

DPX1214B

Band 12 vs 14 DPX Series Diplexer

Features

- Frequency combining of closely spaced frequency bands
- Superior power handling and reliability
- Universal footprint across all DPX series products

Applications

- Wireless Infrastructure applications
- Multi-band Pico Cells, Femto-cells, Repeaters and indoor DAS systems for up to 1.0W/band at the antenna port.



Part Dimensions: 34.0 × 16.4 × 6.6 mm • 14.9 g
Materials: Ag plated ceramic block

Description

Surface mount ceramic diplexer supports a universal footprint across all DPX series products enabling the use of a common system PCB. Provides superior rejection, insertion loss, reliability, and power handling.

Electrical Specifications

| Parameter | Frequency (MHz) | Typical at 25°C | Spec. at 25°C | Spec. over -40°C to +85°C |
|---------------------|-----------------|-----------------|---------------|---------------------------|
| Nominal Impedance | - | 50 ohms | - | - |
| Average Input Power | - | - | - | 5.0 Watt max |
| Peak Input Power | - | - | - | 45 Watt max |

Low-Band to Antenna Response

| | | | | |
|------------------------------------|---------|--------|------------|------------|
| Passband Insertion Loss | 699-745 | 1.5 dB | 1.8 dB max | 1.8 dB max |
| Passband Insertion Loss (5MHz avg) | 699-746 | - | 1.8 dB max | 1.8 dB max |
| Passband Return Loss | 699-746 | 13 dB | 11 dB min | 11 dB min |
| Attenuation: | 758-798 | 23 dB | 20 dB min | 20 dB min |

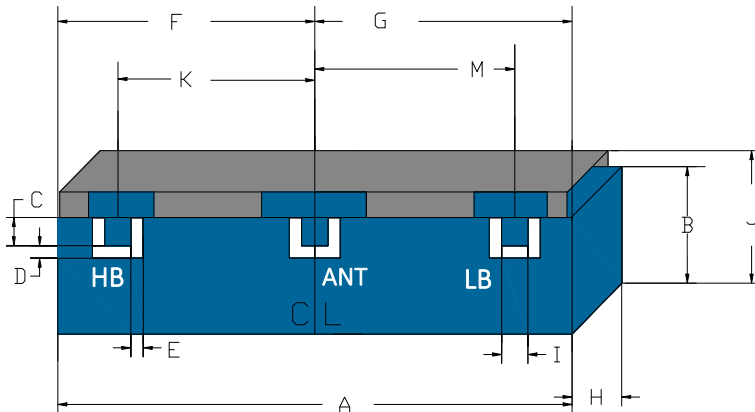
High-Band to Antenna Response

| | | | | |
|------------------------------------|---------|--------|------------|------------|
| Passband Insertion Loss | 758-798 | 1.8 dB | 2.0 dB max | 2.2 dB max |
| Passband Insertion Loss (5MHz avg) | 758-798 | - | 1.8 dB max | 2.0 dB max |
| Passband Return Loss | 758-798 | 13 dB | 11 dB min | 11 dB min |
| Attenuation: | 699-740 | 40 dB | 35 dB min | 35 dB min |
| | 741-744 | 28 dB | 20 dB min | 20 dB min |
| | 745-746 | 16 dB | 14 dB min | 14 dB min |

Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

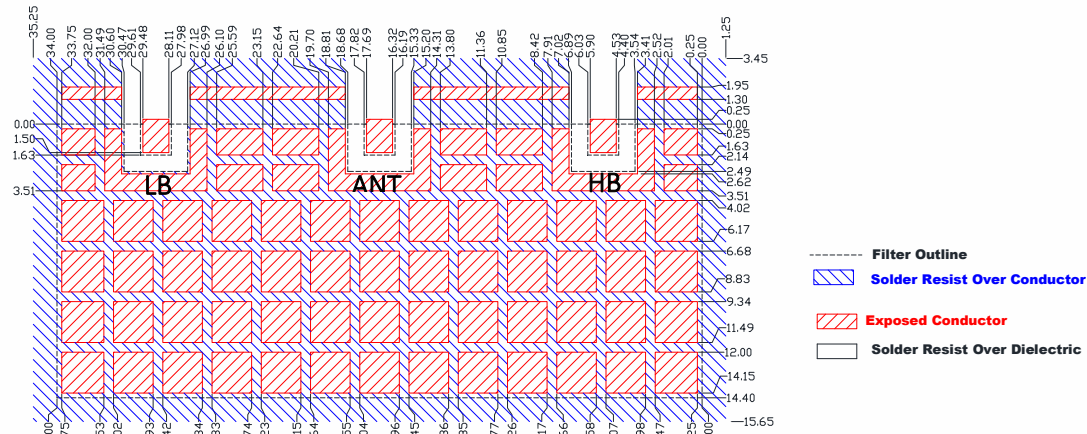
| Specification Allowance | |
|-------------------------|--------|
| Insertion Loss | 0.1 dB |
| Return Loss | 1.0 dB |
| Attenuation | 1.0 dB |

Mechanical Drawing



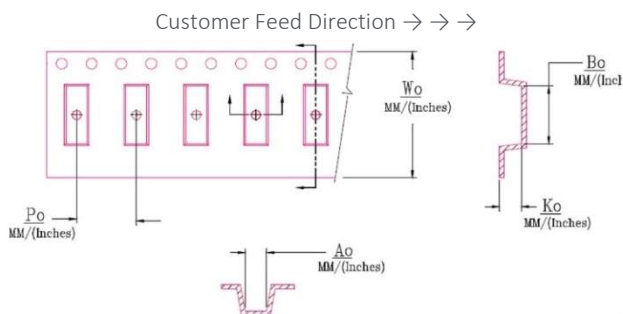
| Dim. | Nominal (mm) | Tolerance (±mm or Max) |
|------|-----------------|---------------------------|
| A | 34.00 | Max |
| B | 14.40 | Max |
| C | 1.63 | 0.13 |
| D | 0.86 | 0.13 |
| E | 0.86 | 0.13 |
| F | 16.87 | 0.13 |
| G | 16.87 | 0.13 |
| H | 6.60 | Max |
| I | 1.63 | 0.13 |
| J | 16.40 | Max |
| K | 11.79 | 0.13 |
| M | 11.79 | 0.13 |

PCB Layout



Packaging and Marking

| Dimension | Units | Spec. | Product Marking |
|---------------|-------|-------|-----------------|
| Reel Diameter | mm | 330 | CTS |
| Reel Weight | kg | 3.8 | 14B |
| Reel Quantity | ea. | 250 | YWW |



| W _o | A _o | B _o | K _o | P _o |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| 2.205 in 56.0 mm | 0.661 in 16.8 mm | 1.350 in 34.3 mm | 0.270 in 6.85 mm | 0.945 in 24.0 mm |

Electrical Response

