

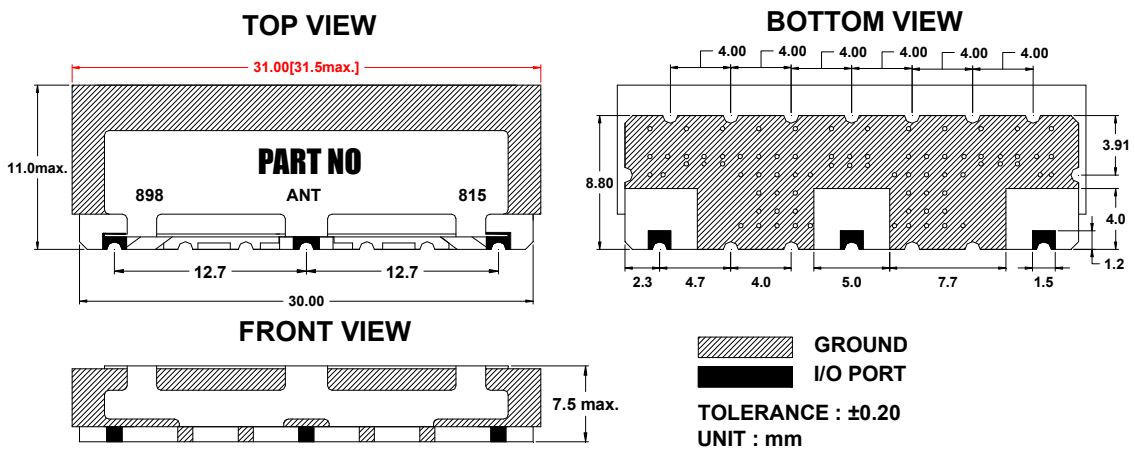
# Ceramic DUPLEXER IDD08169

## 815 MHz / 898.5 MHz

### Features

- Ceramic Duplexer
- Usable bandwidth 18 MHz Rx. And 5MHz Tx. band
- No matching / Antenna & Transmitter & Receiver Impedance 50Ω
- Surface Mounted Module Package ( 31.5mm × 11mm × 7.5mm )

### Package Dimension




| Pin Configuration |             |
|-------------------|-------------|
| Description       | Function    |
| RX (806 ~ 824MHz) | RECEIVER    |
| ANT               | ANTENNA     |
| TX (896 ~ 901MHz) | TRANSMITTER |

### Maximum Ratings

| Parameter                   | Unit | Minimum | Typical | Maximum |
|-----------------------------|------|---------|---------|---------|
| Operating Temperature Range | °C   | -40     | 25      | +85     |
| Storage Temperature Range   | °C   | -40     | -       | +85     |

Electrostatics Sensitive Device (ESD)

|   |   |           |           |     |
|---|---|-----------|-----------|-----|
|  | <b>ITF Co., Ltd.</b><br>102-901, Bucheon Technopark 364,<br>Samjeong-Dong, Ojeong-Gu, Bucheon-City,<br>Gyeonggi-Do, Korea 421-809 | Part No.  | IDD08169  |     |
|   |   | Rev. Date | 2014-9-16 |     |
|   |   | Rev.      | AS01      | 1/3 |

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## 815 MHz / 898.5 MHz

### Specification


Fo = 815 MHz / 898.5 MHz

| ANT to Rx  |      | Minimum                              | Typical  | Maximum |
|--|------|--------------------------------------|----------|---------|
| Insertion loss (815 MHz +/-9 MHz)                  | dB   | -                                    | 1.8      | 2.0     |
| Amplitude Ripple (815 MHz +/-9 MHz)                | dB   | -                                    | 0.3      | 0.5     |
| Return Loss (815 MHz +/-9 MHz)                     | dB   | 17                                   | 20       | -       |
| Input power (815 MHz +/-9 MHz)                     | Watt | 3W > 50000 Hours, CW tone (Ta=+50°C) |          |         |
| Relative Attenuation<br>@ 865 MHz<br>896 ~ 901 MHz | dB   | 35<br>50                             | 40<br>55 | -       |

| Tx to ANT  |      | Minimum                              | Typical  | Maximum |
|--|------|--------------------------------------|----------|---------|
| Insertion loss (898.5 MHz +/-2.5 MHz)              | dB   | -                                    | 1.8      | 2.0     |
| Amplitude Ripple (898.5 MHz +/-2.5 MHz)            | dB   | -                                    | 0.3      | 0.5     |
| Return Loss (898.5 MHz +/-2.5 MHz)                 | dB   | 18                                   | 20       | -       |
| Input power (898.5 MHz +/-2.5 MHz)                 | Watt | 3W > 50000 Hours, CW tone (Ta=+50°C) |          |         |
| Relative Attenuation<br>806 ~ 824 MHz<br>@ 865 MHz | dB   | 50<br>35                             | 55<br>35 | -       |

