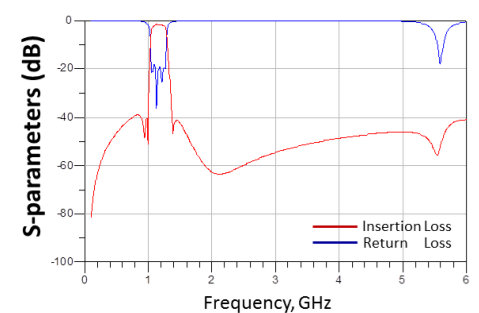
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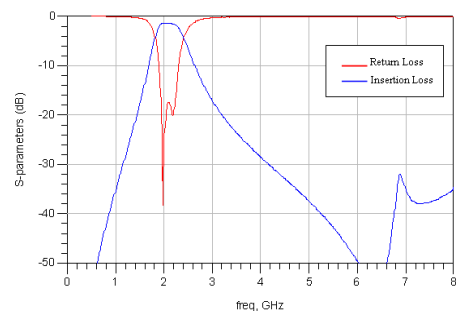
RBBPF3225180C67B1U



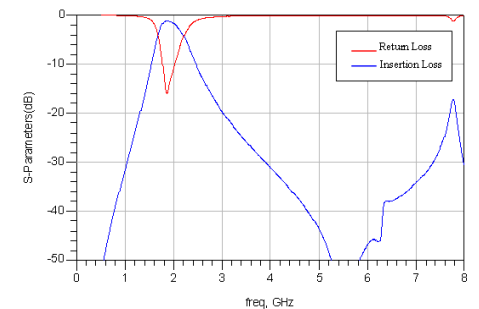
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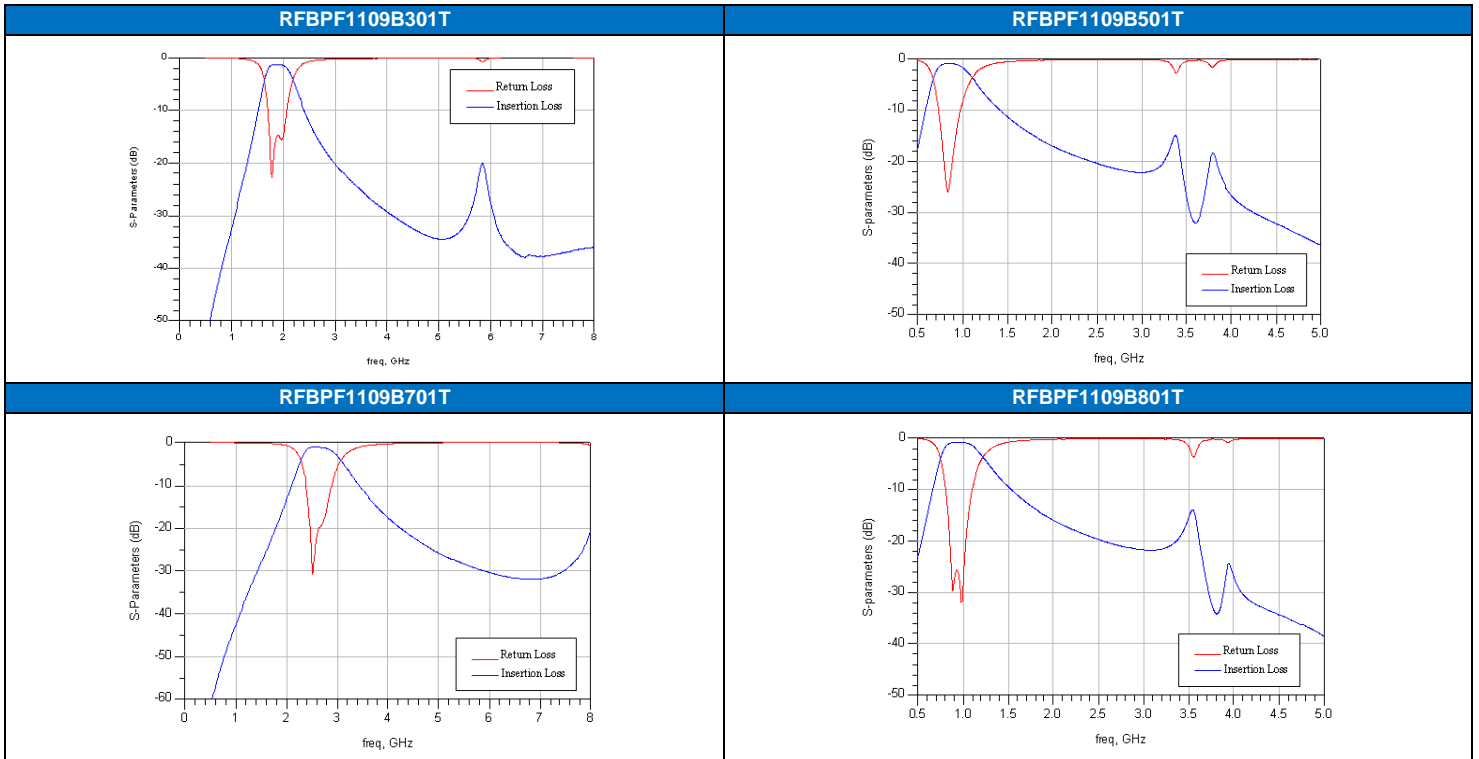


RFBPF1109B101T



RFBPF1109B201T





- For more information, please contact with local sales representative
- All specifications are subject to change without notice

HIGH FREQUENCY MULTILAYER BALANCED FILTER

HIGH FREQUENCY MULTILAYER BALANCED FILTER

■ STRUCTURE AND PIN ASSOCIATED

| STRUCTURE A | |
|-------------|-----------------------------|
| | <p>STRUCTURE A-1</p> |
| | <p>STRUCTURE A-2</p> |
| STRUCTURE B | |
| | |

■ STRUCTURE AND DIMENSION

Unit: mm

| Structure/ Dimension | L | W | T | A | B | C | D | E | F | G |
|-------------------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|---------------|---------------|-----------|
| A | 1.60±0.15 | 0.80±0.15 | 0.60±0.10 | 0.175±0.15 | 0.25±0.15 | 0.25±0.15 | 0.50±0.15 | 0.20±0.15 | 0.20±0.15 | 0.30±0.15 |
| | 2.00±0.15 | 1.25±0.15 | 0.40±0.10 | 0.175±0.10 | 0.35±0.15 | 0.30±0.15 | 0.65±0.10 | 0.20±0.10 | 0.20±0.15 | 0.50±0.10 |
| | | | 0.50±0.10 | 0.20±0.15 | 0.30±0.15 | 0.35±0.15 | 0.65±0.15 | 0.20±0.15 | 0.20±0.15 | 0.30±0.15 |
| | | | 0.60±0.10 | 0.20±0.15 | 0.30±0.10 | 0.35±0.10 | 0.65±0.10 | 0.20±0.15 | 0.20±0.15 | 0.50±0.10 |
| | | | 0.90±0.10 | 0.20±0.15 | 0.30±0.10 | 0.35±0.10 | 0.65±0.10 | 0.20±0.15 | 0.20±0.15 | 0.30±0.10 |
| | | | 1.00±0.10 | 0.20±0.15 | 0.30±0.10 | 0.35±0.10 | 0.65±0.10 | 0.20±0.10 | 0.20±0.15 | 0.50±0.10 |
| | | | 1.10±0.10 | 0.20±0.15 | 0.30±0.10 | 0.35±0.10 | 0.65±0.10 | 0.20±0.15 | 0.20±0.15 | 0.55±0.10 |
| | 2.50±0.20 | 2.00±0.20 | 0.85±0.10 | 0.35±0.20 | 0.40±0.10 | 0.30±0.10 | 0.70±0.20 | 0.15(Typical) | 0.15(Typical) | 1.20±0.20 |
| B | 2.00±0.15 | 1.25±0.10 | 0.60±0.10 | 0.20±0.10 | 0.30±0.15 | 0.25±0.15 | 0.65±0.10 | 0.25±0.10 | - | - |

■ ELECTRICAL SPECIFICATION

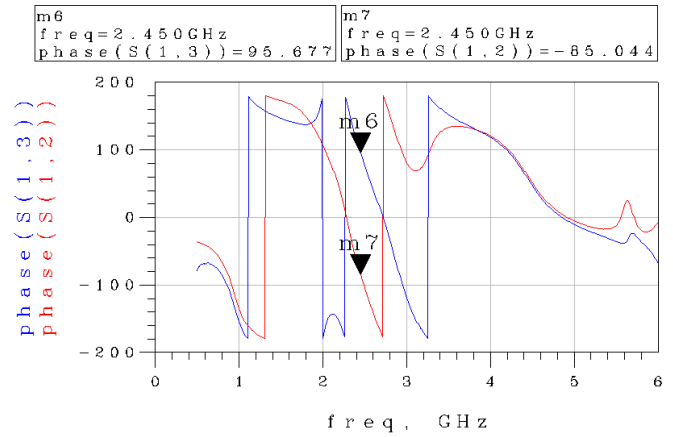
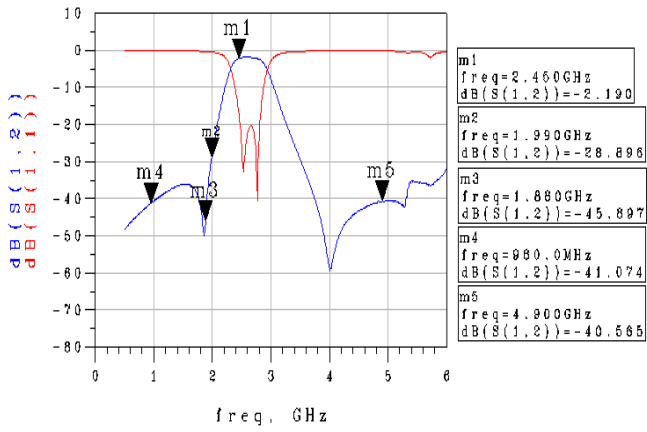
2.4GHz BAND WORKING FREQUENCY

| Part Number | Frequency Range (MHz) | Impedance(Ω) | | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (Max.) | Phase Difference | Amplitude Difference | Size (mm) | STRUCTURE |
|--------------------|-----------------------|--------------|---|---------------------------------------|--|-------------|------------------|----------------------|----------------|-----------|
| | | Unbalance | Balance | | | | | | | |
| RFBPB2012090A1T | 2.4~2.5 | 50 | Conjugate match to BC series of Bluetooth chipset | 3.5 | 35(880~960MHz) 30(1710~1880MHz) 20(1880~1990MHz) 30(4800~5000MHz) | 2.1 | 180°± 10 | 2 | 2.00x1.25x0.90 | A-1 |
| RFBPB2012090A9T | 2.4~2.5 | 50 | Conjugate match to BC series of Bluetooth chipset | 2.8 | 35(880~960MHz) 30(1575MHz) 25(1710~1880MHz) 30(4800~5000MHz) | 2.1 | 180°± 10 | 2 | 2.00x1.25x0.90 | A-1 |
| RFBPB2012090AAT | 2.4~2.5 | 50 | Conjugate match to CSR BC03/ 04 series | 3.5 | 35(880~960 MHz) 30(1710~1880 MHz) 20(1880~1990 MHz) 30(4800~5000 MHz) | 2.1 | 180°± 10 | 2 | 2.00x1.25x0.90 | A-1 |
| RFBPB2012060ABT | 2.4~2.5 | 50 | Impedance match to T.I. CC253X,CC254X, CC257X, CC853X and CC852X Chipsets | 1.5max.(25℃) 1.7max. (-40~+85℃) | 12(1000 MHz) 15(4800~5000 MHz) 20(7200~7500 MHz) | 2.0 | 180°± 15 | 2 | 2.00x1.25x0.60 | B |
| RFBPB2012090AHT | 2.4~2.5 | 50 | 100 | 3.5 | 30(880~960MHz) 30(1710~1880MHz) 20(1880~1990MHz) 30(4800~5000MHz) | 2.0 | 180°± 10 | 2 | 2.00x1.25x0.90 | A-1 |
| RFBPB2012090AM1T59 | 2.4~2.5 | 50 | Conjunction to MT5931/MT6628 Chipset | 2.5 (typ.2.2) | 35(824~960 MHz) 32(1990 MHz) 18(2170 MHz) 40(4800~5000MHz) 25(7200~7500MHz) | 2.0 | 180°± 10 | 2 | 2.00x1.25x0.95 | A-1 |
| RFBPB2012090AM1T61 | 2.4~2.5 | 50 | Conjugate match to MTK MT6611 Bluetooth chipset | 2.8 | 35(880~960MHz) 30(1710~1880MHz) 20(1880~1900MHz) 30(4800~5000MHz) | 2.1 | 180°± 10 | 2 | 2.00x1.25x0.90 | A-1 |
| RFBPB2012100A6T | 2.4~2.5 | 50 | Conjugate match to BC series of Bluetooth chipset | 3.5 | 35(880~960MHz) 30(1710~1880MHz) 20(1880~1900MHz) 40(4800~5000MHz) | 2.0 | 180°± 10 | 2 | 2.00x1.25x1.00 | A-1 |
| RFBPB2012110A5T | 2.4~2.5 | 50 | 50 | 2.8 | 30(880~960 MHz) 30(1710~1880 MHz) 20(1880~1990 MHz) 30(4800~5000 MHz) | 2.0 | 180°± 10 | 2 | 2.00x1.25x1.10 | A-1 |
| RFBPB2520090A7T | 2.4~2.5 | 50 | Conjugate match to TI BRF6150 | 3.5 | 35(880~960MHz) 30(1710~1880MHz) 25(1880~1990MHz) 25(4800~5000MHz) | 2.0 | 180°± 15 | 1.5 | 2.50x2.00x0.90 | A-2 |

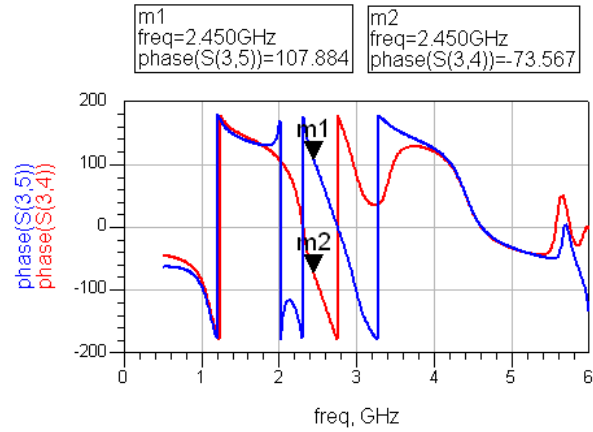
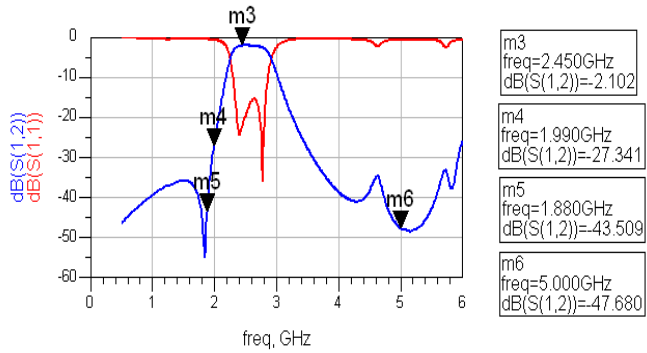
HIGH FREQUENCY MULTILAYER BALANCED FILTER

■ TYPICAL ELECTRICAL CHARACTERISTICS

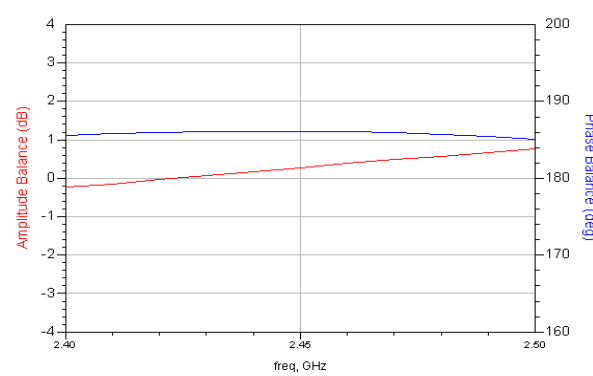
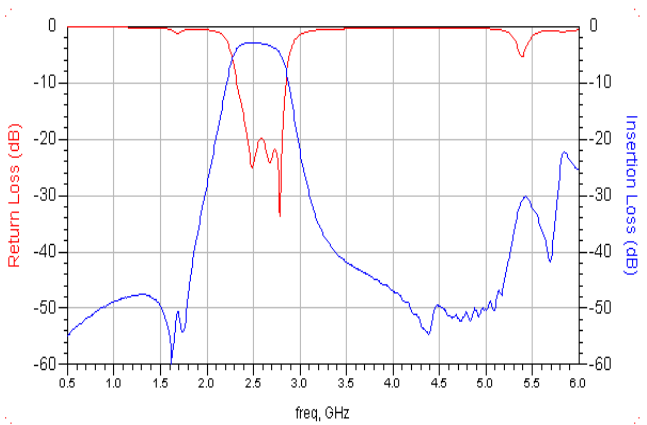
RFBPB2012090A1T



RFBPB2012090A2T



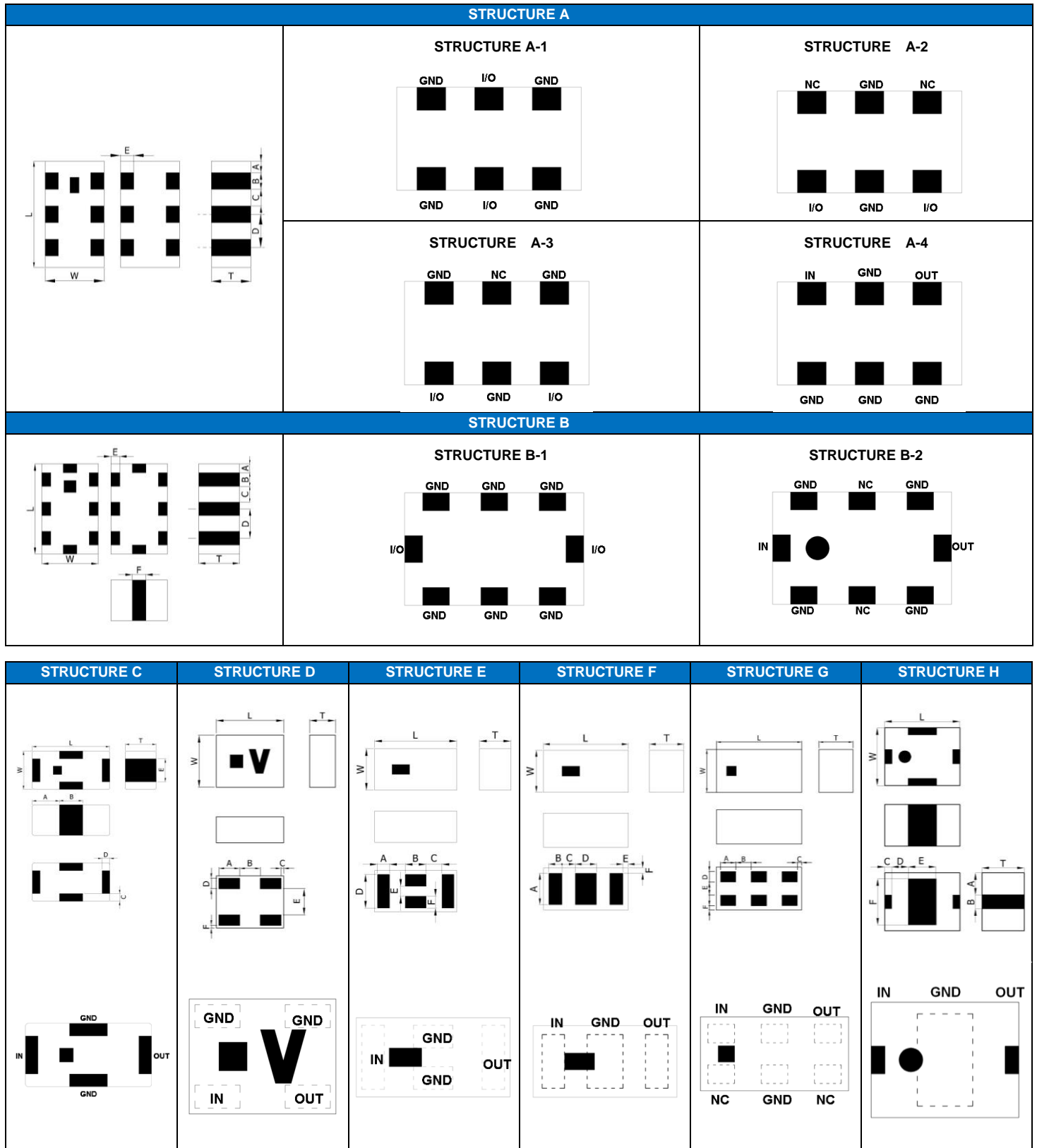
RFBPB2012100A6T



- For more information, please contact with local sales representative
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HIGH FREQUENCY MULTILAYER LOW PASS FILTER

■ STRUCTURE AND PIN ASSOCIATED



HIGH FREQUENCY MULTILAYER LOW PASS FILTER

■ STRUCTURE AND DIMENSION

Unit: mm

| Structure\ Dimension | L | W | T | A | B | C | D | E | F |
|----------------------|-----------|-----------|-----------|------------|------------|-------------|------------|------------|-------------|
| A | 1.60±0.15 | 0.80±0.15 | 0.50max. | 0.20±0.10 | 0.24±0.10 | 0.24±0.10 | 0.50±0.10 | 0.15±0.10 | - |
| | | | 0.60±0.10 | 0.175±0.15 | 0.25±0.15 | 0.25±0.15 | 0.50±0.15 | 0.20±0.15 | - |
| | | | 0.65±0.10 | 0.175±0.15 | 0.25±0.15 | 0.25±0.15 | 0.50±0.15 | 0.20±0.15 | - |
| | | | 0.70max. | 0.175±0.15 | 0.25±0.15 | 0.25±0.15 | 0.50±0.15 | 0.20±0.15 | - |
| B | 2.00±0.15 | 1.25±0.10 | 0.90±0.10 | 0.20±0.10 | 0.30±0.10 | 0.35±0.10 | 0.65±0.10 | 0.20±0.10 | 0.20±0.10 |
| | | | 0.95±0.10 | 0.20±0.10 | 0.30±0.10 | 0.35±0.10 | 0.65±0.10 | 0.20±0.10 | 0.20±0.10 |
| | | | 1.05±0.10 | 0.20±0.10 | 0.30±0.10 | 0.35±0.10 | 0.65±0.10 | 0.20±0.10 | 0.20±0.10 |
| | | | 3.20±0.20 | 2.50±0.20 | 1.00±0.20 | 0.10min. | 0.55±0.15 | 0.45±0.15 | 1.00±0.15 |
| C | 1.60±0.15 | 0.80±0.15 | 1.00±0.10 | 0.50±0.10 | 0.40±0.10 | 0.35±0.10 | 0.30±0.10 | 0.15±0.10 | 0.15±0.10 |
| | | | 1.60±0.15 | 0.80±0.15 | 0.50max. | 0.45±0.15 | 0.70±0.15 | 0.20±0.15 | 0.20±0.15 |
| D | 0.65±0.10 | 0.50±0.10 | 0.40max. | 0.20±0.05 | 0.20±0.05 | 0.025±0.025 | 0.10±0.05 | 0.25±0.05 | 0.025±0.025 |
| E | 1.60±0.15 | 0.80±0.15 | 0.45max. | 0.23±0.05 | 0.40±0.10 | 0.30±0.10 | 0.65±0.10 | 0.20±0.05 | 0.23±0.05 |
| | | | 0.65max. | 0.23±0.05 | 0.40±0.10 | 0.30±0.10 | 0.65±0.10 | 0.20±0.05 | 0.23±0.05 |
| F | 1.60±0.10 | 0.80±0.10 | 0.65max. | 0.60±0.10 | 0.25±0.10 | 0.25±0.10 | 0.40±0.10 | 0.10±0.05 | 0.10±0.05 |
| | | | 0.90±0.10 | 0.95±0.10 | 0.275±0.10 | 0.25±0.10 | 0.60±0.10 | 0.175±0.10 | 0.15±0.10 |
| | | | 1.00max. | 0.95±0.10 | 0.275±0.10 | 0.25±0.10 | 0.60±0.10 | 0.175±0.10 | 0.15±0.10 |
| G | 1.00±0.10 | 0.50±0.10 | 0.40 max. | 0.18±0.05 | 0.18±0.05 | 0.05±0.05 | 0.125±0.05 | 0.15±0.05 | 0.05±0.05 |
| H | 3.20±0.20 | 2.50±0.20 | 1.00±0.20 | 0.95±0.20 | 0.60±0.20 | 0.30±0.15 | 0.70±0.15 | 1.20±0.15 | 2.00±0.15 |
| | | | 1.80±0.20 | 0.95±0.20 | 0.60±0.20 | 0.30±0.15 | 0.70±0.15 | 1.20±0.15 | 2.00±0.15 |

■ ELECTRICAL SPECIFICATION

GSM850/900GHz BAND WORKING FREQUENCY

| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | Structure |
|--------------------|-----------------------|--|--|-------------|---------------|----------------|-----------|
| RFLPF06050G9D0T | 824~915 | 0.5max.(25℃) 0.7max.(-40~+85℃) | 20(2400~2750MHz) | 2.0 | 50 | 0.65x0.50x0.40 | D |
| RFLPF10050G9D0T | 824~915 | 0.6 | 25(1648~1830MHz) 25(2472~2745MHz) 25(3296~3660MHz) | 2.0 | 50 | 1.00x0.50x0.40 | C |
| RFLPF10050G9D3T | 824~915 | 0.5max.(25℃) 0.7max.(-40~+85℃) | 25(1648~1830MHz) 25(2472~2745MHz) 25(3296~3660MHz) | 2.0 | 50 | 1.00x0.50x0.40 | C |
| RFLPF10050G9D4T | 699~915 | 0.5max.(25℃) 0.7max.(-40~+85℃) | 25(1648~1830MHz) 25(2472~2745MHz) 25(3296~3660MHz) | 2.0 | 50 | 1.00x0.50x0.40 | C |
| RFLPF10050G9D58Q1C | 814~915 | 0.5max.(25℃) 0.65max.(-40~+85℃) | 18(1648~1830MHz) 17(2472~2745MHz) | 2.0 | 50 | 1.00x0.50x0.40 | C |
| RFLPF16080G9D4T | 698~960 | 0.60(698~830MHz) 0.70(830~900MHz) 0.75(900~915MHz) 0.90(915~960MHz) | 30(1554~1830MHz) 35(2097~2745MHz) | 1.6 | 50 | 1.60x0.80x0.65 | A-3 |
| RFLPF16080G9DM1T58 | 698~960 | 0.8 | 16(1565~1610MHz) 32(2110~2155MHz) | 2.0 | 50 | 1.60x0.80x0.50 | A-4 |
| RFLPF10050G9DM1T76 | 698~960 | 0.6max.(25℃) 0.65max.(-40~+85℃) | 13(1554~1610MHz) 35(1805~1830MHz) 35(2110~2170MHz) 30(1710~2700MHz) | 2.0 | 50 | 1.00x0.50x0.40 | G |
| RFLPF20120G9D0T | 890~915 | 0.6max.(25℃) 0.75max.(-40~+85℃) | 30(1780~1830MHz) 30(2670~2745MHz) | 2.0 | 50 | 2.00x1.25x0.95 | B-2 |
| RFLPF20120G9D1T | 890~915 | 0.6max.(25℃) 0.75max.(-40~+85℃) | 40(1720~1765MHz) 30(1780~1830MHz) 30(2670~2745MHz) | 2.0 | 50 | 2.00x1.25x0.95 | B-2 |

DCS/PCS BAND WORKING FREQUENCY

| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | Structure |
|--------------------|-----------------------|-------------------------------------|--|-------------------|---------------|----------------|-----------|
| RFLPF10051G8D0T | 1710~1910 | 0.8 | 35(3420~3570MHz) 35(3700~3820MHz) 35(5130~5730MHz) | 2.0 | 50 | 1.00x0.50x0.40 | C |
| RFLPF10051G8DM5T51 | 1710~1910 | 0.6 | 26(3420~3570MHz) 21(3700~3820MHz) 21(5130~5730MHz) | 2.0 | 50 | 1.00x0.50x0.40 | C |
| RFLPF10051G8DM1T76 | 1880~2025 | 1.4max.(25℃) 1.6max.(-40~+85℃) | 20(2400~2500MHz) 25(3760~4050MHz) 25(5150~5850MHz) 25(5640~6075MHz) | 2.0 (typ.1.16) | 50 | 1.00x0.50x0.40 | G |
| RFLPF16081G8D3T | 1710~1910 | 0.45max.(25℃) 0.55max.(-40~+85℃) | 30(3420~3570MHz) 25(3700~3820MHz) 25(5130~5730MHz) | 2.0 | 50 | 1.60x0.80x0.50 | C |
| RFLPF16081G8D78Q1C | 1880~2025 | 1.4 | 25(2400~2500MHz) 18(4020~4045MHz) 25(6030~6075MHz) | 2.0 | 50 | 1.60x0.80x0.60 | F |
| RFLPF20121G8D1T | 1880~2025 | 1.35max.(25℃) 1.50max.(-40~+85℃) | 38(2400~2500MHz) 25(4020~4045MHz) 27(6030~6075MHz) | 1.9 | 50 | 2.00x1.20x0.90 | F |

2.4GHz BAND WORKING FREQUENCY

| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | Structure |
|--------------------|-----------------------|-------------------------------------|--|------------------|---------------|----------------|-----------|
| RFLPF1005040A0T | 2450±50 | 0.45max.(25℃) 0.55max.(-40~+85℃) | 21(4800~5000MHz) 21(7200~7500MHz) | 1.7 | 50 | 1.00x0.50x0.40 | C |
| RFLPF1005040A1T | 2450±50 | 0.75 | 33(4800~5000MHz) 37(7200~7500MHz) | 2.0 | 50 | 1.00x0.50x0.40 | C |
| RFLPF1005040A2T | 2450±50 | 0.75max.(25℃) 0.90max.(-40~+85℃) | 32(4800~5000MHz) 35(7200~7500MHz) | 2.0 | 50 | 1.00x0.50x0.40 | C |
| RFLPF1608060AM2T66 | 2450±50 | 0.65 (typ.0.55) | 20(3603~3720MHz) 30(4804~4960MHz) 10(6005~6200MHz) 20(7206~7440MHz) 10(8407~8680MHz) 20(9608~9920MHz) 10(10809~11160MHz) 10(12010~12400MHz) 10(13211~13640MHz) 15(14412~14880MHz) 10(15613~16120MHz) 10(16814~17360MHz) | 2.0 (typ.1.5) | 50 | 1.60x0.80x0.65 | A-1 |
| RFLPF1608060AAT | 2450±50 | 0.65 | 20(3603~3720MHz) 30(4804~4960MHz) 10(6005~6200MHz) 20(7206~7440MHz) 10(8407~8680MHz) 20(9608~9920MHz) 10(10809~11160MHz) 10(12010~12400MHz) 10(13211~13640MHz) 15(14412~14880MHz) 10(15613~16120MHz) 10(16814~17360MHz) | 2.0 | 50 | 1.60x0.80x0.70 | A-1 |
| RFLPF1608060A0T | 2450±50 | 0.65 (typ.0.48) | 35(4800MHz)(typ.40) 27(7200MHz)(typ.40) | 1.5 | 50 | 1.60x0.80x0.60 | A-1 |
| RFLPF1608060A1T | 2450±50 | 0.6 | 27(4800~5000MHz) 30(7200~7500MHz) | 2.0 | 50 | 1.60x0.80x0.60 | A-2 |
| RFLPF1608060A2T | 2450±50 | 0.42 | 25(4800MHz) 18(7200MHz) | 1.5 | 50 | 1.60x0.80x0.60 | A-1 |
| RFLPF1608060A9T | 2450±50 | 0.50max.(25℃) 0.60max.(-40~+85℃) | 20(3400MHz) 20(3600MHz) 30(4800~5000MHz) 30(7200~7500MHz) | 2.0 | 50 | 1.60x0.80x0.60 | E |
| RFLPF2012110A0T | 2450±50 | 0.7 | 30(2x(fo±BW/2)) 20(3x(fo±BW/2)) | 1.5 | 50 | 2.00x1.25x1.05 | B-1 |

5GHz BAND WORKING FREQUENCY

| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | Structure |
|-----------------|-----------------------|-----------------------------|---|-------------|---------------|----------------|-----------|
| RFLPF1608050K0T | 5400±500 | 0.60(25℃) 0.70(-40~+85℃) | 25(9800MHz) 30(11900MHz) 20(17850MHz) (forreference) | 2.0 | 50 | 1.60x0.85x0.50 | C |
| RFLPF2012090K0T | 5400±500 | 0.55(25℃) 0.65(-40~+85℃) | 30(9800MHz) 30(11800MHz) 20(17550MHz) (forreference) | 2.0 | 50 | 2.00x1.25x0.90 | B-1 |

LTE BAND APPLICATION

| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | Structure |
|--------------------|-----------------------|--|--|-------------|---------------|----------------|-----------|
| RFLPF1005040YM1T76 | 746~878 | 0.6(25℃) 0.65(-40~+85℃) | 30(1554~1610MHz) 25(2238~2361MHz) | 2.0 | 50 | 1.00x0.50x0.40 | G |
| RFLPF1608060Y08Q1C | 470~787 | 0.65(25℃) 0.71(-40~+85℃) | 26(1429~1501MHz) 30(1565~1607MHz) 35(1570~1580MHz) 18(1920~1980MHz) | 2.0 | 50 | 1.60x0.85x0.65 | A-3 |
| RFLPF1608060Y18Q1C | 698~960 | 0.60(698~830MHz) 0.70(830~900MHz) 0.75(900~915MHz) 0.90(915~960MHz) | 30(1554~1830MHz) 35(2097~2745MHz) | 1.6 | 50 | 1.60x0.85x0.65 | A-3 |
| RFLPF2012090Y2T | 400~470 | 0.50(25℃) 0.65(-40~+85℃) | 33(800~940MHz) | 2.0 | 50 | 2.00x1.25x0.90 | F |
| RFLPF2012090Y3T | 500~700 | 0.65(25℃) 0.80(-40~+85℃) | 33(1000~1400MHz) | 2.0 | 50 | 2.00x1.25x0.90 | F |
| RFLPF2012100Y0T | DC~500 | 0.70 | 9(824~960MHz) 25(1710~1990MHz) 25(2400~4000MHz) | 2.0 | 50 | 2.00x1.25x0.95 | B-2 |
| RFLPF1608060E0T | 1400~2690 | 0.25(25℃) 0.30(-40~+85℃) | 25(4905~5845MHz) | 1.92 | 50 | 1.60x0.85x0.65 | F |
| RFLPF1608060F0T | 600~2700 | 0.50 | 30(4800~8000MHz) 25(8500~12500MHz) | 2.0 | 50 | 1.60x0.85x0.65 | F |

