

Penta Band Right Angle Stubby Antenna

Pulse Part Numbers: W1900 / W1902



Features

- Small form factor
- Antenna size W x L x H (18.4 x 8.0 x 49.5mm)
- Lead free materials
- RoHS Compliant Product
- Connector Type: SMA

Applications

- Penta band EU/US GSM/WCDMA
- Frequency range: 850 / 900 / 1800 / 1900/ 2100 MHz
- M2M Applications

Part Numbers:

P/N	Connector
W1900	SMA(Male)
W1902	RP-SMA(Male)

Electrical specifications @ +25 °C

Note: Electrical characteristics depend on device mechanics.

W1900 & W1902 Typical free space performance, measured in test unit mechanics (position 1.)

Frequency [MHz]	Max Gain [dBi]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [Ω]	Operating Temperature [°C]
824 - 960	1.0 (peak) -0.5 (min)	65 / -1.8 (peak) 50 / -3.0 (min)	-4	50	-40 to +85
1710 - 1990	2.0 (peak) 0.5 (min)	65 / -1.8 (peak) 50 / -3.0 (min)	-6		
1920 - 2170	2.5 (peak) 2.0 (min)	65 / -1.8 (peak) 50 / -3.0 (min)	-6		

Pulse Finland Oy

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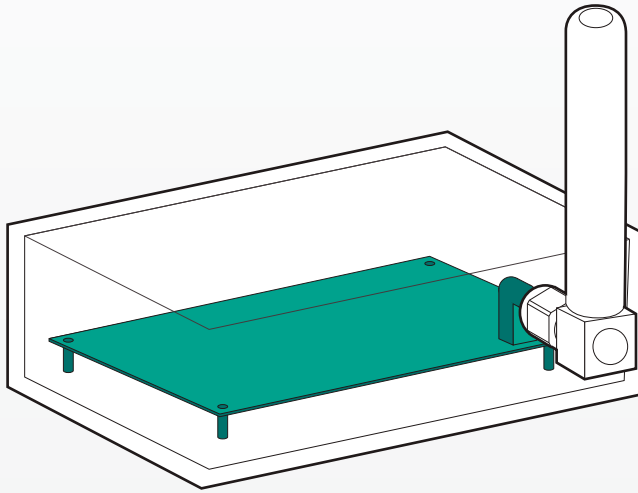
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Test Unit and Antenna Mounting Position 1



Ground Plane Size: 70mm(L) x 50mm(W) x 1mm(T)

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Typical Electrical Characteristics (T=25 °C)

Typical free space performance, measured in test unit mechanics with 150mm feed cable (position 1.)

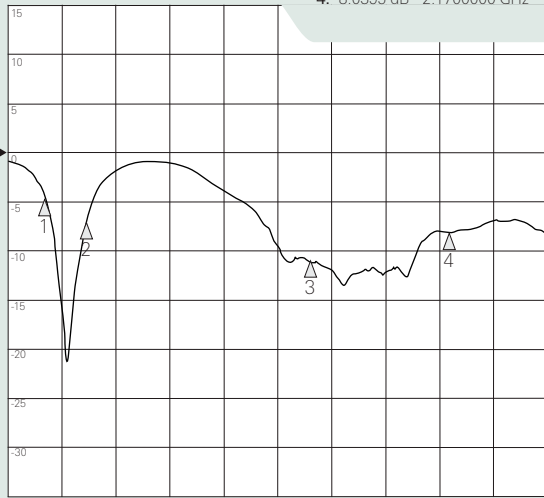
W1900, W1902

CH1 Markers

- 1. -4.5578 dB 824.00000 MHz
- 2. -6.9178 dB 960.00000 MHz
- 3. -11.118 dB 1.7100000 GHz
- 4. -8.0395 dB 2.1700000 GHz

CH1 S11 LOG

5 dB/REF 0dB

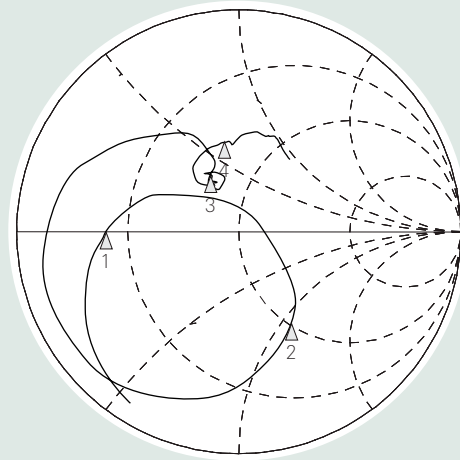


W1900, W1902

- 1. 824.000MHz 12.600Ω -313.13mΩ 616.83pF
- 2. 960.000MHz 51.934Ω -54.344Ω 3.0507pF
- 3. 1.71000GHz 34.219Ω 19.439Ω 1.8093nH
- 4. 2.17000GHz 35.295Ω 31.096Ω 2.2807nH

