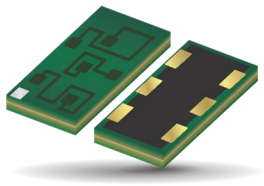
Multilayer Organic (MLO®) Diplexers
0603 WLAN/BT



MLO® TECHNOLOGY
The 0603 diplexer is a best in class low profile multilayer organic passive device that is based on KYOCERA AVX patented multilayer organic high density interconnect technology. The MLO™ diplexer uses high dielectric constant and low loss materials to realize high Q passive printed elements such as inductors, and capacitors in a multilayer stack up. The MLO™ diplexers can support multiple wireless standards such as WCDMA, CDMA, WLAN, GSM, and BT. These diplexers are less than 0.5mm in height and are ideally suited for band switching for dual band systems. All diplexers are expansion matched to printed circuit boards thereby resulting in improved reliability vs. ceramic and Si components.

APPLICATIONS
- WiFi
- WiMax
- GPS
- Cellular Bands

LAND GRID ARRAY ADVANTAGES
- Inherent Low Profile
- Excellent Solderability
- Low Parasitics
- High Heat Dissipation

HOW TO ORDER

DP	03	B	5425	7	TR
Type	Size	Design	Frequency (MHz)	Finish 7 = Au T = NiSn	Packaging Tape & Reel

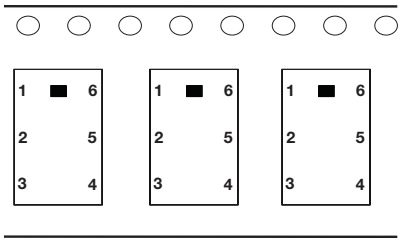
RoHS COMPLIANT

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

OPERATING TEMPERATURE
-40°C to +85°C

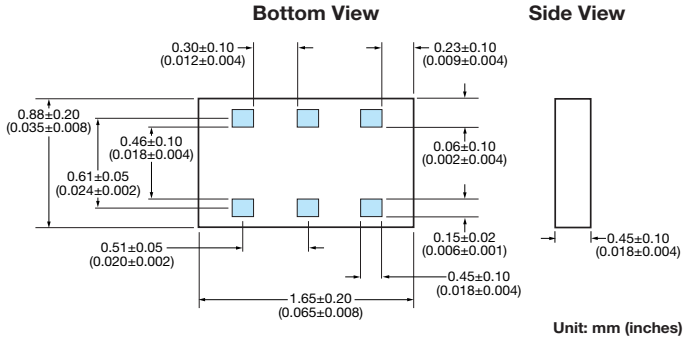
TERMINATION
Finishes available in Ni Au, Ni Sn and OSP coatings which are compatible with automatic soldering technologies which include reflow, wave soldering, vapor phase and manual.

ORIENTATION IN TAPE
Top View



POWER CAPACITY
4.5W Maximum

COMPONENT DIMENSIONS AND FUNCTIONS



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

PART NUMBER: DP03B54257TR

Electrical Characteristics @ 25°C

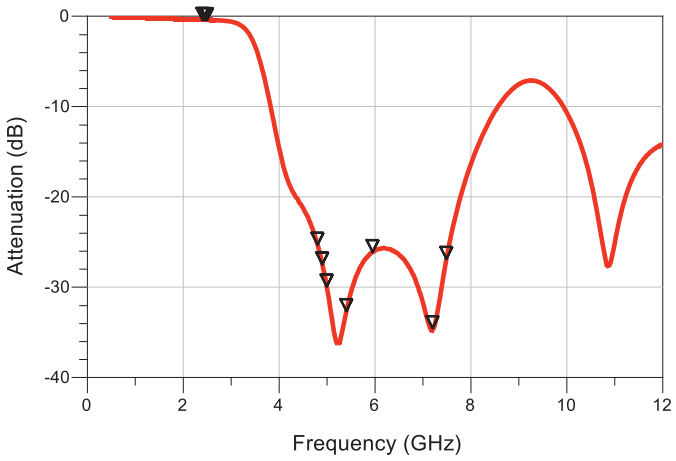
No.	Parameter	Freq. (MHz)	Port	Specification	Typ. value	Unit
1	Insertion Loss	2400-2496	Low	0.55 max	0.40	dB
2	Insertion Loss	4900-5950	High	1.2 max	0.80	dB
3	Attenuation	500-2700	High	28 min	35	dB
4	Attenuation	9800-11900	High	10 min	14	dB
6	Attenuation	4800-4992	Low	20 min	25	dB
7	Attenuation	4900-5950	Low	23 min	27	dB
8	Attenuation	7200-7500	Low	26 min	30	dB
9	Isolation	500-2700	Low-High	28 min	35	dB
10	Isolation	4900-5950	Low-High	22 min	25	dB
11	VSWR	2400-2500	Ant	2.0 max	1.5	-
12	VSWR	4900-5950	Ant	2.0 max	1.3	-
13	VSWR	2400-2500	Low	2.0 max	1.5	-
14	VSWR	4900-5950	High	2.0 max	1.3	-

