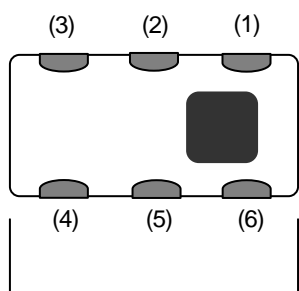


1608 TYPE MULTILAYER DIPLEXER

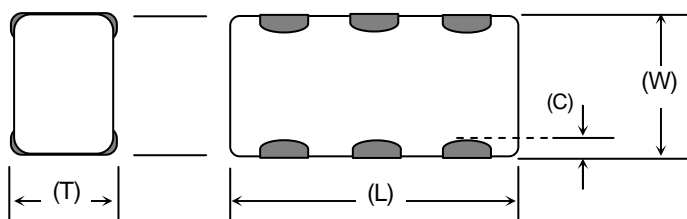
P/N: **DPX165900DT-8125A1**

MECHANICAL DIMENSIONS

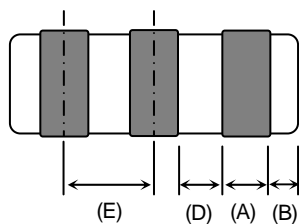
[Top View]



[Bottom View]



[Side View]



Dimension (mm)

| (L) | (W) | (T) | (A) | (B) | (C) | (D) | (E) |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1.60 ±0.15 | 0.80 ±0.15 | 0.60 ±0.10 | 0.30 ±0.10 | 0.10 ±0.10 | 0.15 ±0.10 | 0.25 ±0.10 | 0.55 ±0.10 |

PIN Configuration

| (1) | (2) | (3) | (4) | (5) | (6) |
|----------|-----|-----------|-----|--------|-----|
| Low-Band | GND | High-Band | GND | Common | GND |

TEMPERATURE RANGE

| | |
|-----------------------|--------------|
| Storage Temperature | -40 ~ +85 °C |
| Operating Temperature | -40 ~ +85 °C |

ELECTRICAL CHARACTERISTICS (Ta= +25 ± 5 °C)

Low-Band

| Parameter | Freq. (MHz) | Specification | Typ. | Unit |
|----------------|-------------|---------------|------|------|
| Insertion Loss | 2400-2500 | 0.6 max. | 0.38 | dB |
| Attenuation | 4800-5000 | 18 min. | 24.1 | dB |
| | 7200-7500 | 18 min. | 24.4 | dB |

High-Band

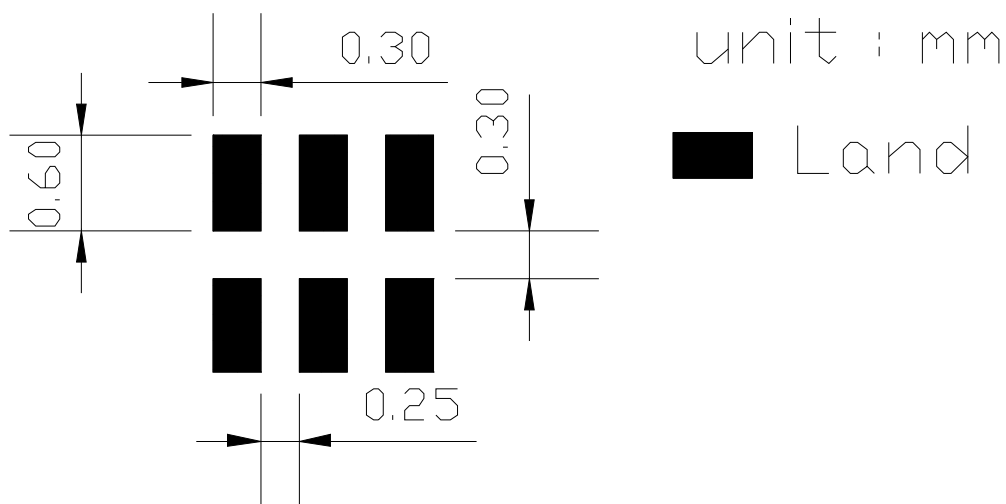
| Parameter | Freq. (MHz) | Specification | Typ. | Unit |
|----------------|-------------|---------------|------|------|
| Insertion Loss | 5100-5900 | 1.4 max | 0.82 | dB |
| Attenuation | 1800-2500 | 20 min. | 31.1 | dB |
| | 3700-3900 | 20 min. | 32.5 | dB |
| | 9800-11900 | 10 min. | 30.1 | dB |

Common

| Parameter | Freq. (MHz) | Specification | Typ. | Unit |
|-----------|-------------|---------------|------|------|
| VSWR | 2400-2500 | 2.0 max. | 1.18 | - |
| | 5100-5900 | 2.3 max. | 1.57 | - |

We recommend to terminate for all port with 50ohm at all times.

RECOMMENDED LAND PATTERN



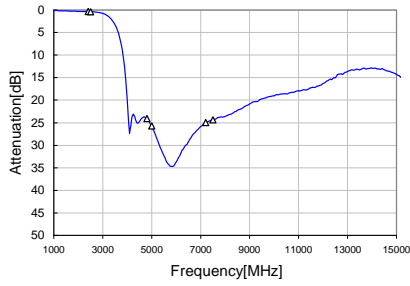
Note: All specifications are subject to change and are not guaranteed.