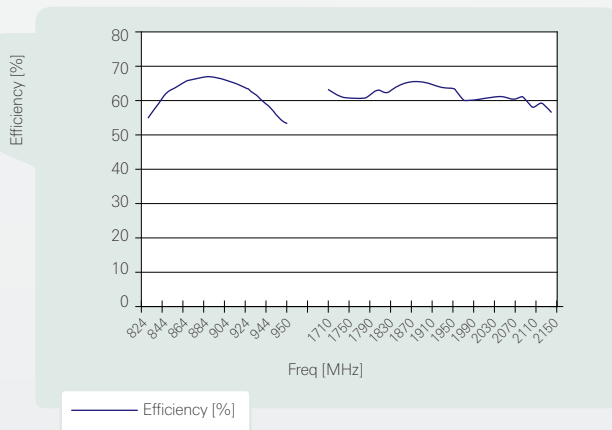
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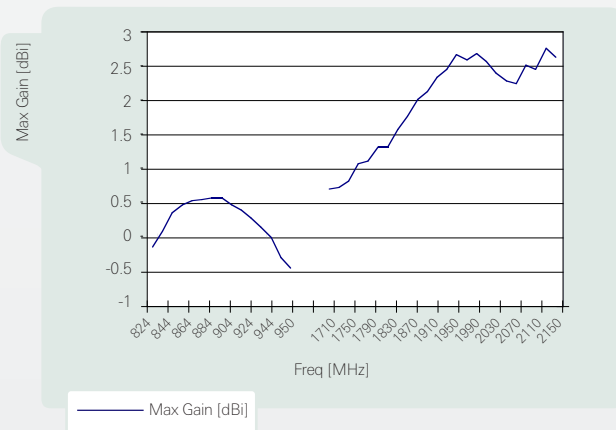


Free Space Efficiency and Maximum Gain

W1900, W1902 Efficiency



W1900, W1902 Max Gain



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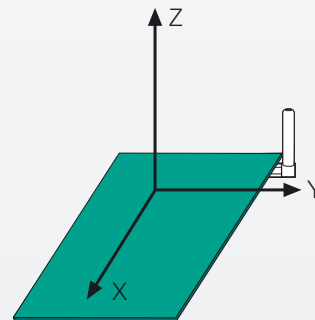
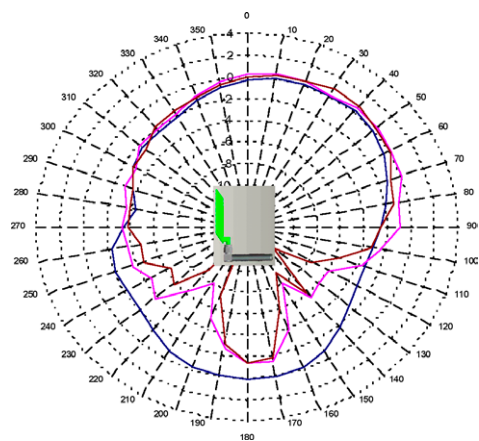
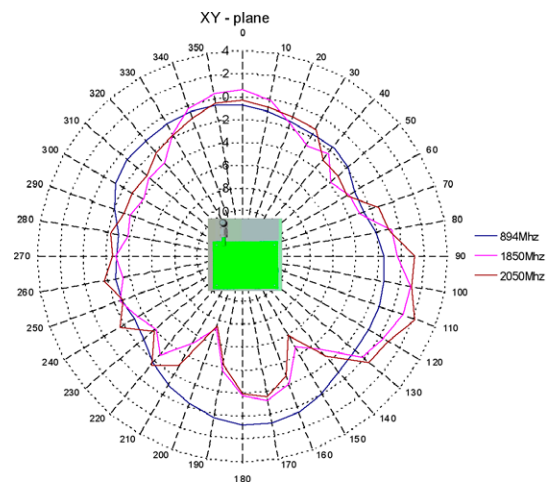
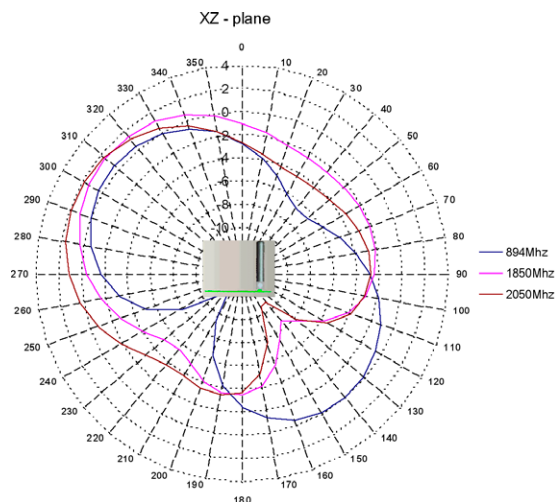


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Typical Free space Radiation Patterns

Patterns measured in test unit mechanics (position1.)



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