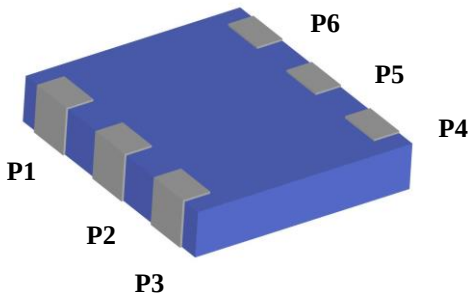
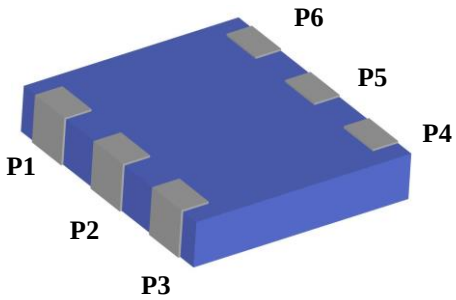
RCA-6050L0-TR
RCA-6050L1-TR

ELECTRICAL SPECIFICATION

Item	Specification		
Central frequency	2.45GHz	5.25GHz	5.85GHz
Bandwidth (Typical)	100 MHz	200 MHz	100 MHz
Peak Gain (Typical)	4 dBi	4 dBi	4 dBi
VSWR	2 max.		
Polarization	Linear		
Impedance	50Ω		

MECHANICAL SPECIFICATION

CONSTRUCTION

RCA-6050L0-TR	RCA-6050L1-TR	PIN	Connection
		P1	GND
		P2	RF Feeding
		P3	GND
		P4	Soldering
		P5	Soldering
		P6	Soldering

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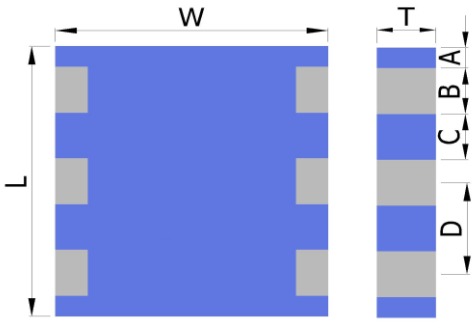
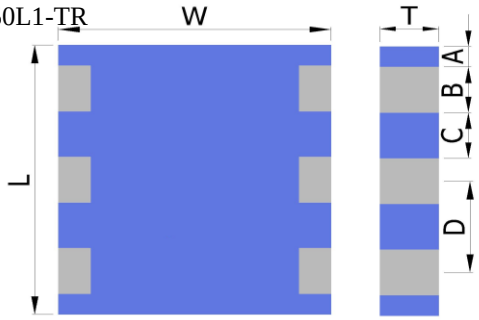
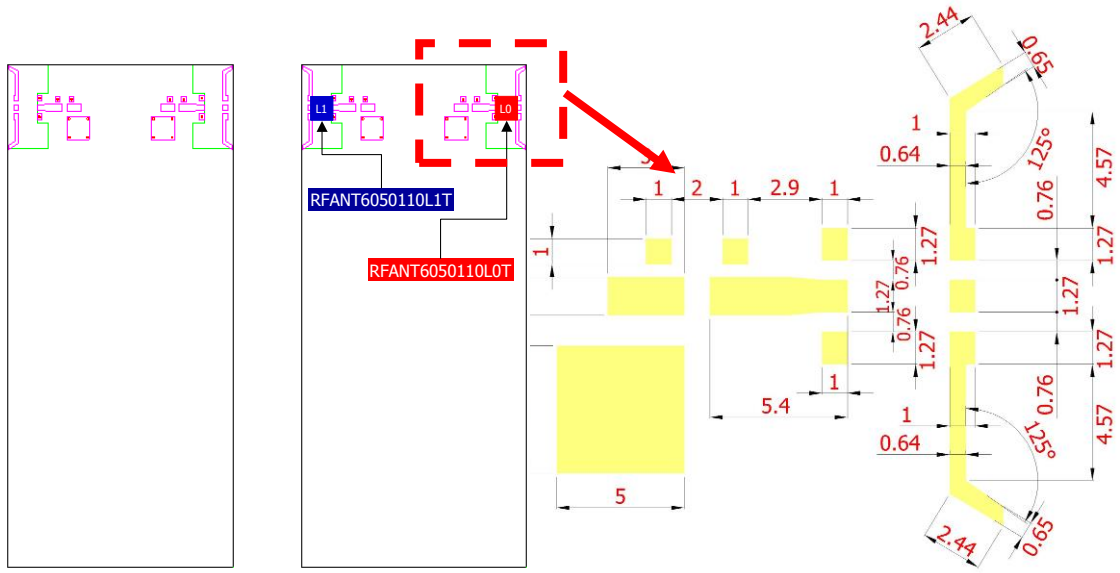
DIMENSIONS

