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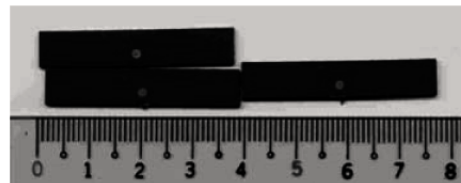
MULTILAYER CERAMIC ANTENNA (LINEAR POLARIZATION MODE)  
FOR 400MHz~500MHz

Product Specification<sup>†</sup> (Preliminary)

QUICK REFERENCE DATA

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Working Frequency*	400~500MHz
Bandwidth	20 MHz (Min)
Gain	0.5 dBi (Max)
VSWR	3.0 max
Polarization	Linear
Azimuth	Omni-directional
Impedance	50 Ohm
Operating Temperature	-55~ 126 Grad
Termination	Ni/Sn (Environmentally-Friendly Leadless)



Resistance to soldering heat 260 Grad 10 sec.

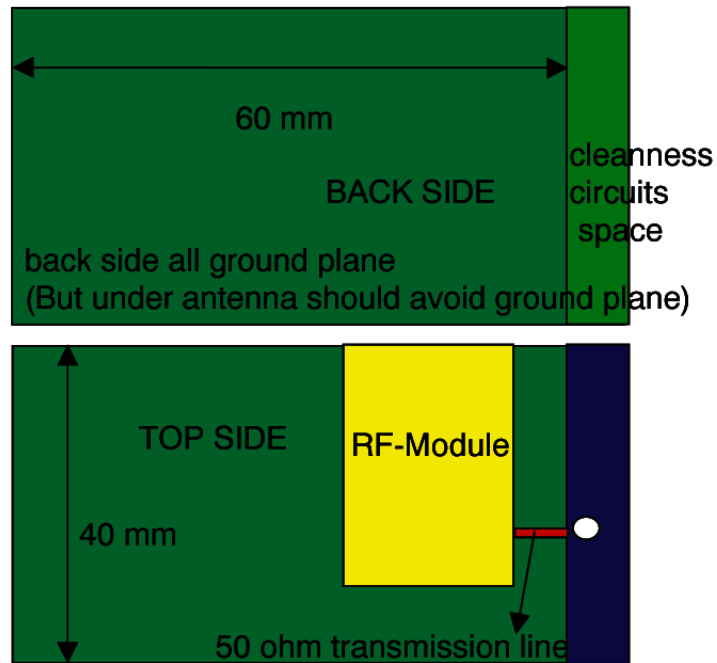
\* Three types of ceramic antenna are available: Type 43, Type 46, and Type 49

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Special Environmental Concerns- Green Products Design: The foil making process is using environmentally friendly aqueous wet technology. Termination is lead free and packing materials can be re-cycled

## 1. APPLICATION



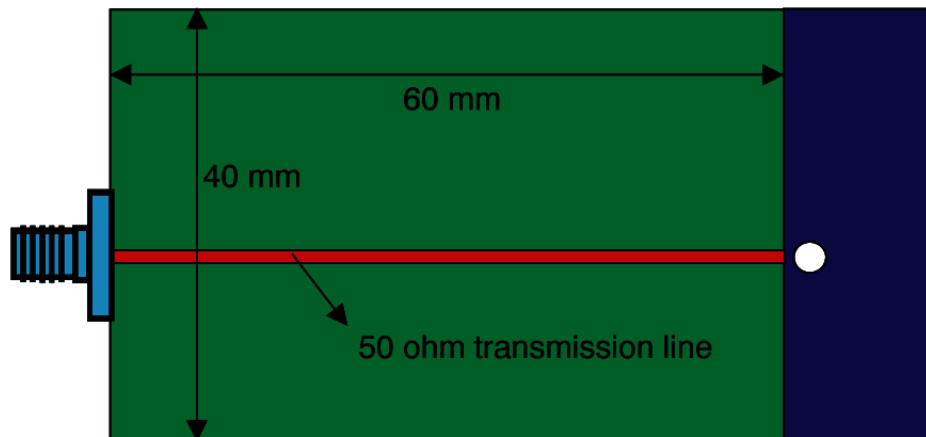
## 2. SOLDER LAND PATTERN FOR ANTENNA

Figure	Dimensions	Remark	
	L	7.30 ± 0.50 mm	Feed pad
	F	2.50 ± 0.50 mm	
	C	0.90 ± 0.10 mm	
	S	2.50 ± 0.50 mm	

