

LTCC Multi Layer Ceramic Diplexer- 2012 (0805) size

- **AMANT2012060L4T**

FEATURES

1. Surface Mounted Devices with a small dimension of 2.0 X 1.2 X 0.6 mm³ meet future miniaturization trend.
2. LTCC process.
3. High stability in Temperature / Humidity Change.
4. Superb performance to place on the middle of PCB edge and excellent peak/average gain observed by field test application.
5. Automotive, Qualified to AEC-Q200.
6. Reel Packaging.

APPLICATIONS

1. WiFi 6E(802.11ax).
2. Bluetooth 、 Zigbee.

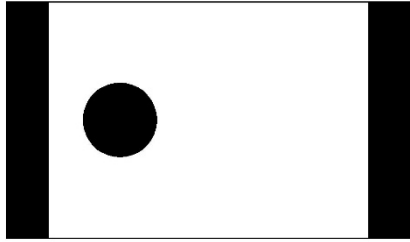


Recommended Link Parts

Product Category	Walsin PN	description	Remark
capacitor	RTxxN	high Q MLCC (automotive version)	matching circuit

CONSTRUCTION

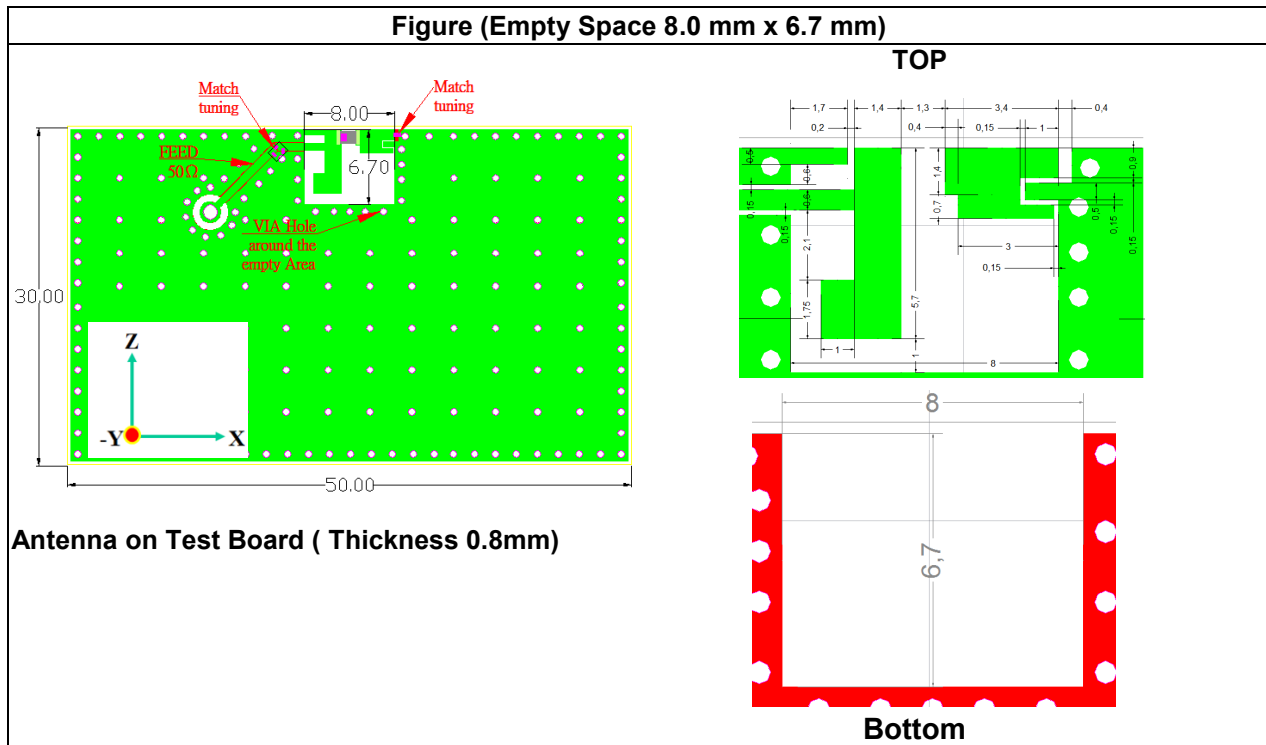
Top view



DIMENSIONS

Figure	Symbol	Dimension (mm)
	L	2.0 ± 0.15
	W	1.20 ± 0.15
	T	0.60 ± 0.10
	F	0.20 ± 0.10