Figure	Symbol	Dimension (mm)
RCA-6050L0-TR  RCA-6050L1-TR 	L	5.90 ± 0.30
	W	5.10 ± 0.30
	T	1.10 ± 0.10
	A	0.45 ± 0.20
	B	1.00 ± 0.20
	C	1.00 ± 0.20
	D	2.00 ± 0.20

SOLDERN PATTERN

RCA-6050L0-TR on the RIGHT side and RCA6050L1-TR on the LEFT side to have the best coverage



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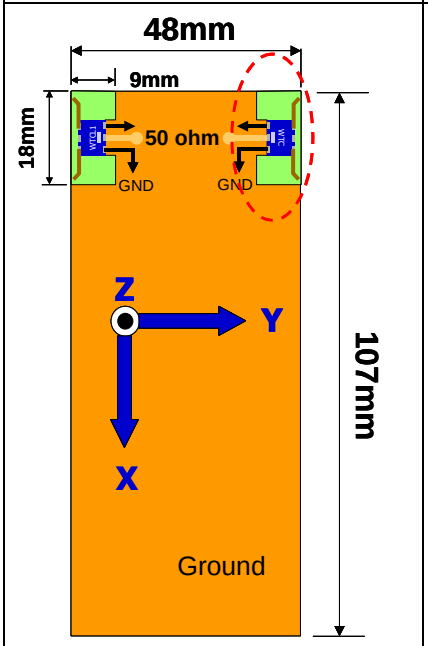
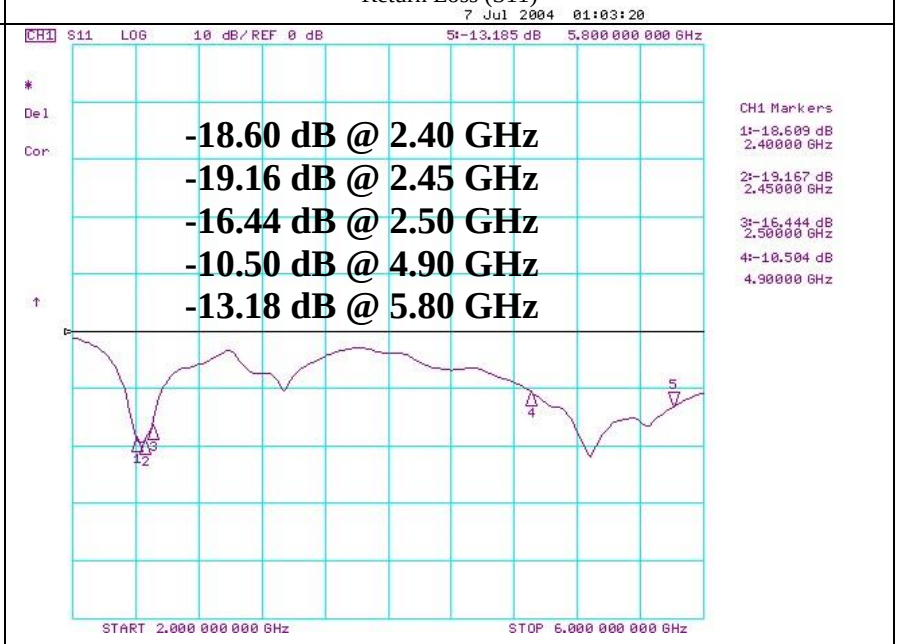
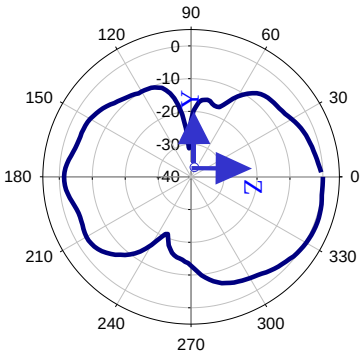
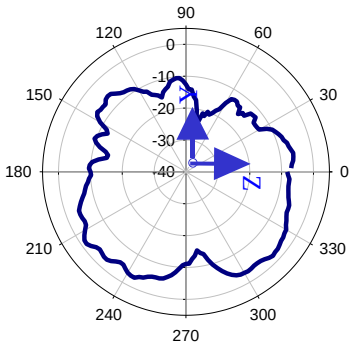
RADIATION PATTERN

Radiation Pattern and Gain were dependent on measurement board design. The specification of RCA-6050L0-TR & RCA-6050L1-TR Combo antenna were measured based on the PCB size and installation position with housing was included.