### 3. MECHANICAL DATA

Figure	Dimension	Port	
	L	$6.8 \pm 0.5 \text{ mm}$	-
	W	$37.5 \pm 0.5 \text{ mm}$	-
	T	$0.90 \pm 0.2 \text{ mm}$	-
	F	$2.3 \pm 0.3 \text{ mm}$	Feed termination
	C	$0.5 \pm 0.3 \text{ mm}$	Solder termination
	S	$2.3 \pm 0.3 \text{ mm}$	Solder termination
	S1	$2.3 \pm 0.3 \text{ mm}$	Solder termination
		$1.4 \pm 0.3 \text{ mm}$	

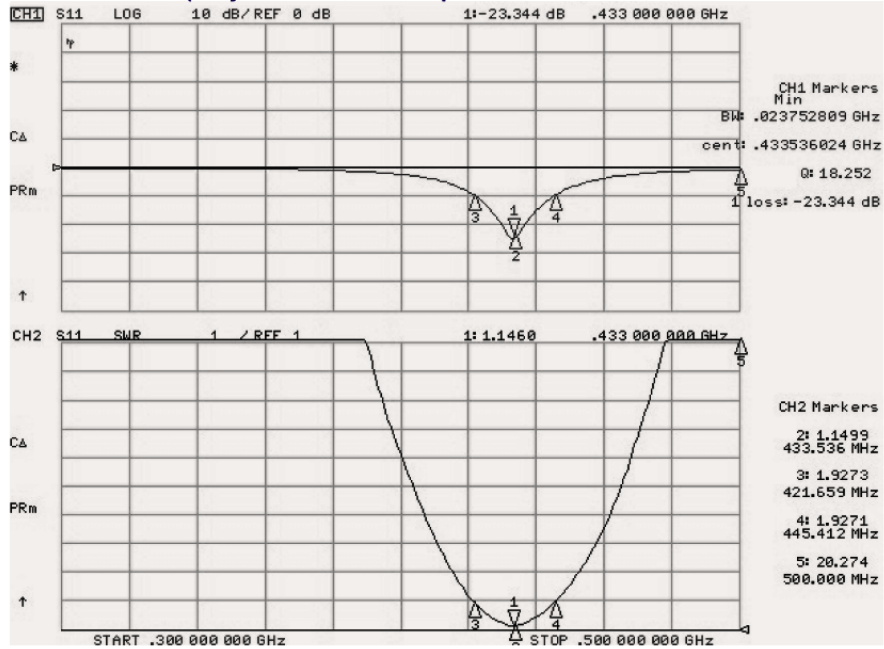
### 4. TEST BOARD DIMENSION FOR S11 (RETURN LOSS) AND RADIATION PATTERN MEASUREMENT