HIGH FREQUENCY MULTILAYER LOW PASS FILTER

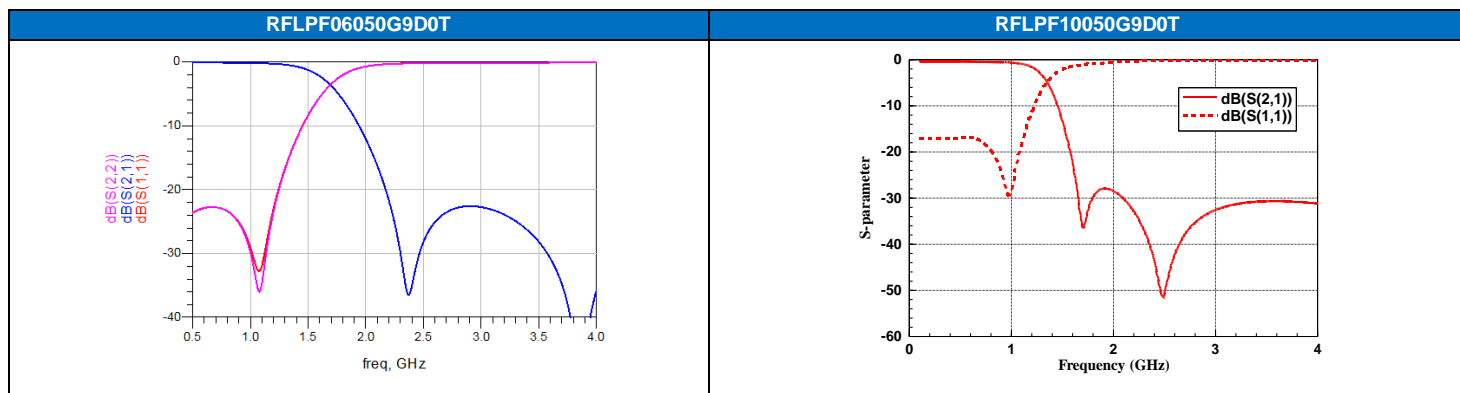
LTE BAND APPLICATION

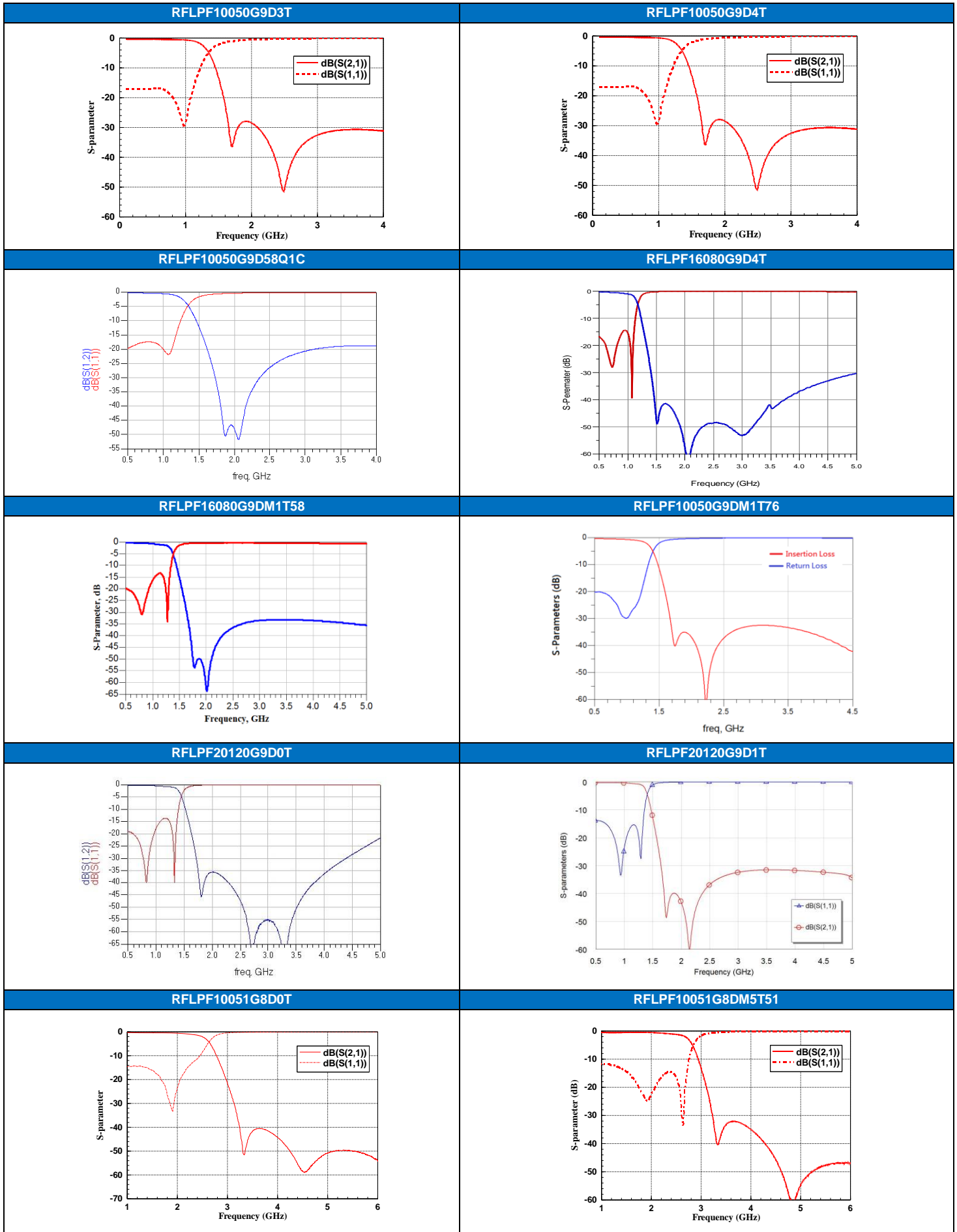
| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | Structure |
|--------------------|------------------------------------|--|--|-------------|---------------|----------------|-----------|
| RFLPF1608060F18Q1C | 673~2690 | 0.50 | 35(4950~6000MHz) 35(6000~7500MHz) 35(7500~8100MHz) 35(8100~10500MHz) 27(10500~12500MHz) | 2.0 | 50 | 1.60x0.85x0.65 | F |
| RFLPF1608060F88Q1C | 10~2700 | 0.5 | 30(4900~5950MHz) | 2.0 | 50 | 1.60x0.85x0.65 | E |
| RFLPF2012100F18Q1C | 1710~2170 | 1.30(25°C) 1.50(-40~+85°C) | 15(2400~2500MHz) 25(3250~3350MHz) 25(3420~3570MHz) 23(3700~3820MHz) 23(3840~3960MHz) 23(4100~4600MHz) 25(4905~5845MHz) 23(5850~6400MHz) 20(6600~7350MHz) | 1.56 | 50 | 2.00x1.25x1.00 | B-2 |
| RFLPF2012100F28Q1C | DC~2170 | 0.75(25°C) 0.85(-40~+85°C) | 10(2400~2500MHz) 23(3250~3350MHz) 20(3420~3570MHz) 18(3700~3820MHz) 18(3840~3960MHz) 18(4100~4600MHz) 20(4905~5845MHz) 18(5850~6400MHz) 5(6600~7350MHz) | 2.0 | 50 | 2.00x1.25x1.00 | F |
| RFLPF10052G5WM1T76 | 2300~2700 | 0.5(25°C) 0.6(-40~+85°C) | 25(4600~5400MHz) 25(6900~8100MHz) | 2.0 | 50 | 1.00x0.50x0.40 | G |
| RFLPF16082G6W0T | 2400~2690 | 0.6 | 26(4800~5390MHz) 23(7200~8085MHz) | 2.0 | 50 | 1.60x0.80x0.60 | A-2 |
| RFLPF16082G6W2T | 2300~2700 | 0.40(25°C) 0.43(-40~+85°C) | 21(4600~5400MHz) 22(6900~8100MHz) | 2.0 | 50 | 1.60x0.80x0.60 | A-2 |
| RFLPF16082G5W0T | 2300~2700 | 0.90(25°C) 1.00(-40~+85°C) | 30(4600~5400MHz) 30(6900~8100MHz) 20(9200~10800MHz) 15(11500~13500MHz) | 1.8 | 50 | 1.60x0.80x0.60 | A-1 |
| RFLPF16082G5WM0T29 | 2300~2690 | 0.80 (typ.0.40) | 25(4600~5400MHz) 25(6900~8070MHz) | 2.0 | 50 | 1.60x0.80x0.60 | A-1 |
| RFLPF16083G5W7T | 3300~3800 | 0.55 | 17(6600~7600MHz) 20(9900~11400MHz) | 1.9 | 50 | 1.60x0.80x0.60 | A-3 |
| RFLPF2012090BM0T29 | 800~1000 1700~1910 2010~2025 | 0.5(800~1000MHz) 0.8(1700~1910MHz) 1.5(2010~2025MHz) | 20(2300~3700MHz) 30(3700~4100MHz) 20(4100~6100MHz) 10(6100~8000MHz) | 2.0 | 50 | 2.00x1.25x0.90 | F |

MoCA APPLICATION

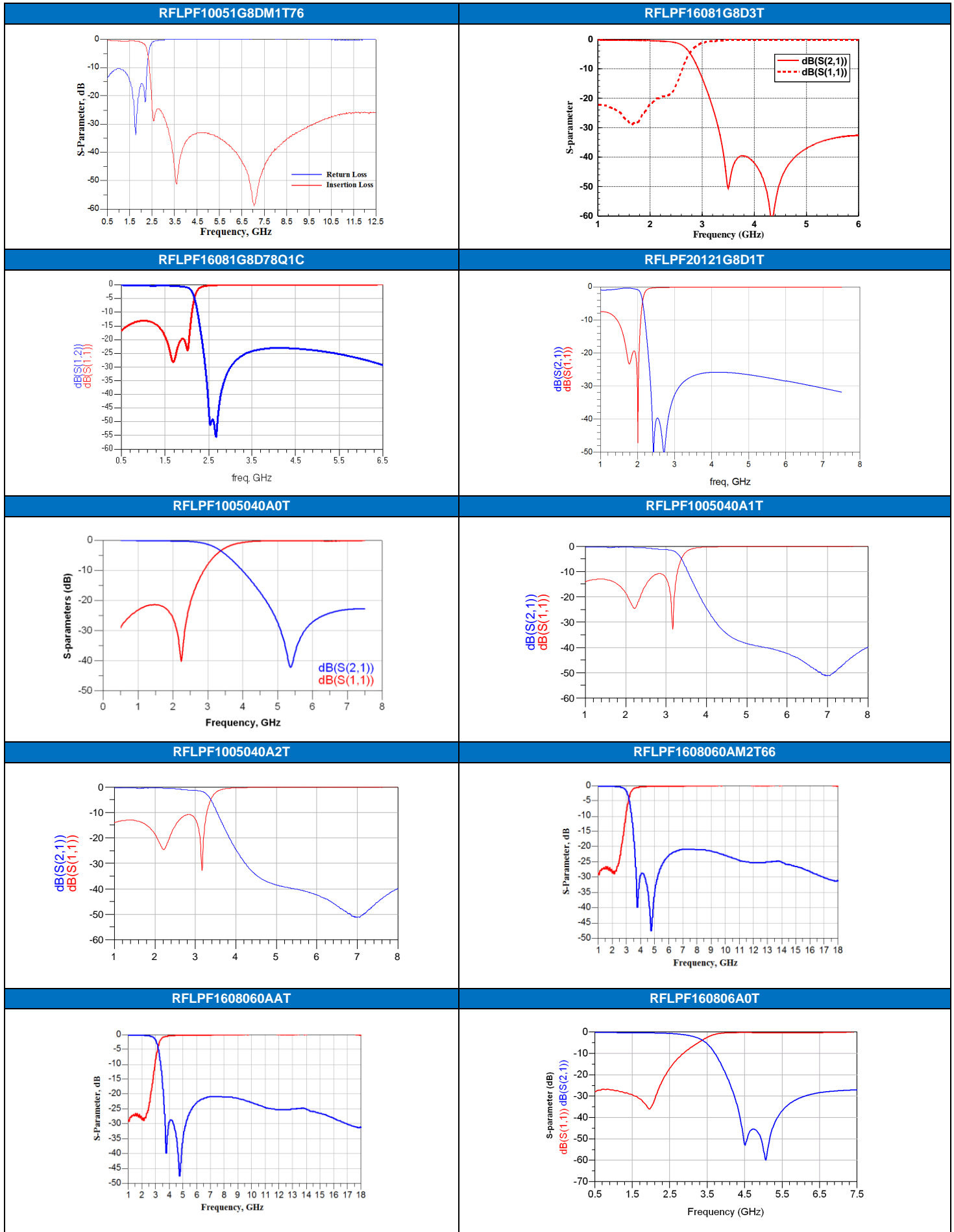
| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Impedance (Ω) | Size(mm) | Structure |
|--------------------|-----------------------|------------------------------|--------------------------------------|-------------|---------------|----------------|-----------|
| RFLPF3225180Y1T | 54~870 | 2.5 | 35(975~1675MHz) | 2.0 | 75 | 3.20x2.50x1.80 | H |
| RFLPF3225100Q07B1U | 5~1002 | 2.4(25°C) 2.6(-40~+85°C) | 36(1125~1675MHz) | 2.0 | 75 | 3.20x2.50x1.00 | H |
| RFLPF3225100Q2T | 5~1002 | 2.4(25°C) 2.6(-40~+85°C) | 28(1125~1675MHz) | 1.9 | 75 | 3.20x2.50x1.00 | B-1 |
| RFLPF3225200Q5T | 5~1002 | 1.8(25°C) 2.05(-40~+85°C) | 33(1125~1400MHz) 26(1400~1675MHz) | 2.0 | 75 | 3.20x2.50x1.80 | H |

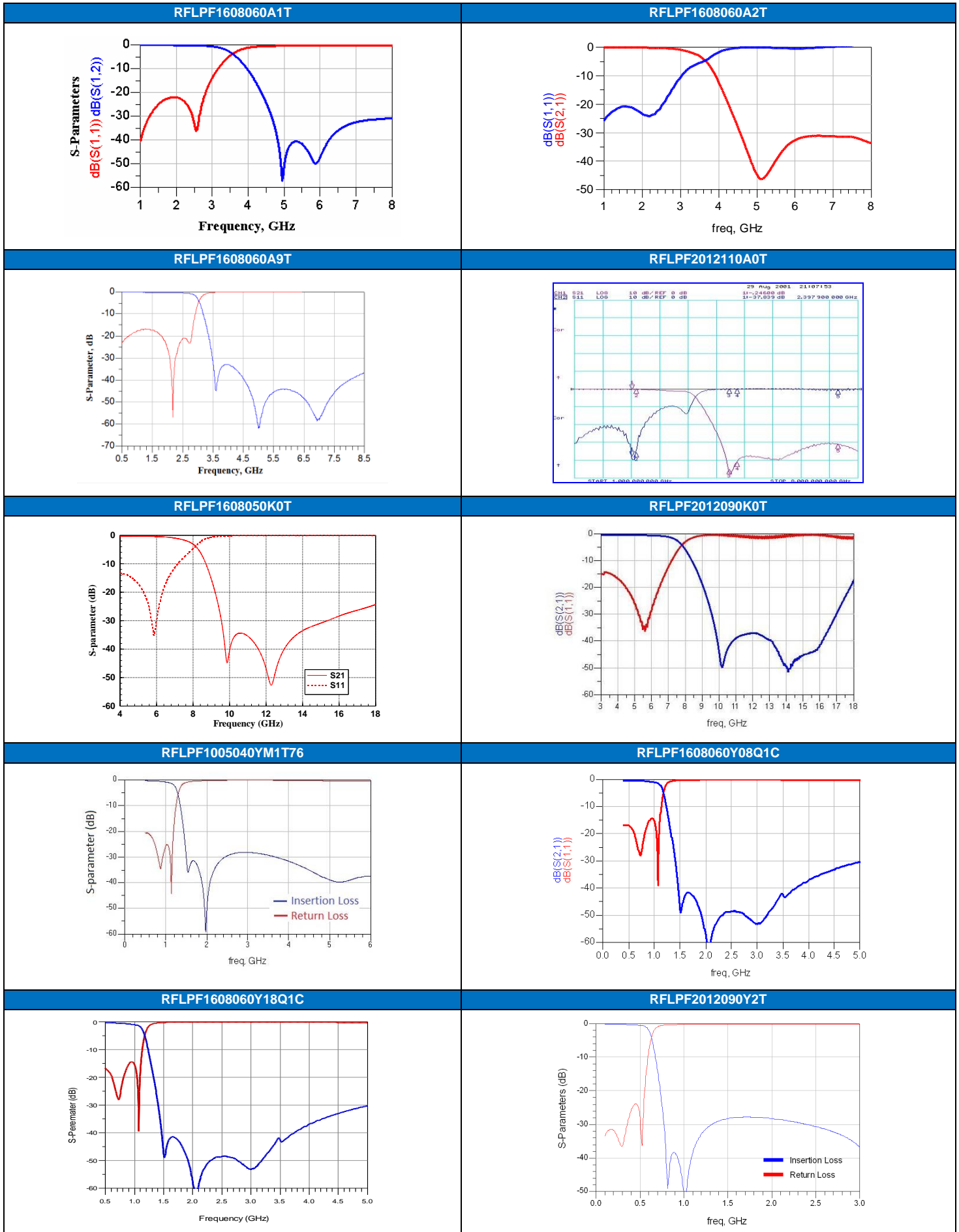
■ TYPICAL ELECTRICAL CHARACTERISTICS



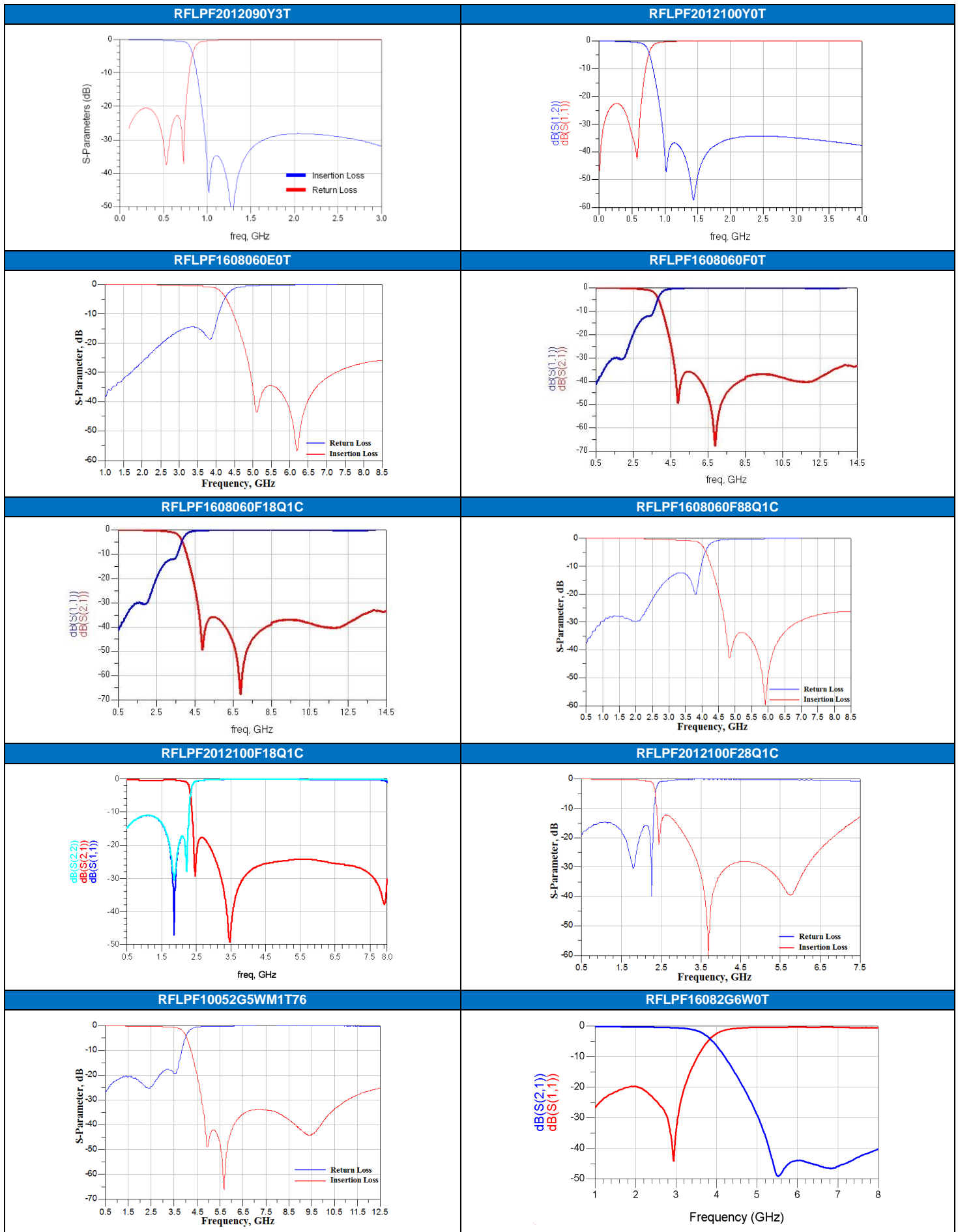


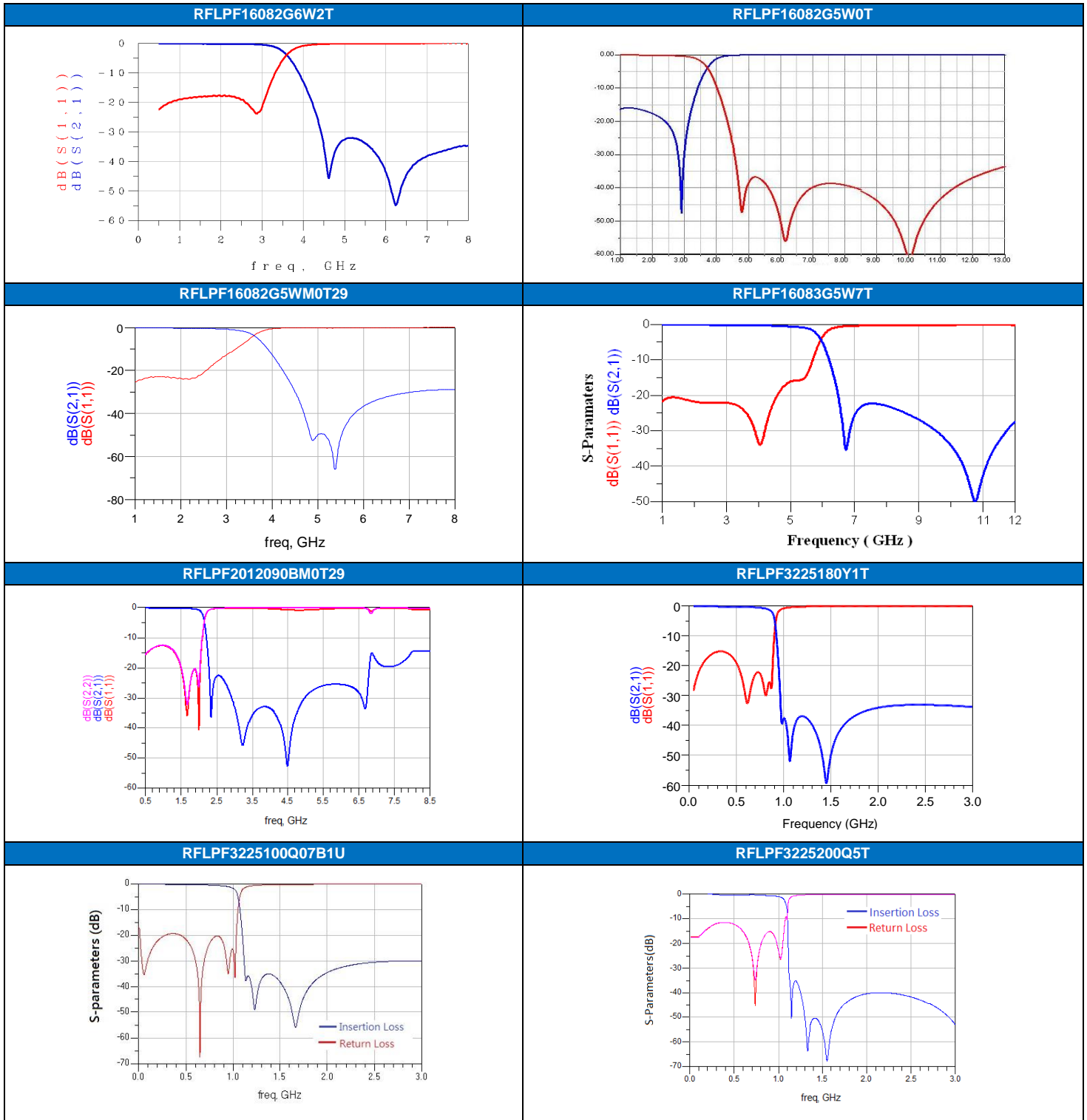
HIGH FREQUENCY MULTILAYER LOW PASS FILTER





HIGH FREQUENCY MULTILAYER LOW PASS FILTER



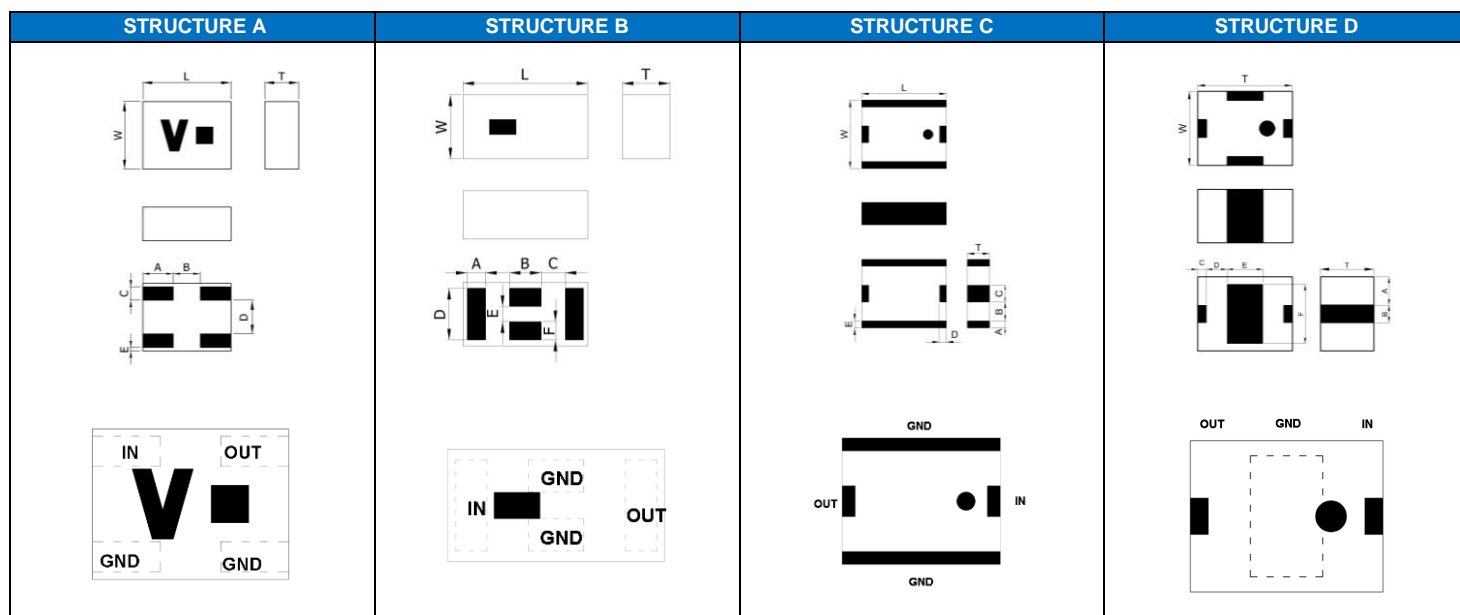


- For more information, please contact with local sales representative
- All specifications are subject to change without notice

HIGH FREQUENCY MULTILAYER HIGH PASS FILTER

HIGH FREQUENCY MULTILAYER HIGH PASS FILTER

■ STRUCTURE AND PIN ASSOCIATED



■ STRUCTURE AND DIMENSION

Unit: mm

| Structure\ Dimension | L | W | T | A | B | C | D | E | F |
|----------------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|
| A | 0.65 ± 0.10 | 0.50 ± 0.10 | 0.4 max. | 0.225 ± 0.10 | 0.20 ± 0.05 | 0.10 ± 0.10 | 0.20 ± 0.05 | 0.05 ± 0.05 | - |
| B | 1.60 ± 0.15 | 0.80 ± 0.15 | 0.60 ± 0.10 | 0.23 ± 0.05 | 0.40 ± 0.10 | 0.30 ± 0.10 | 0.65 ± 0.10 | 0.20 ± 0.05 | 0.23 ± 0.05 |
| C | 2.50 ± 0.20 | 2.00 ± 0.20 | 0.90 ± 0.10 | 0.20 ± 0.20 | 0.55 ± 0.20 | 0.50 ± 0.20 | 0.20 ± 0.20 | 0.20 ± 0.20 | - |
| D | 3.20 ± 0.20 | 2.50 ± 0.20 | 1.7 max. | 0.95 ± 0.20 | 0.60 ± 0.20 | 0.30 ± 0.15 | 0.70 ± 0.15 | 1.20 ± 0.15 | 2.00 ± 0.15 |

■ ELECTRICAL SPECIFICATION

ISM 2.4/ 5GHz Band Application

| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Size (mm) | Structure |
|------------------|-----------------------|-------------------------------------|--------------------------------------|-------------|----------------|-----------|
| RFHPPF2520090L0T | 2400~2500 | 2.0max.(25°C) 2.3max.(-40~+85°C) | 30(869~960 MHz) 45(1805~1990 MHz) | 2 | 2.50x2.00x0.90 | C |
| | 5150~5825 | 1.3max.(25°C) 1.6max.(-40~+85°C) | 30(869~960 MHz) 45(1805~1990 MHz) | 2 | | |

2496 ~ 2690 MHz BAND WORKING FREQUENCY

| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Size (mm) | Structure |
|------------------|-----------------------|-------------------------------------|------------------------|-------------|-----------------|-----------|
| RFHPPF16082G5W0T | 2496~2690 | 1.2max.(25°C) 1.3max.(-40~+85°C) | 25(1710~1995MHz) | 2.0 | 1.6 X 0.8 X 0.6 | B |

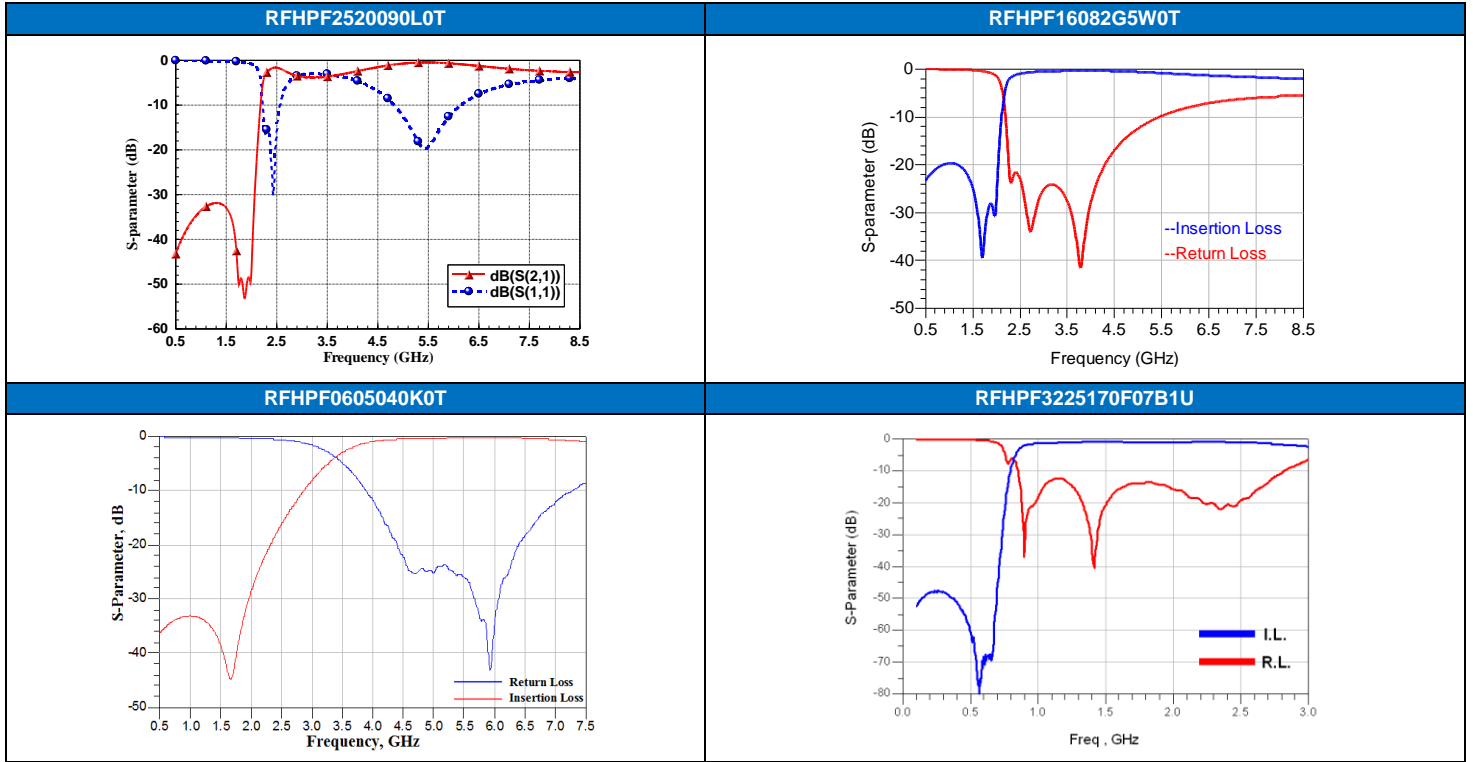
5GHz BAND WORKING FREQUENCY

| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Size (mm) | Structure |
|------------------|-----------------------|---------------------------------------|------------------------|-------------|------------------|-----------|
| RFHPPF0605040K0T | 4900~5840 | 0.60max.(25°C) 0.65max.(-40~+85°C) | 14(2400~2500MHz) | 1.6 | 0.65 X 0.5 X 0.4 | A |

MoCA Application

| Part Number | Frequency Range (MHz) | Insertion Loss (dB) | Attenuation (dB min.) | VSWR (max.) | Size (mm) | Structure |
|---------------------|-----------------------|--------------------------------------|------------------------|-------------|-----------------|-----------|
| RFHPPF3225170F07B1U | 950~2150 | 2.00max.(25°C) 2.2max.(-40~+85°C) | 50(475~675MHz) | 2.0 | 3.2 X 2.5 X 1.7 | DC |