RCA-6050L0-TR (Right side)	Return Loss (S11)
	

	2.45GHz	5.80GHz
E-Plane	 Peak Gain = 0.76dBi Average Gain = -4.43dBi	 Peak Gain = -1.49dBi Average Gain = -6.85dBi

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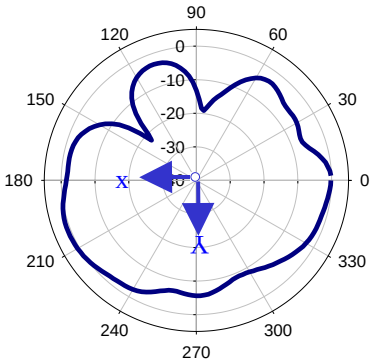
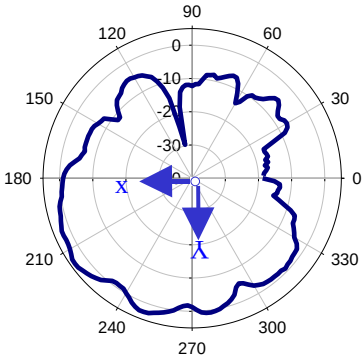
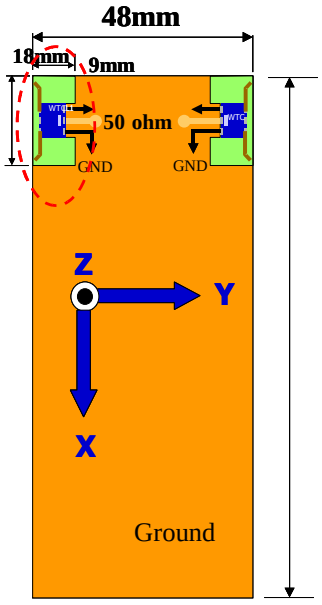
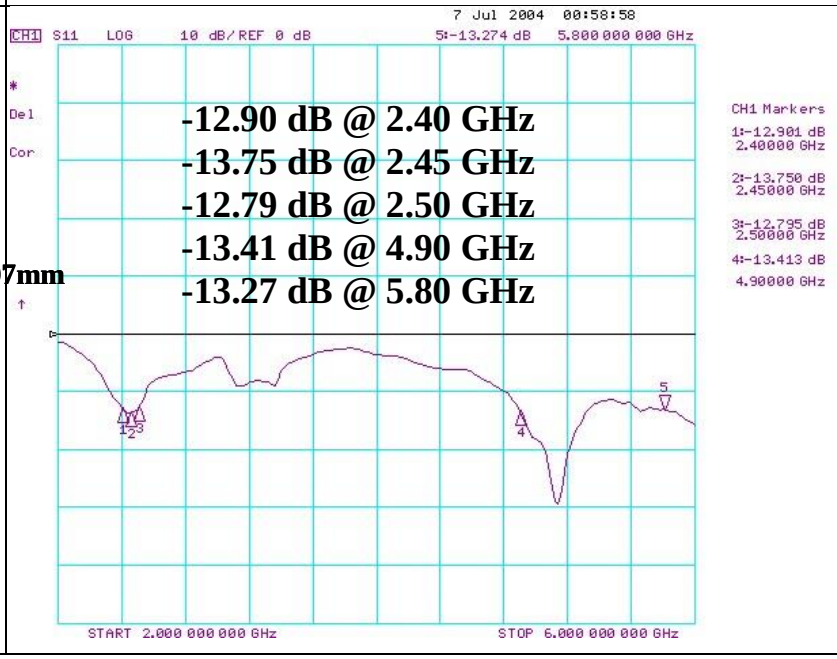
H-Plane	 Peak Gain = 0.88dBi Average Gain = -3.54dBi	 Peak Gain = 3.71dBi Average Gain = -2.52dBi

RCA-6050L1-TR (Left side)	Return Loss (S11)
	