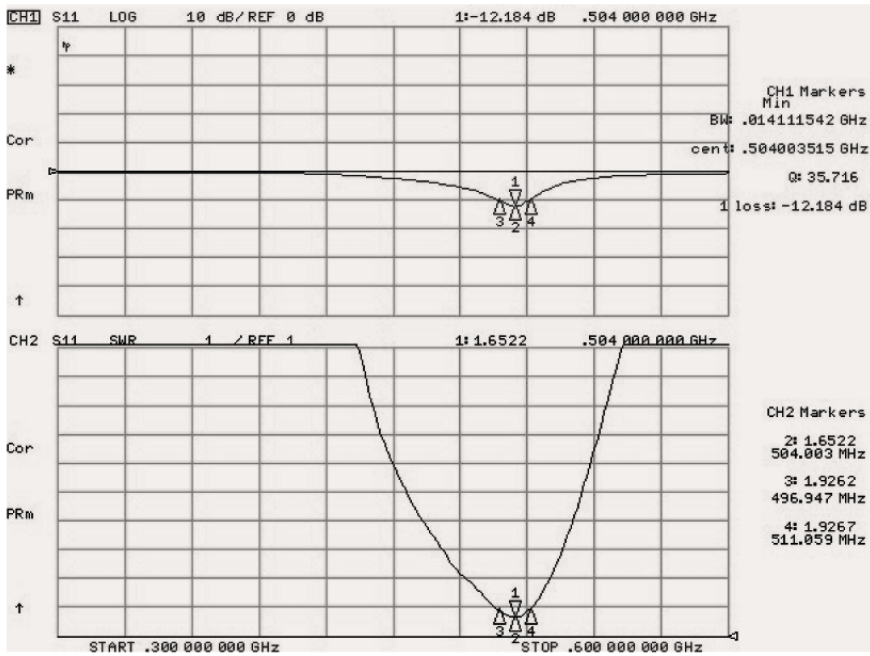
FR-4 PCB thickness = 0.8 mm

The length of transmission line = 1.35 mm ( depends on PCB thickness)

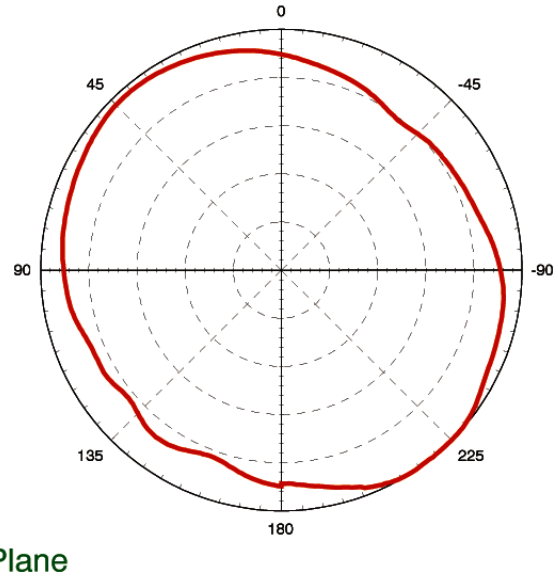
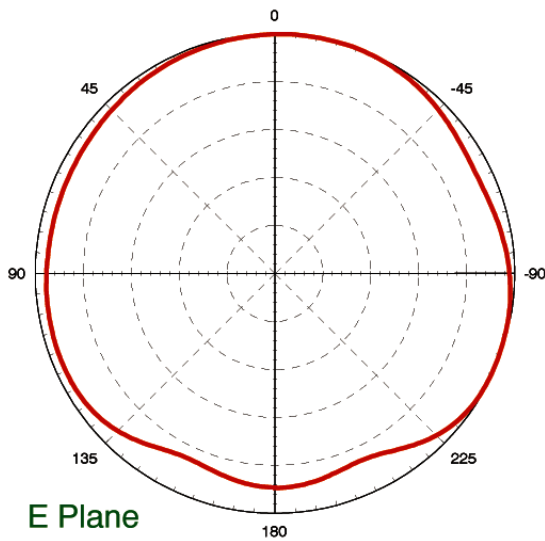
## 5. S11 RETURN LOSS (Adjustable, Example is 433MHz, 4311 121 20043)



(Adjustable, Example is 490MHz, 4311 121 20049)



## 6. TYPICAL RADIATION PATTERN



## RELIABILITY DATA (Reference to IEC Specification)

IEC 384-10/ CECC 32 100 CLAUSE	IEC 6006868-2 TEST METHOD	TEST	PROCEDURE	REQUIREMENTS
4.4		Mounting	The antenna can be mounted on printed-circuit boards or ceramic substrates by applying wave soldering, reflow soldering (including vapour phase soldering) or conductive adhesive	No visible damage
4.5		Visual inspection and dimension check	Any applicable method using $\times 10$ magnification	In accordance with specification (no chip off 3 mm)
4.6.1		Antenna	Central Frequency at 20°C	Standard test board in page 3