FREQUENCY CHARACTERISTICS

DPX165900DT-8125A1 Sample Data

Low band-Port

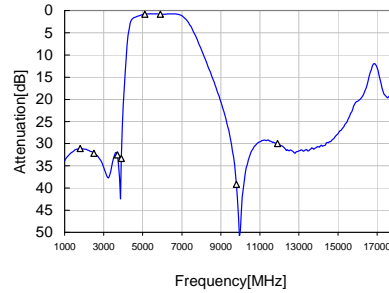
S21



| Insertion Loss | |
|----------------|----------|
| 2400 MHz | 0.35 dB |
| 2500 MHz | 0.38 dB |
| | |
| Attenuation | |
| 4800 MHz | 24.10 dB |
| 5000 MHz | 25.74 dB |
| 7200 MHz | 24.97 dB |
| 7500 MHz | 24.38 dB |
| | |
| | |

High band-Port

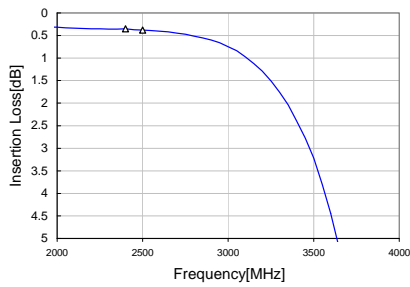
S31



| Insertion Loss | |
|----------------|----------|
| 5100 MHz | 0.82 dB |
| 5900 MHz | 0.80 dB |
| | |
| Attenuation | |
| 1800 MHz | 31.09 dB |
| 2500 MHz | 32.14 dB |
| 3700 MHz | 32.53 dB |
| 3900 MHz | 33.34 dB |
| 9800 MHz | 39.13 dB |
| 11900 MHz | 30.01 dB |
| | |
| | |

Low band-Port

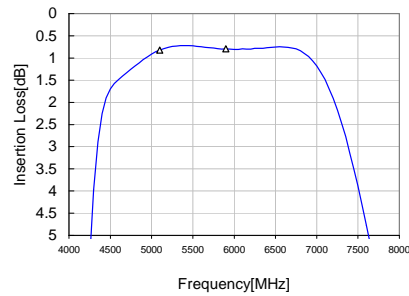
S21



| Insertion Loss | |
|----------------|---------|
| 2400 MHz | 0.35 dB |
| 2500 MHz | 0.38 dB |
| | |
| | |

High band-Port

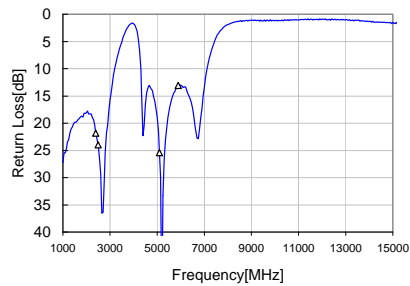
S31



| Insertion Loss | |
|----------------|---------|
| 5100 MHz | 0.82 dB |
| 5900 MHz | 0.80 dB |
| | |
| | |

Common Port Return Loss

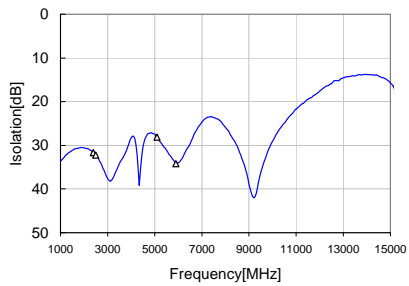
S11



| | |
|----------|-------|
| 2400 MHz | 21.86 |
| 2500 MHz | 23.94 |
| | |
| | |
| 5100 MHz | 25.41 |
| 5900 MHz | 13.09 |
| | |
| | |

Isolation

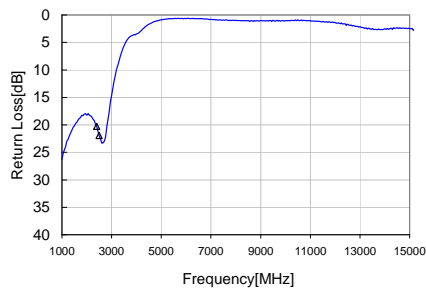
S23



| | |
|----------|---------|
| 2400 MHz | 31.7 dB |
| 2500 MHz | 32.3 dB |
| 5100 MHz | 28.1 dB |
| 5900 MHz | 34.2 dB |
| | |
| | |
| | |

Low band-Port Return Loss

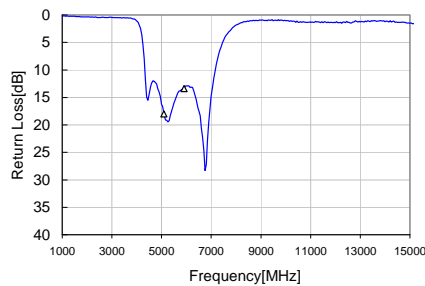
S22



| | |
|----------|-------|
| 2400 MHz | 20.26 |
| 2500 MHz | 21.97 |
| | |
| | |

High band-Port Return Loss

S33



| | |
|----------|-------|
| 5100 MHz | 18.01 |
| 5900 MHz | 13.41 |
| | |
| | |

Note: All specifications are subject to change and are not guaranteed.

Mouser Electronics

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