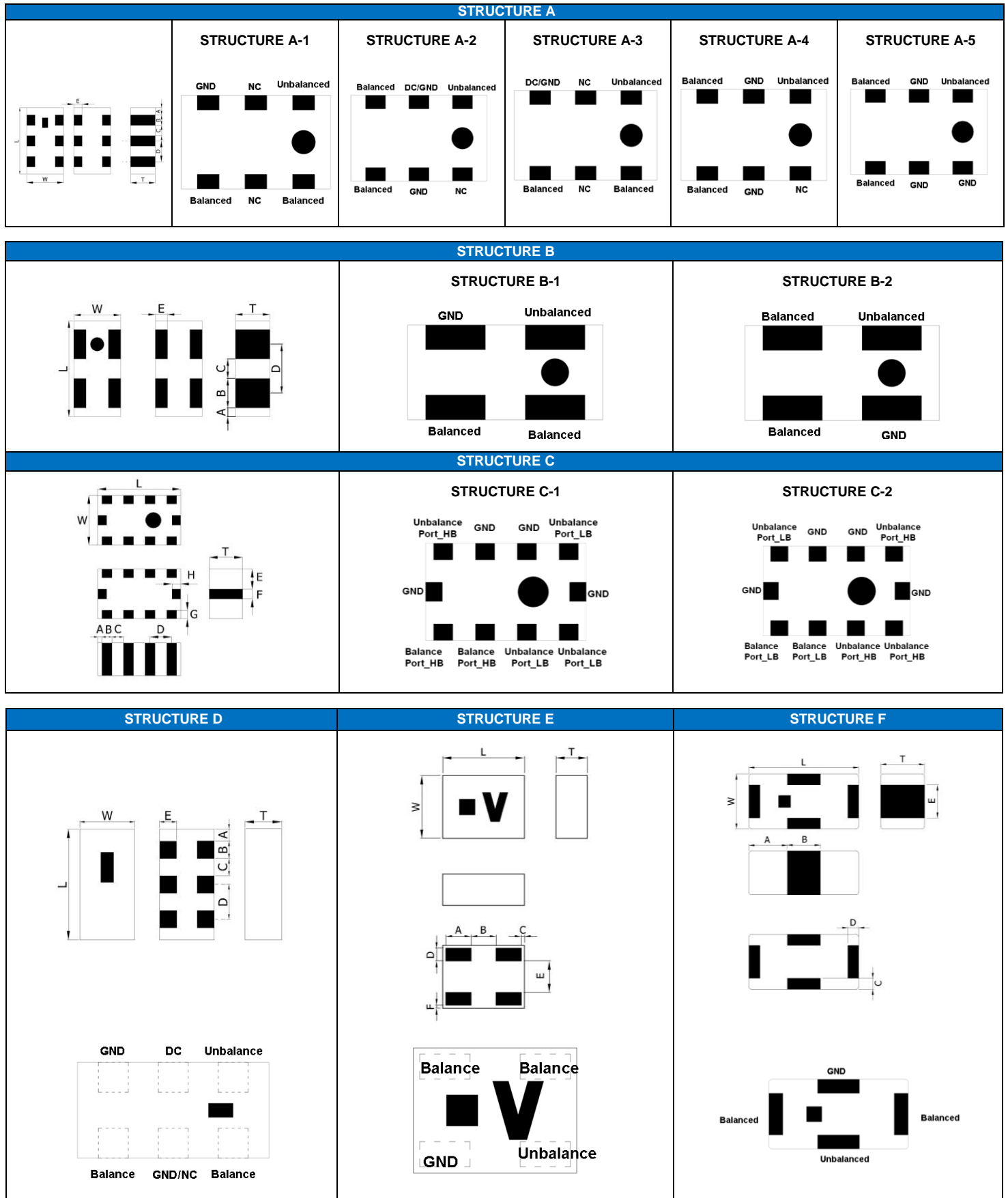
■ TYPICAL ELECTRICAL CHARACTERISTICS



- For more information, please contact with local sales representative
- All specifications are subject to change without notice

BALUN TRANSFORMERS

■ STRUCTURE AND PIN ASSOCIATED



■ STRUCTURE AND DIMENSION

Unit: mm

| Structure/Dimension | L | W | T | A | B | C | D | E | F | G | H |
|---------------------|-----------|-----------|-----------|------------|------------|-------------|-----------|------------|-------------|-----------|-----------|
| A | 1.60±0.10 | 0.85±0.10 | 0.70±0.10 | 0.20±0.10 | 0.20±0.10 | 0.30±0.10 | 0.50±0.05 | 0.50±0.05 | - | - | - |
| | 1.60±0.15 | 0.80±0.10 | 0.50±0.10 | 0.175±0.15 | 0.25±0.15 | 0.25±0.15 | 0.50±0.15 | 0.20±0.15 | - | - | - |
| | | | 0.85±0.10 | 0.40 max. | 0.175±0.15 | 0.25±0.15 | 0.25±0.15 | 0.50±0.15 | 0.20±0.15 | - | - |
| | | 0.85±0.15 | 0.60±0.10 | 0.175±0.15 | 0.25±0.15 | 0.25±0.15 | 0.50±0.15 | 0.20±0.15 | - | - | - |
| | | | 0.70±0.10 | 0.175±0.15 | 0.25±0.15 | 0.25±0.15 | 0.50±0.15 | - | - | - | - |
| | 2.00±0.15 | 1.25±0.15 | 0.80±0.10 | 0.20±0.20 | 0.30±0.20 | 0.35±0.20 | 0.65±0.20 | - | - | - | - |
| | | | 0.85±0.10 | 0.20±0.20 | 0.30±0.20 | 0.35±0.20 | 0.65±0.20 | - | - | - | - |
| | | | 0.80±0.10 | 0.20±0.15 | 0.30±0.20 | 0.35±0.20 | 0.65±0.20 | - | - | - | - |
| 0.95±0.10 | | | 0.20±0.20 | 0.30±0.20 | 0.35±0.20 | 0.65±0.20 | - | - | - | - | |
| B | 1.00±0.10 | 0.50±0.10 | 0.37±0.10 | 0.10±0.10 | 0.30±0.10 | 0.20±0.10 | 0.50±0.10 | 0.125±0.10 | - | - | - |
| | 1.00±0.10 | 0.50±0.10 | 0.40±0.10 | 0.10±0.10 | 0.30±0.10 | 0.20±0.10 | 0.50±0.10 | 0.125±0.10 | - | - | - |
| C | 2.00±0.10 | 1.25±0.15 | 0.90±0.10 | 0.125±0.10 | 0.25±0.10 | 0.25±0.10 | 0.50±0.10 | 0.475±0.10 | 0.30±0.10 | 0.20±0.15 | 0.20±0.15 |
| D | 1.60±0.15 | 0.80±0.15 | 0.50±0.10 | 0.175±0.10 | 0.25±0.10 | 0.25±0.10 | 0.50±0.10 | 0.25±0.10 | - | - | - |
| E | 0.65±0.10 | 0.50±0.10 | 0.40±0.10 | 0.20±0.05 | 0.20±0.05 | 0.025±0.025 | 0.10±0.05 | 0.25±0.05 | 0.025±0.025 | - | - |
| F | 1.00±0.10 | 0.50±0.10 | 0.5 max. | 0.35±0.10 | 0.30±0.10 | 0.15±0.10 | 0.15±0.10 | 0.30±0.10 | - | - | - |

■ ELECTRICAL SPECIFICATION

ISM Band 2.4GHz APPLICATION

| Part Number | Frequency Range (MHz) | Impedance(Ω) | | Return Loss (dB)Min. | Insertion Loss (dB) | Amplitude Difference (dB)Max. | Phase Difference | Size(mm) | Structure |
|--------------------|-----------------------|--------------|--------------------------------------|----------------------|---------------------------|-------------------------------|------------------|----------------|-----------|
| | | Unbalance | Balance | | | | | | |
| RFBLN1005040A3T | 2400~2500 | 50 | Conjugate match to AR6003 chipset | 10 | 1.4 | 2.0 | 180± 10 | 1.00x0.50x0.40 | B-1 |
| RFBLN1005040A6T | 2400~2500 | 50 | 50 | 10 | 0.8 | 2.0 | 180± 10 | 1.00x0.50x0.40 | B-2 |
| RFBLN1608050AAT | 2400~2500 | 50 | Conjugate match to AR6003 chipset | 10 | 1.2 | 2.0 | 180± 10 | 1.60x0.80x0.50 | D |
| RFBLN1608060AM1T59 | 2400~2500 | 50 | 200 | 10 | 1.2 | 2.0 | 180± 10 | 1.60x0.80x0.65 | A-3 |
| RFBLN1608050AM8T62 | 2400~2500 | 50 | 50 | 10 | 1.2 | 2.0 | 180± 10 | 1.60x0.80x0.50 | A-2 |
| RFBLN1608050AM0T63 | 2400~2500 | 50 | 50 | 10 | 1.0 | 1.0 | 180± 10 | 1.60x0.80x0.55 | A-2 |
| RFBLN1608050AM6T30 | 2400~2500 | 50 | 35 | 10 | 1.0 | 1.0 | 180± 10 | 1.60x0.80x0.55 | A-2 |
| RFBLN1608060AC6T40 | 2400~2500 | 50 | Conjugate match to TI CC26XX Chipset | 10 | 1.6(25℃) 1.8(-40~+85℃) | 2.3 | 180± 18 | 1.60x0.80x0.60 | A-5 |
| RGBLN1608070A1T | 2400~2500 | 50 | 100 | 10 | 1.5 | 2.0 | 180± 15 | 1.60x0.85x0.70 | A-1 |
| RFBLN1608070A3T | 2400~2500 | 50 | 100 | 10 | 1.0 | 2.0 | 180± 10 | 1.60x0.85x0.70 | A-1 |
| RFBLN1608070A4T | 2400~2500 | 50 | 100 | 10 | 1.0 | 2.0 | 180± 10 | 1.60x0.80x0.70 | A-1 |
| RGBLN1608070A5T | 2400~2500 | 50 | 100 | 10 | 1.2 | 2.0 | 180± 10 | 1.60x0.80x0.70 | A-2 |
| RGBLN2012080A5T | 2400~2500 | 50 | 50 | 12 | 1.0 | 1.0 | 180± 10 | 2.00x1.25x0.85 | A-2 |
| RFBLN2012080A7T | 2400~2500 | 50 | 100 | 10 | 1.0 | 2.0 | 180± 10 | 2.00x1.25x0.80 | A-2 |
| RGBLN2012090A0T | 2400~2500 | 50 | 50 | 10 | 1.2 | 2.0 | 180± 10 | 2.00x1.25x0.95 | A-2 |
| RFBLN2012090A1T | 2400~2500 | 50 | 100 | 10 | 1.0 | 2.0 | 180± 10 | 2.00x1.25x0.95 | A-2 |

ISM Band 2.4GHz APPLICATION

| Part Number | Frequency Range (MHz) | Impedance(Ω) | | Return Loss (dB)Min | Insertion Loss (dB) | Amplitude Difference (dB)Max. | Phase Difference | Size (mm) | Structure |
|-----------------|-----------------------|--------------|---------|---------------------|---------------------|-------------------------------|------------------|----------------|-----------|
| | | Unbalance | Balance | | | | | | |
| RFBLN1005040K1T | 4900~5950 | 50 | 50 | 10 | 1.2 | 2.0 | 180± 10 | 1.00x0.50x0.40 | B-2 |
| RFBLN2012090K0T | 4900~5900 | 50 | 50 | 10 | 1.1 | 2.0 | 180± 10 | 2.00x1.25x0.95 | A-4 |
| RFBLN2012090K1T | 4900~5900 | 50 | 100 | 10 | 1.2 | 2.0 | 180± 10 | 2.00x1.25x0.95 | A-4 |

LTE Band APPLICATION

| Part Number | Frequency Range (MHz) | Impedance(Ω) | | Return Loss (dB)Min | Insertion Loss (dB) | Amplitude Difference (dB)Max. | Phase Difference | Size (mm) | Structure |
|--------------------|-----------------------|--------------|---------|---------------------|-----------------------------|-------------------------------|------------------|----------------|-----------|
| | | Unbalance | Balance | | | | | | |
| RFBLN16080G9D2T | 699~960 | 50 | 100 | 10 | 1.05(25℃) 1.15(-40~+85℃) | 2.5 | 180± 15 | 1.60x0.80x0.70 | A-4 |
| RFBLN1005040YM1T69 | 703~803 | 50 | 100 | 10 | 0.80 | 2.0 | 180± 12 | 1.00x0.50x0.40 | F |

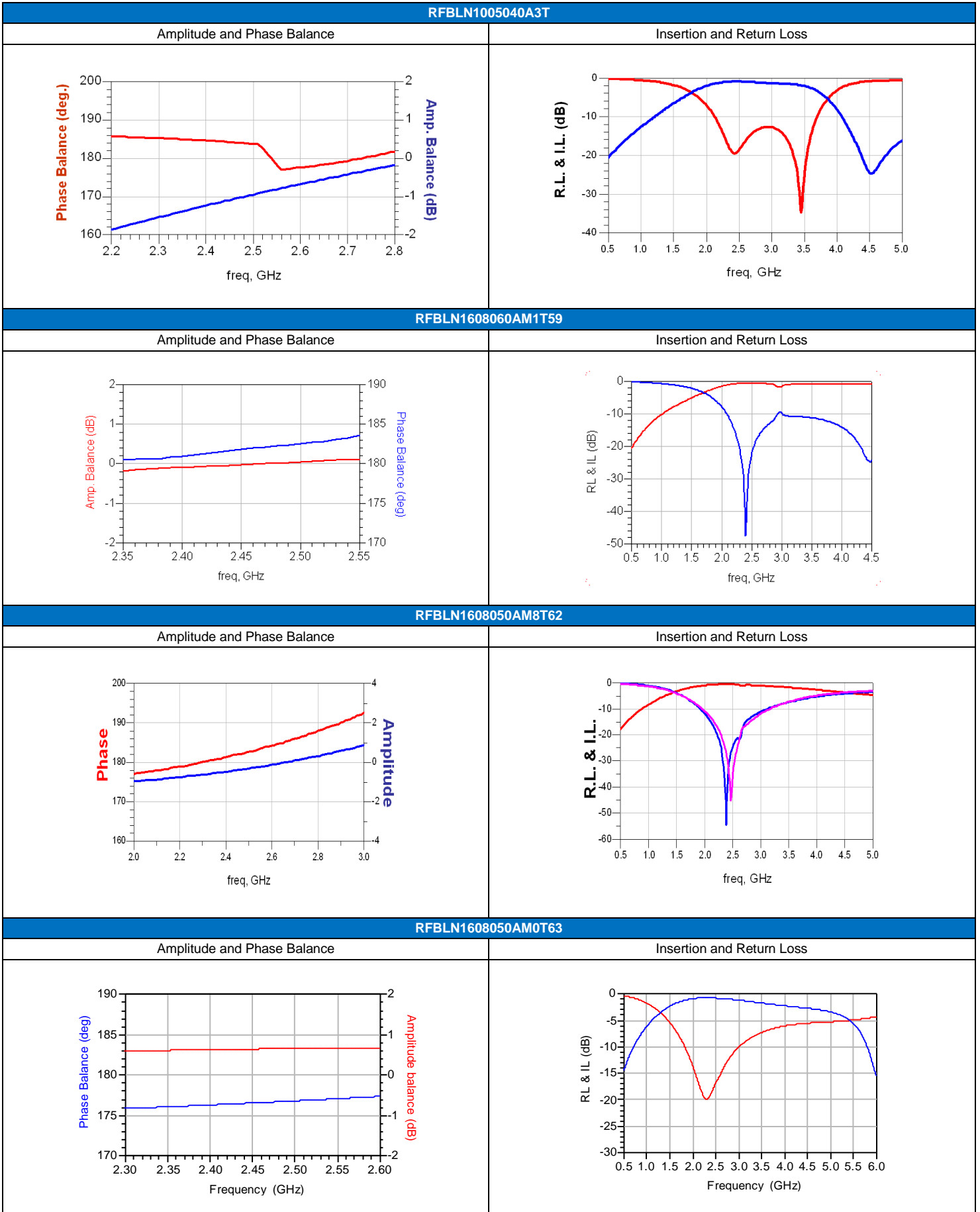
LTE Band APPLICATION

| Part Number | Frequency Range (MHz) | Impedance(Ω) | | Return Loss (dB)Min | Insertion Loss (dB) | Amplitude Difference (dB)Max. | Phase Difference | Size (mm) | Structure |
|--------------------|------------------------|-----------------------|---------|---------------------|-------------------------------|-------------------------------|------------------|----------------|-----------|
| | | Unbalance | Balance | | | | | | |
| RFBLN0605040Y1T | 717~821 | 50 | 100 | 15 | 0.55(25°C) 0.65(-40~+85°C) | 2.0 | 180± 10 | 0.65x0.50x0.40 | E |
| RFBLN0605040YM9T16 | 729~821 | 50 | 100 | 10 | 0.55(25°C) 0.65(-40~+85°C) | 2.0 | 180± 10 | 0.65x0.50x0.40 | E |
| RFBLN0605040Y09FNH | 729~869 | 50 | 100 | 15 | 0.55(25°C) 0.65(-40~+85°C) | 2.5 | 180± 10 | 0.65x0.50x0.40 | E |
| RFBLN06050G9D0T | 729~960 | 50 | 100 | 15 | 0.85(25°C) 0.95(-40~+85°C) | 4.8 | 180± 10 | 0.65x0.50x0.40 | E |
| RFBLN16080G9D3T | 824~894 | 50 | 50 | 10 | 1.2 | 1.0 | 180± 10 | 1.60x0.80x0.60 | A-2 |
| RFBLN20120G9D0T | 824~894 | 50 | 100 | 10 | 1.2 | 1.0 | 180± 10 | 2.00x1.25x0.90 | A-2 |
| RFBLN1608070F48Q1C | 673~2700 | 50 | 100 | 10 | 1.7(25°C) 2.0(-40~+85°C) | 1.5 | 180± 17 | 1.60x0.80x0.70 | A-4 |
| RFBLN2012090E0T | 1500~3000 | 50 | 100 | 10 | 1.0 | 2.0 | 180± 10 | 2.00x1.25x0.90 | A-4 |
| RFBLN20121G8D1T | 1700~2000 | 50 | 100 | 10 | 1.0 | 2.0 | 180± 10 | 2.00x1.25x0.95 | A-2 |
| RFBLN06051G8DM1T69 | 1805~1990 | 50 | 100 | 10 | 0.60(25°C) 0.65(-40~+85°C) | 1.8 | 180± 10 | 0.65x0.50x0.40 | E |
| RFBLN10051G9D1T | 1805~1990 | 50 | 100 | 10 | 0.60(25°C) 0.70(-40~+85°C) | 2.2 | 180± 12 | 1.00x0.50x0.40 | B-2 |
| RFBLN10051G9D0T | 1805~2020 | 50 | 100 | 10 | 0.65(25°C) 0.75(-40~+85°C) | 2.0 | 180± 10 | 1.00x0.50x0.40 | B-2 |
| RFBLN10051G8D1T | 1805~2170 | 50 | 100 | 10 | 0.65(25°C) 0.70(-40~+85°C) | 3.0 | 180± 15 | 1.00x0.50x0.40 | E |
| RFBLN1005040F1T | 1805~2170 | 50 | 100 | 10 | 0.70(25°C) 0.80(-40~+85°C) | 1.2 | 180± 15 | 1.00x0.50x0.40 | F |
| RFBLN2012090F0T | 1920~1980 2110~2170 | 50 | 50 | 10 | 1.0 | 2.0 | 180± 10 | 2.00x1.25x0.95 | A-2 |
| RFBLN0605040E0T | 2000~2500 | 50 | 100 | 10 | 0.60(25°C) 0.70(-40~+85°C) | 3.5 | 180± 10 | 0.65x0.50x0.40 | E |
| RFBLN06052G5WM9T16 | 2300~2690 | 50 | 100 | 10 | 0.55(25°C) 0.65(-40~+85°C) | 2.5 | 180± 10 | 0.65x0.50x0.40 | E |
| RFBLN10052G5WM9T16 | 2300~2690 | 50 | 100 | 10 | 0.55(25°C) 0.65(-40~+85°C) | 2.5 | 180± 10 | 1.00x0.50x0.40 | B-1 |
| RFBLN10052G5W37N2T | 2300~2690 | 50 | 100 | 10 | 0.65(25°C) 0.75(-40~+85°C) | 2.5 | 180± 10 | 1.00x0.50x0.40 | B-2 |
| RFBLN16082G5W0T | 2300~2700 | 50 | 100 | 10 | 1.1 | 2.0 | 180± 10 | 1.60x0.80x0.70 | A-2 |
| RFBLN16082G5W38Q1C | 2300~2700 | 50 | 100 | 10 | 0.55(25°C) 0.65(-40~+85°C) | 1.0 | 180± 10 | 1.60x0.80x0.40 | A-4 |
| RFBLN16082G5W4T | 2300~2700 | 50 | 50 | 10 | 1.2 | 2.0 | 180± 10 | 1.60x0.80x0.50 | A-2 |

GSM 850/ GSM 900/ DCS1800/ PCS1900 APPLICATION

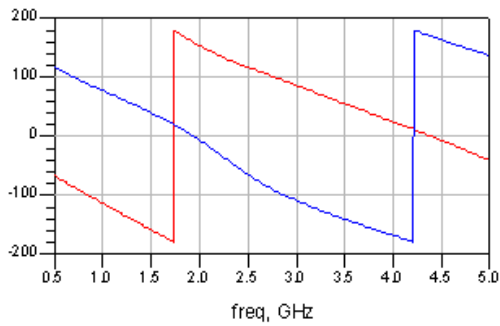
| Part Number | Frequency Range (MHz) | Unbalance | Balance | Return Loss (dB)Min | Insertion Loss (dB) | Amplitude Difference (dB)Max | Attenuation (dB min.) | Phase Difference | Size(mm) | Structure |
|--------------------|-----------------------|-----------|---------|---------------------|-----------------------------|------------------------------|--|------------------|----------------|-----------|
| RFBLN2012090BM5T25 | 869~960 | 50 | 200 | 10 | 1.1 | 2.0 | 10(1738~1920MHz) 20(2400~2500MHz) 20(2607~2880MHz) | 180± 10 | 2.00x1.25x0.95 | C-1 |
| | 1805~2025 | 50 | 200 | 10 | 1.8 | 2.0 | 15(2400~2500MHz) 20(3610~3980MHz) 20(5415~5970MHz) | 180± 15 | | |
| RFBLN2012090BS0T53 | 869~960 | 50 | 200 | 10 | 1.1(25°C) 1.3(-40~+85°C) | 2.0 | 10(1738~1920MHz) 20(2400~2500MHz) 20(2607~2880MHz) | 180± 15 | 2.00x1.25x0.95 | C-1 |
| | 1805~1990 | 50 | 200 | 10 | 1.6(25°C) 1.8(-40~+85°C) | 2.0 | 15(2400~2500MHz) 15(3610~3980MHz) 20(5415~5970MHz) | 180± 15 | | |
| RFBLN2012090BS0T50 | 869~960 | 50 | 200 | 10 | 1.1(25°C) 1.3(-40~+85°C) | 2.0 | 10(1738~1920MHz) 20(2400~2500MHz) 20(2607~2880MHz) | 180± 15 | 2.00x1.25x0.95 | C-2 |
| | 1805~2025 | 50 | 200 | 10 | 1.8(25°C) 2.0(-40~+85°C) | 2.0 | 15(2400~2500MHz) 15(3610~3980MHz) 20(5415~5970MHz) | 180± 15 | | |

■ TYPICAL ELECTRICAL CHARACTERISTICS

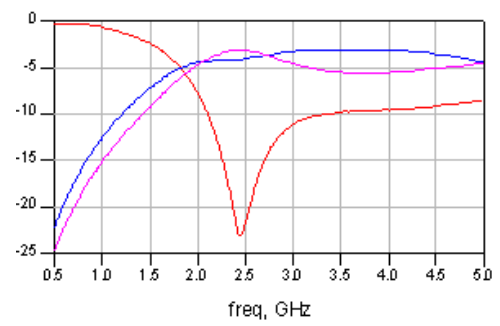


RFBLN2012080A7T

Amplitude and Phase Balance

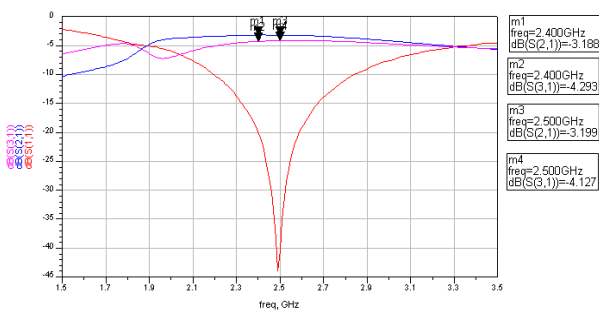


Insertion and Return Loss

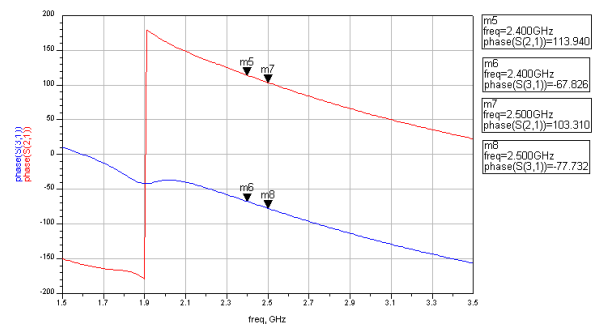


RGBLN2012090A0T

Amplitude and Phase Balance

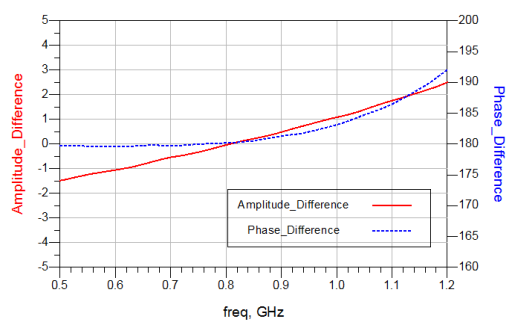


Insertion and Return Loss

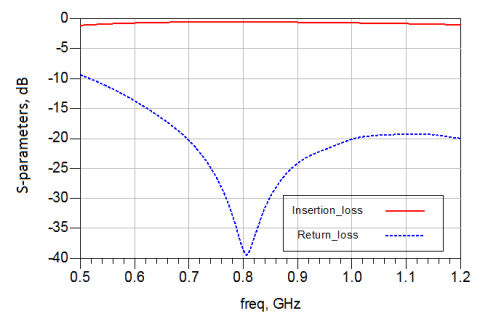


RFBLN16080G9D2T

Amplitude and Phase Balance

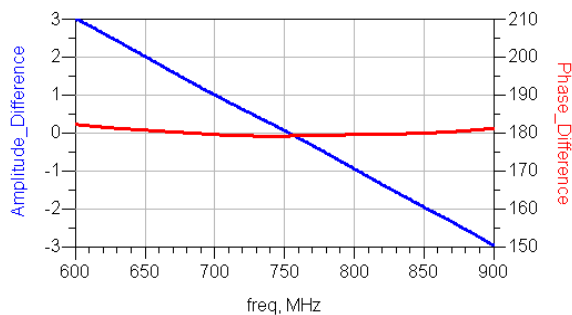


Insertion and Return Loss

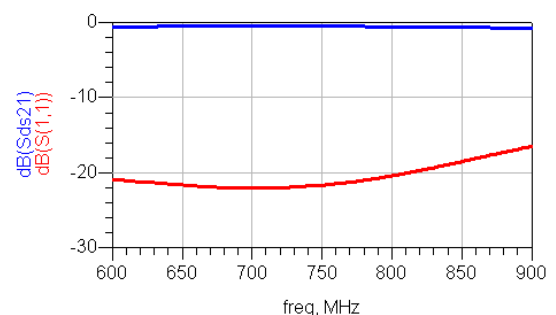


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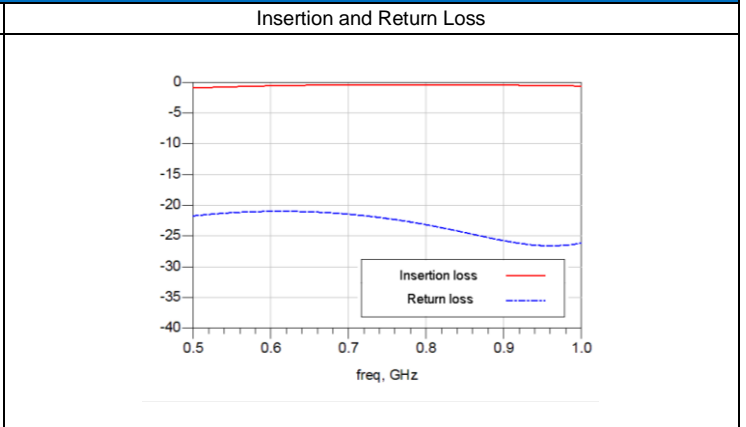
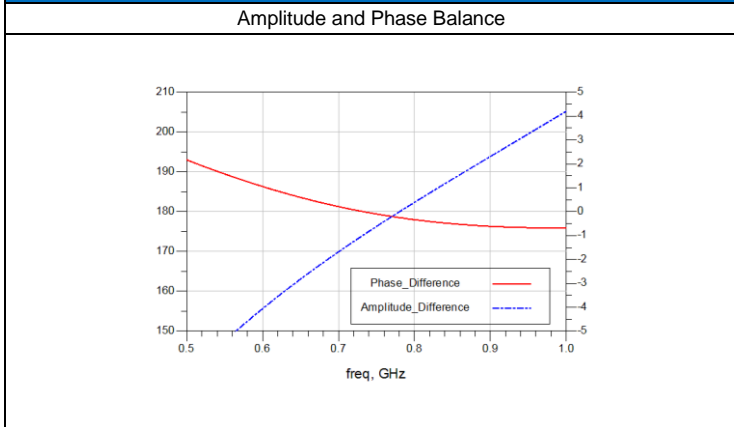
Amplitude and Phase Balance



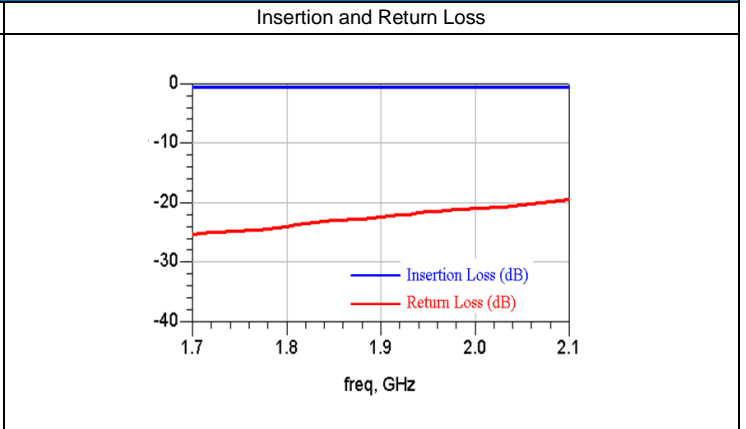
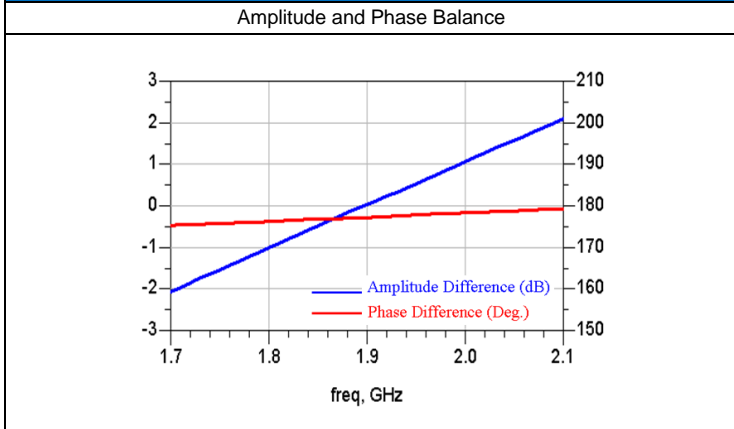
Insertion and Return Loss



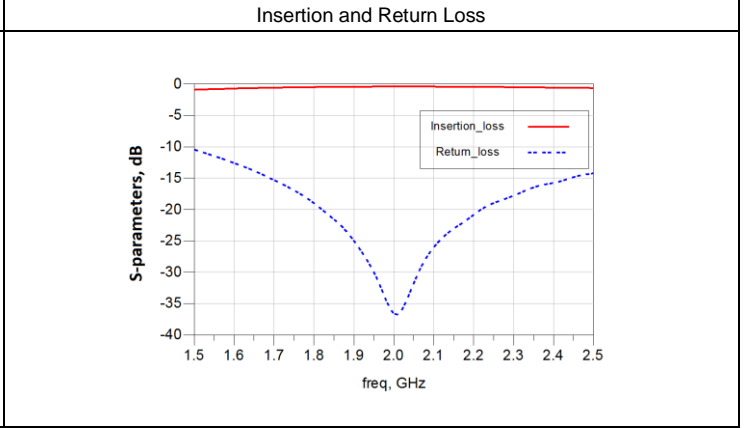
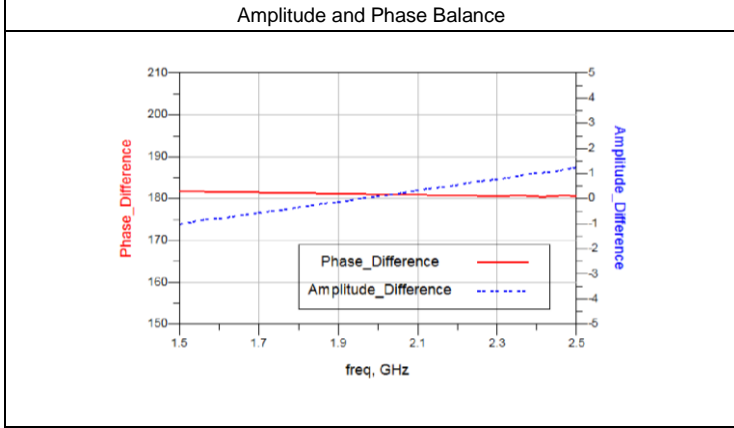
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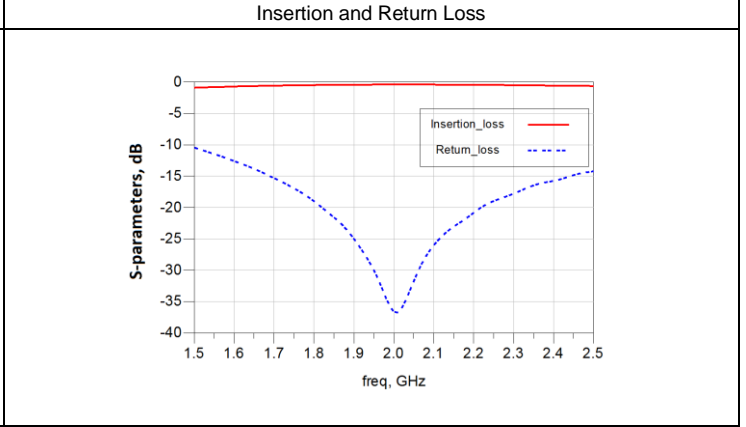
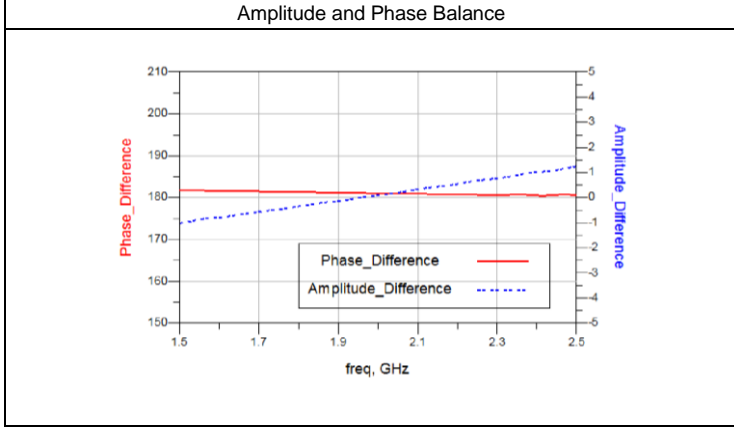
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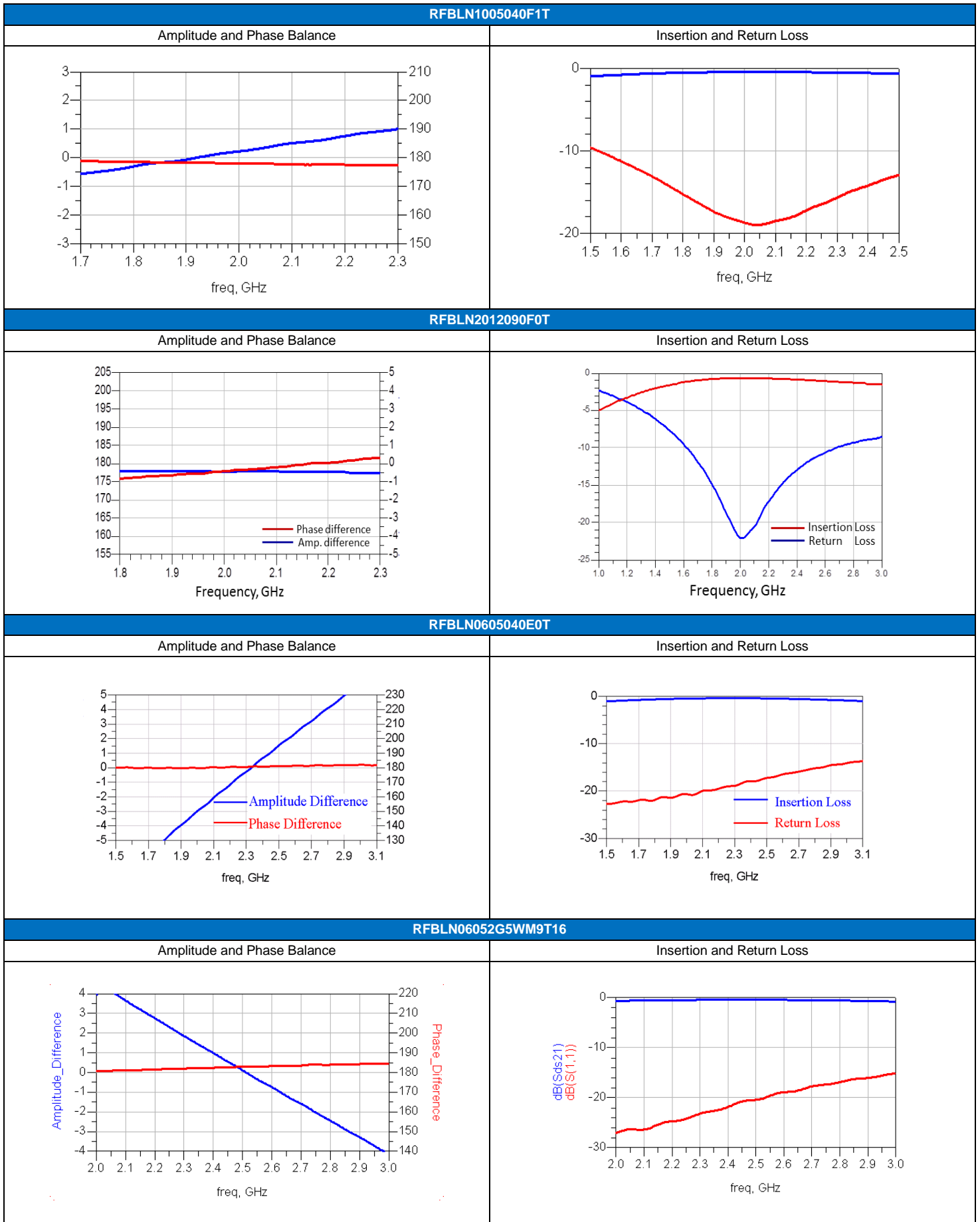


