

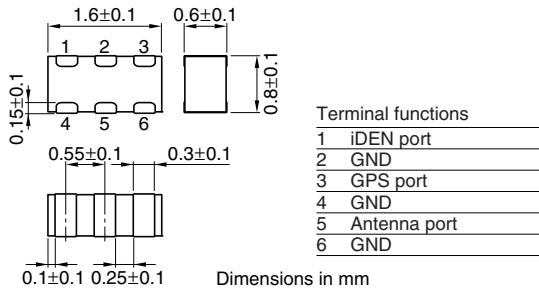
# Multilayer Chip Diplexers

## For EGSM & AGSM/PCS Tx-Rx-GPS

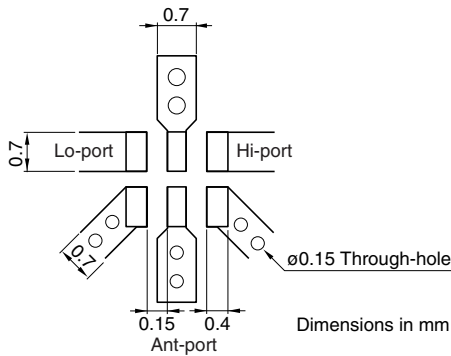
Conformity to RoHS Directive

DPX Series DPX161576DT-8011B1

### SHAPES AND DIMENSIONS



### RECOMMENDED PC BOARD PATTERNS



This width is 50Ω.

Micro-strip line for 0.4mm thick glass-epoxy substrate.

### ELECTRICAL CHARACTERISTICS

| Item                  |                 | Minimum value | Typical value | Maximum value |
|-----------------------|-----------------|---------------|---------------|---------------|
| iDEN port to Ant port |                 |               |               |               |
| iDEN pass band        | MHz             | 806           | —             | 941           |
| Insertion loss        | [25°C]          | dB            | —             | 0.6           |
|                       | [-30 to +85°C]  | dB            | —             | 0.7           |
| iDEN port return loss | dB              | 14            | —             | —             |
| Ant port return loss  | dB              | 14            | —             | —             |
| Attenuation           | 1575MHz         | dB            | 16            | —             |
|                       | 1612 to 1648MHz | dB            | 18            | —             |
|                       | 1792 to 1856MHz | dB            | 14            | —             |
|                       | 2 to 3GHz       | dB            | 5             | —             |
| GPS port to Ant port  |                 |               |               |               |
| GPS pass band         | MHz             | 1574.42       | —             | 1576.42       |
| Insertion loss        | [25°C]          | dB            | —             | 0.7           |
|                       | [-30 to +85°C]  | dB            | —             | 0.8           |
| GPS port return loss  | dB              | 14            | —             | —             |
| Ant port return loss  | dB              | 14            | —             | —             |
| Attenuation           | 806 to 928MHz   | dB            | 20            | —             |
| GPS port to iDEN port |                 |               |               |               |
| Low band attenuation  | 806 to 928MHz   | dB            | 20            | —             |
| Attenuation           | 1575MHz         | dB            | 16            | —             |
| High band attenuation | 1612 to 1648MHz | dB            | 18            | —             |
|                       | 1792 to 1856MHz | dB            | 14            | —             |

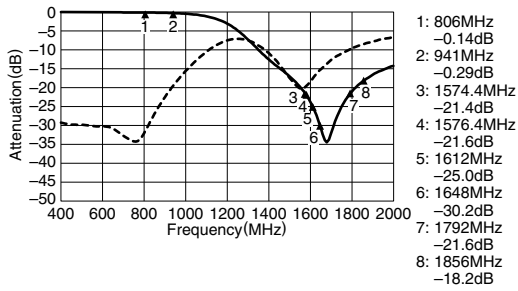
• Ta:+25°C

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

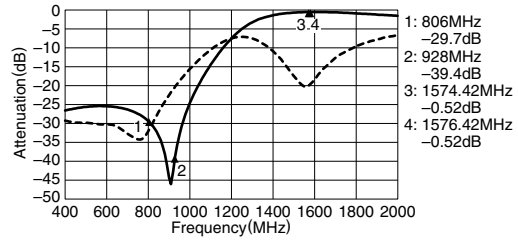
• All specifications are subject to change without notice.

### FREQUENCY CHARACTERISTICS

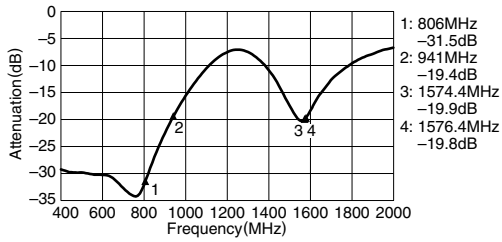
#### Lo-BAND PORT S21



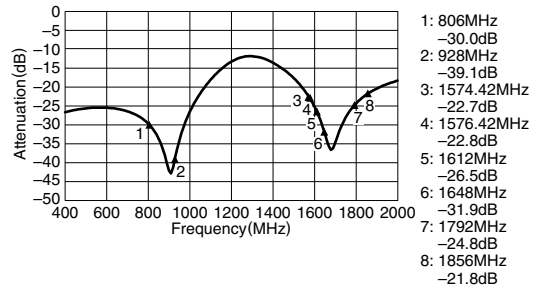
#### Hi-BAND PORT S31



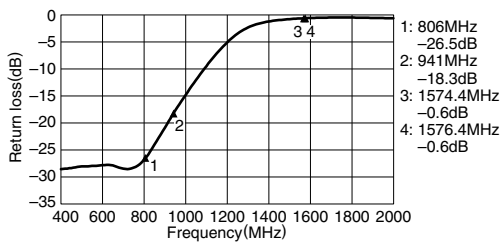
#### COMMON PORT RETURN LOSS S11



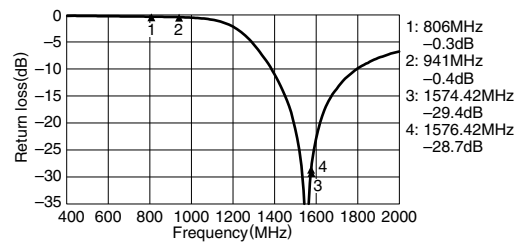
#### ISOLATION S23



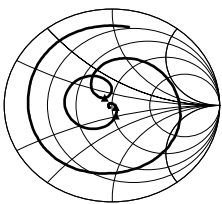
#### Lo-BAND PORT RETURN LOSS S22



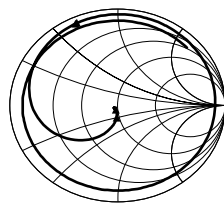
#### Hi-PORT RETURN LOSS S33



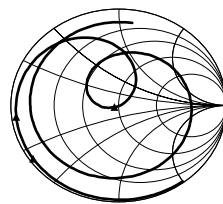
#### SMITH CHARTS



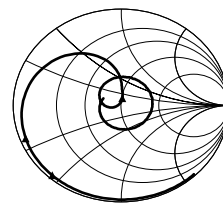
S11



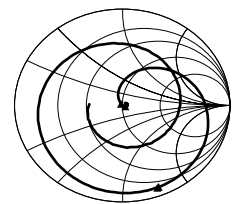
S22



S33



S21



S31