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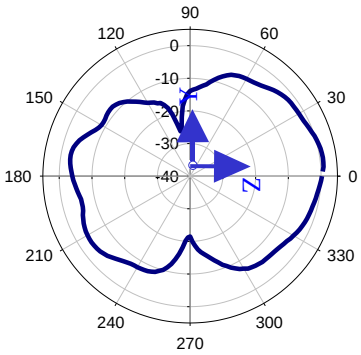
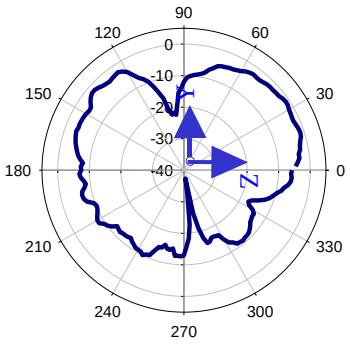
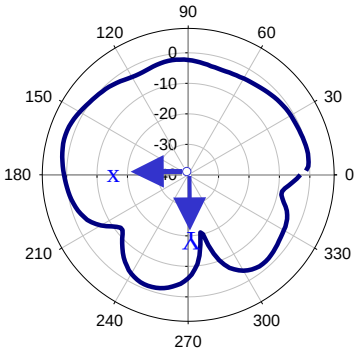
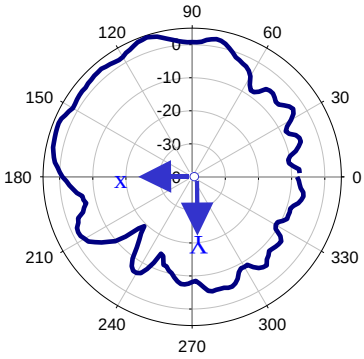
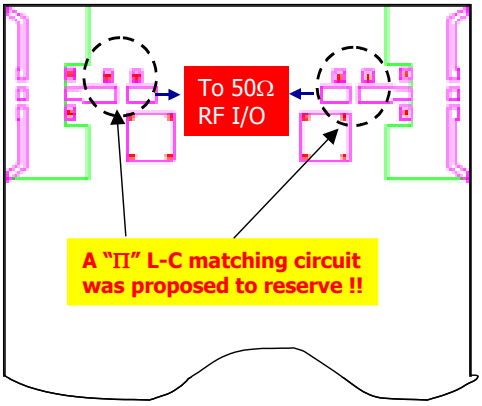
	2.45GHz	5.80GHz
E-Plane	 Peak Gain = 0.94dBi Average Gain = -4.86dBi	 Peak Gain = 1.10dBi Average Gain = -6.30dBi
H-Plane	 Peak Gain = 0.16dBi Average Gain = -4.33dBi	 Peak Gain = 4.37dBi Average Gain = -1.68dBi

The installation for the two antennas could be arranged as RCA-6050L0-TR located on RIGHT side and RCA-6050L1-TR located on LEFT side to have best antenna coverage.

The performance of embedded ceramic antenna is sensitive influenced by customer's ground area, PC board size, thickness, material, mechanical design and material of housing for end product. The performance is guaranteed based on the installation as shown in above, to reserve a "Π" network is suggested for final matching if the housing included.



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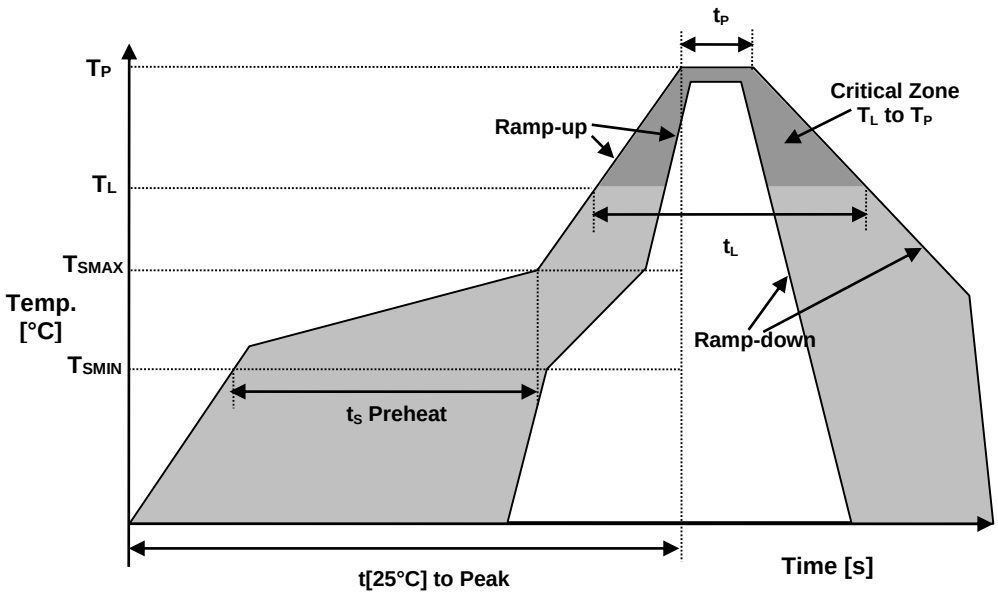
REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T_{SMIN}	150°C
Temperature Max Preheat	T_{SMAX}	200°C
Time (T_{SMIN} to T_{SMAX})	t_S	60-180 s
Temperature	T_L	217°C
Peak Temperature	T_P	250°C
Ramp-up rate	R_{UP}	3°C/s max.
Ramp-down rate	R_{DOWN}	6°C/s max.
Time within 5°C of Peak Temperature	t_P	10 s
Time t[25°C] to Peak Temperature	t[25°C] to Peak	480 s
Time	t_L	60-150 s

- **ENVIRONMENTAL**

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
RoHS2	6/6 COMPLIANT & LEAD FREE
REACH-SVHC	COMPLIANT
HALOGEN-FREE	COMPLIANT
TERMINATION FINISH	Au

RoHS Compliant

May, 2016