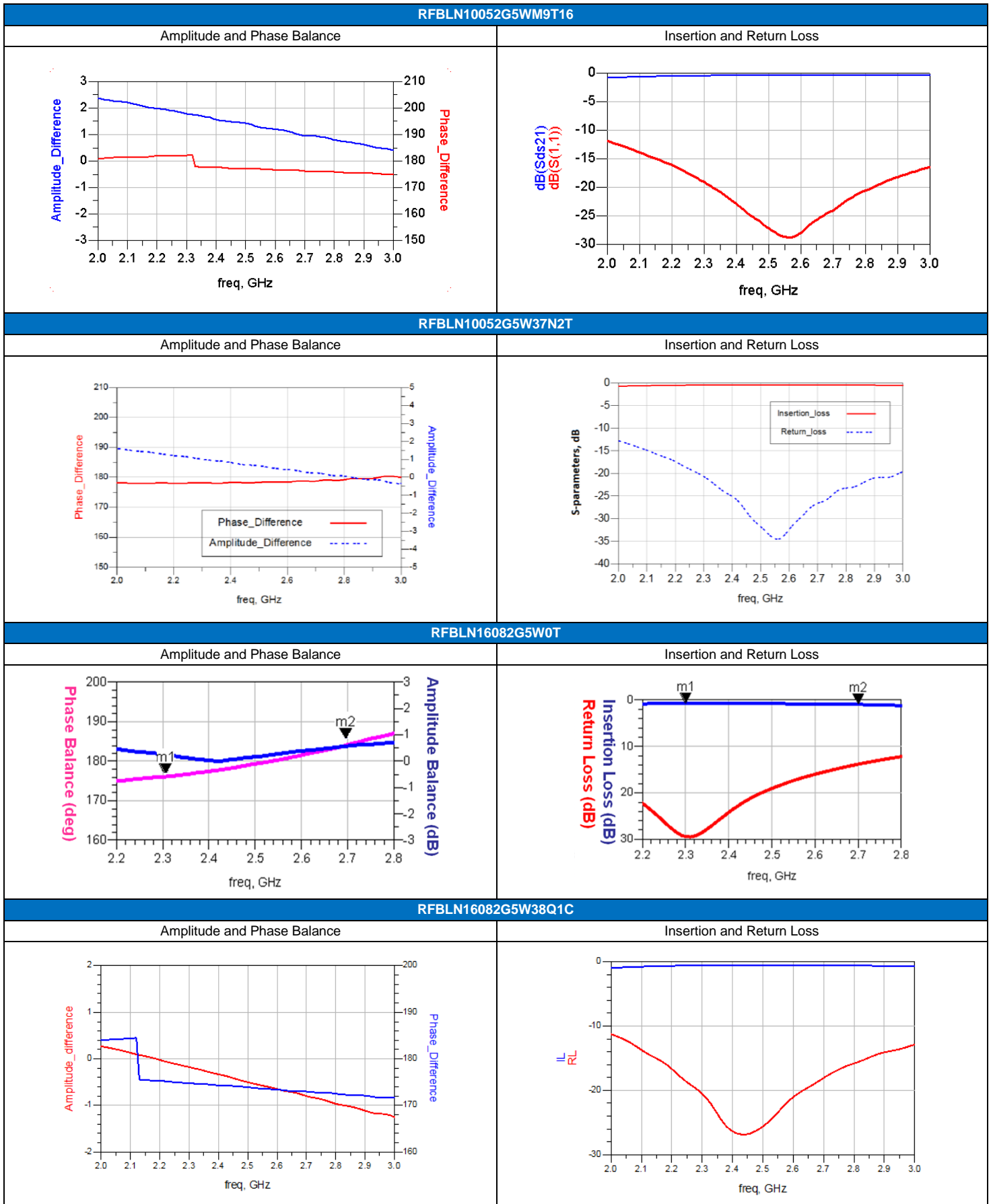
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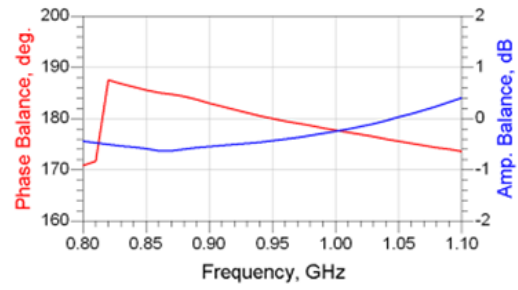
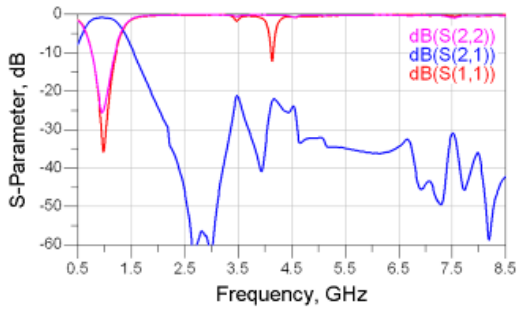




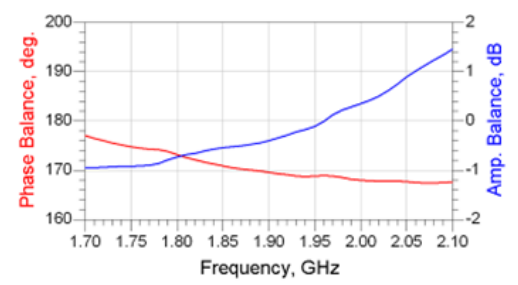
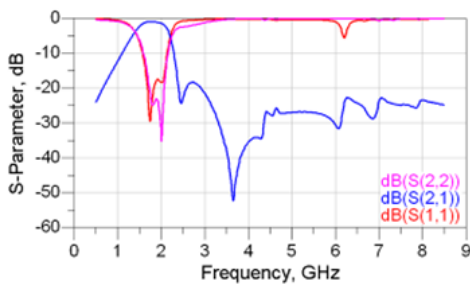


RFBLN2012090BM5T25

Low Band

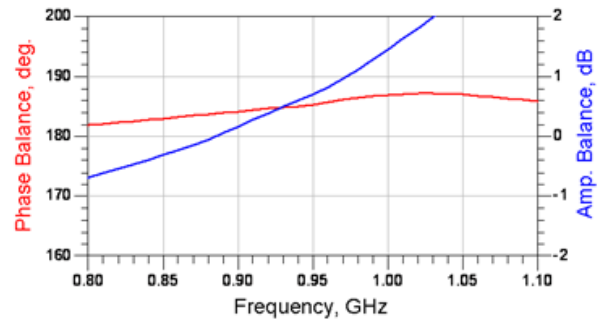
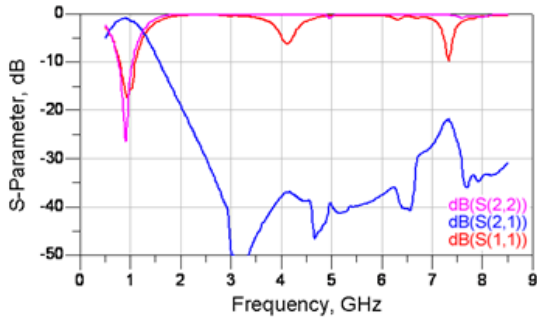


High Band

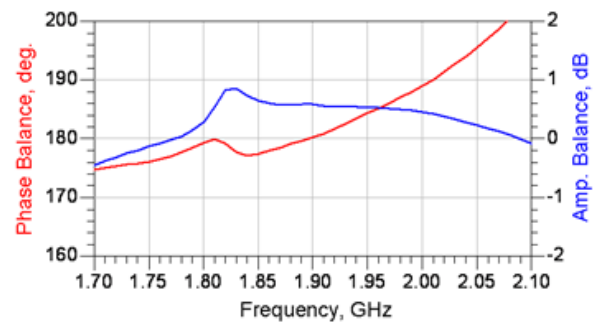
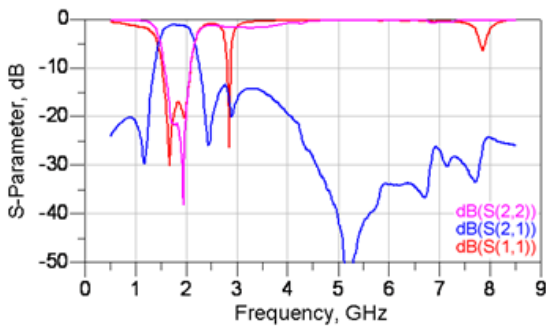


RFBLN2012090BS0T53

Low Band



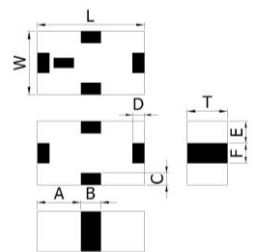
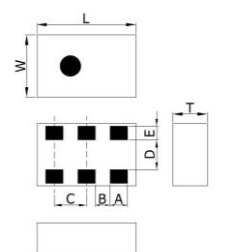
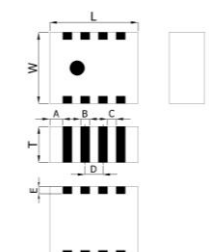
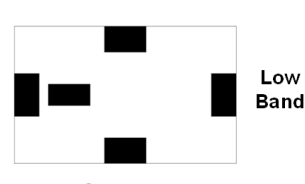
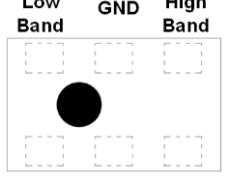
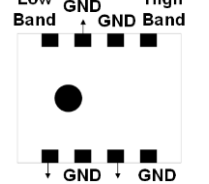
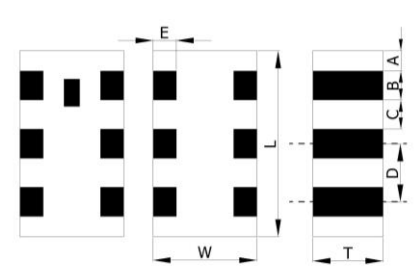
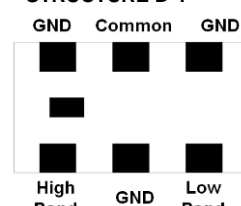
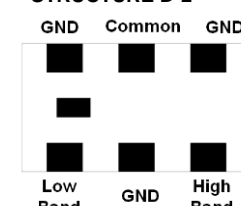
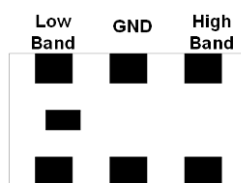
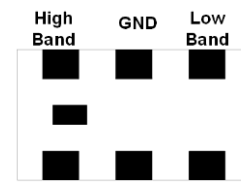
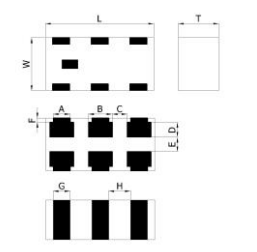
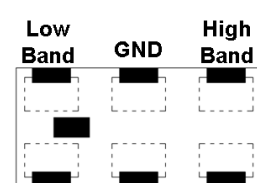
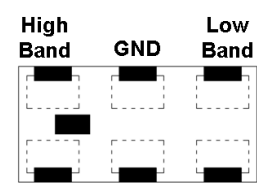
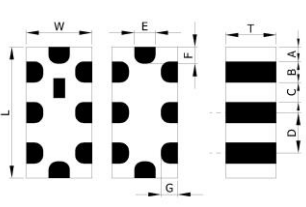
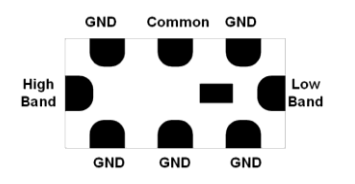
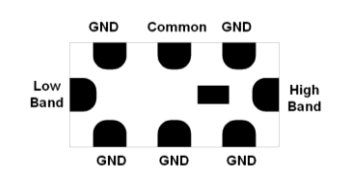
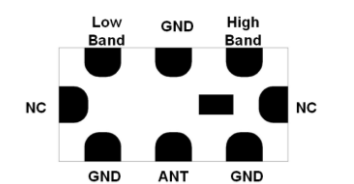
High Band



- For more information, please contact with local sales representative
- All specifications are subject to change without notice

DIPLEXER

■ STRUCTURE AND PIN ASSOCIATED

| STRUCTURE A | STRUCTURE B | STRUCTURE C | |
|---|---|---|---|
|  |  |  | |
| <p>GND</p>  | <p>Low Band GND High Band</p>  <p>GND Common GND</p> | <p>Low Band GND High Band</p>  <p>GND Common GND</p> | |
| STRUCTURE D | | | |
|  | <p>STRUCTURE D-1</p> <p>GND Common GND</p>  <p>High Band GND Low Band</p> | <p>STRUCTURE D-2</p> <p>GND Common GND</p>  <p>Low Band GND High Band</p> | |
| | <p>STRUCTURE D-3</p> <p>Low Band GND High Band</p>  <p>GND Common GND</p> | <p>STRUCTURE D-4</p> <p>High Band GND Low Band</p>  <p>GND Common GND</p> | |
| | STRUCTURE E | | |
| |  | <p>STRUCTURE E-1</p> <p>Low Band GND High Band</p>  <p>GND Common GND</p> | <p>STRUCTURE E-2</p> <p>High Band GND Low Band</p>  <p>GND Common GND</p> |
| STRUCTURE F | | | |
|  | <p>STRUCTURE F-1</p> <p>GND Common GND</p>  | <p>STRUCTURE F-2</p> <p>GND Common GND</p>  | <p>STRUCTURE F-3</p> <p>Low Band GND High Band</p>  |

■ STRUCTURE AND DIMENSION

Unit: mm

| Structure/ Dimension | L | W | T | A | B | C | D | E | F |
|-------------------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|------------|-----------|
| A | 2.00±0.15 | 1.25±0.15 | 0.95±0.10 | 0.20±0.20 | 0.30±0.20 | 0.35±0.20 | 0.65±0.20 | 0.25±0.20 | 0.30±0.20 |
| B | 2.00±0.15 | 1.25±0.15 | 0.70±0.10 | 0.35±0.10 | 0.30±0.10 | 0.65±0.10 | 0.60±0.10 | 0.275±0.10 | - |
| | | | 0.90±0.10 | 0.35±0.10 | 0.30±0.10 | 0.65±0.10 | 0.60±0.10 | 0.275±0.10 | - |
| C | 2.50±0.15 | 2.00±0.15 | 1.0max. | 0.375±0.15 | 0.25±0.15 | 0.25±0.15 | 0.50±0.15 | 0.20±0.15 | - |
| D | 1.60±0.15 | 0.80±0.15 | 0.60±0.10 | 0.175±0.15 | 0.25±0.15 | 0.25±0.15 | 0.50±0.15 | 0.20±0.15 | - |
| | 2.00±0.10 | 1.25±0.20 | 0.55±0.15 | 0.20±0.15 | 0.30±0.15 | 0.35±0.15 | 0.65±0.15 | 0.20±0.10 | - |
| | 2.00±0.15 | 1.25±0.15 | 0.95±0.10 | 0.20±0.20 | 0.30±0.20 | 0.35±0.20 | 0.65±0.20 | - | - |
| E | 1.60±0.15 | 0.80±0.15 | 0.60±0.10 | 0.175±0.15 | 0.25±0.15 | 0.25±0.15 | 0.50±0.15 | 0.20±0.15 | - |
| F | 1.60±0.15 | 0.80±0.15 | 0.60±0.10 | 0.65±0.15 | 0.30±0.15 | 0.20±0.15 | 0.20±0.15 | 0.25±0.15 | 0.30±0.15 |
| | 2.00±0.15 | 1.25±0.15 | 0.95±0.15 | 0.20±0.20 | 0.30±0.20 | 0.35±0.20 | 0.65±0.20 | 0.30±0.20 | 0.25±0.20 |

■ ELECTRICAL SPECIFICATION

ISM Band 2.4GHz/5GHz APPLICATION

| Part Number | Frequency (MHz) | Impedance (Ω) | Insertion Loss (dB) | Attenuation (dB) | Return Loss (dB)Min | Isolation | Size(mm) | Structure |
|--------------------|-----------------|---------------|---------------------|--|---------------------|--------------------------------------|----------------|-----------|
| RFDIP1608060L0T | 2400~2500 | 50 | 0.8 | 18(4800~5000MHz) 20(7200~7500MHz) | 10 | - | 1.60x0.80x0.60 | D-1 |
| | 4900~5900 | 50 | 1.2 | 20(3700~3900MHz) 20(1800~2500MHz) 20(9800~11800MHz) | | | | |
| RFDIP1608060L3T | 2400~2500 | 50 | 0.8 | 18(4800~5000MHz) 20(7200~7500MHz) | 10 | - | 1.60x0.80x0.60 | D-2 |
| | 4900~5900 | 50 | 1.2 | 20(3700~3900MHz) 20(1800~2500MHz) 20(9800~11800MHz) | | | | |
| RFDIP1608060LBT | 2400~2500 | 50 | 0.6 | 20(4800~5000MHz) 20(7200~7500MHz) | 10 | 28(30~2700 MHz) 26(4900~5950 MHz) | 1.60x0.80x0.60 | D-3 |
| | 4900~5900 | 50 | 1.4 | 28(30~2700MHz) 10(9800~11900MHz) | | | | |
| RFDIP1608060LCT | 2400~2500 | 50 | 0.6 | 20(4800~5000MHz) 20(7200~7500MHz) | 10 | 28(30~2700 MHz) 26(4900~5950 MHz) | 1.60x0.80x0.60 | D-4 |
| | 4900~5900 | 50 | 1.4 | 28(30~2700MHz) 10(9800~11900MHz) | | | | |
| RFDIP1608060LET | 2400~2500 | 50 | 0.6 | 18(4800~5000MHz) 18(7200~7500MHz) | 10 | - | 1.60x0.80x0.60 | D-1 |
| | 4900~5900 | 50 | 1.4 | 20(3700~3900MHz) 20(1800~2500MHz) 10(9800~11800MHz)) | | | | |
| RFDIP1608060LFT | 2400~2500 | 50 | 0.6 | 18(4800~5000MHz) 18(7200~7500MHz) | 10 | - | 1.60x0.80x0.60 | D-2 |
| | 4900~5900 | 50 | 1.4 | 20(3700~3900MHz) 20(1800~2500MHz) 10(9800~11800MHz) | | | | |
| RFDIP160806BLM6T25 | 2400~2500 | 50 | 0.5 | 10(3600~3750MHz) 20(4800~5000MHz) 20(5000~5950MHz) 10(7200~7500MHz) 10(9600~10000MHz) | 10 | - | 1.60x0.80x0.60 | D-1 |
| | 4900~5950 | 50 | 0.6 | 25(860~960MHz) 25(1545~1605MHz) 25(1710~1990MHz) 30(2170 MHz) 10(8100~8800 MHz) 15(8820~9800 MHz) 25(9800~11900 MHz) | | | | |
| RFDIP160806ALM6T30 | 2400~2500 | 50 | 0.5 | 10(3600~3750MHz) 20(4800~5000MHz) 20(5000~5950MHz) 10(7200~7500MHz) 10(9600~10000MHz) | 10 | - | 1.60x0.80x0.60 | D-2 |
| | 4900~5950 | 50 | 0.6 | 25(860~960MHz) 25(1545~1605MHz) 25(1710~1990MHz) 30(2170 MHz) 10(8100~8800 MHz) 15(8820~9800 MHz) 25(9800~11900 MHz) | | | | |

ISM Band 2.4/5GHz Application

| Part Number | Frequency (MHz) | Impedance (Ω) | Insertion Loss (dB) | Attenuation (dB) | Return Loss (dB)Min | Isolation | Size(mm) | Structure |
|--------------------|-----------------|---------------|-----------------------------|--|---------------------|---------------------------------------|----------------|-----------|
| RFDIP1608060LVT | 2400~2500 | 50 | 0.6 | - | 10 | 32 (30~2700 MHz) 28(4900~5950 MHz) | 1.60x0.80x0.60 | D-4 |
| | 4900~5950 | 50 | 0.8 | 32(30~2700MHz) 15(9800~11900 MHz) 11(14700~17850 MHz) | | | | |
| RFDIP1608060LST | 2400~2500 | 50 | 0.5(25℃) 0.6(-40~+85℃) | 22(4800~5000MHz) 24(7200~7500 MHz) | 10 | - | 1.60x0.80x0.60 | F-3 |
| | 5100~5900 | 50 | 1.1(25℃) 1.3(-40~+85℃) | 25(1800~2500MHz) 24(3700~3900MHz) 22(9800~11900MHz) | | | | |
| RFDIP1608060LY8Q1C | 2400~2496 | 50 | 0.5 | 35(4800~5000MHz) 15(7200~7500 MHz) | 12 | - | 1.60x0.80x0.60 | D-3 |
| | 5150~5950 | 50 | 1.0 | 30(70~2000MHz) 30(2400~2690MHz) 12(7250~7800MHz) 25(10300~12000MHz) 10(15000~18000MHz) | | | | |
| RFDIP1606L168M1U | 2400~2500 | 50 | 0.55(25℃) 0.60(-40~+85℃) | 29(4800~5000MHz) 24(7200~7500 MHz) | 10 | 32(30~2700MHz) 28(4900~5950 MHz) | 1.60x0.80x0.60 | D-3 |
| | 4900~5950 | 50 | 0.70(25℃) 0.80(-40~+85℃) | 32(30~2700MHz) 15(9800~11900MHz) 11(14700~17850MHz) | | | | |
| RFDIP1606L42T | 2400~2500 | 50 | 0.6 | 23(4800~5000MHz) 30(7200~7500MHz) | 10 | 40(5150~5850MHz) | 1.60x0.80x0.60 | D-3 |
| | 5100~5850 | 50 | 1.5 | 25(2400~2500MHz) 15(3400~3600MHz) 10(3600~3900MHz) 20(6900~7550MHz) 30(10600~11700MHz) 20(15300~16200MHz) | | | | |
| RFDIP1606L44T | 2400~2500 | 50 | 0.6 | 23(4800~5000MHz) 30(7200~7500MHz) | 10 | 40(5150~5850MHz) | 1.60x0.80x0.60 | D-4 |
| | 5100~5850 | 50 | 1.5 | 25(2400~2500MHz) 15(3400~3600MHz) 10(3600~3900MHz) 20(6900~7550MHz) 30(10600~11700MHz) 20(15300~16200MHz) | | | | |
| KFDIP2004L157B1U | 2400~2500 | 50 | 0.5 | 10(3600MHz) 20(4800~5000MHz) 20(7200~7500MHz) | 10 | 20(DC~2500MHz) 20(4900~5950MHz) | 2.00x1.25x0.40 | D-3 |
| | 4900~5950 | 50 | 1.0 | 20(824~915MHz) 20(1800~2500MHz) 10(3000~3900MHz) 4(7250MHz) 20(9800~11900MHz) 20(14700~17850MHz) | 10 | | | |
| KFDIP2004L167B1U | 2400~2500 | 50 | 0.5 | 10(3600MHz) 20(4800~5000MHz) 20(7200~7500MHz) | 10 | 20(DC~2500MHz) 20(4900~5950MHz) | 2.00x1.25x0.40 | D-4 |
| | 4900~5950 | 50 | 1.0 | 20(824~915MHz) 20(1800~2500MHz) 10(3000~3900MHz) 4(7250MHz) 20(9800~11900MHz) 20(14700~17850MHz) | 10 | | | |
| KFDIP2004L197B1U | 2400~2500 | 50 | 0.6 | 15(3600MHz) 25(4800~5000MHz) 20(7200~7500MHz) | 10 | 20(DC~2500MHz) 20(4900~5950MHz) | 2.00x1.25x0.40 | D-3 |
| | 4900~5950 | 50 | 1.0 | 20(824~915MHz) 18(1800~2500MHz) 14(3000~3900MHz) 20(9800~11900MHz) 20(14700~17850MHz) | 10 | | | |

ISM Band 2.4/5GHz Application

| Part Number | Frequency (MHz) | Impedance (Ω) | Insertion Loss (Db) | Attenuation (Db) | Return Loss (Db)Min | Size(mm) | Structure |
|------------------|-----------------|---------------|-----------------------------|---|---------------------|----------------|-----------|
| RFDIP2012050L5T | 2400~2500 | 50 | 0.7 | 18(4800~6000MHz) 18(7200~7500 MHz) | 10 | 2.00x1.25x0.55 | D-1 |
| | 4900~5900 | 50 | 1.0 | 19(1800~2500MHz) 25(10300~10700MHz) | | | |
| RFDIP2012050L7T | 2400~2500 | 50 | 0.7 | 18(4800~6000MHz) 18(7200~7500MHz) | 10 | 2.00x1.25x0.55 | D-2 |
| | 4900~5900 | 50 | 1.0 | 19(1800~2500MHz) 25(10300~10700MHz) | | | |
| RFDIP2012050L8T | 2300~2500 | 50 | 0.65(25℃) 0.8(-40~+85℃) | 20(4600~5000MHz) 20(6900~7500MHz) | 10 | 2.00x1.25x0.55 | D-3 |
| | 4900~5950 | 50 | 1.0 | 19(1800~2500MHz) 25(10300~10700MHz) | | | |
| RFDIP2012100L0T | 2400~2500 | 50 | 0.7 | 20(4900MHz) 25(5200MHz) 25(5800MHz) | 10 | 2.00x1.25x0.95 | D-3 |
| | 4900~5900 | 50 | 0.9 | 25(2450MHz) | | | |
| RFDIP2012100L1T | 2400~2500 | 50 | 0.7 | 20(4900MHz) 20(5200MHz) 20(5800MHz) | 10 | 2.00x1.25x0.95 | F-1 |
| | 4900~5900 | 50 | 0.9 | 20(2450MHz) | | | |
| RFDIP2012100L3T | 2400~2500 | 50 | 0.7 | 20(4900MHz) 25(5200MHz) 25(5800MHz) | 10 | 2.00x1.25x0.95 | D-2 |
| | 4900~5900 | 50 | 0.9 | 25(2450MHz) | | | |
| RFDIP2012100L4T | 2400~2500 | 50 | 0.7 | 20(4900MHz) 20(5200MHz) 20(5800MHz) | 10 | 2.00x1.25x0.95 | F-2 |
| | 4900~5900 | 50 | 1.1 | 20(2450MHz) | | | |
| RFDIP2012050LPT | 2400~2500 | 50 | 0.5(25℃) 0.55(-40~+85℃) | 23(4800~6000MHz) 20(7200~7500MHz) | 10 | 2.00x1.25x0.55 | D-1 |
| | 4900~5950 | 50 | 0.65(25℃) 0.75(-40~+85℃) | 20(800~2500MHz) 15(9800~11900MHz) | | | |
| RFDIP2012050LQT | 2400~2500 | 50 | 0.5(25℃) 0.55(-40~+85℃) | 23(4800~6000MHz) 20(7200~7500MHz) | 10 | 2.00x1.25x0.55 | D-2 |
| | 4900~5950 | 50 | 0.65(25℃) 0.75(-40~+85℃) | 20(800~2500MHz) 15(9800~11900MHz) | | | |
| RFDIP2008L107N3T | 2400~2500 | 50 | 2.2(25℃) 2.4(-40~+85℃) | 30(824~915MHz) 30(1545~1610MHz) 30(1710~1990MHz) 25(2110~2170MHz) 8(3200~3600MHz) 12(3700~3900MHz) 28(4800~5000MHz) 25(7200~7500MHz) | 10 | 2.00x1.25x0.80 | D-1 |
| | 5150~5850 | 50 | 1.2(25℃) 1.5(-40~+85℃) | 20(1545~1610MHz) 20(1710~1990MHz) 20(2110~2170MHz) 23(2400~2500MHz) 8(3450~3900MHz) 8(7250~7800MHz) 20(9800~11700MHz) | | | |
| RFDIP2008L117N3T | 2400~2500 | 50 | 2.2(25℃) 2.4(-40~+85℃) | 30(824~915MHz) 30(1545~1610MHz) 30(1710~1990MHz) 25(2110~2170MHz) 8(3200~3600MHz) 12(3700~3900MHz) 28(4800~5000MHz) 25(7200~7500MHz) | 10 | 2.00x1.25x0.80 | D-2 |
| | 5150~5850 | 50 | 1.2(25℃) 1.5(-40~+85℃) | 20(1545~1610MHz) 20(1710~1990MHz) 20(2110~2170MHz) 23(2400~2500MHz) 8(3450~3900MHz) 8(7250~7800MHz) 20(9800~11700MHz) | | | |

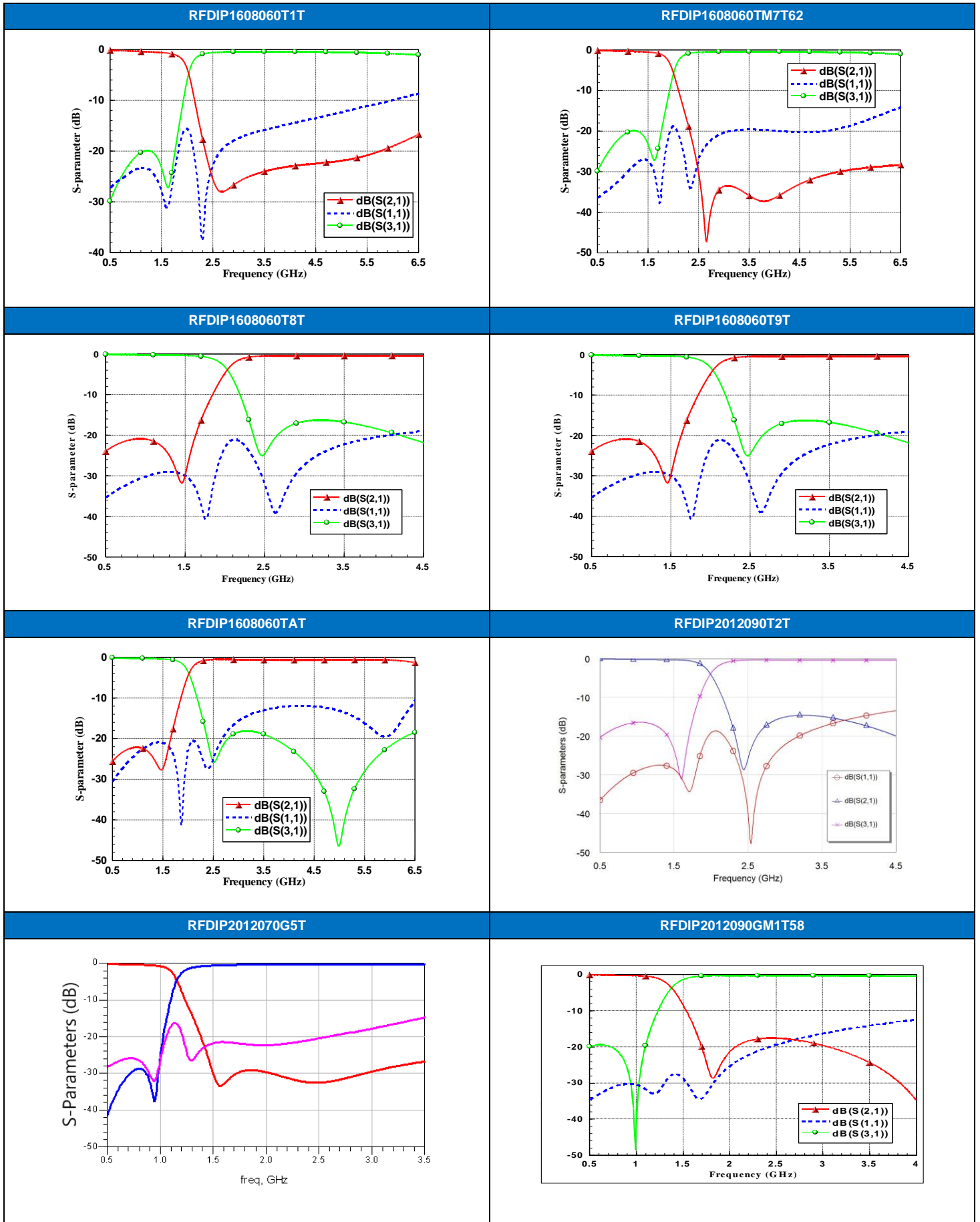
GPS 1.575GHz/ISM 2.4GHz/5GHz Band Application