Mechanical Characteristics @ 25°C

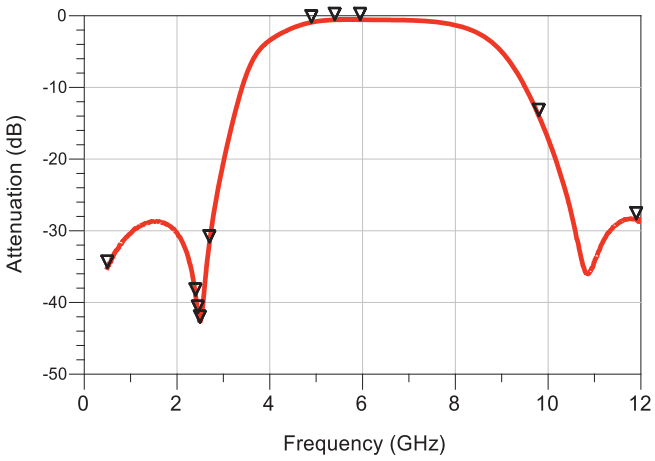
Size [mm(inches)]	1.65 x 0.88 (0.065 x 0.035)
Height [mm(inches)]	0.42 (0.017)
Volume (mm^3)	0.77

S PARAMETER MEASUREMENTS

LOW BAND PORT ATTENUATION



HIGH BAND PORT ATTENUATION



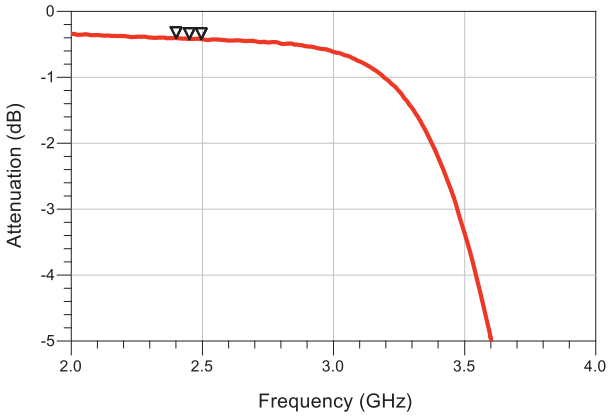
Low Band Attenuation

Frequency	Attenuation
4.800 GHz	25.302
4.992 GHz	29.935
4.900 GHz	27.471
5.400 GHz	32.647
5.590 GHz	26.099
7.200 GHz	34.531
7.488 GHz	26.860

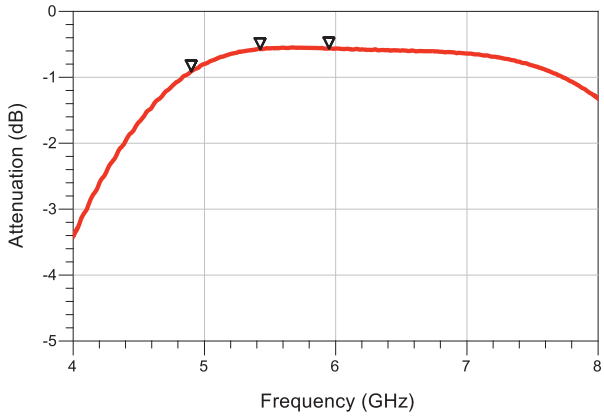
High Band Attenuation

Frequency	Attenuation
0.500 GHz	35.133
2.400 GHz	39.019
2.450 GHz	41.406
2.496 GHz	42.793
2.700 GHz	31.607
9.800 GHz	13.967
11.90 GHz	28.352

LOW BAND INSERTION LOSS



HIGH BAND INSERTION LOSS



Low Band Insertion Loss

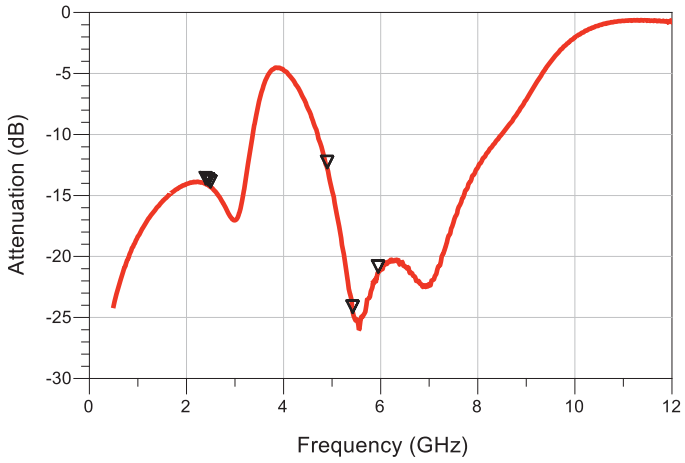
Frequency	Insertion Loss
2.400 GHz	0.404
2.450 GHz	0.418
2.496 GHz	0.420