SOLDER LAND PATTERN DESIGN



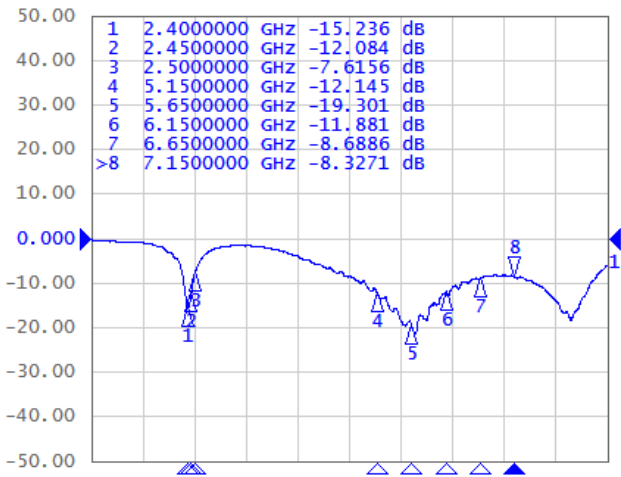
ELECTRONIC CHARACTERISTICS

Item	Specification
Working Frequency Range	2.4~2.5 / 5.15~7.15 GHz (Note-1)
Gain	1.5 / 4.5 dBi (Typical)
VSWR	2.4~2.5 / 5.15~7.15 GHz $\leq 3 : 1$
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Impedance	50Ω
Moisture sensitivity levels	MSL is LEVEL 1 (Refer to : IPC/JEDEC J-STD-020)
HBM ESD	Pass 1KV on all pins (Base on AEC-Q200-002)
MM ESD	Pass 200V (Base on EIA/JESD22-A115)
Operating & Storage Condition (Component)	
Operation Temperature Range: -55°C ~ +125°C	
Storage Temperature Range: -55°C ~ +125°C	
Storage Condition before Soldering (Included packaging material)	
Storage Temperature Range: +5 ~ +40 °C	
Humidity: 30 to 70% relative humidity	

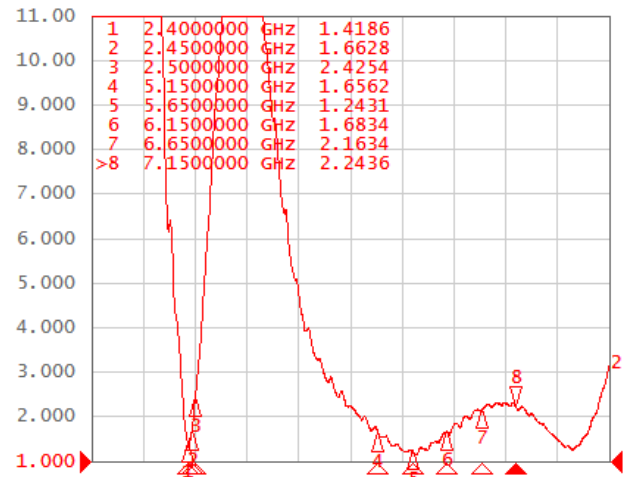
*Note 1. Central Frequency should be defined after customers' application approval.

Antenna S11 on Test Board

Tr1 S11 Log Mag 10.00 dB/ Ref 0.000 dB [F2]

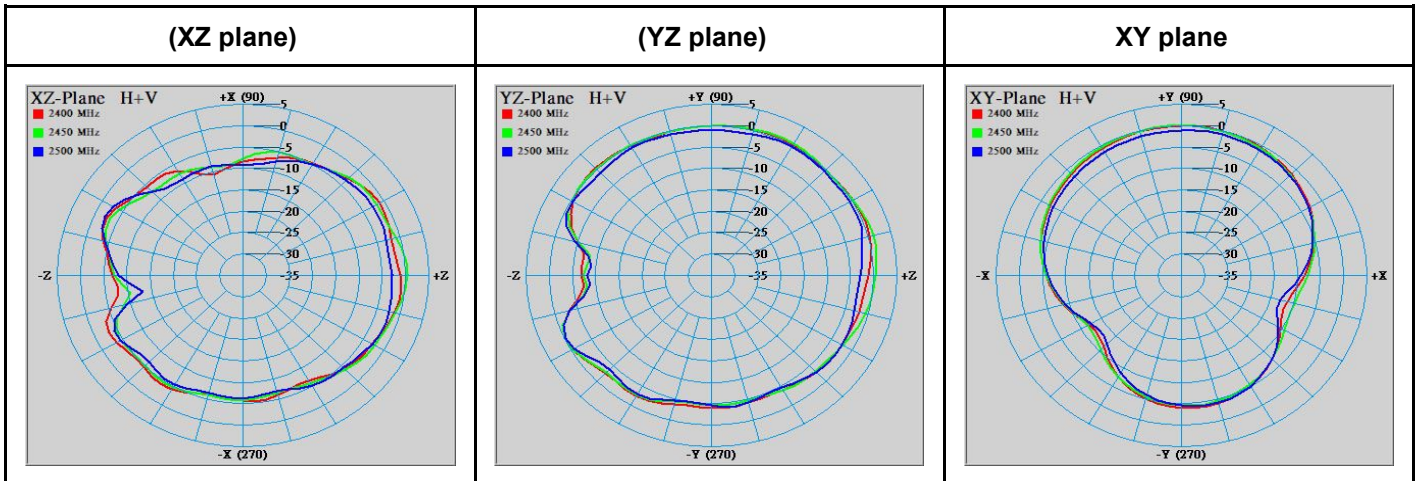


Tr2 S11 SWR 1.000 / Ref 1.000 [F2]