### Notes :

- 1) All specifications are based on the matching schematic shown below, measured by Agilent Network analyzer and full 3 port calibration.
- 2) Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
- 3) All attenuation measurements are measured absolute to insertion loss

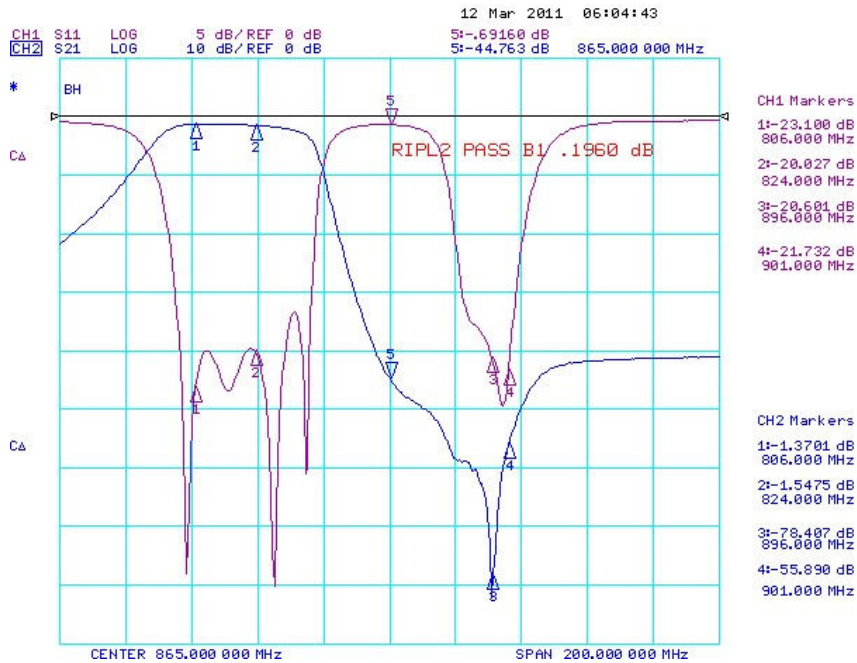
|   |   |           |           |     |
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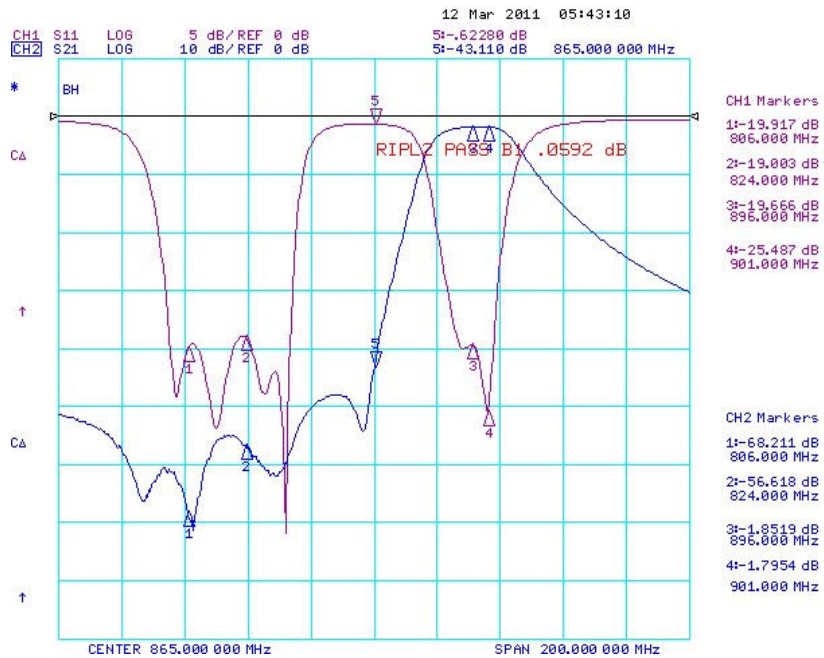
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### Frequency Response

#### Ant to Rx



#### Tx to Ant



|   |   |           |           |     |
|---|---|-----------|-----------|-----|
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