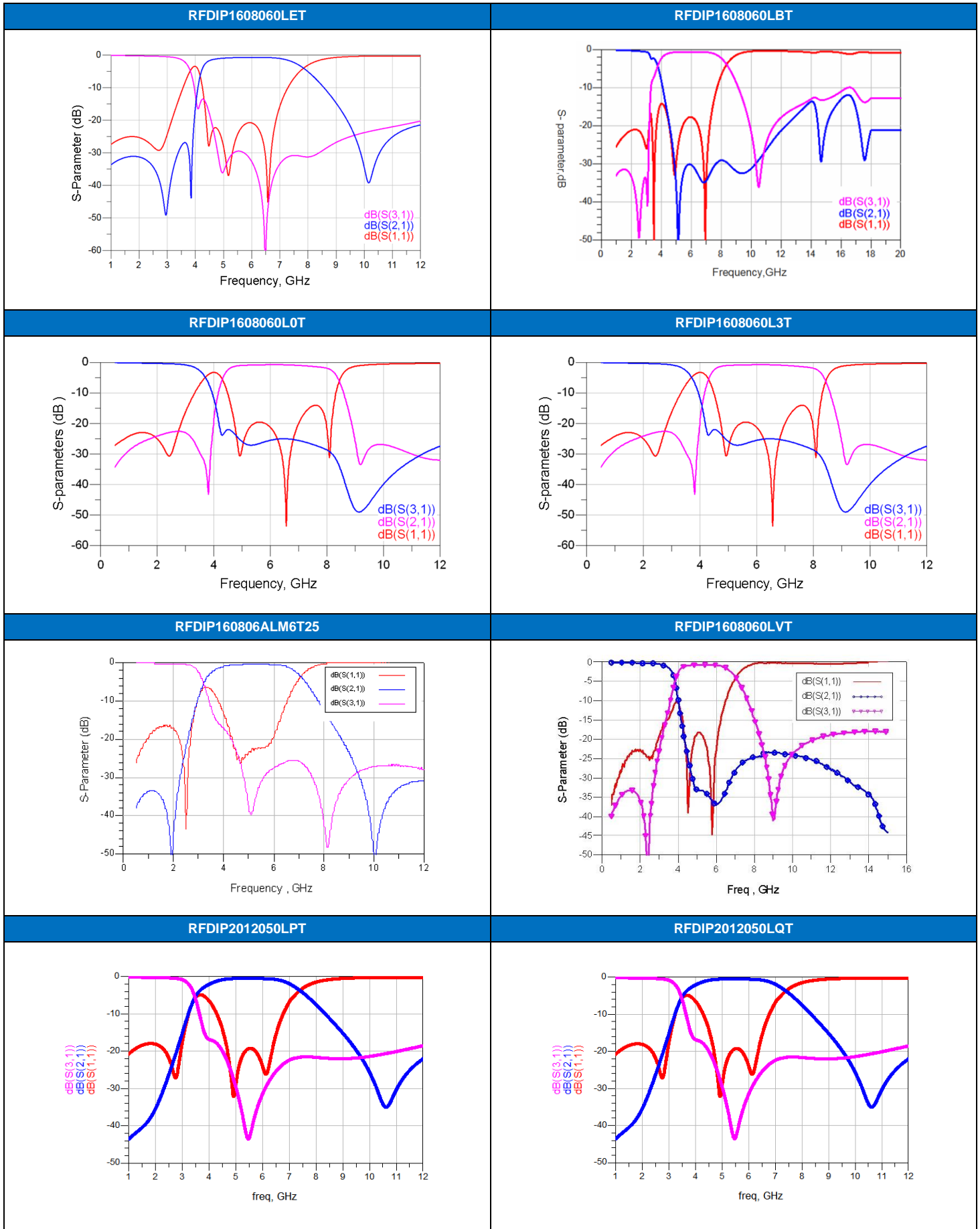
| Part Number | Frequency (MHz) | Impedance (Ω) | Insertion Loss (dB) | Attenuation (dB) | Return Loss (dB)Min. | Size (mm) | Structure |
|--------------------|-------------------------------------|---------------|--|--|----------------------|----------------|-----------|
| RFDIP1608060T1T | 1574~1577 | 50 | 0.65 | 20(2400~2500MHz) | 10 | 1.60x0.80x0.60 | A |
| | 2400~2500 | 50 | 0.8 | 20(1574~1577MHz) | | | |
| RFDIP1608060TM7T62 | 1570~1610 | 50 | 0.6(typ.0.5) | 20(2400~2500MHz) 20(4900~5900MHz) | 10 | 1.60x0.80x0.60 | D-4 |
| | 2400~2500 4900~5900 | 50 | 0.65(typ.0.55) | 20(1570~1610MHz) | | | |
| RFDIP1608070TM1T76 | 1710~1880 | 50 | 0.70(typ.0.59) | 15(2500~2390MHz) | 10 | 1.60x0.80x0.70 | E-2 |
| | 2500~2690 | 50 | 0.65(typ.0.58) | 15(1710~1880MHz) | | | |
| RFDIP1608060T8T | 1570~1610 | 50 | 0.45(25°C) 0.55(-40~+85°C) | 20(2400~2500MHz) | 10 | 1.60x0.80x0.60 | D-4 |
| | 2400~2500 | 50 | 0.5(25°C) 0.6(-40~+85°C) | 20(1560~1607MHz) | | | |
| RFDIP1608060T9T | 1570~1610 | 50 | 0.45(25°C) 0.55(-40~+85°C) | 20(2400~2500MHz) | 10 | 1.60x0.80x0.60 | D-3 |
| | 2400~2500 | 50 | 0.5(25°C) 0.6(-40~+85°C) | 20(1560~1607MHz) | | | |
| RFDIP1608060TAT | 698~960 1427~1511 1560~1607 | 50 | 0.40 max. 0.55 max. 0.65 max. | 20(2400~2500MHz) 20(2620~2690MHz) 20(5150~5850MHz) | 10 | 1.60x0.80x0.60 | A |
| | 2400~2500 2620~2690 5150~5850 | 50 | 0.70 max. 0.60 max. 0.80 max. | 20(698~960MHz) 20(1427~1511MHz) 20(1560~1607MHz) | | | |
| RFDIP1608060TCT | 1570~1610 | 50 | 0.6(typ.0.5) | 20(2400~2500MHz) 20(4900~5900MHz) | 10 | 1.60x0.80x0.60 | D-4 |
| | 2400~2500 4900~5900 | 50 | 0.65(typ.0.55) | 20(1570~1610MHz) | | | |
| RFDIP2012090T2T | 1572.5~1578.5 1597~1607 | 50 | 0.4(1572.5~1578.5MHz)(25°C) 0.45(1572.5~1578.5MHz) (-40~+85°C) 0.45(1597~1607MHz)(25°C) 0.5(1597~1607MHz)(-40~+85°C) | 13(2400~2500MHz) | 10 | 2.00x1.25x0.90 | D-3 |
| | 2400~2500 | 50 | 0.55(25°C) 0.65(-40~+85°C) | 22(1572.5~1578.5MHz) 20(1597~1607MHz) | | | |

892 MHz & 1.94GHz Band Working Frequency

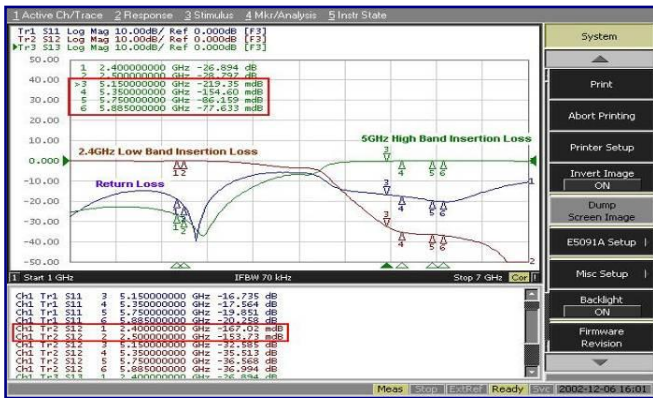
| Part Number | Frequency (MHz) | Impedance (Ω) | Insertion Loss (dB) | Attenuation (dB) | Return Loss (dB)Min. | Size (mm) | Structure |
|--------------------|-----------------|---------------|-------------------------------|--------------------------------------|----------------------|----------------|-----------|
| RFDIP1608070GM1T76 | 698~960 | 50 | 0.8(typ.0.45) | 25(1710~2700MHz) | 10 | 1.60x0.80x0.60 | E-2 |
| | 1710~2700 | | 0.7(typ.0.50) | 20(698~960MHz) 20(5150~5850MHz) | | | |
| RFDIP2012090G0T | 824~960 | 50 | 0.6(25°C) 0.65(-40~+85°C) | 15(1710~2170MHz) | 10 | 2.00x1.25x0.90 | D-3 |
| | 1710~2170 | | 0.6(25°C) 0.65(-40~+85°C) | 20(824~960MHz) | | | |
| RFDIP2012090G3T | 824~960 | 50 | 0.6(25°C) 0.65(-40~+85°C) | 15(1710~2170MHz) | 10 | 2.00x1.25x0.90 | D-4 |
| | 1710~2170 | | 0.6(25°C) 0.65(-40~+85°C) | 20(824~960MHz) | | | |
| RFDIP2012070G5T | 570~960 | 50 | 0.75 | 20(1427~2700MHz) | 10 | 2.00x1.25x0.70 | B |
| | 1427~2700 | | 0.85 | 20(570~960MHz) | | | |
| RFDIP2012090G77N2T | 698~960 | 50 | 0.65 | 15(1554~1580MHz) 20(1710~2700MHz) | 10 | 2.00x1.25x0.90 | D-4 |
| | 1710~2700 | | 0.65 | 20(824~960MHz) | | | |
| RFDIP2012090GM1T58 | 698~960 | 50 | 0.4(25°C) 0.45(-40~+85°C) | 13(1710~2690MHz) | 10 | 2.00x1.25x0.90 | B |
| | 1710~2690 | | 0.55(25°C) 0.65(-40~+85°C) | 19(698~960MHz) | | | |
| RFDIP2520100G2T | 698~960 | 50 | 0.35(25°C) 0.45(-40~+85°C) | 20(1710~2690MHz) | 10 | 2.50x2.00x1.00 | C |
| | 1710~2690 | | 0.55(25°C) 0.65(-40~+85°C) | 25(698~960MHz) 5(3420~3820MHz) | | | |

■ TYPICAL ELECTRICAL CHARACTERISTICS

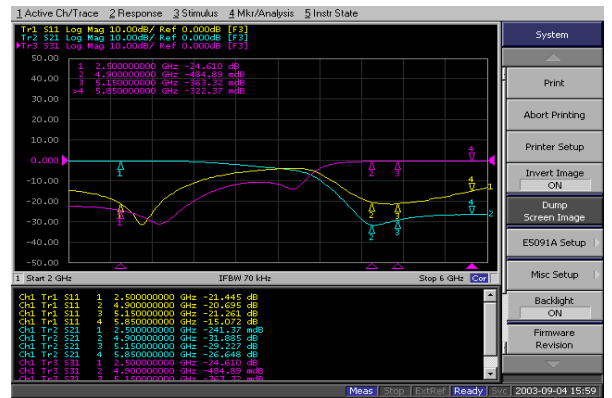




RFDIP2012100L0T



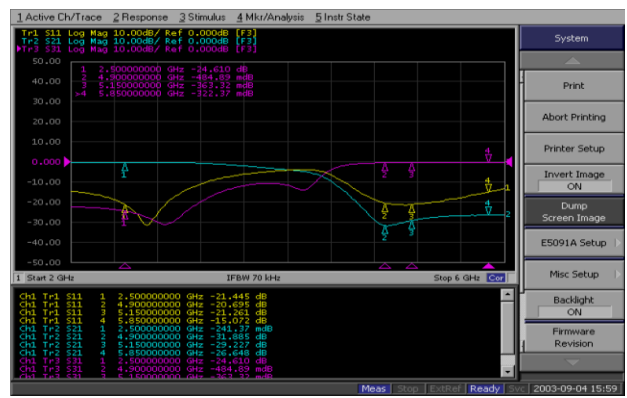
RFDIP2012100L1T



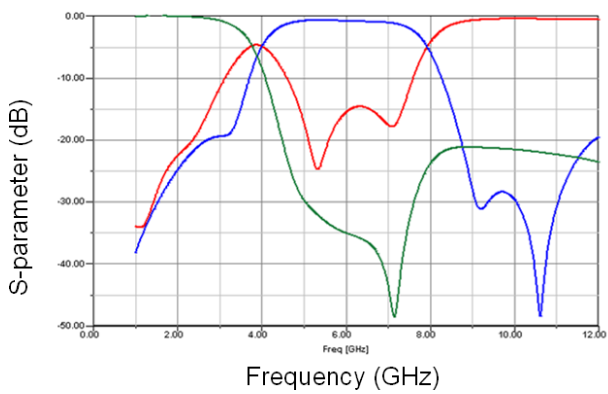
RFDIP2012100L3T



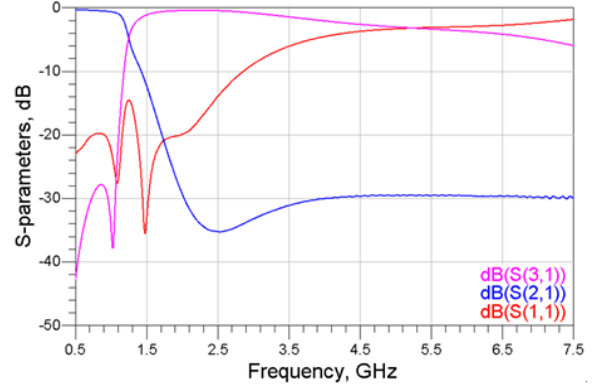
RFDIP2012100L4T



RFDIP2012050L5T



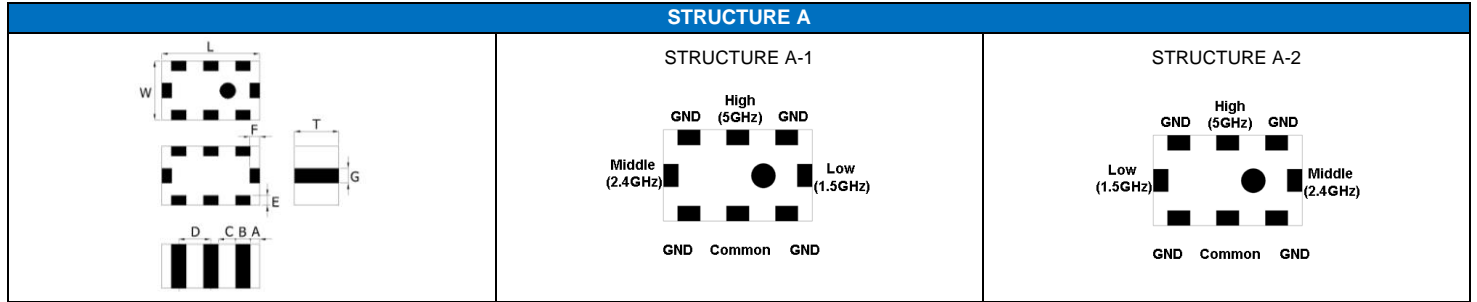
RFDIP2012090G0T



- For more information, please contact with local sales representative
- All specifications are subject to change without notice

TRIPLEXER

■ STRUCTURE AND PIN ASSOCIATED



■ STRUCTURE AND DIMENSION

Unit: mm

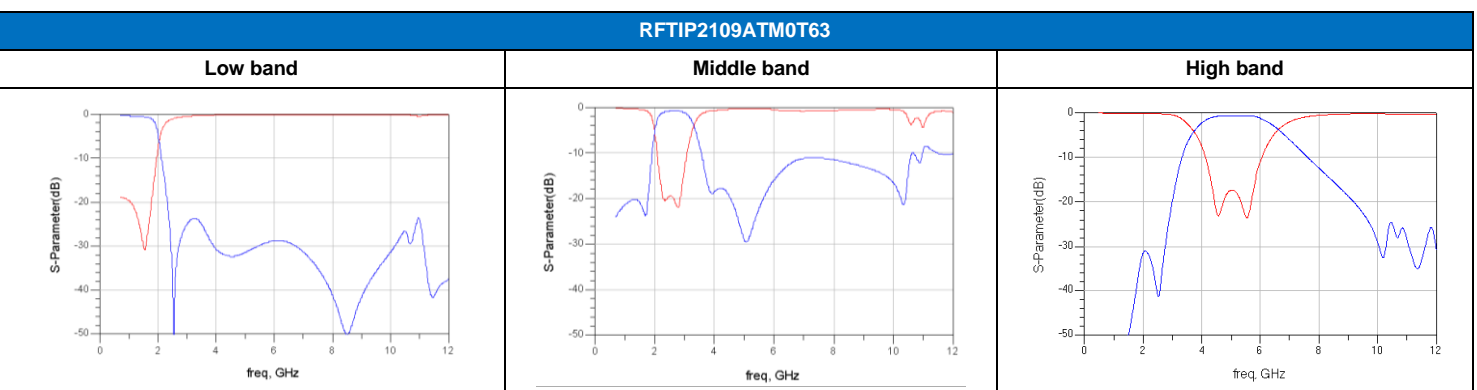
| Structure/Dimension | L | W | T | A | B | C | D | E | F | G |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| A | 2.00±0.15 | 1.25±0.15 | 0.90±0.10 | 0.20±0.20 | 0.30±0.20 | 0.35±0.20 | 0.65±0.20 | 0.20±0.20 | 0.20±0.20 | 0.30±0.20 |

■ ELECTRICAL SPECIFICATION

GPS 1.575GHz/ ISM 2.4GHz/5GHz band RF application

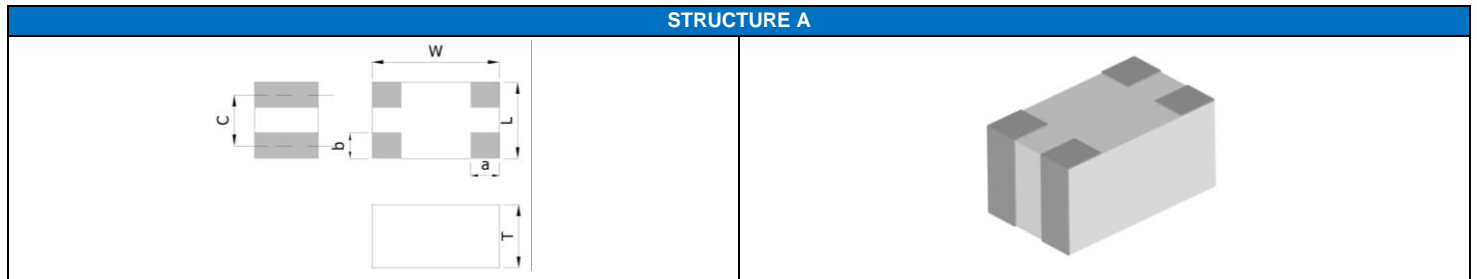
| Part Number | Frequency (MHz) | Impedance (Ω) | Insertion Loss (dB) | Attenuation (dB) | Return Loss (dB)Min | Isolation | Size(mm) | Structure |
|------------------|-----------------|---------------|---------------------|---|---------------------|--|----------------|-----------|
| RFTIP2109ATM0T63 | 1560~1606 | 50 | 0.6 | 15(2400~2500 MHz) 15(4800~6000 MHz) | 10 | - | 2.00x1.25x0.90 | A-1 |
| | 2400~2500 | 50 | 0.7 | 10(860~960 MHz) 15(1545~1605 MHz) 10(3600~3750 MHz) 20(4800~5000 MHz) 10(7200~7500 MHz) 10(9600~10000 MHz) | 10 | 20(1559~1606 MHz) 25(4800~5000 MHz) | | |
| | 4900~5950 | 50 | 0.8 | 25(860~960 MHz) 25(1545~1605 MHz) 25(1710~1990 MHz) 30(2170 MHz) 10(8100~8800 MHz) 15(8820~9800 MHz) 25(9800~11900 MHz) | 10 | 25(1559~1606 MHz) | | |
| RFTIP2109BTM5T62 | 1560~1606 | 50 | 0.6 | 15(2400~2500 MHz) 15(4800~6000 MHz) | 10 | - | 2.00x1.25x0.90 | A-1 |
| | 2400~2500 | 50 | 0.7 | 10(860~960 MHz) 15(1545~1605 MHz) 10(3600~3750 MHz) 20(4800~5000 MHz) 10(7200~7500 MHz) 10(9600~10000 MHz) | 10 | 20(1559~1606 MHz) 25(4800~5000 MHz) | | |
| | 4900~5950 | 50 | 0.8 | 25(860~960 MHz) 25(1545~1605 MHz) 25(1710~1990 MHz) 30(2170 MHz) 10(8100~8800 MHz) 15(8820~9800 MHz) 25(9800~11900 MHz) | 10 | 25(1559~1606 MHz) | | |

■ TYPICAL ELECTRICAL CHARACTERISTICS



COMMON MODE FILTER

■ STRUCTURE AND PIN ASSOCIATED



■ STRUCTURE AND DIMENSION

Unit: mm

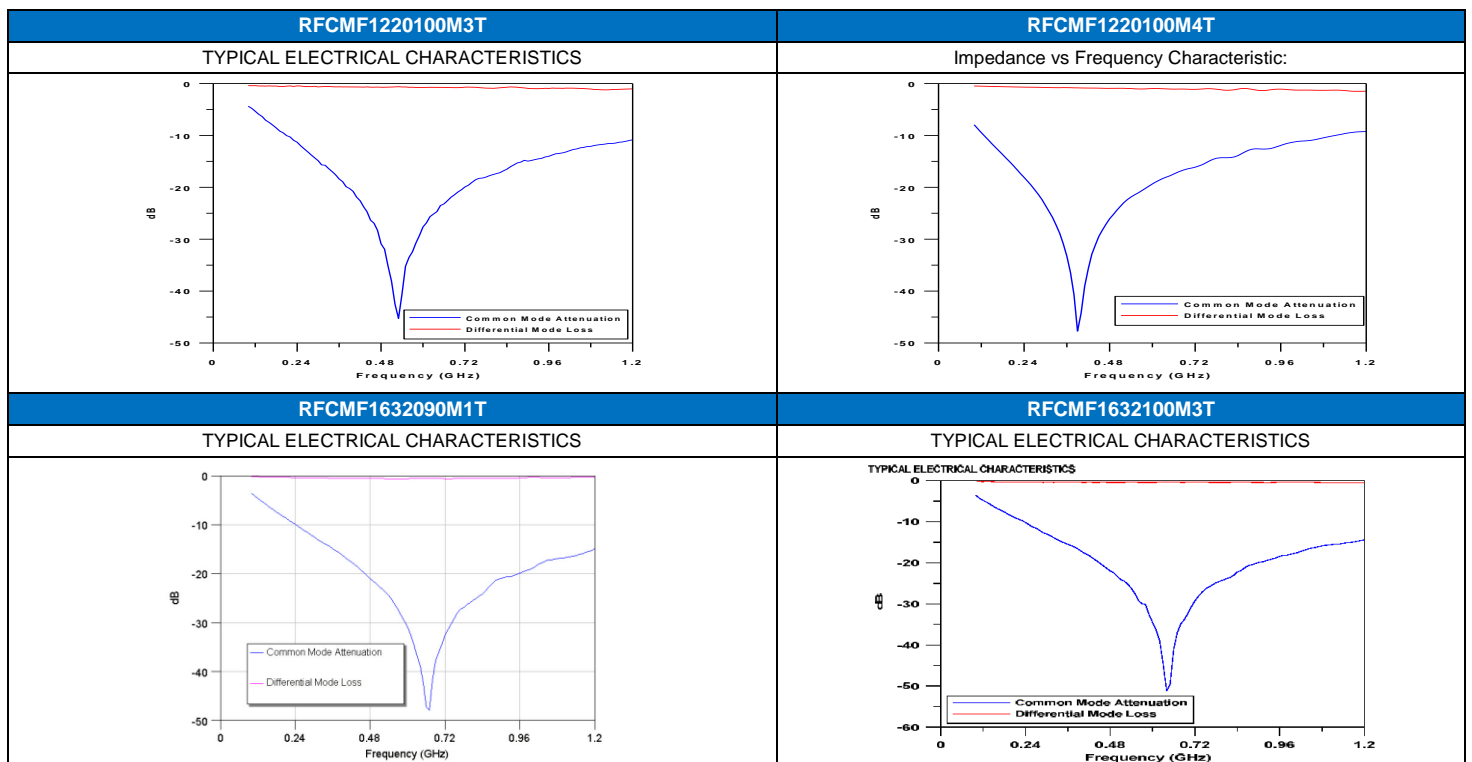
| Structure\ Dimension | L | W | T | a | b | c |
|----------------------|--------------------|--------------------|-----------|-----------|-----------|-----------|
| A | 1.20+0.40 -0.20 | 2.00+0.40 -0.20 | 1.00±0.20 | 0.45±0.20 | 0.40±0.20 | 0.80±0.10 |
| | 1.60±0.20 | 3.20±0.20 | 0.95±0.20 | 0.60±0.20 | 0.50±0.20 | 1.10±0.20 |
| | | | 1.00±0.20 | 0.60±0.20 | 0.50±0.20 | 1.10±0.20 |

■ ELECTRICAL SPECIFICATION

DISCRETE CMF for HIGH SPEED TRANSMISSION LINES、USB2.0、IEEE1394、LVDS(mini)

| Part Number | Characteristic Impedance (Differential) | Common Mode Attenuation (Min.) | DC Resistance (Ω) max. | Rated Current (mA) | Size(mm) | Structure |
|-----------------|---|----------------------------------|------------------------|--------------------|----------------|-----------|
| RFCMF1220100M3T | 90 ohm | 9.0(240MHz ~ 1GHz) | 1.5 | 300 | 1.20x2.00x1.00 | A |
| RFCMF1220100M4T | 90 ohm | 9.0(130 MHz ~ 1GHz) | 2.5 | 200 | 1.20x2.00x1.00 | A |
| RFCMF1632090M1T | 90 ohm | 9.0(140 MHz ~ 1.0 GHz) | 1.5 | 300 | 1.60x3.20x0.95 | A |
| RFCMF1632100M3T | 90 ohm | 9.0(240 MHz ~ 1.0 GHz) | 1.5 | 300 | 1.60x3.20x1.00 | A |

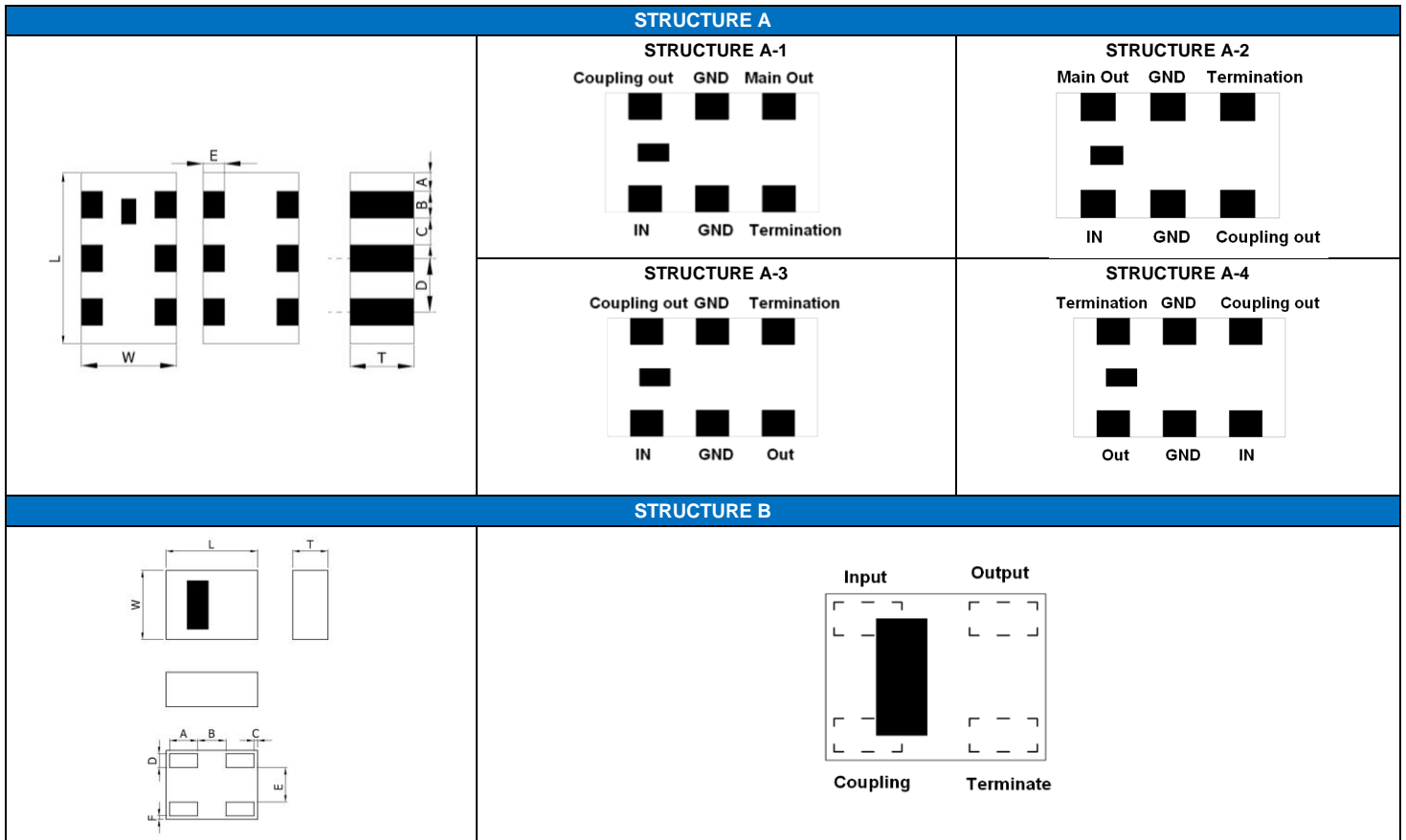
■ TYPICAL ELECTRICAL CHARACTERISTICS



- For more information, please contact with local sales representative
- All specifications are subject to change without notice

COUPLER

■ STRUCTURE AND PIN ASSOCIATED



■ STRUCTURE AND DIMENSION

| Structure\ Dimension | L | W | T | A | B | C | D | E | F |
|----------------------|-----------|-----------|-----------|------------|-----------|-------------|-----------|-----------|-------------|
| A | 1.60±0.10 | 0.80±0.10 | 0.60±0.10 | 0.10±0.10 | 0.30±0.10 | 0.25±0.10 | 0.55±0.10 | 0.20±0.10 | - |
| | 1.60±0.10 | 0.80±0.10 | 0.60±0.10 | 0.175±0.10 | 0.25±0.10 | 0.25±0.10 | 0.50±0.10 | 0.20±0.10 | - |
| B | 0.65±0.04 | 0.50±0.04 | 0.35±0.10 | 0.20±0.04 | 0.20±0.04 | 0.025±0.025 | 0.10±0.04 | 0.25±0.04 | 0.025±0.025 |

Unit: mm

■ ELECTRICAL SPECIFICATION

ISM Band 2.4GHz Application

| Part Number | Frequency (MHz) | Insertion Loss (dB) | Coupling in BW | Directivity in BW dB (min.) | Isolation in BW dB (min.) | VSWR | Dimension (mm ³) | Structure |
|--------------------|-----------------|---------------------|----------------|-----------------------------|---------------------------|------|------------------------------|-----------|
| RFCPL1806B2450T | 2400~2500 | 1.83 | 6.5 ± 1.0 dB | - | 21.0 dB min | 1.5 | 1.60x1.80x0.60 | A-2 |
| RFCPL1807B2450T | 2400~2500 | 1.30 | 7.0 ± 1.0 dB | - | 30.0 dB min | 2.0 | 1.60x1.80x0.60 | A-1 |
| RFCPL1810B2450T | 2400~2500 | 0.74 | 10.0 ±1.0 dB | - | 22.0 dB min | 1.8 | 1.60x1.80x0.60 | A-2 |
| TFCPL0605B24508Q1C | 2400~2500 | 0.40 (typ.0.32) | 14.6 ± 1.0 dB | 20.0 dB min. | - | 1.3 | 0.60x0.50x0.35 | B |

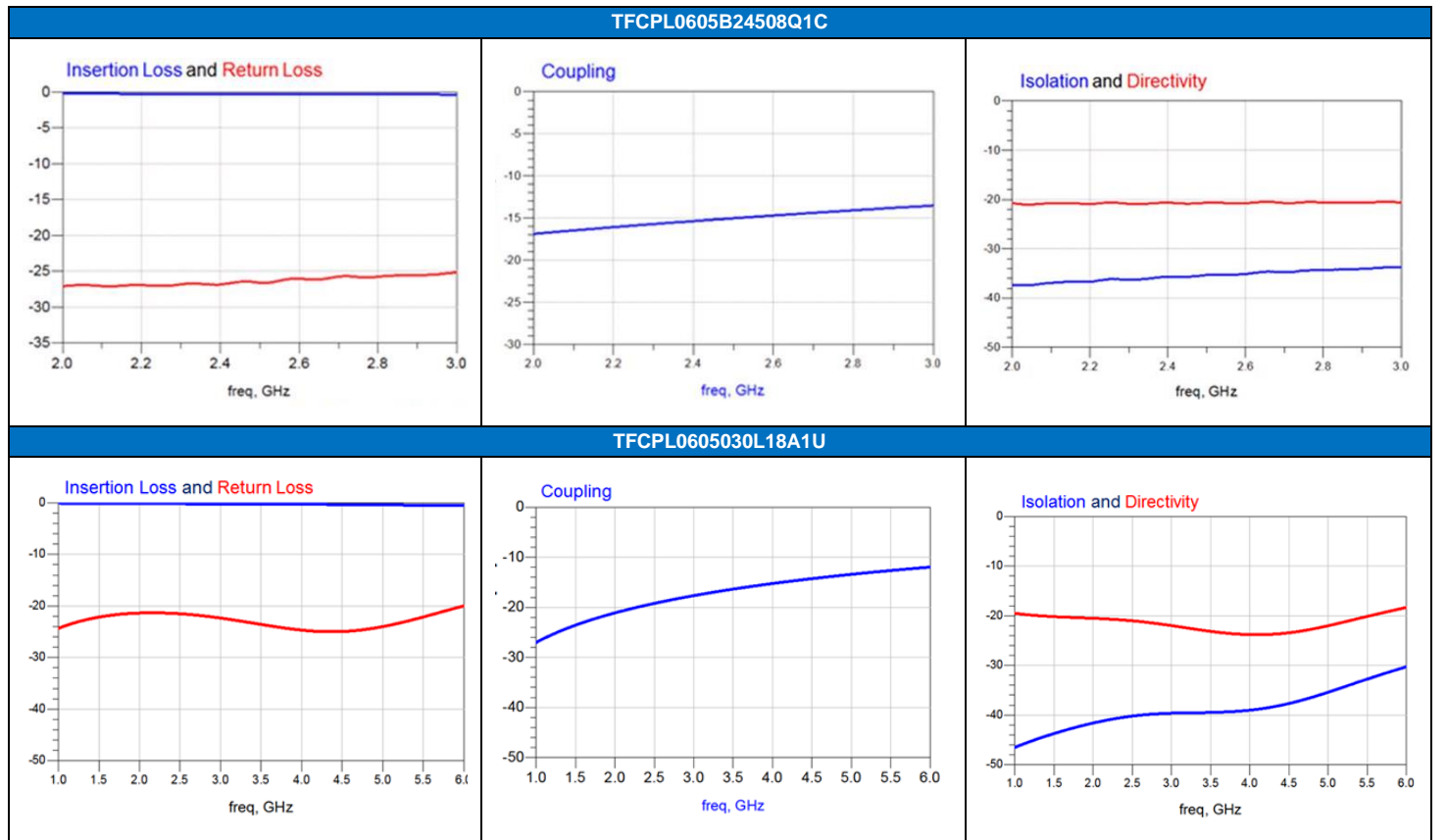
ISM Band 2.4/5GHz Application

| Part Number | Frequency (MHz) | Insertion Loss (dB) | Coupling in BW | Directivity in BW dB (min.) | Isolation in BW dB (min.) | VSWR | Dimension (mm ³) | Structure |
|--------------------|-----------------|---------------------|----------------|-----------------------------|---------------------------|------|------------------------------|-----------|
| TFCPL0605030L18A1U | 2400~2500 | 0.5 | 19.0±1.5dB | 15 dB min. | - | 1.3 | 0.60x0.50x0.35 | B |
| | 4900~5850 | 0.5 | 12.5±1.5dB | 15 dB min. | - | 1.3 | | |
| TFCPL0605030L28Q1C | 2400~2500 | 0.2 | 19.3±0.7dB | 15 dB min. | - | 1.3 | 0.60x0.50x0.35 | B |
| | 5150~5850 | 0.5 | 13.0±1.5dB | 15 dB min. | - | 1.3 | | |