High Band Insertion Loss

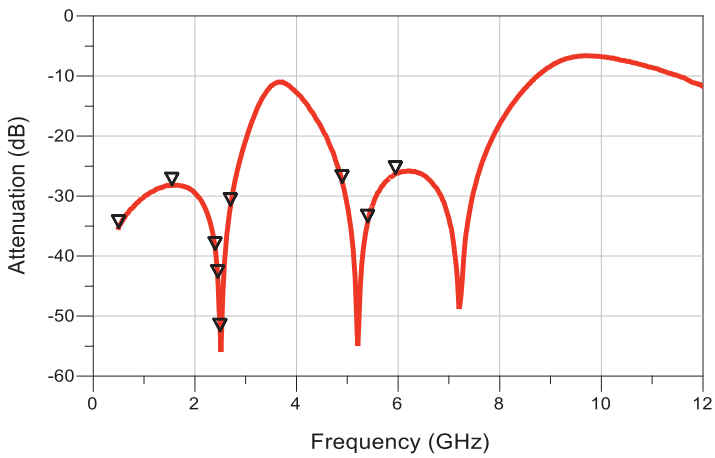
Frequency	Insertion Loss
4.900 GHz	0.909
5.400 GHz	0.577
5.950 GHz	0.562

S PARAMETER MEASUREMENTS

COMMON PORT RETURN LOSS



ISOLATION



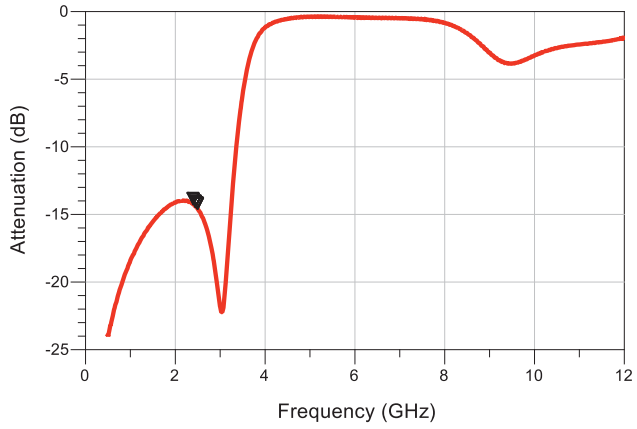
Common Return Loss

Frequency	Return Loss	VSWR
2.400 GHz	14.066	1.494
2.450 GHz	14.162	1.487
2.496 GHz	14.325	1.476
4.900 GHz	12.750	1.599
5.400 GHz	24.603	1.125
5.950 GHz	21.310	1.188

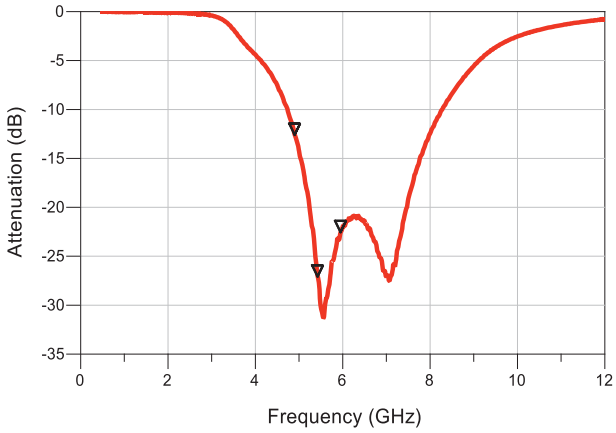
Isolation

Frequency	Attenuation
0.500 GHz	32.253
1.550 GHz	28.144
2.400 GHz	28.913
2.450 GHz	43.562
2.496 GHz	52.470
2.700 GHz	31.566
4.900 GHz	27.731
5.400 GHz	34.304
5.950 GHz	26.249

LOW BAND RETURN LOSS



HIGH BAND RETURN LOSS



Low Band Return Loss

Frequency	Return Loss	VSWR
2.400 GHz	14.232	1.482
2.450 GHz	14.429	1.469
2.496 GHz	14.572	1.459

High Band Return Loss

Frequency	Return Loss	VSWR
4.900 GHz	12.587	
5.400 GHz	27.577	1.087
5.950 GHz	22.533	1.161