

Multilayer Organic (MLO™)

AVX RF

0805 WCDMA Diplexer



MLO™ TECHNOLOGY

The 0805 diplexer is a best in class low profile multilayer organic passive device that is based on AVX's patented multilayer organic high density interconnect technology. The MLO™ diplexer uses high dielectric constant and low loss materials to realize high Q passive printed passive elements such as inductors and capacitors in a multilayer stack up. The MLO™ diplexers can support multiple wireless standards such as WCDMA, CDMA, WLAN, and GSM and are less than 0.6mm in thickness. These components are ideally suited for band switching for dual band systems. All diplexers are expansion matched to FR4 thereby resulting in improved reliability over standard Si and ceramic devices.

APPLICATIONS

Multiband applications including WCDMA, WLAN, WiMax, GPS, and cellular bands

LAND GRID ARRAY ADVANTAGES

- Low Insertion Loss
- Excellent Solderability
- Low Parasitics
- Low Profile

HOW TO ORDER

DP **05** **A** **1940** **7** **TR**
Type Size Design Frequency (MHz) Finish Packaging
7 = Au TR = 3 Kpcs
T = NiSn TR/500 = 500 pcs



QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual characteristics.

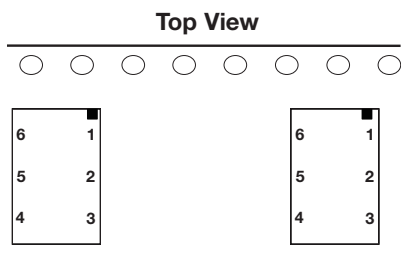
OPERATING TEMPERATURE

-40°C to +85°C

TERMINATION

Finishes available in Ni/Sn, Immersion Sn, Immersion Au and OSP coatings which are compatible with automatic soldering technologies which include reflow, wave soldering, vapor phase and manual.

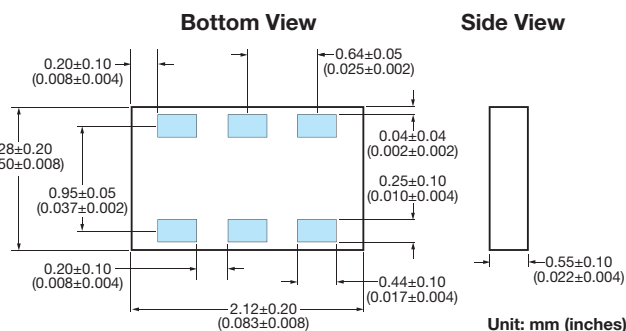
ORIENTATION IN TAPE



POWER CAPACITY

4.5W Maximum

COMPONENT DIMENSIONS AND FUNCTIONS



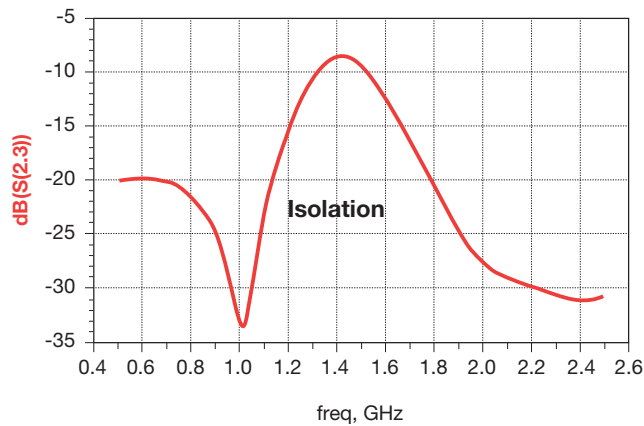
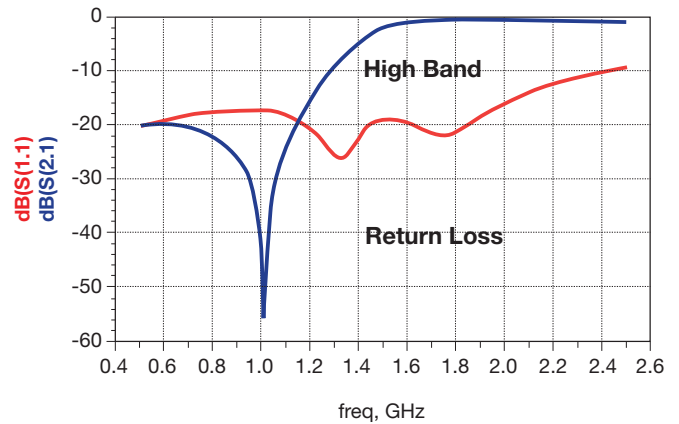
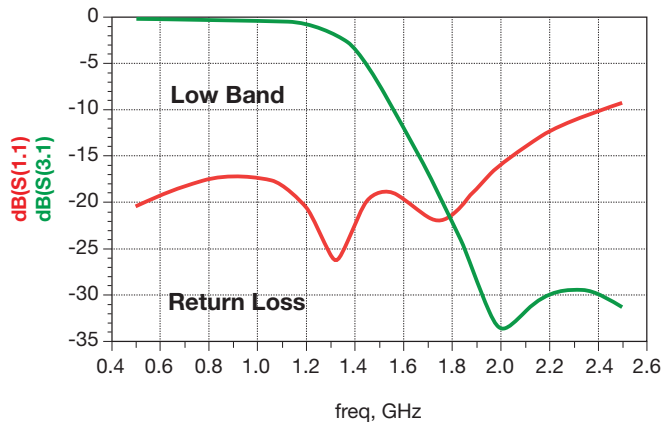
| Terminal No. | Terminal Name |
|--------------|---------------------|
| 1 | High Frequency Port |
| 2 | GND |
| 3 | Low Frequency Port |
| 4 | GND |
| 5 | Common Port |
| 6 | GND |

PART NUMBER: DP05A19407TR

| Specification @ 25°C | |
|---------------------------------|-----------------------------|
| Size [mm(inches)] | 2.12 x 1.28 (0.083 x 0.050) |
| Height [mm(inches)] | 0.55 (0.021) |
| Volume (mm^3) | 1.5 |
| Frequency Range (F1) (MHz) | 892±68 |
| Frequency Range (F2) (MHz) | 1940±230 |
| Insertion Loss (F1, at Fc) (dB) | -0.4 |
| Insertion Loss (F2, at Fc) (dB) | -0.65 |
| Attenuation (F1) at (F2) (dB) | -23 |
| Attenuation (F2) at (F1) (dB) | -20 |
| VSWR (Input @ F1) | 1.3 |
| VSWR (Input @ F2) | 1.4 |
| VSWR (Lowband @ F1) | 1.4 |
| VSWR (Highband @ F2) | 1.2 |

AVX

S PARAMETER MEASUREMENTS



Note: Measurements were taken using an Anritsu 4 port VNA; Diplexer was mounted on a custom evaluation board. To reduce systematic errors from the VNA, the coaxial measurement cables, and evaluation board, a Short-Open-Load-Thru (SOLT) calibration was performed, using a custom fabricated calibration substrate. This is the most common coaxial calibration methods.