LTE BAND APPLICATION

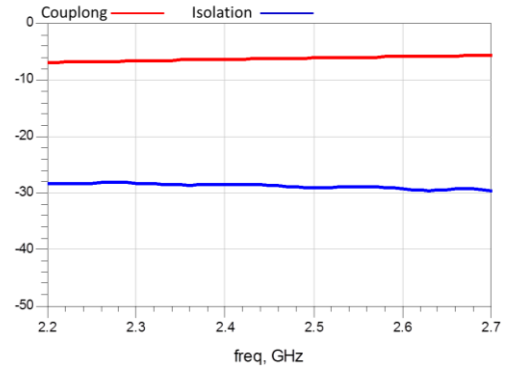
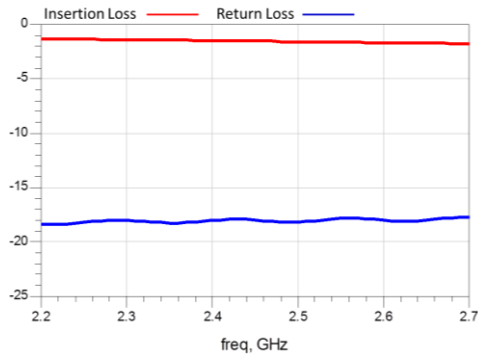
| Part Number | Frequency (MHz) | Insertion Loss (dB) | Coupling in BW | Directivity in BW dB (min.) | Isolation in BW dB (min.) | VSWR | Dimension (mm ³) | Structure |
|--------------------|-----------------|--|--|-----------------------------|--|------|------------------------------|-----------|
| RFCPL1608070P08Q1C | 698~2690 | 0.20(698~960MHz) 0.22(1427.9~2170MHz) 0.25(2300~2690MHz) | 23.0~27.0(698~915MHz) 21.5~26.5(1427.9~2025MHz) 22.5~27.5(2300~2620MHz) | 20. | - | 1.5 | 1.60x1.80x0.60 | A-3 |
| RFCPL1608070P18Q1C | 698~2690 | 0.20(698~960MHz) (Typ.0.02) 0.22(1710~2170MHz) (Typ.0.07) 0.25(2300~2690MHz) (Typ.0.10) | 23.0~27.0(698~915MHz) 21.5~26.5(1710~2025MHz) 22.5~27.5(2300~2620MHz) | 20 | - | 1.45 | 1.60x1.80x0.60 | A-4 |
| RFCPL1608070P28Q1C | 698~2690 | 0.20(698~960MHz) 0.22(1427.9~2170MHz) 0.25(2300~2690MHz) | 23.0~27.0(698~915MHz) 21.5~26.5(1427.9~2025MHz) 22.5~27.5(2300~2620MHz) | 20 | - | 1.5 | 1.60x1.80x0.60 | A-3 |
| RFCPL1608070P38Q1C | 698~2690 | 0.20(698~960MHz) 0.22(1710~2170MHz) 0.25(2300~2690MHz) | 23.0~27.0(698~915MHz) 21.5~26.5(1710~2025MHz) 22.5~27.5(2300~2620MHz) | 20 | - | 1.45 | 1.60x1.80x0.60 | A-4 |
| RFCPL1608070PM9T16 | 700~2700 | 0.2(700~790MHz) (Typ.0.07) 0.2(820~900MHz) (Typ.0.07) 0.3(1701~2100MHz) (Typ.0.15) 0.3(2300~2700MHz) (Typ.0.15) | 24~27(700~790MHz) 24~27(820~900MHz) 20~23(1701~2100MHz) 20~23(2300~2700MHz) | - | 40(700~790MHz) 40(820~900MHz) 35(1701~2100MHz) 35(2300~2700MHz) | 1.45 | 1.60x1.80x0.60 | A-2 |

■ TYPICAL ELECTRICAL CHARACTERISTICS

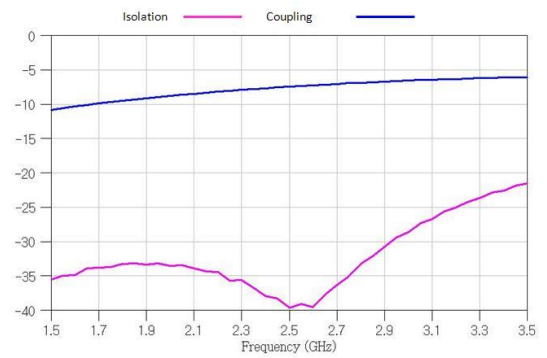


■ TYPICAL ELECTRICAL CHARACTERISTICS

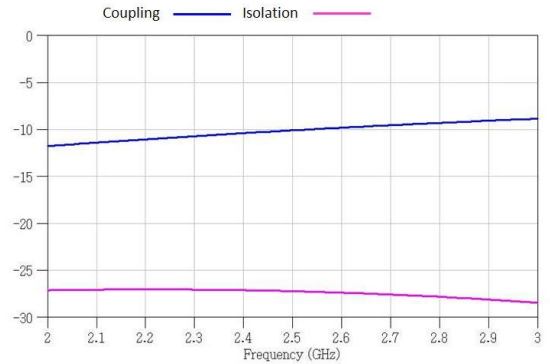
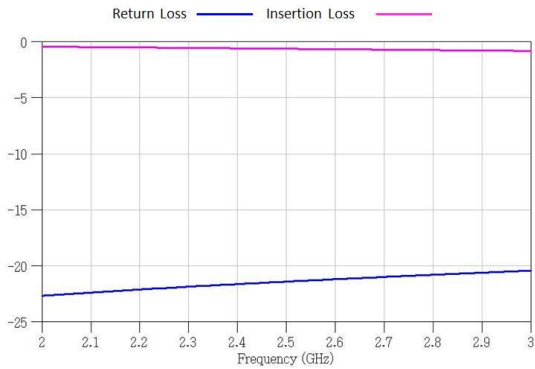
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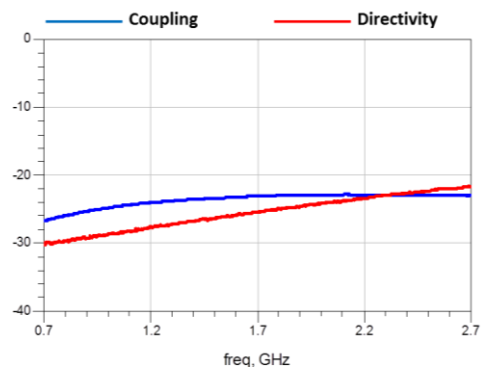
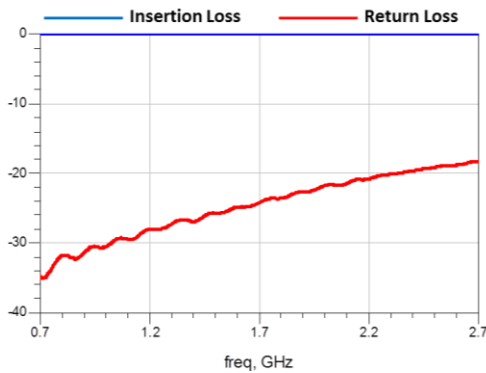
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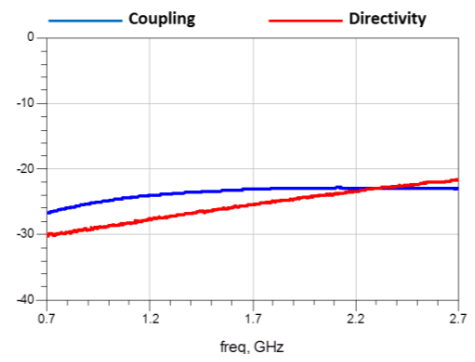
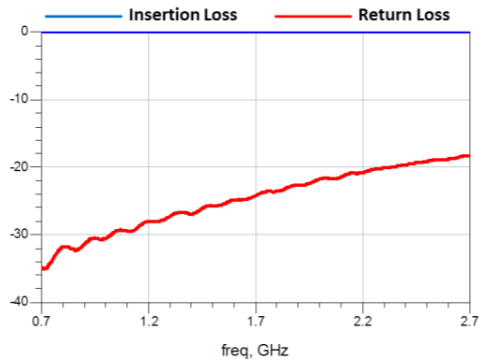
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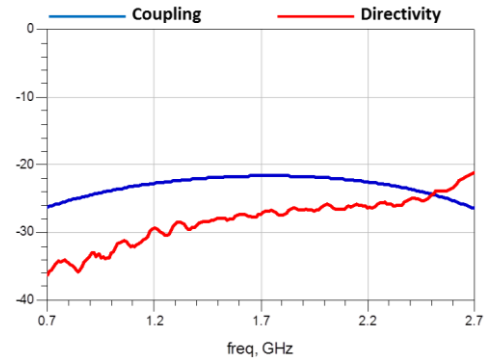
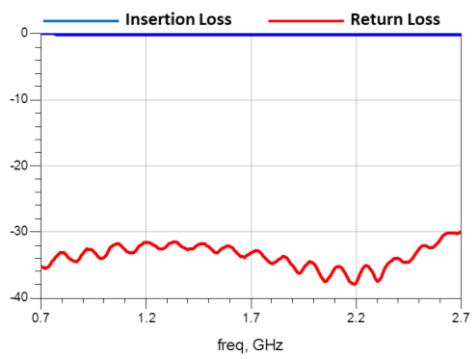
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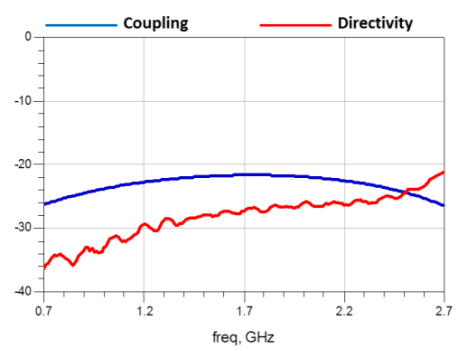
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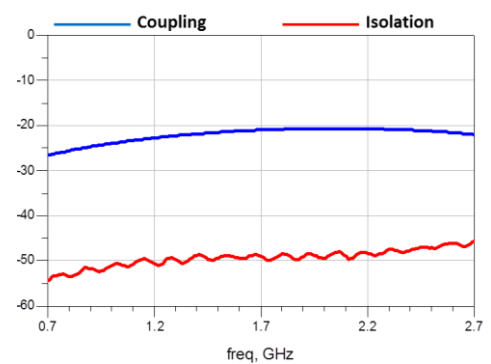
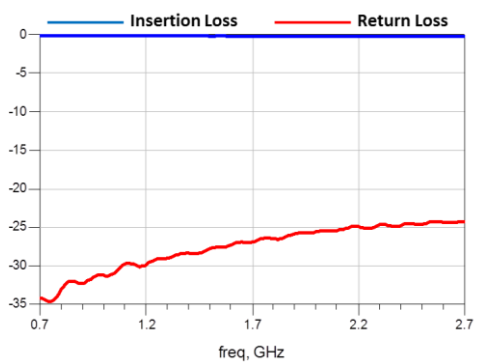
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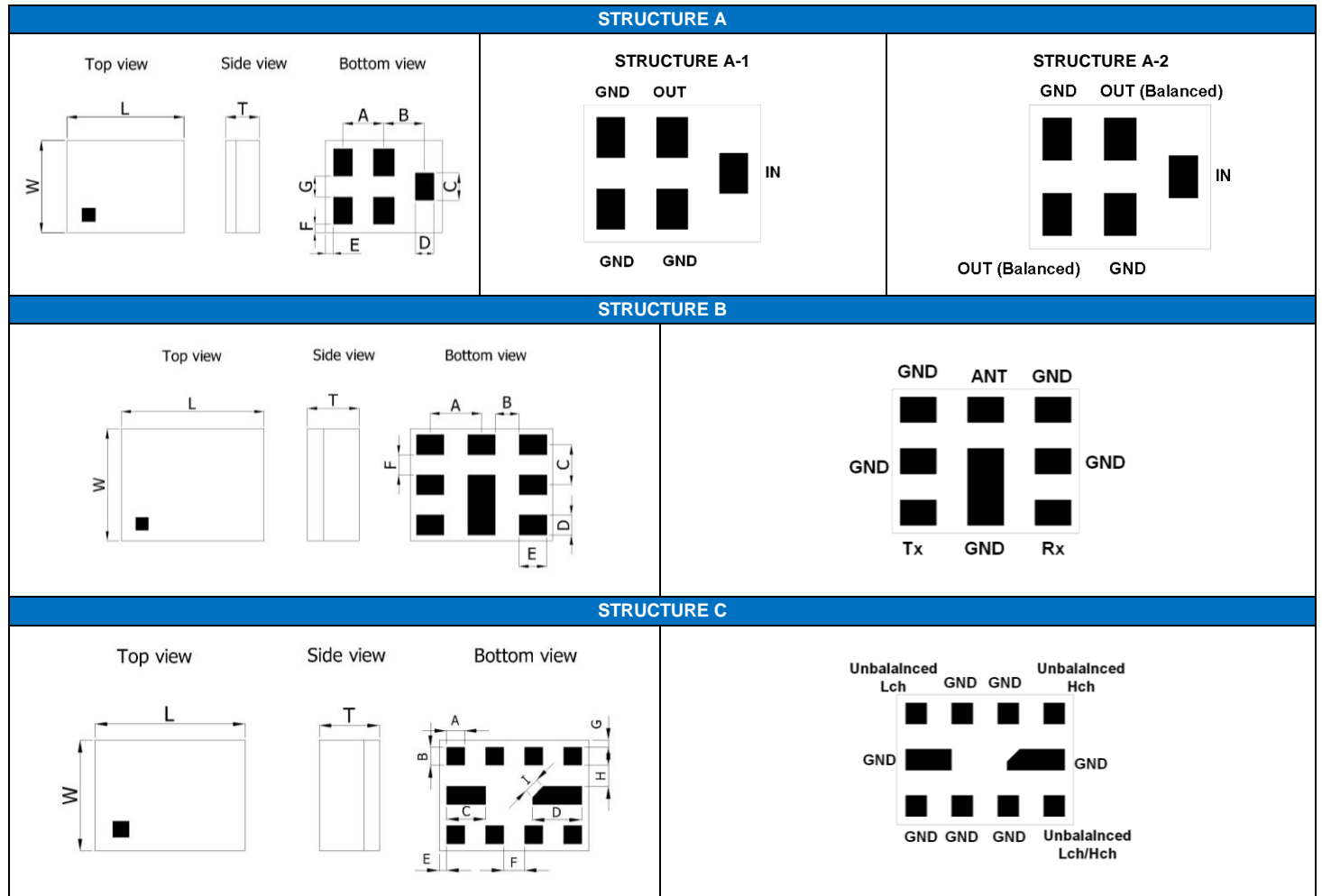
RFCPL1608070PM9T16



- For more information, please contact with local sales representative
- All specifications are subject to change without notice

SAW Filter

■ STRUCTURE AND PIN ASSOCIATED



■ STRUCTURE AND DIMENSION

| Structure Dimension | L | W | T | A | B | C | D | E | F | G | H | I |
|---------------------|-----------|-----------|----------|------|------|-------|------|-------|-------|------|------|------|
| A | 1.10±0.10 | 0.90±0.10 | 0.50max. | 0.40 | 0.40 | 0.25 | 0.20 | 0.05 | 0.075 | 0.25 | - | - |
| | 1.40±0.13 | 1.10±0.13 | 0.65max. | 0.50 | 0.50 | 0.325 | 0.25 | 0.075 | 0.10 | 0.25 | - | - |
| B | 1.80±0.10 | 1.40±0.10 | 0.65max. | 0.65 | 0.30 | 0.50 | 0.25 | 0.35 | 0.25 | - | - | - |
| C | 1.50±0.10 | 1.10±0.10 | 0.60max. | 0.18 | 0.18 | 0.39 | 0.49 | 0.075 | 0.21 | 0.07 | 0.21 | 0.15 |

Unit: mm

■ ELECTRICAL SPECIFICATION

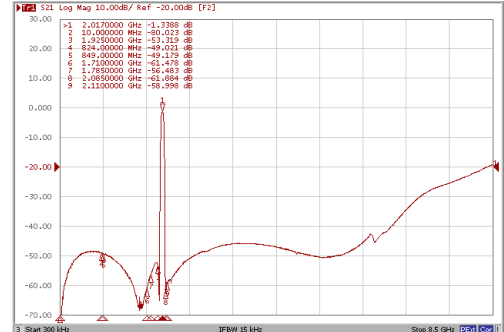
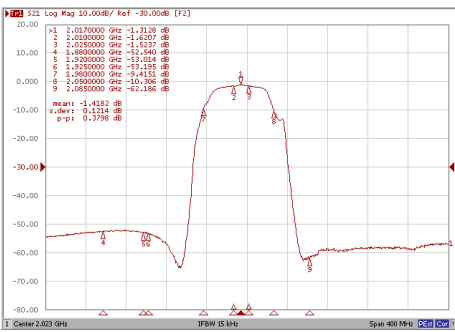
| Type | Part Number | Band | Frequency (MHz) | Insertion Loss (dB) | Package (mm) | STRUCTURE |
|--------|------------------|------|-----------------|---------------------|--------------|-----------|
| Tx SAW | SF11092017B3403T | B34 | 2010~2025 | 1.6 | 1.1 x 0.9 | A-1 |
| Tx SAW | SF11092595B3804T | B38 | 2570~2620 | 1.6 | 1.1 x 0.9 | A-1 |
| Tx SAW | SF11091900B3907T | B39 | 1880~1920 | 1.9 | 1.1 x 0.9 | A-1 |
| Tx SAW | SF11092350B4004T | B40 | 2300~2400 | 1.9 | 1.1 x 0.9 | A-1 |
| Tx SAW | SF11092605B4111T | B41 | 2550~2655 | 2.3 | 1.1 x 0.9 | A-1 |
| Tx SAW | SF14112595B3803T | B38 | 2570~2620 | 1.8 | 1.4 x 1.1 | A-1 |
| Tx SAW | SF14112350B4001T | B40 | 2300~2400 | 1.8 | 1.4 x 1.1 | A-1 |
| Tx SAW | SF14112605B4107T | B41 | 2550~2655 | 2.9 | 1.4 x 1.1 | A-1 |
| Rx SAW | SF11092595B3805T | B38 | 2570~2620 | 1.6 | 1.1 x 0.9 | A-1 |
| Rx SAW | SF11092350B4005T | B40 | 2300~2400 | 1.9 | 1.1 x 0.9 | A-1 |
| Rx SAW | SF11092140B102T | B1 | 2110~2170 | 1.9 | 1.1 x 0.9 | A-1 |
| Rx SAW | SF11091960B201T | B2 | 1930~1990 | 2.3 | 1.1 x 0.9 | A-1 |

ELECTRICAL SPECIFICATION

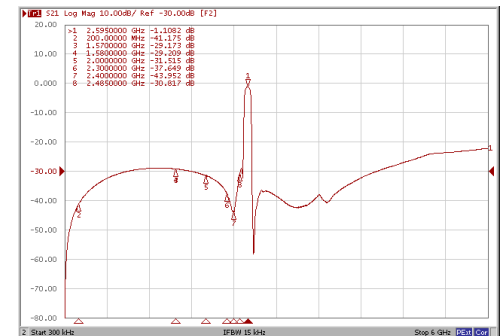
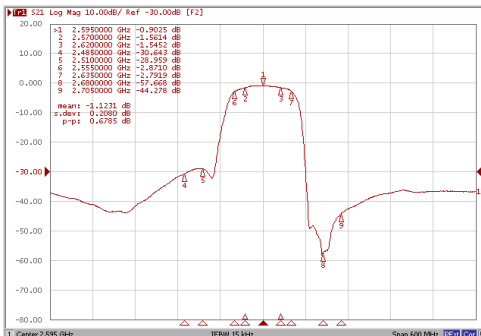
| Type | Part Number | Band | Frequency (MHz) | Insertion Loss (dB) | Package (mm) | STRUCTURE |
|--------------|-----------------|---------|-----------------------|---------------------|--------------|-----------|
| Rx SAW | SF11091842B305T | B3 | 1805~1880 | 2 | 1.1 x 0.9 | A-1 |
| Rx SAW | SF11090881B506T | B5 | 869~894 | 1.3 | 1.1 x 0.9 | A-1 |
| Rx SAW | SF11092655B702T | B7 | 2620~2690 | 2.3 | 1.1 x 0.9 | A-1 |
| Rx SAW | SF11090942B805T | B8 | 925~960 | 2 | 1.1 x 0.9 | A-1 |
| SAW Duplexer | DF18141950B102T | B1 | 1920~1980/2110~2170 | 2.0/2.0 | 1.8 x 1.4 | B |
| | DF18140836B507T | B5 | 824~849/869~894 | 1.7/1.8 | 1.8 x 1.4 | B |
| | DF18140897B801T | B8 | 882.4~912.6/927.4~960 | 2.1/2.9 | 1.8 x 1.4 | B |
| Rx SAW | SB11092140B103T | B1 | 2110~2170 | 2.0 | 1.1 x 0.9 | A-2 |
| Rx SAW | SB11091960B202T | B2 | 1930~1990 | 2.8 | 1.1 x 0.9 | A-2 |
| Rx SAW | SB11091842B306T | B3 | 1805~1880 | 2.9 | 1.1 x 0.9 | A-2 |
| Rx SAW | SB11090881B507T | B5 | 869~894 | 1.5 | 1.1 x 0.9 | A-2 |
| Rx SAW | SB11092655B703T | B7 | 2620~2690 | 2.5 | 1.1 x 0.9 | A-2 |
| Rx SAW | SB11090942B806T | B8 | 925~960 | 1.9 | 1.1 x 0.9 | A-2 |
| Rx Dual SAW | BF1511B394101BT | B39/B41 | 1880~1920/2550~2655 | 1.8/2.2 | 1.5 x 1.1 | C |

TYPICAL ELECTRICAL CHARACTERISTICS

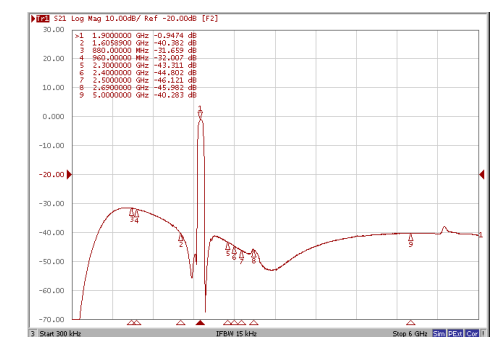
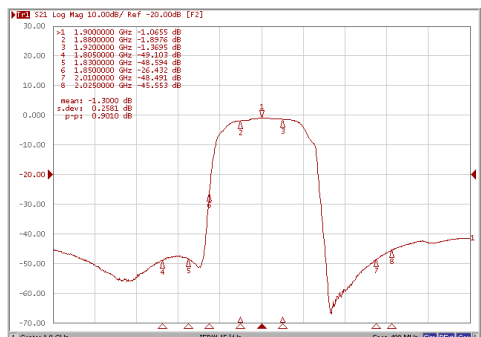
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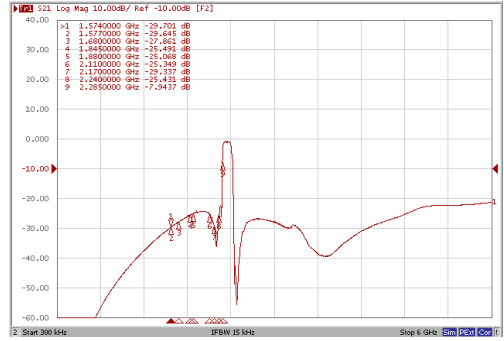
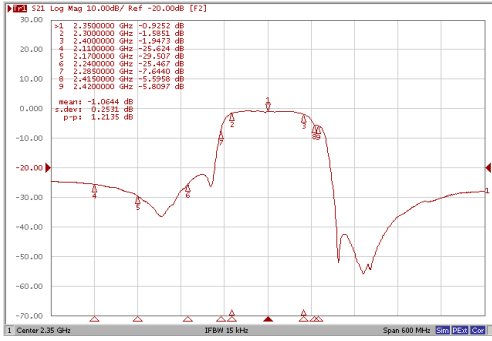


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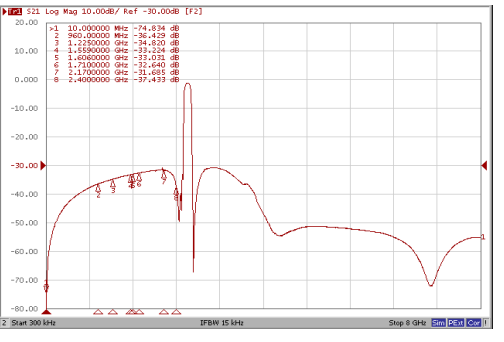
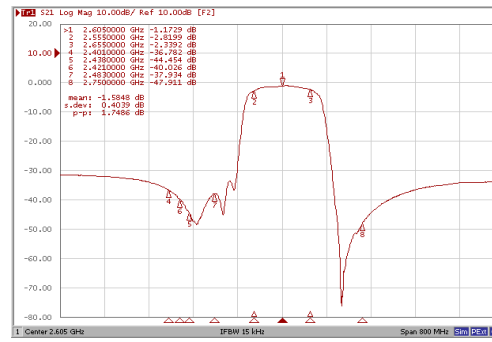


■ TYPICAL ELECTRICAL CHARACTERISTICS

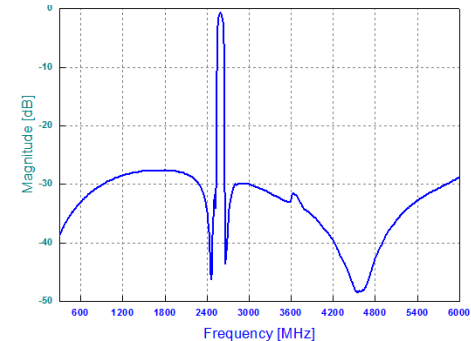
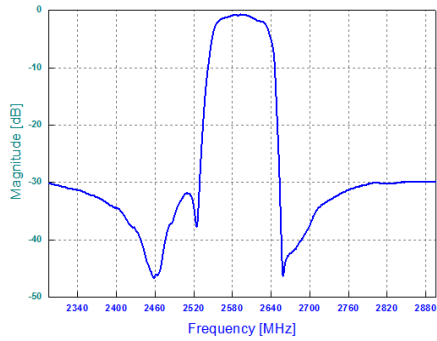
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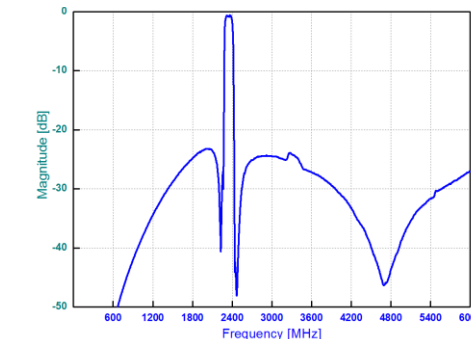
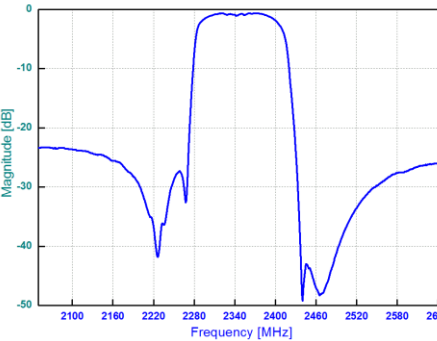
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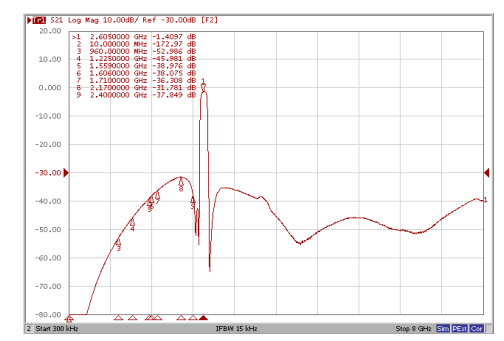
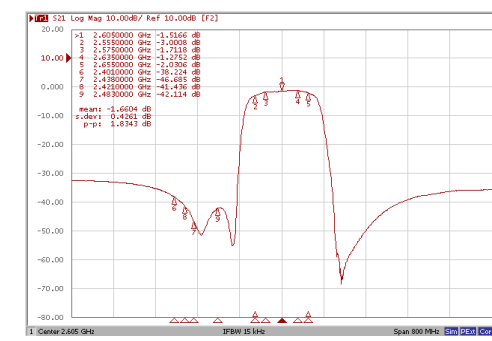
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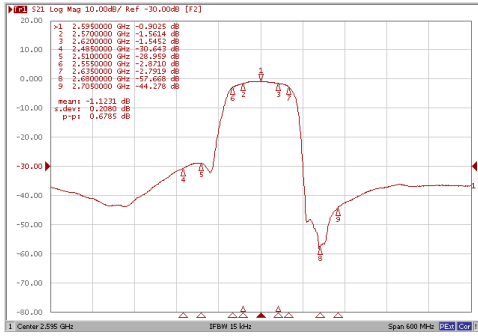


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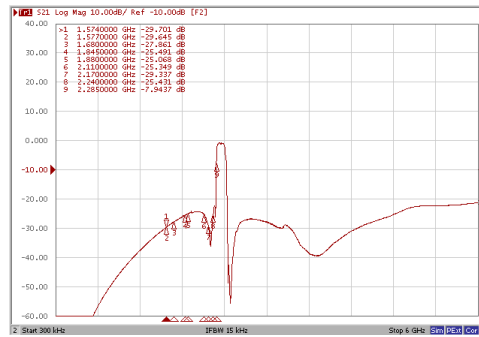
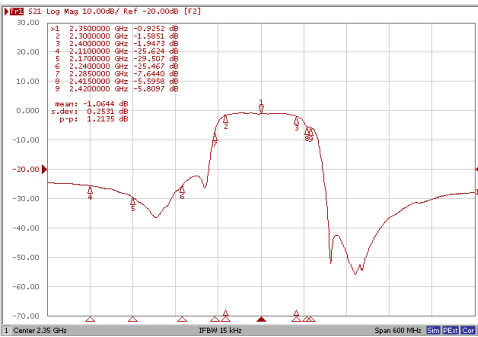


■ TYPICAL ELECTRICAL CHARACTERISTICS

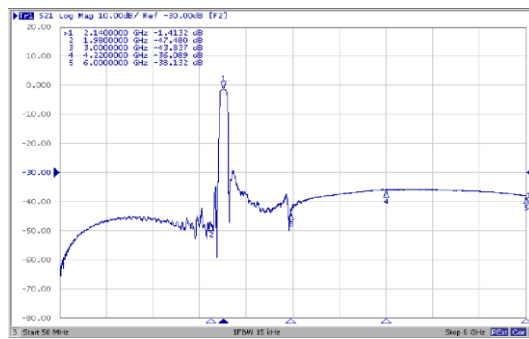
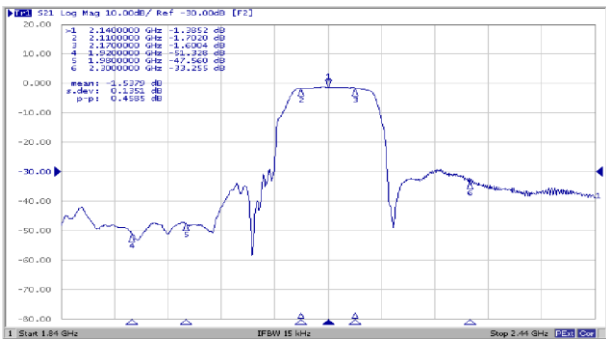
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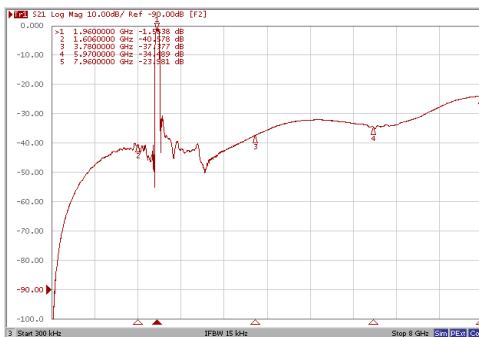
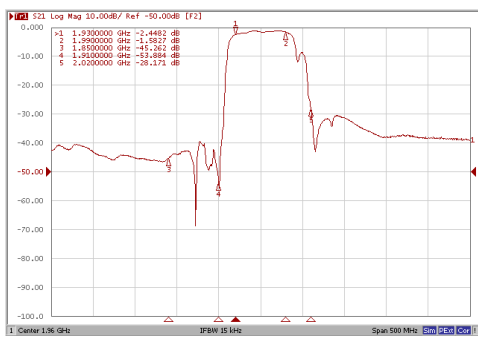
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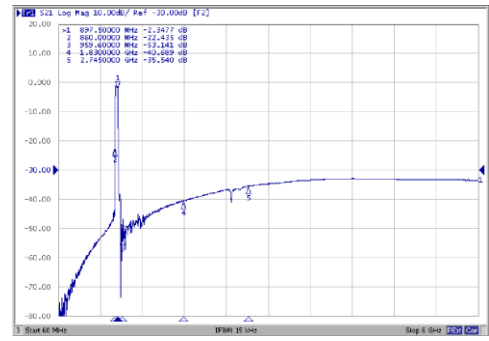
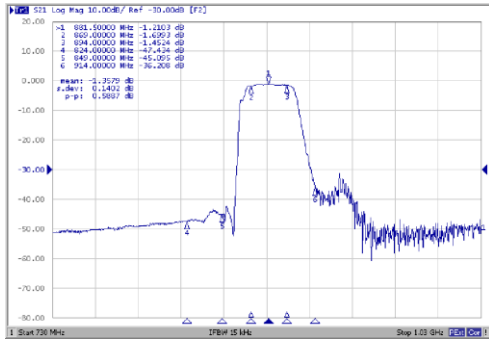


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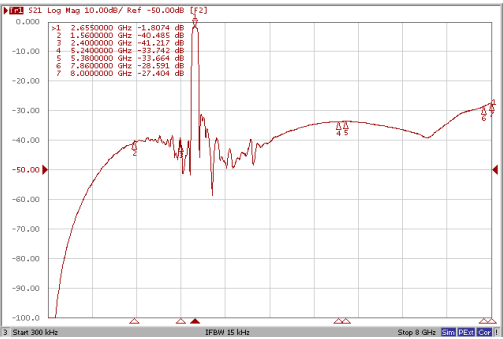
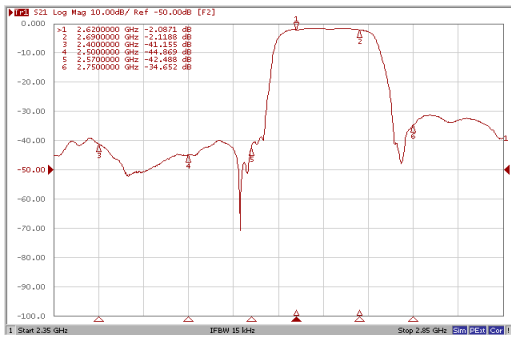