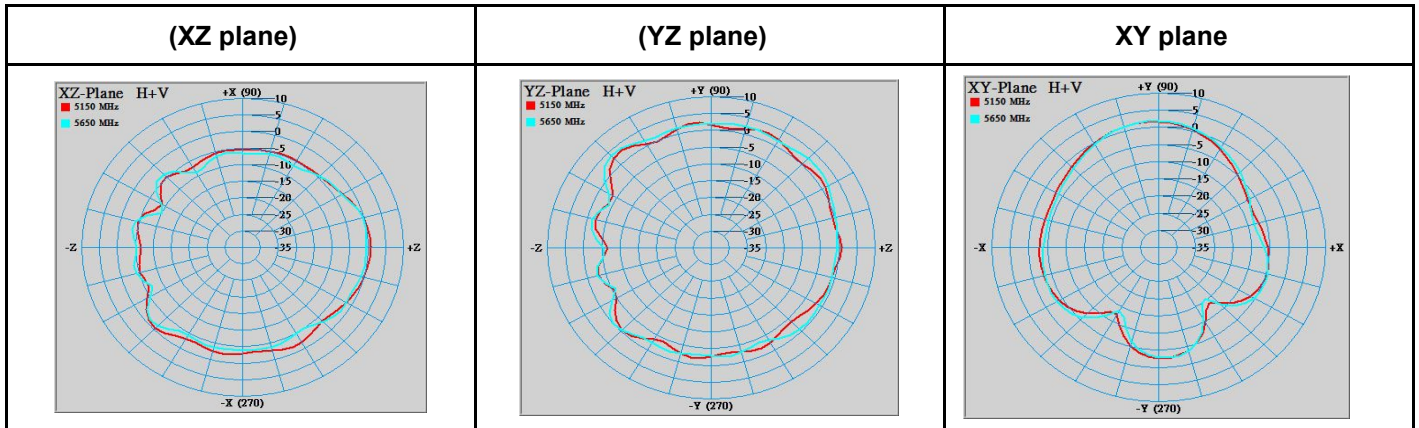
RADIATION PATTERN

2400~2500 MHz



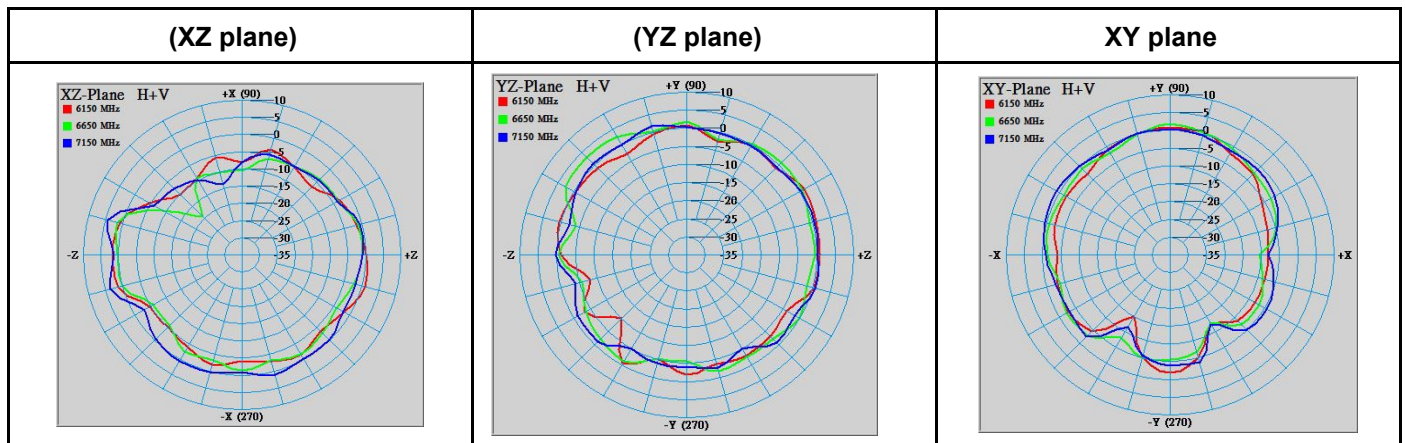
Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	-0.813	-4.242	0.47	-1.458	-0.015	-3.612
2450	0.399	-4.186	1.244	-1.273	0.007	-3.592
2500	-2.255	-5.074	-0.216	-2.167	-0.955	-4.313

5150~5800 MHz



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
5150	0.798	-3.017	3.189	-0.563	1.719	-3.095
5650	-0.013	-3.657	3.88	0.074	1.877	-3.106

5800~7150 MHz



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
6150	1.783	-2.362	1.674	-1.21	0.772	-3.263
6650	1.578	-3.007	3.215	-0.403	1.728	-2.698
7150	4.366	-0.95	1.779	-0.756	0.999	-2.135

CONTACT INFORMATION

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Specification subject to change without prior notice