

USD026A - PRELIMINARY

Band 26 USD Series Duplexer

Features

- Low Loss with High Rejection
- Superior power handling and reliability
- Universal footprint across all FDD frequency bands

Applications

- Wireless Infrastructure applications
- High-performance carrier-grade small-cells using linearized PA for 1.0-2.0W at the antenna port.
- Wide-band pico-cells or small-cells requiring multi-channel or carrier aggregation.



Part Dimensions: 63.00 × 15.0 × 12.0 mm • 35.4 g
Materials: Ag plated ceramic block with tin plated brass shield

Description

Surface mount ceramic duplexer supports a universal footprint across all FDD frequency bands enabling the use of a common system PCB. Provides superior rejection, insertion loss, reliability, as well as both peak and average power handling compared to other duplexer technologies.

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 | - | - | - | 6.0 Watt max |
| Peak Input Power | - | - | - | 60 Watt max |

Antenna to UL Response

| | | | | |
|-------------------------------------|-----------|--------|------------|------------|
| Passband Insertion Loss (5 MHz avg) | 814 - 849 | 2.4 dB | 2.5 dB max | 2.6 dB max |
| Passband Return Loss | 814 - 849 | 14 dB | 13dB min | 13 dB min |
| Attenuation: | 859 - 894 | 67 dB | 65 dB min | 65 dB min |

DL to Antenna Response

| | | | | |
|-------------------------------------|-----------|--------|------------|------------|
| Passband Insertion Loss (5 MHz avg) | 859 - 894 | 2.4 dB | 2.5 dB max | 2.6 dB max |
| Passband Return Loss | 869 - 894 | 14 dB | 13dB min | 13 dB min |
| Attenuation: | 814 - 849 | 71 dB | 68 dB min | 68 dB min |

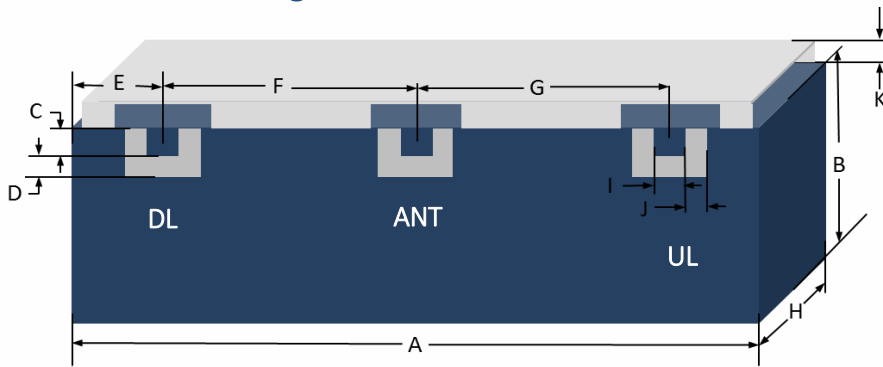
DL to UL Response

| | | | | |
|-------------------------|-----------|-------|-----------|-----------|
| Attenuation for UL band | 814 - 849 | 71 dB | 70 dB min | 70 dB min |
| Attenuation for DL band | 859 - 894 | 67 dB | 65 dB min | 65 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.

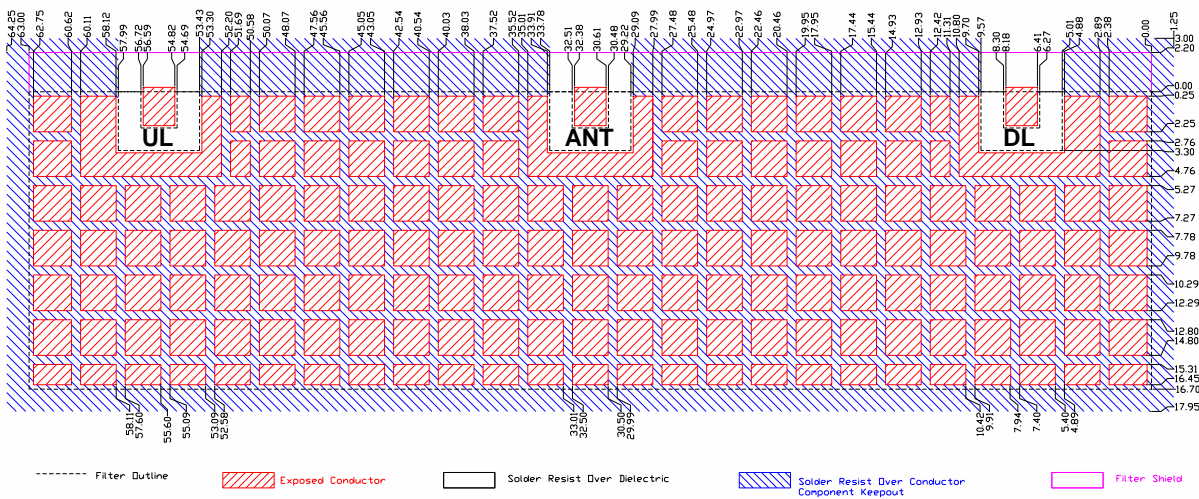
| Specification Allowance | |
|-------------------------|--------|
| Insertion Loss | 0.1 dB |
| Return Loss | 1.0 dB |
| Attenuation | 1.0 dB |

Mechanical Drawing

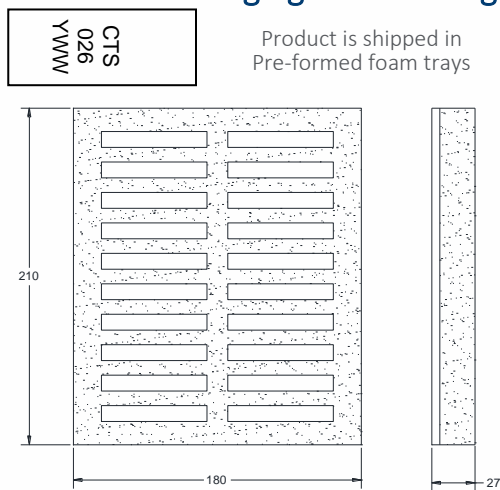


| Dim. | Nominal (mm) | Tolerance (±mm or Max) |
|------|--------------|------------------------|
| A | 63.00 | Max |
| B | 13.00 | Max |
| C | 2.03 | 0.13 |
| D | 1.27 | 0.13 |
| E | 6.49 | 0.13 |
| F | 24.21 | 0.13 |
| G | 24.21 | 0.13 |
| H | 12.00 | Max |
| I | 2.03 | 0.13 |
| J | 1.27 | 0.13 |
| K | 2.00 | Max |

PCB Layout



Packaging and Marking



The trays have 20 slots each with 1 filter per slot. Boxes are packed with 12 Trays per box for a total of 240 filters per box.

Electrical Response