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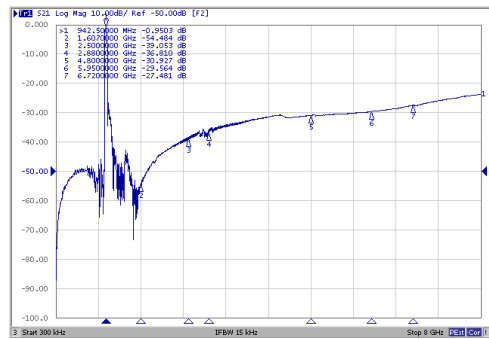
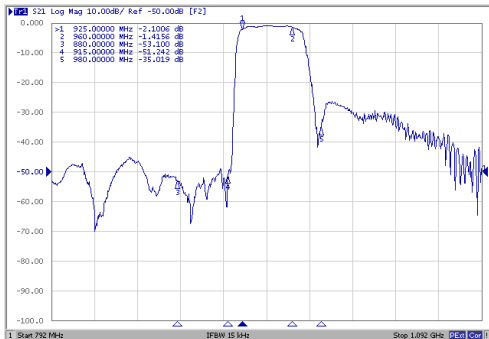
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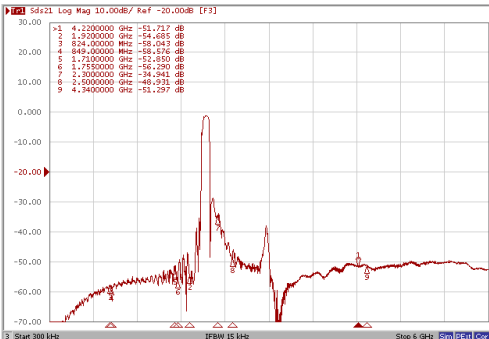
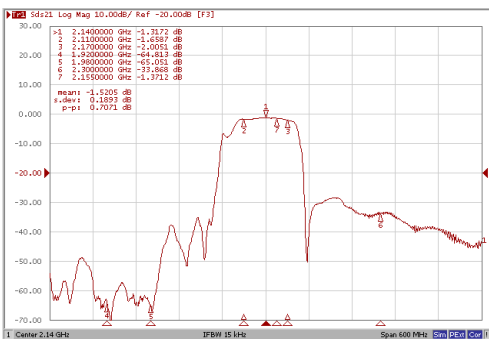
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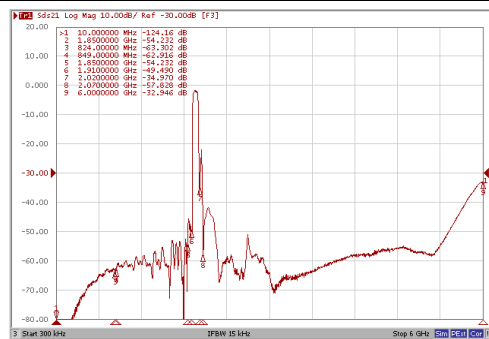
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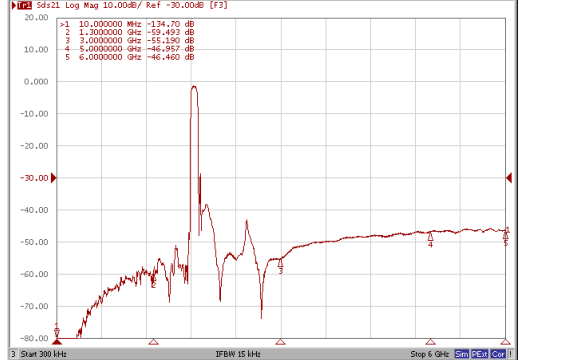
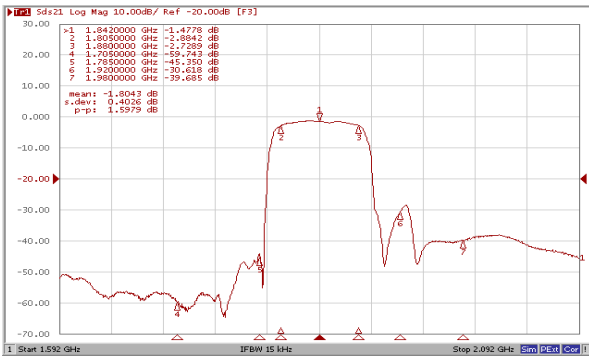


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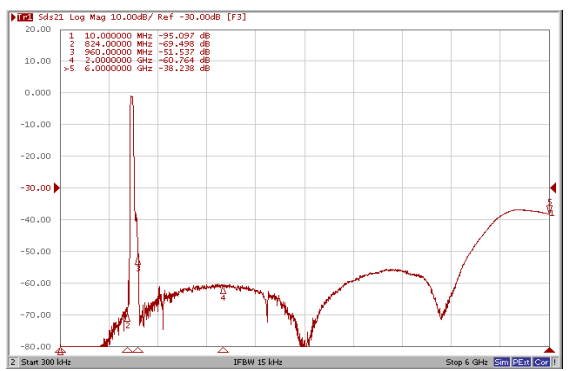
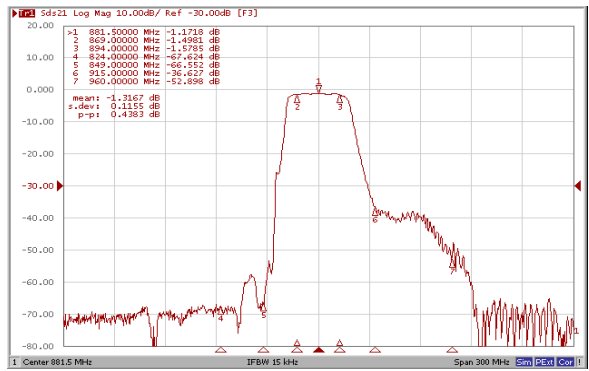


TYPICAL ELECTRICAL CHARACTERISTICS

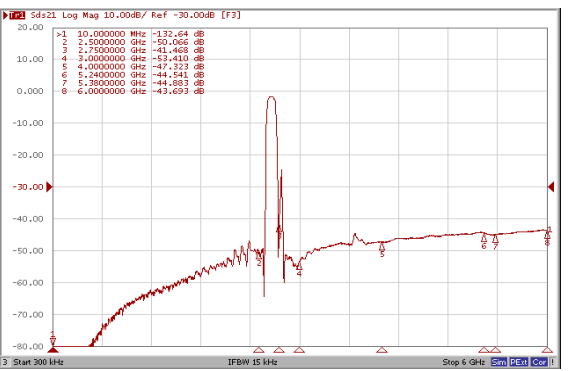
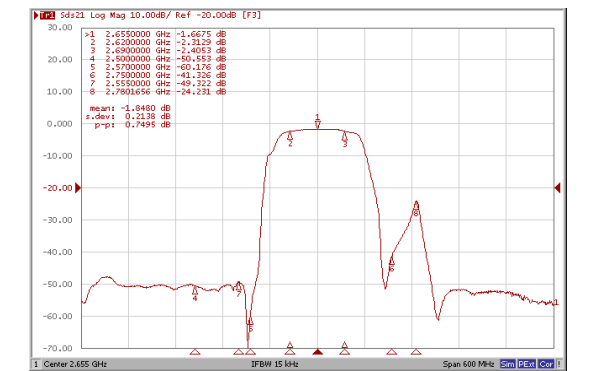
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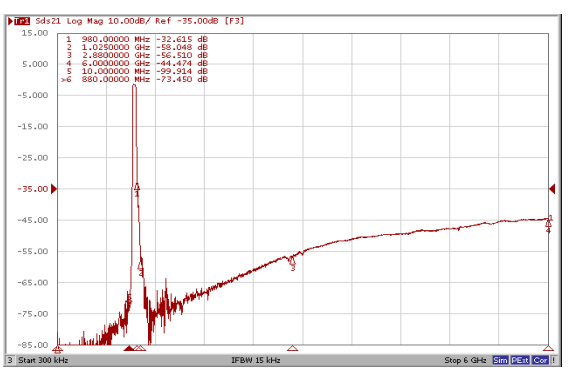
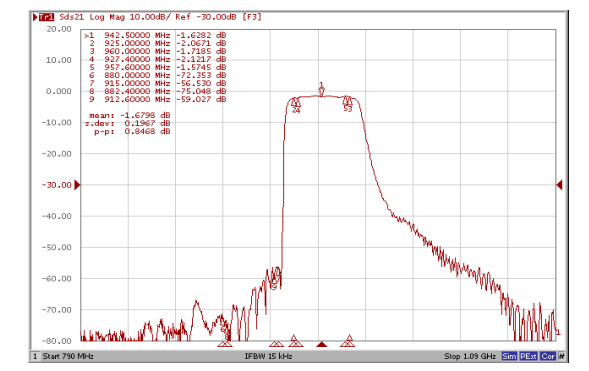
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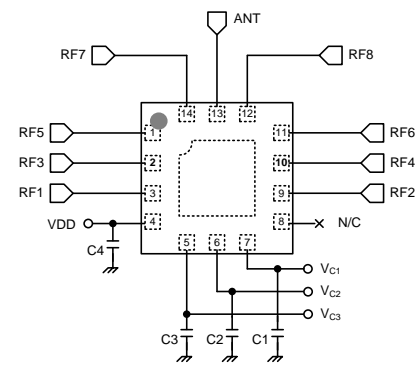
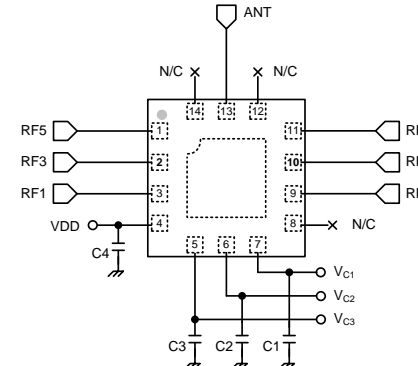
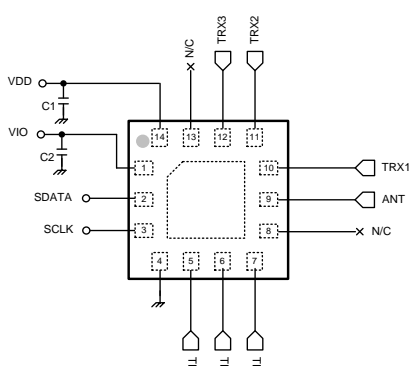
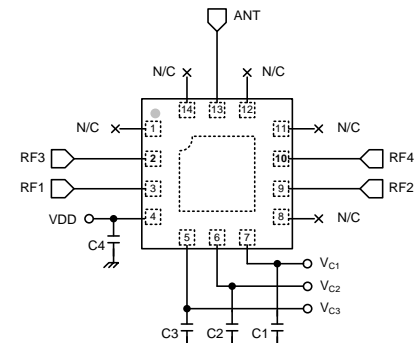
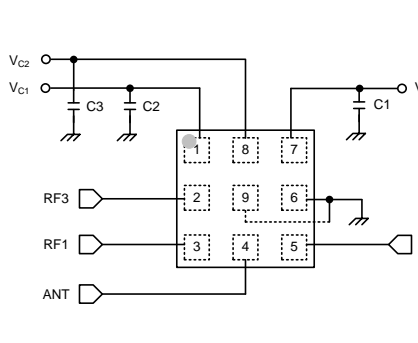
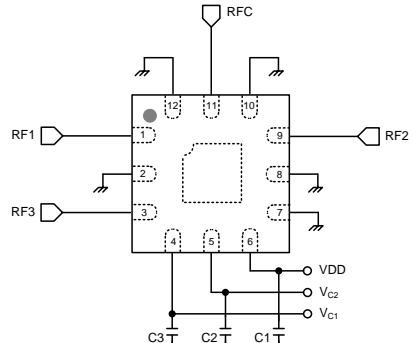
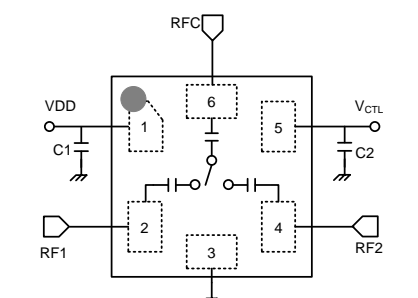
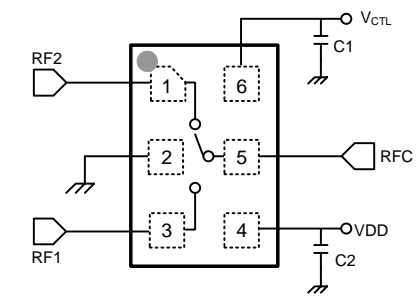
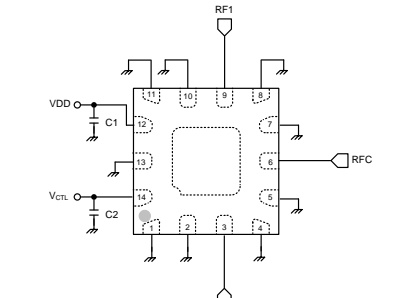
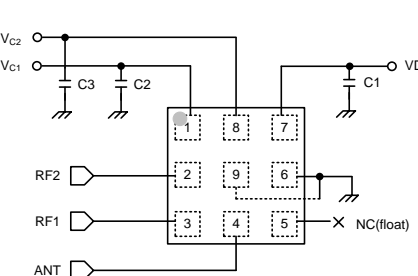
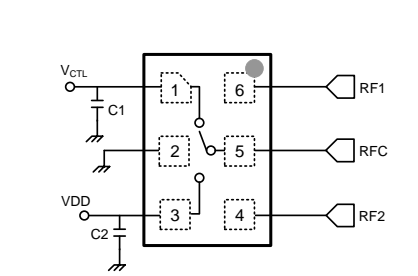


SB11090942B806T



ANTENNA SWITCH

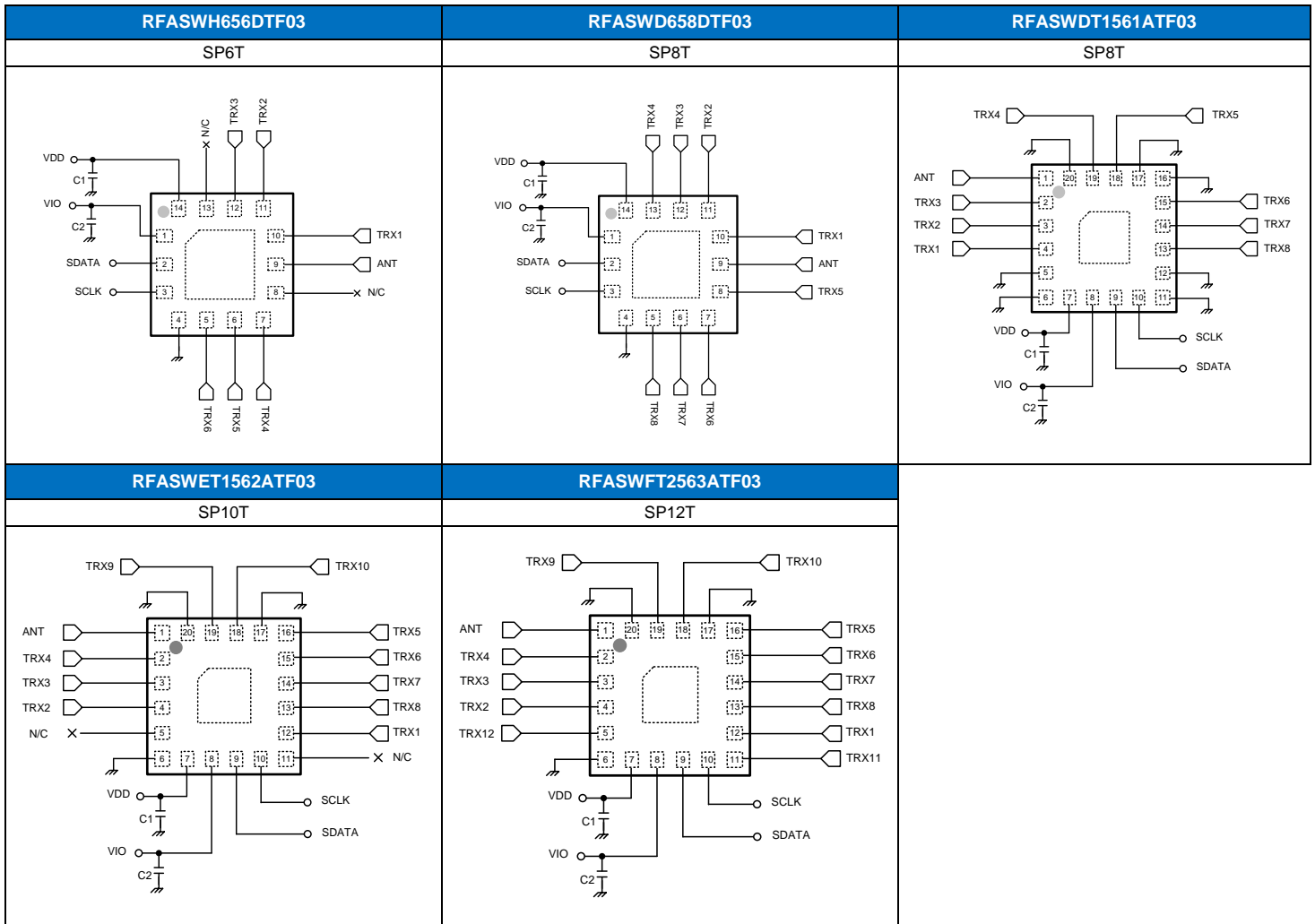
■ Application Circuit (GPIO)

| RFASWDH2418ATF09 | RFASWHH1416ATF09 | RFASWH656ATF03 |
|---|--|--|
| <p style="text-align: center;">SP8T</p>  | <p style="text-align: center;">SP6T</p>  | <p style="text-align: center;">SP6T</p>  |
| RFASWKH4414ATF09 | RFASWMT2628ATF02 | RFASWMH6373ATF02 |
| <p style="text-align: center;">SP4T</p>  | <p style="text-align: center;">SP3T</p>  | <p style="text-align: center;">SP3T</p>  |
| RFASWA697ATF06 | RFASWA630ATF06 | RFASWA681ATF02 |
| <p style="text-align: center;">SPDT</p>  | <p style="text-align: center;">SPDT</p>  | <p style="text-align: center;">SPDT</p>  |
| RFASWAH9628ATF09 | RFASWAM3489ATF09 | |
| <p style="text-align: center;">SPDT</p>  | <p style="text-align: center;">SPDT</p>  | |

■ ELECTRICAL SPECIFICATION

| Part Number | Description | Frequency (GHz)Min. | Frequency (GHz)Max. | Insertion loss (dB) | Isolation (dB) | VSWR | Package (mm) |
|------------------|-------------|---------------------|---------------------|---------------------|----------------|------|------------------------------|
| RFASWDH2418ATF09 | SP8T GPIO | 0.1 | 2.7 | 0.45~0.70dB | 22~33 | 1.67 | 14-pin 2.00 x 2.00 x 0.55 |
| RFASWHH1416ATF09 | SP6T GPIO | 0.1 | 2.7 | 0.40~0.55dB | 26~35 | 1.43 | 14-pin 2.00 x 2.00 x 0.55 |
| RFASWH656ATF03 | SP6T GPIO | 0.4 | 2.7 | 0.40~0.76dB | 20~30 | 1.43 | 14-pin 2.00 x 2.00 x 0.78 |
| RFASWKH4414ATF09 | SP4T GPIO | 0.1 | 2.7 | 0.40~0.55dB | 26~35 | 1.43 | 14-pin 2.00 x 2.00 x 0.55 |
| RFASWMT2628ATF02 | SP3T GPIO | 0.5 | 2.7 | 0.30~0.50dB | 20~30 | 2.00 | 9-pin 1.15 x 1.15 x 0.55 |
| RFASWMH6373ATF02 | SP3T GPIO | 0.1 | 2.7 | 0.40~0.50dB | 23~32 | 1.43 | 12-pin 2.00 x 2.00 x 0.55 |
| RFASWA697ATF06 | SPDT GPIO | 0.7 | 6.0 | 0.45~1.00dB | 15~32 | 2.00 | 6-pin 1.00 x 1.00 x 0.50 |
| RFASWA630ATF06 | SPDT GPIO | 0.7 | 2.7 | 0.55~0.60dB | 25~30 | 2.00 | 6-pin 1.10 x 0.70 x 0.55 |
| RFASWA681ATF02 | SPDT GPIO | 0.1 | 3.0 | 0.50~0.60dB | 25~30 | 1.43 | 14-pin 1.60 x 1.60 x 0.45 |
| RFASWAH9628ATF09 | SPDT GPIO | 0.5 | 2.7 | 0.30~0.50dB | 20~30 | 1.43 | 9-pin 1.10 x 1.10 x 0.42 |
| RFASWAM3489ATF09 | SPDT GPIO | 0.7 | 2.7 | 0.38~0.48dB | 21~33 | 1.43 | 6-pin 1.10 x 0.70 x 0.45 |

Application Circuit (MIPI)

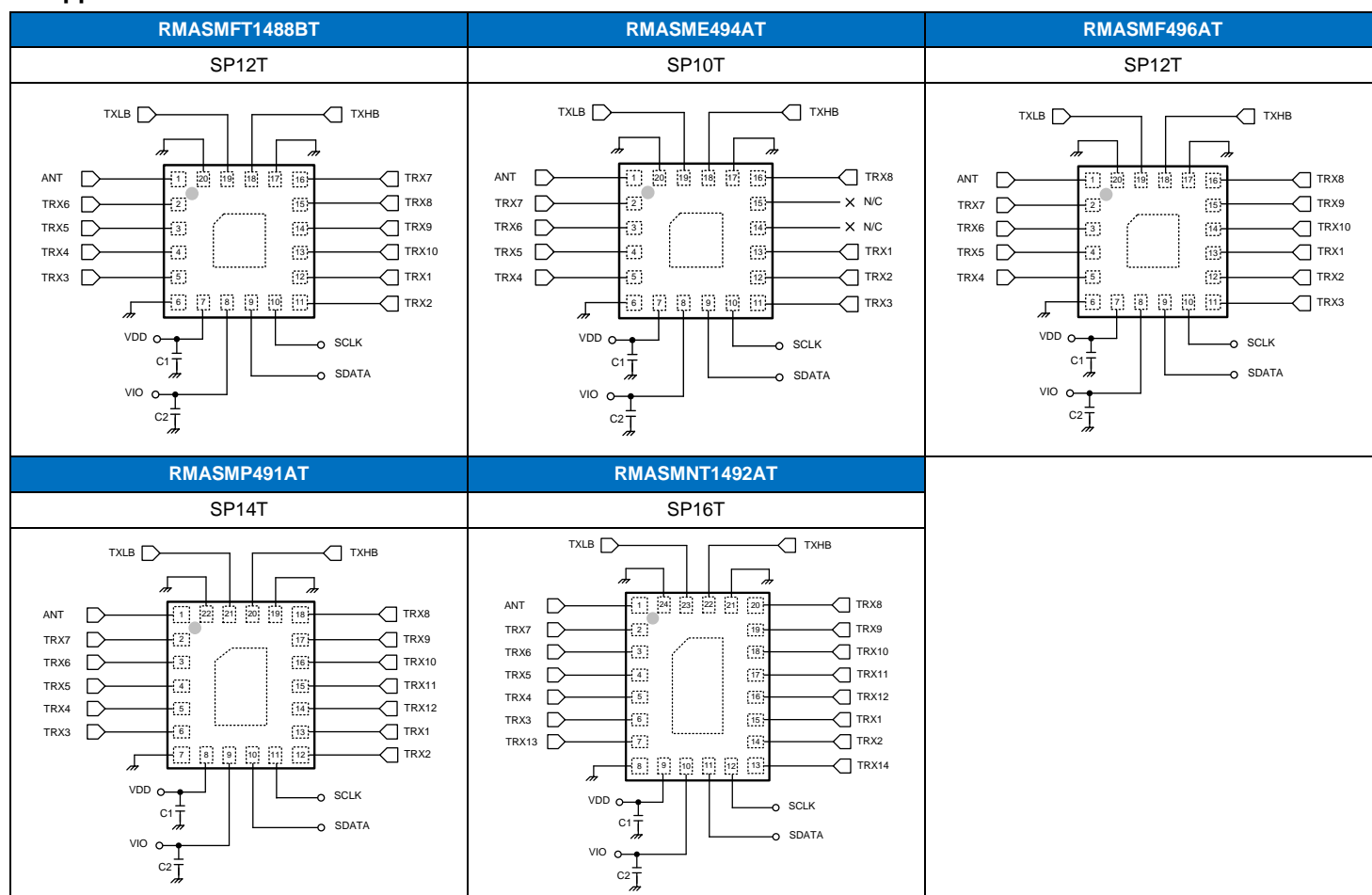


ELECTRICAL SPECIFICATION

| Part Number | Description | Frequency (GHz)Min. | Frequency (GHz)Max. | Insertion loss (dB) TRXx ports | Isolation (TRXx to any off TRXx port [non-adjacent ports]) | Isolation (TRXx to any off TRXx port [adjacent ports]) | VSWR | Package (mm) |
|------------------|----------------|---------------------|---------------------|--------------------------------|--|--|------|----------------------------|
| RFASWH656DTF03 | SP6T DRX MIPI | 0.4 | 2.7 | 0.40~0.76dB (704~2690MHz) | 20~30 | 17~26 | 2.0 | 14-pin 2.0 x 2.0 x 0.73 |
| RFASWD658DTF03 | SP8T DRX MIPI | 0.4 | 2.7 | 0.40~0.76dB (704~2690MHz) | 20~30 | 17~26 | 2.0 | 14-pin 2.0 x 2.0 x 0.73 |
| RFASWDT1561ATF03 | SP8T DRX MIPI | 0.4 | 2.7 | 0.50~0.80dB (700~2690MHz) | 25~35 | 20~26 | 2.0 | 20-pin 2.5 x 2.5 x 0.78 |
| RFASWET1562ATF03 | SP10T DRX MIPI | 0.4 | 2.7 | 0.50~0.80dB (700~2690MHz) | 25~35 | 20~26 | 2.0 | 20-pin 2.5 x 2.5 x 0.84 |
| RFASWFT2563ATF03 | SP12T DRX MIPI | 0.4 | 2.7 | 0.50~0.80dB (700~2690MHz) | 25~35 | 20~26 | 2.0 | 20-pin 2.5 x 2.5 x 0.84 |

ANTENNA SWITCH MODULE

■ Application Circuit



■ ELECTRICAL SPECIFICATION


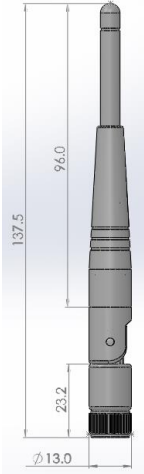
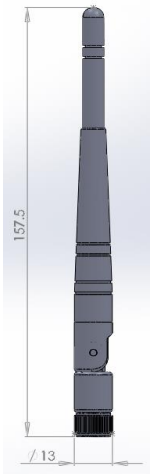
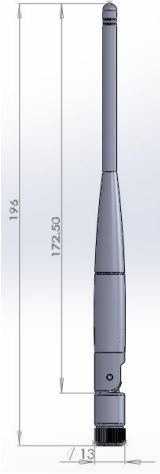
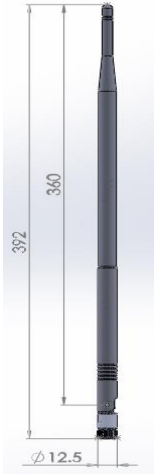
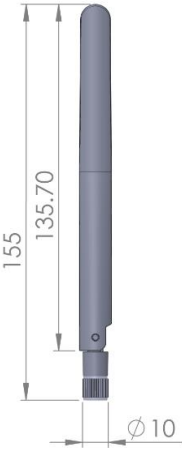
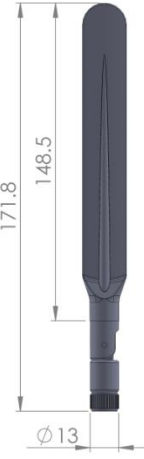
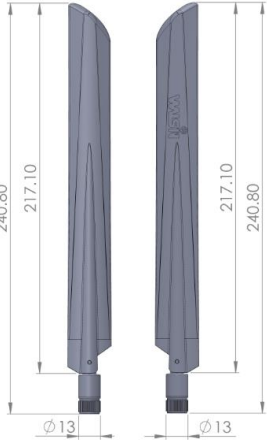

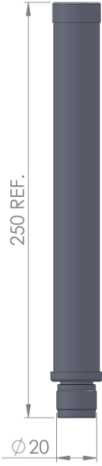

| Part Number | Description | Frequency (GHz) Min. | Frequency (GHz) Max. | Insertion loss (dB) TRXx ports | Insertion loss (dB) TXLB(f_0) 824~915MHz | Insertion loss (dB) TXHB(f_1) 1710~1910MHz | GSM Attenuation (dB) ($2f_0$, $3f_0$) ($2f_1$, $3f_1$) | Isolation (TRXx to any off TRXx port [non-adjacent ports]) | Isolation (TRXx to any off TRXx port [adjacent ports]) | VSWR | Package (mm) |
|--------------|----------------|----------------------|----------------------|--------------------------------|--|--|--|--|--|------|----------------------------|
| RMASMF496AT | SP12T ASM MIPI | 0.4 | 2.7 | 0.60~0.90dB (824~2690MHz) | 1.25 | 1.25 | 25 | 23~30 | 20~26 | 2.0 | 20-pin 2.5 x 2.5 x 0.78 |
| RMASME494AT | SP10T ASM MIPI | 0.4 | 2.7 | 0.60~0.85dB (824~2690MHz) | 1.25 | 1.25 | 25 | 23~30 | 20~26 | 2.0 | 20-pin 2.5 x 2.5 x 0.78 |
| RMASMP491AT | SP14T ASM MIPI | 0.4 | 2.7 | 0.70~1.15dB (700~2690MHz) | 1.25 | 1.25 | 25 | 20~30 | 16~20 | 2.0 | 22-pin 2.5 x 2.9 x 0.78 |
| RMASNT1492AT | SP16T ASM MIPI | 0.4 | 2.7 | 0.60~1.00dB (824~2690MHz) | 1.25 | 1.25 | 25 | 20~30 | 16~20 | 2.0 | 24-pin 2.5 x 3.3 x 0.78 |

DIPOLE ANTENNA (N/SMA)

■ ELECTRICAL SPECIFICATION

| Series | Size(mm) | | Working Frequency Range | Gain | VSWR | Return Loss |
|--------|----------|------|-------------------------|--|------|-------------|
| | L | Ø | | | | |
| 8709 | 87 | 9.95 | 2.4~2.5 GHz | 2dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 2dBi 5.15~5.85 GHz : 3dBi | <2 | <-10dB |
| 1313 | 137.5 | 13 | 2.4~2.5 GHz | 3dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 3dBi 5.15~5.85 GHz : 3dBi | <2 | <-10dB |
| 1513 | 157.5 | 13 | 2.4~2.5 GHz | 3dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 3dBi 5.15~5.85 GHz : 3dBi | <2 | <-10dB |
| 1713 | 172.5 | 13 | 2.4~2.5 GHz | 3dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 4dBi 5.15~5.85 GHz : 5dBi | <2 | <-10dB |
| 3913 | 392 | 12.5 | 2.4~2.5 GHz | 9dBi | <2 | <-10dB |
| 1310 | 135.7 | 10 | 2.4~2.5 GHz | 5dBi | <2 | <-10dB |
| | | | 5.x GHz | 5dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 3dBi~4dBi | <2 | <-10dB |
| | | | LTE | 3dBi | <3 | <-6dB |
| 1413 | 148.5 | 13 | 2.4~2.5 GHz | 3dBi | <2 | <-10dB |
| | | | 5.x GHz | 3dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 3dBi | <2 | <-10dB |
| | | | LTE | 3dBi | <3 | <-6dB |
| 1913 | 196.6 | 13 | 2.4~2.5 GHz | 5dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 4dBi 5.15~5.85 GHz : 5dBi | <2 | <-10dB |
| 2213 | 217.1 | 13 | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 5dBi 5.15~5.85 GHz : 4dBi | <2 | <-10dB |
| | | | 2.4~2.5 GHz | 6dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 7dBi | <2 | <-10dB |
| | | | 5.x GHz | 7dBi | <2 | <-10dB |
| | | | LTE | 5dBi | <3 | <-6dB |
| 2220 | 220 | 20 | 2.4 GHz | 5dBi | <2 | <-10dB |
| | | | 5.x GHz | 5dBi | <2 | <-10dB |
| | | | 2.4~2.5 GHz | 7dBi | <2 | <-10dB |
| 2520 | 25 | 20 | 2.4 GHz | 5~7dBi | <2 | <-10dB |
| | | | 5.x GHz | 7dBi | <2 | <-10dB |
| | | | 2.4~2.5 GHz (High Gain) | 7dBi | <2 | <-10dB |

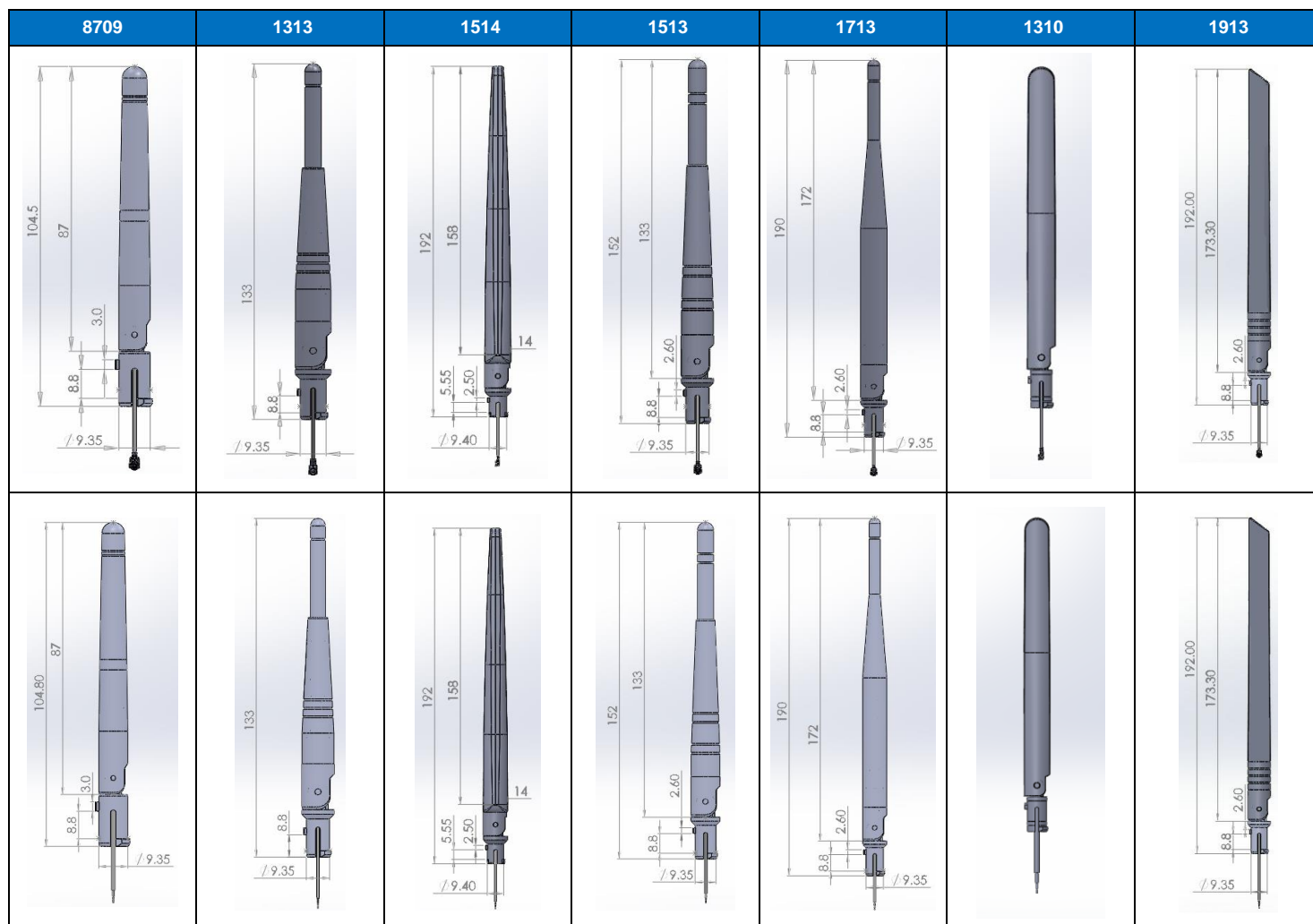
DIPOLE ANTENNA (N/SMA)

| 8709 | 1313 | 1513 | 1713 | 3913 |
|---|--|--|--|--|
|  |  |  |  |  |
| 1310 | 1413 | 2213 | 2220 | 2520 |
|  |  |  |  |  |
| 1913 | | | | |
|  | | | | |

DIPOLE ANTENNA (Cable)

■ ELECTRICAL SPECIFICATION

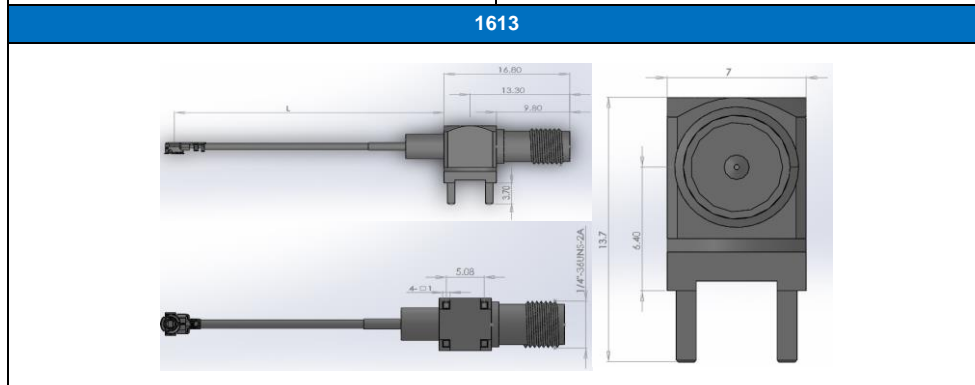
| Series | Size(mm) | | Working Frequency Range | Gain | VSWR | Return Loss |
|--------|----------|------|-------------------------|--|------|-------------|
| | L | Ø | | | | |
| 8709 | 87 | 9.35 | 2.4~2.5 GHz | 2dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 2dBi 5.15~5.85 GHz : 3dBi | <2 | <-10dB |
| 1313 | 133 | 9.35 | 2.4~2.5 GHz | 3dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 3dBi 5.15~5.85 GHz : 3dBi | <2 | <-10dB |
| 1513 | 152 | 9.35 | 2.4~2.5 GHz | 3dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 3dBi 5.15~5.85 GHz : 3dBi | <2 | <-10dB |
| 1514 | 158 | 14 | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 5dBi 5.15~5.85 GHz : 7dBi | <2 | <-10dB |
| 1713 | 172 | 9.35 | 2.4~2.5 GHz | 3dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 4dBi 5.15~5.85 GHz : 5dBi | <2 | <-10dB |
| 1310 | 135.7 | 10 | 2.4~2.5 GHz | 5dBi | <2 | <-10dB |
| | | | 5.x GHz | 5dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 3dBi~4dBi | <2 | <-10dB |
| | | | LTE | 3dBi | <3 | <-6dB |
| 1913 | 192 | 9.35 | 2.4~2.5 GHz | 5dBi | <2 | <-10dB |
| | | | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 4dBi 5.15~5.85 GHz : 5dBi | <2 | <-10dB |



Cable Assembly

■ ELECTRICAL SPECIFICATION

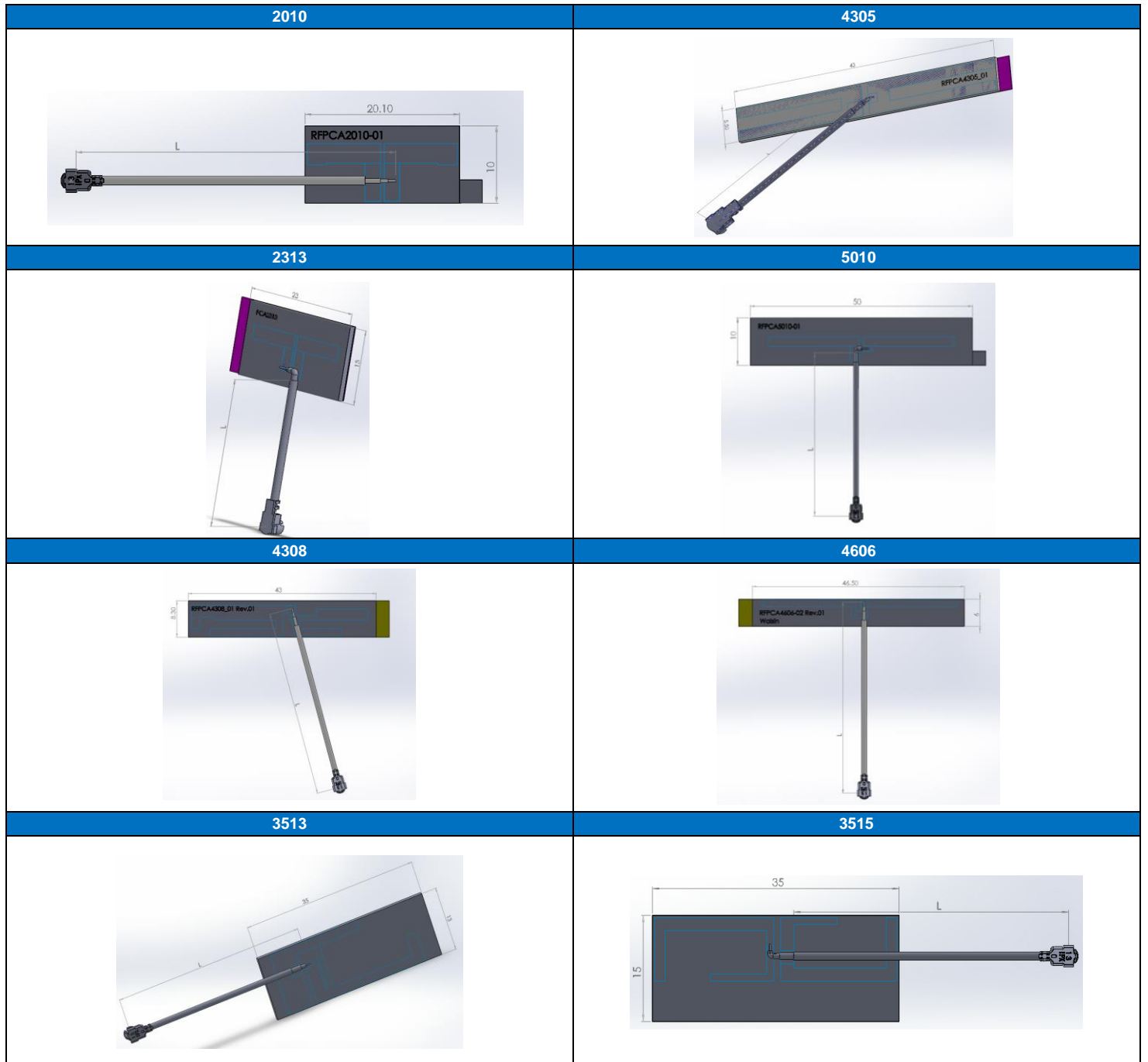
| Series | Connector 1 | Connector 2 | Wire Diameter | Color | L | Working Frequency Range | VSWR |
|--------|---------------------------|----------------------|-------------------------|--------|--------|-------------------------|------|
| 1006 | Straight Reverse SMA Jack | IPEX(or Strip & Tin) | Ø1.13/Ø1.37/RG178 | Option | Option | DC ~ 6 GHz | 2.0 |
| 1106 | Straight Reverse SMA Jack | IPEX(or Strip & Tin) | Ø1.13/Ø1.37/RG178 | Option | Option | DC ~ 6 GHz | 2.0 |
| 1613 | R/A Reverse SMA Jack | IPEX(or Strip & Tin) | Ø1.13/Ø1.37/RG178 | Option | Option | DC ~ 6 GHz | 2.0 |
| 0403 | IPEX | IPEX(or Strip & Tin) | Ø0.81/Ø1.13/Ø1.37/RG178 | Option | Option | DC ~ 6 GHz | 2.0 |
| 0202 | IPEX III | IPEX(or Strip & Tin) | Ø0.81 | Option | Option | DC ~ 6 GHz | 2.0 |
| xxxx | Strip & Tin | Strip & Tin | Ø0.81/Ø1.13/Ø1.37/RG178 | Option | Option | DC ~ 6 GHz | 2.0 |
| 1015 | N Jack | MMCX(or Strip & Tin) | RG316 | Option | Option | DC ~ 6 GHz | 2.0 |
| 1008 | Straight Reverse SMA Plug | IPEX(or Strip & Tin) | RG405 | Option | Option | DC ~ 6 GHz | 2.0 |



PCB Antenna

■ ELECTRICAL SPECIFICATION

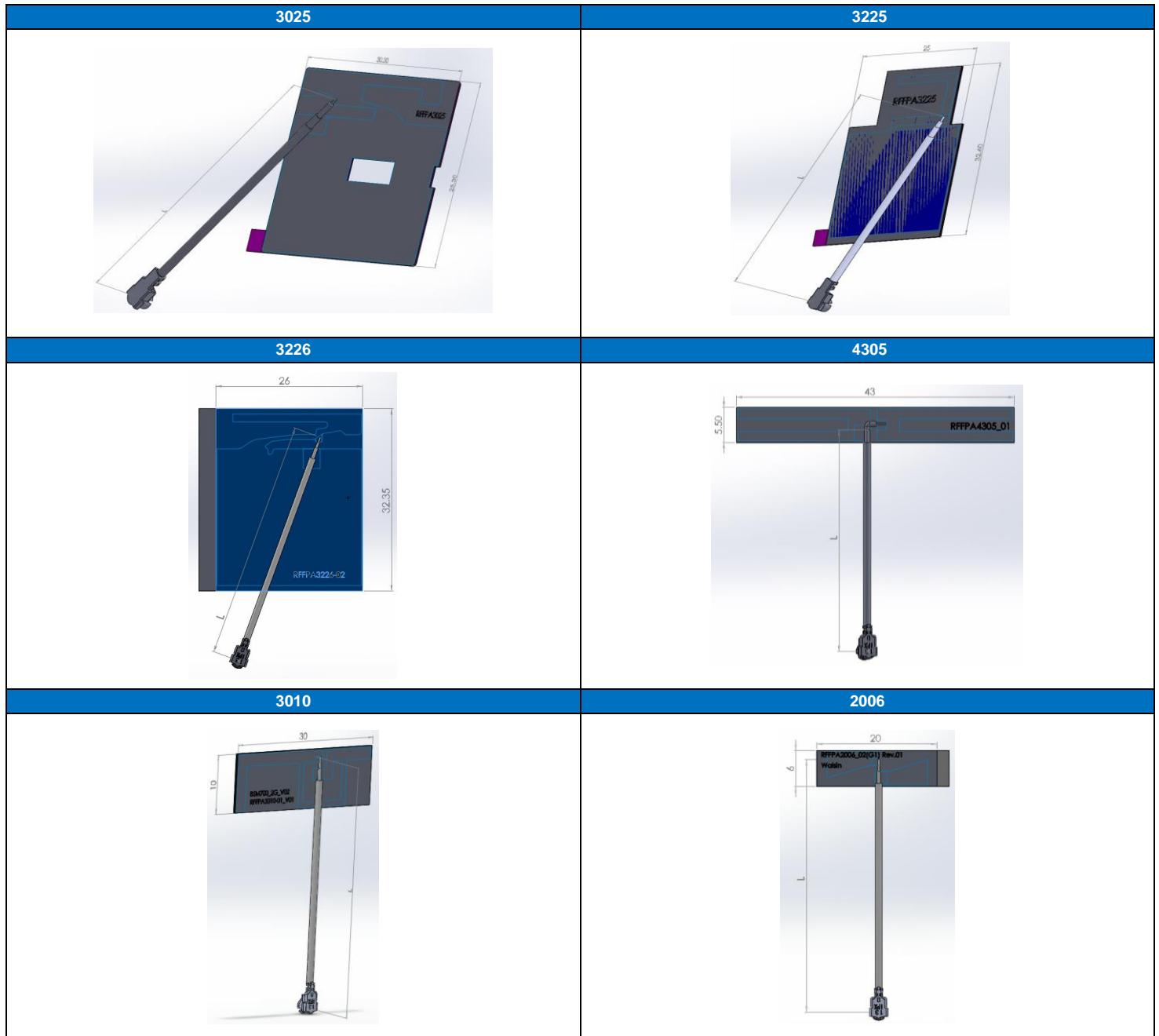
| Series | PCB Size(mm) | | Cable Length(mm) L | Working Frequency Range | Gain | VSWR | Return Loss |
|--------|--------------|-----|-----------------------|-------------------------|--------------------------------------|------|-------------|
| | L | w | | | | | |
| 2313 | 23 | 13 | Option | 5 GHz | 3dBi | <2 | <-10dB |
| 4305 | 43 | 5 | Option | 2.4~2.5 GHz | 2dBi | <2 | <-10dB |
| 2010 | 20.1 | 10 | Option | 5 GHz | 3dBi | <2 | <-10dB |
| 5010 | 50 | 10 | Option | 2.4~2.5 GHz | 3dBi | <2 | <-10dB |
| 4308 | 43 | 8.3 | Option | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 2dBi 5.x GHz : 3dBi | <2 | <-10dB |
| 4606 | 46.5 | 6 | Option | 2.4~2.5 GHz | 2dBi | <2 | <-10dB |
| 3513 | 35 | 13 | Option | 2.4~2.5 GHz | 4dBi | <2 | <-10dB |
| 3515 | 35 | 15 | Option | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 2dBi 5.x GHz : 3dBi | <2 | <-10dB |



FPA Antenna

■ ELECTRICAL SPECIFICATION

| Series | Size(mm) | | Cable Length(mm) L | Working Frequency Range | Gain | VSWR | Return Loss |
|--------|----------|------|-----------------------|----------------------------|------|------|-------------|
| | L | w | | | | | |
| 3025 | 30.3 | 25.3 | Option | 2.4~2.5 GHz | 3dBi | <2 | <-10dB |
| 3225 | 25 | 32.6 | Option | 2.4~2.5 GHz | 2dBi | <2 | <-10dB |
| 3226 | 32.35 | 26 | Option | 2.4~2.5 / 5.x GHz | 3dBi | <2 | <-10dB |
| 4305 | 43 | 5.5 | Option | 2.4~2.5 GHz | 3dBi | <2 | <-10dB |
| 3010 | 30 | 10 | Option | 2.4~2.5 GHz | 2dBi | <2 | <-10dB |
| 2006 | 20 | 6 | Option | 5.x GHz | 2dBi | <2 | <-10dB |



Metal Antenna

■ ELECTRICAL SPECIFICATION

| Series | Size(mm) | | Cable Length(mm) L | Working Frequency Range | Gain | VSWR | Return Loss |
|--------|----------|------|-----------------------|----------------------------|--|------|-------------|
| | L | w | | | | | |
| 3109 | 31 | 9 | Option | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 2 dBi 5.x GHz : 2 dBi | <2 | <-10dB |
| 2107 | 21.5 | 7.1 | None | 2.4~2.5 GHz | 3 dBi | <2 | <-10dB |
| 2807 | 28.6 | 7.9 | Option | 2.4~2.5 GHz | 3 dBi | <2 | <-10dB |
| 3407 | 34 | 7.5 | Option | 2.4~2.5 GHz | 3 dBi | <2 | <-10dB |
| 3706 | 37.4 | 6.5 | Option | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 5 dBi 5.x GHz : 5 dBi | <2 | <-10dB |
| 2712 | 27.75 | 12.8 | None | 2.4~2.5 GHz | 3.38 dBi | <2 | <-10dB |
| 2811 | 27.05 | 11.3 | None | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 2.66dBi 5.x GHz : 3.68dBi | <2 | <-10dB |
| 2911 | 29.6 | 11.3 | None | 2.4~2.5/5.x GHz | 2.4~2.5 GHz : 2.14dBi 5.x GHz : 2.68dBi | <2 | <-10dB |

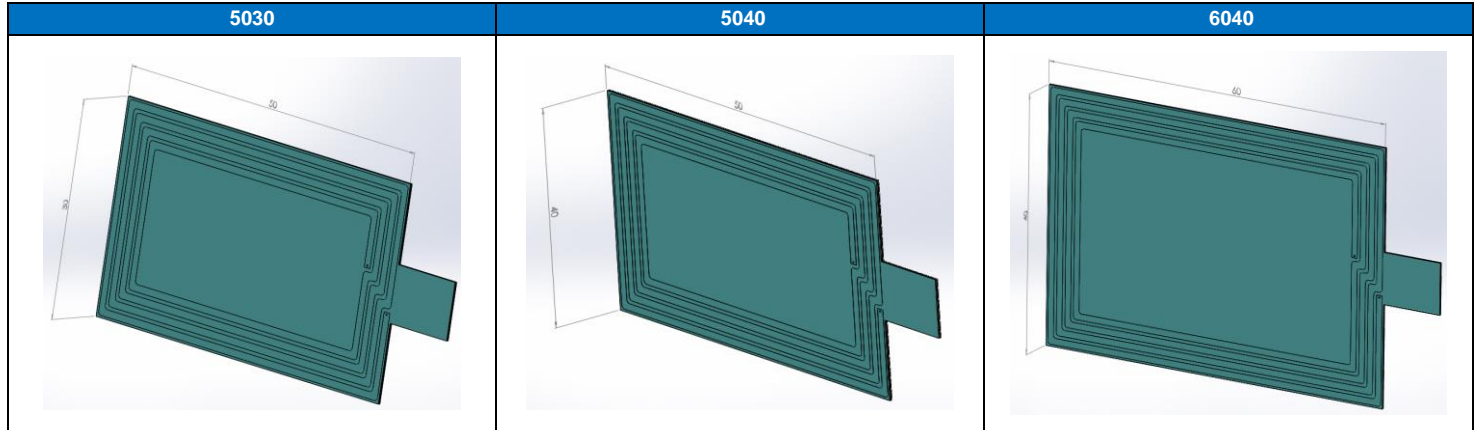


NFC Antenna (NFC/WPC/WNC)

■ ELECTRICAL SPECIFICATION

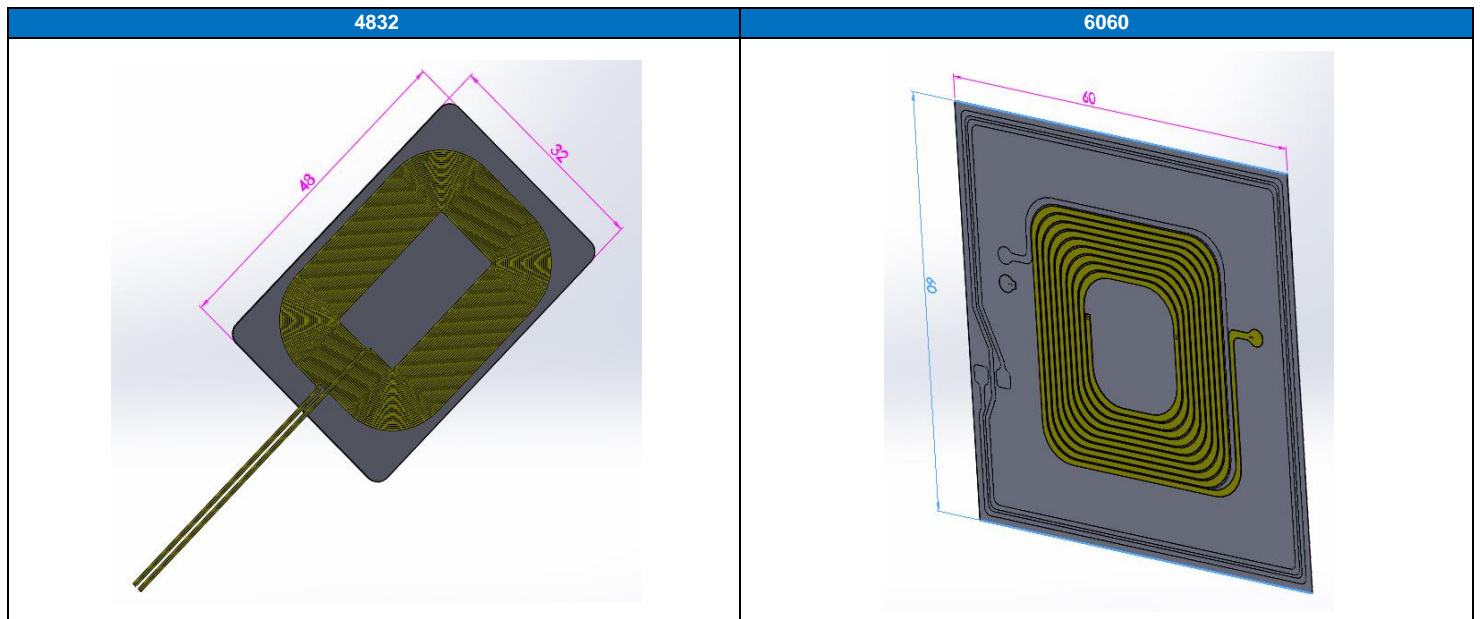
NFC

| Series | Size(mm) | | Ls | Rs | Q |
|--------|----------|----|------------|------------|-----------------|
| | L | w | | | |
| 5030 | 50 | 30 | 1.62±0.1μH | 0.66±0.15Ω | 15.42±2.5(1MHz) |
| 5040 | 50 | 40 | 1.89±0.1μH | 0.76±0.15Ω | 15.62±2.5(1MHz) |
| 6040 | 60 | 40 | 2.37±0.1μH | 0.85±0.15Ω | 17.5±2.5(1MHz) |



WPC & WNC

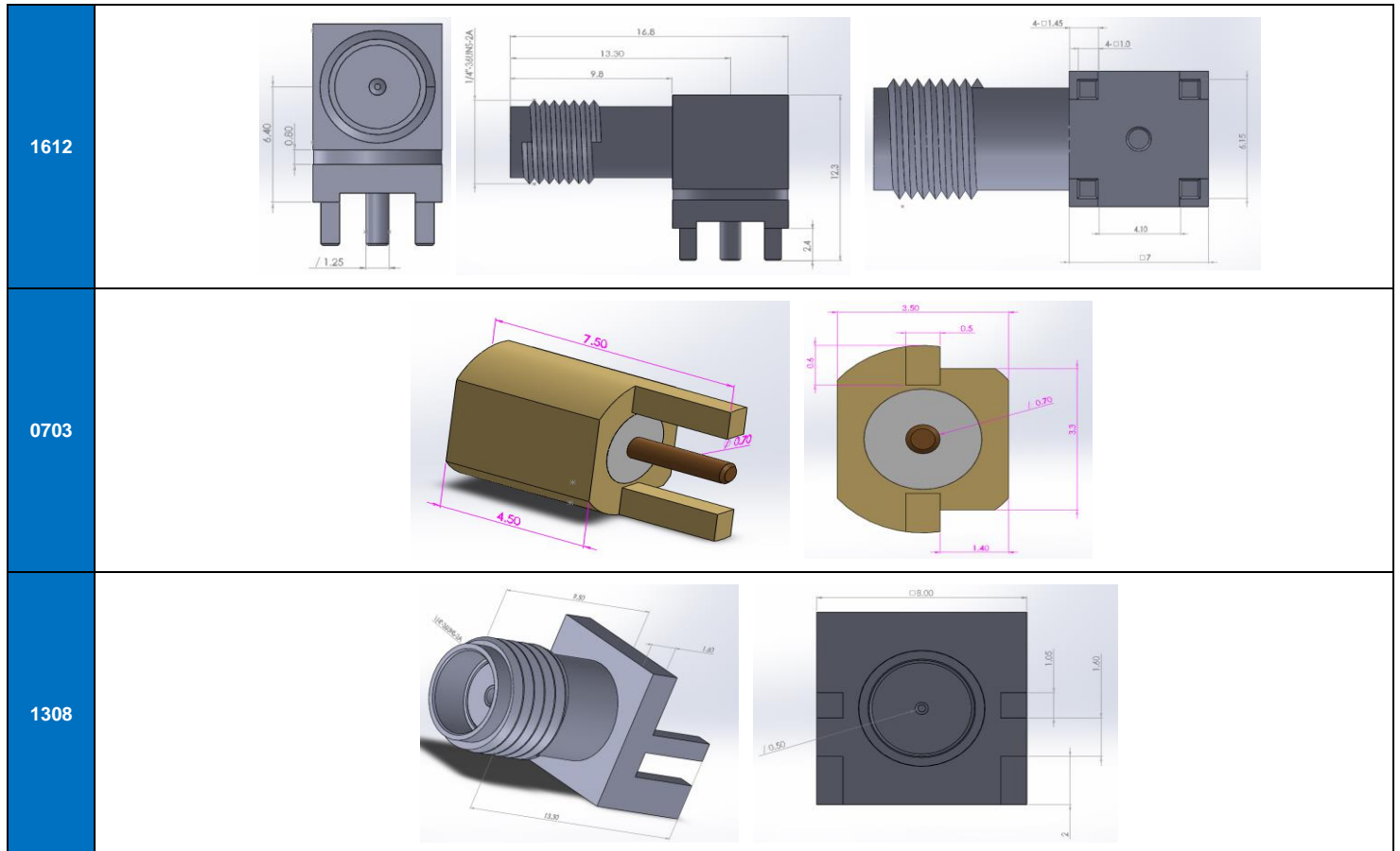
| TYPE | Series | Size(mm) | | Ls | | Rs | | Q | |
|------|--------|----------|----|------------|-------------|-----------|-------------|----------------|-----------------|
| | | L | w | NFC | WPC | NFC | WPC | NFC | WPC |
| WPC | 4832 | 48 | 32 | 1.35±0.1μH | | 0.3±0.15Ω | | 28.3±2.5(1MHz) | |
| WNC | 6060 | 60 | 60 | NFC | 2.11±0.1μH | NFC | 0.572±0.15Ω | NFC | 37.2±2.5(1MHz) |
| | | | | WPC | 18.69±0.1μH | WPC | 0.837±0.15Ω | WPC | 14.03±2.5(1MHz) |



Connector

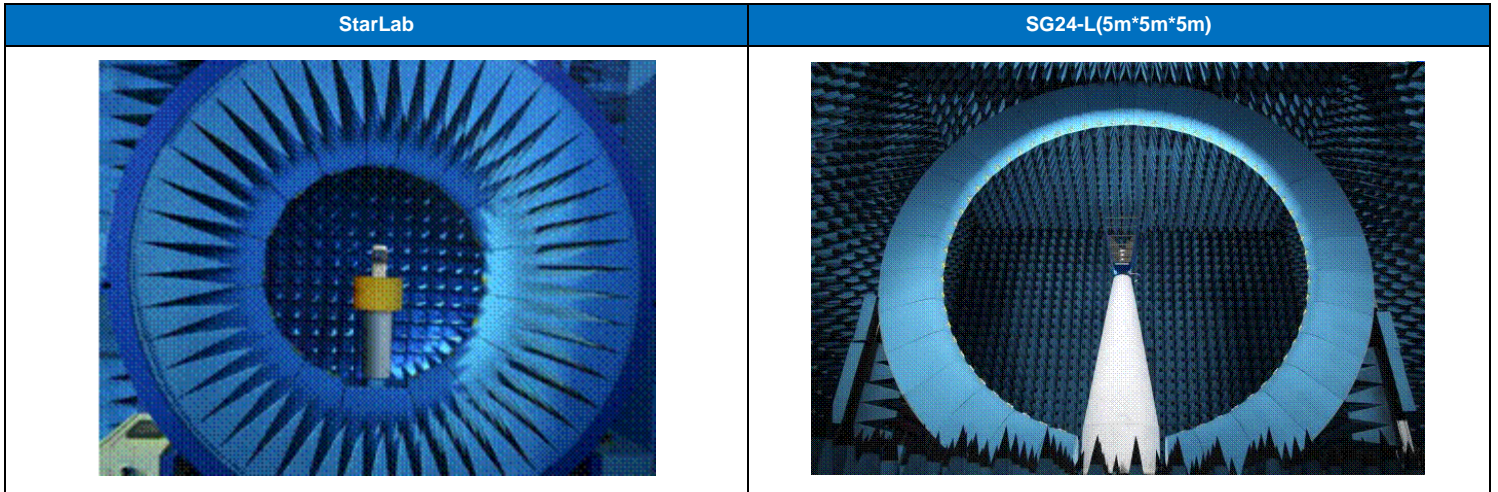
■ ELECTRICAL SPECIFICATION

| Series | Size(mm) | | Working Frequency Range | VSWR |
|--------|----------|------|-------------------------|------|
| | L | w | | |
| 1612 | 16.8 | 12.3 | DC ~ 6 GHz | 2.0 |
| 0703 | 7.5 | 3.3 | DC ~ 6 GHz | 2.0 |
| 1308 | 13.3 | 8 | DC ~ 6 GHz | 2.0 |

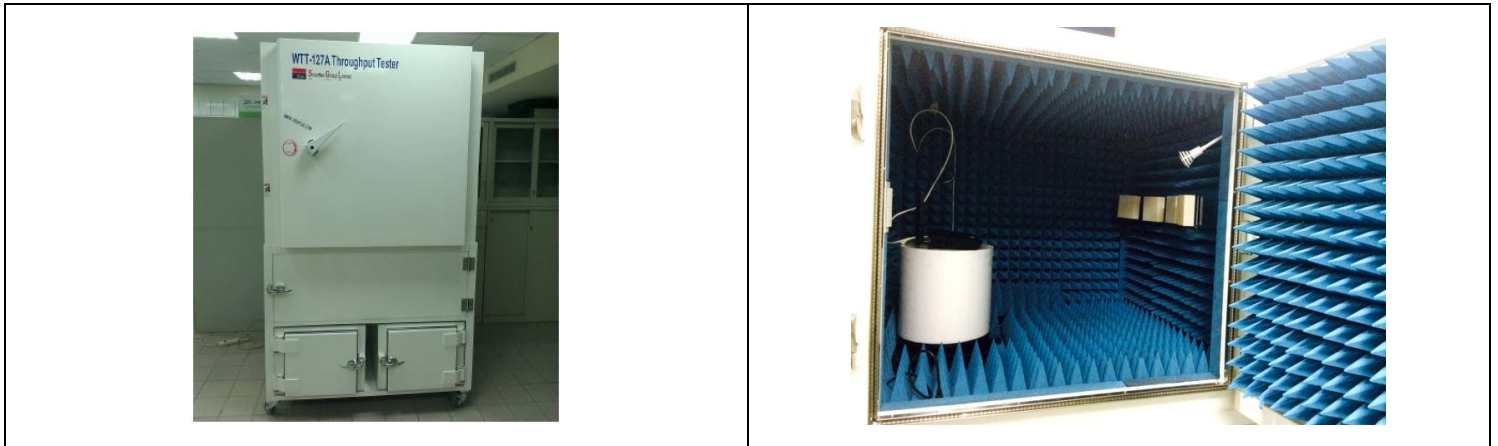


Measurement Equipment

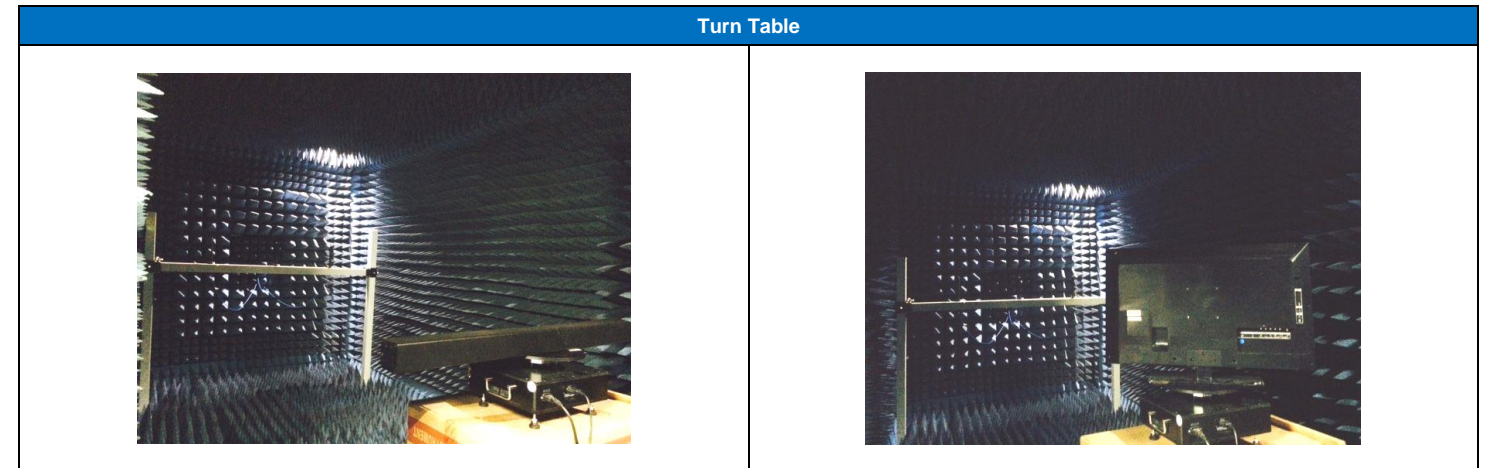
- Antenna Passive Measurement : Efficiency / 3D Pattern @400MHz ~6GHz
- Active Measurement : TRP & TIS Measurement for GSM/WCDMA/TD-CDMA/TDD-LTE/FDD-LTE



■ 2D Antenna Lab (Wireless Throughput Test)



■ 2D Antenna Lab (Smart TV Wireless Throughput Test)



FIME EMVCo/ISO10373-6 / NFC Forum



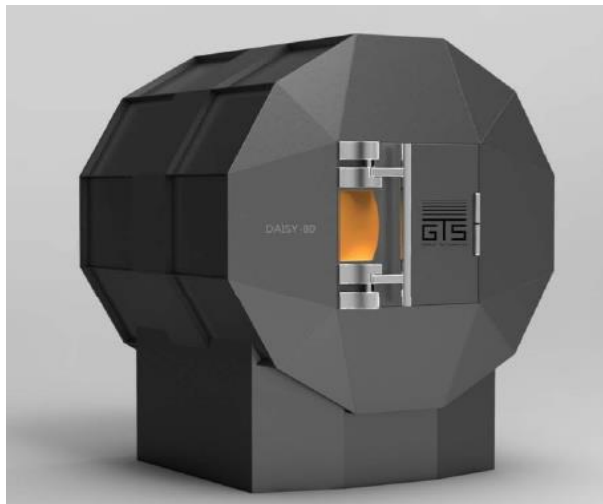
Comprion (NFC Forum)



Suzhou Smart TV Antenna Chamber



Shenzhen RayZone 1800



A series of horizontal dashed lines for writing.

A series of horizontal dashed lines for writing.

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