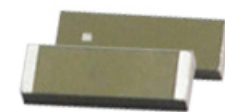


# 433 MHz Ceramic Chip Antenna



ACAG1204-433-T

12.0 x 4.0 x 1.6mm



RoHS/RoHS II Compliant

MSL = 1

## FEATURES

- Made using LTCC (low temperature co-fired ceramic) technology
- Low frequency of 433 MHz
- VSWR  $\leq 2$
- Compact profile 12.0 x 4.0 x 1.6mm
- Omni-directional

## APPLICATIONS

- ISM Band
- RFID
- SigFox
- LoRa
- Wireless
- Home Automation
- IoT
- Medical Devices
- Smart Meters
- Remote Technology/Monitoring
- M2M

## ELECTRICAL CHARACTERISTICS

Item	Spec
Frequency	433 MHz
Bandwidth	10 MHz typ
Return Loss	-6.5 dB
VSWR	$\leq 2.0$
Impedance	50 $\Omega$
Peak Gain	-1.72 dBi
Azimuth	Omni-directional
Polarization	Linear

## ENVIRONMENTAL CHARACTERISTICS

Item	Spec
Operating Temperature Range	-55°C to + 125°C
Storage Temperature Range	-55°C to + 125°C
Relative Humidity Range	55 to 75% RH

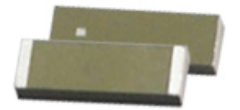


5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
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REVISED: 07.29.2019

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# 433 MHz Ceramic Chip Antenna



ACAG1204-433-T

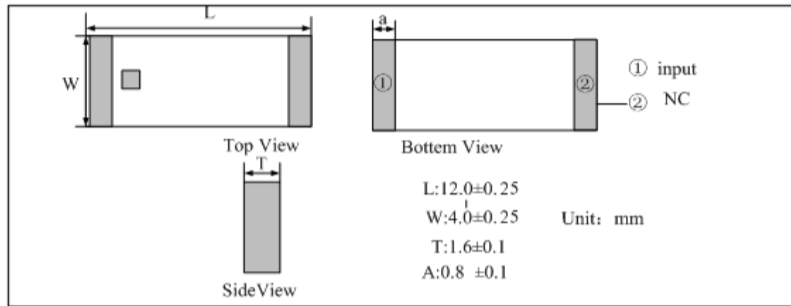
12.0 x 4.0 x 1.6mm

RoHS/RoHS II Compliant

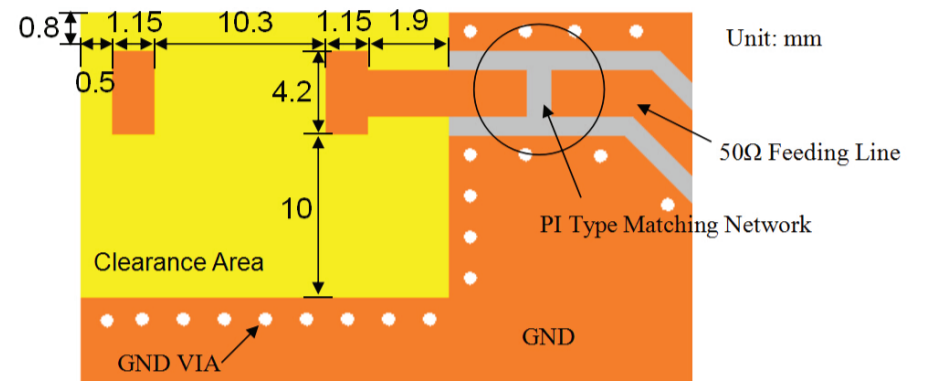
MSL = 1

## MECHANICAL DIMENSIONS

Antenna Dimensions

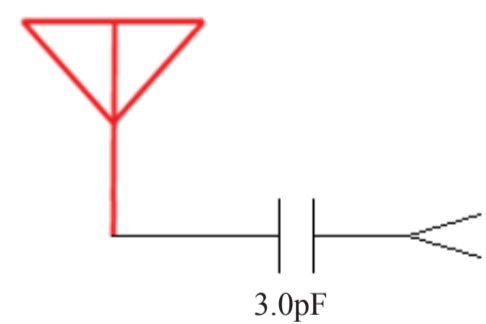
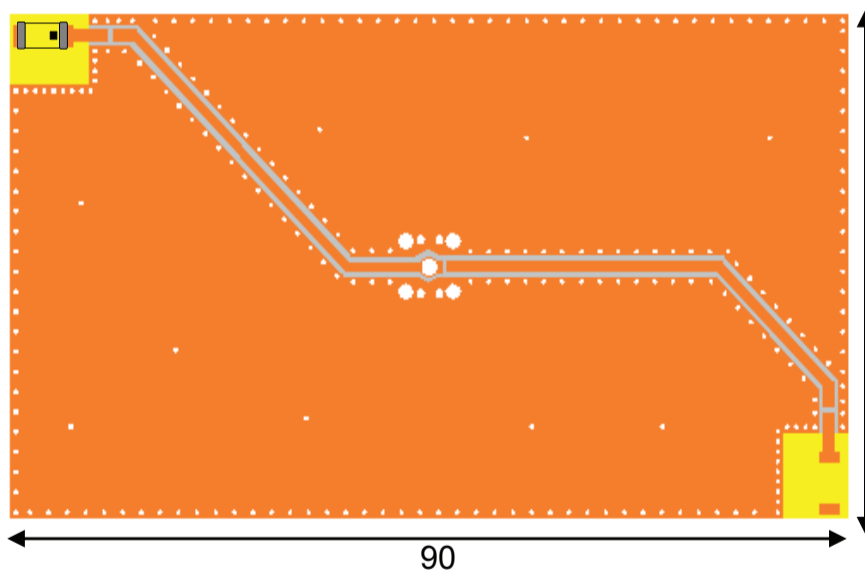


Layout Dimensions

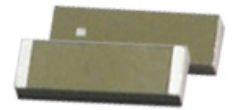


Dimensions (mm)

## EVALUATION BOARD AND MATCHING CIRCUITS



# 433 MHz Ceramic Chip Antenna



ACAG1204-433-T

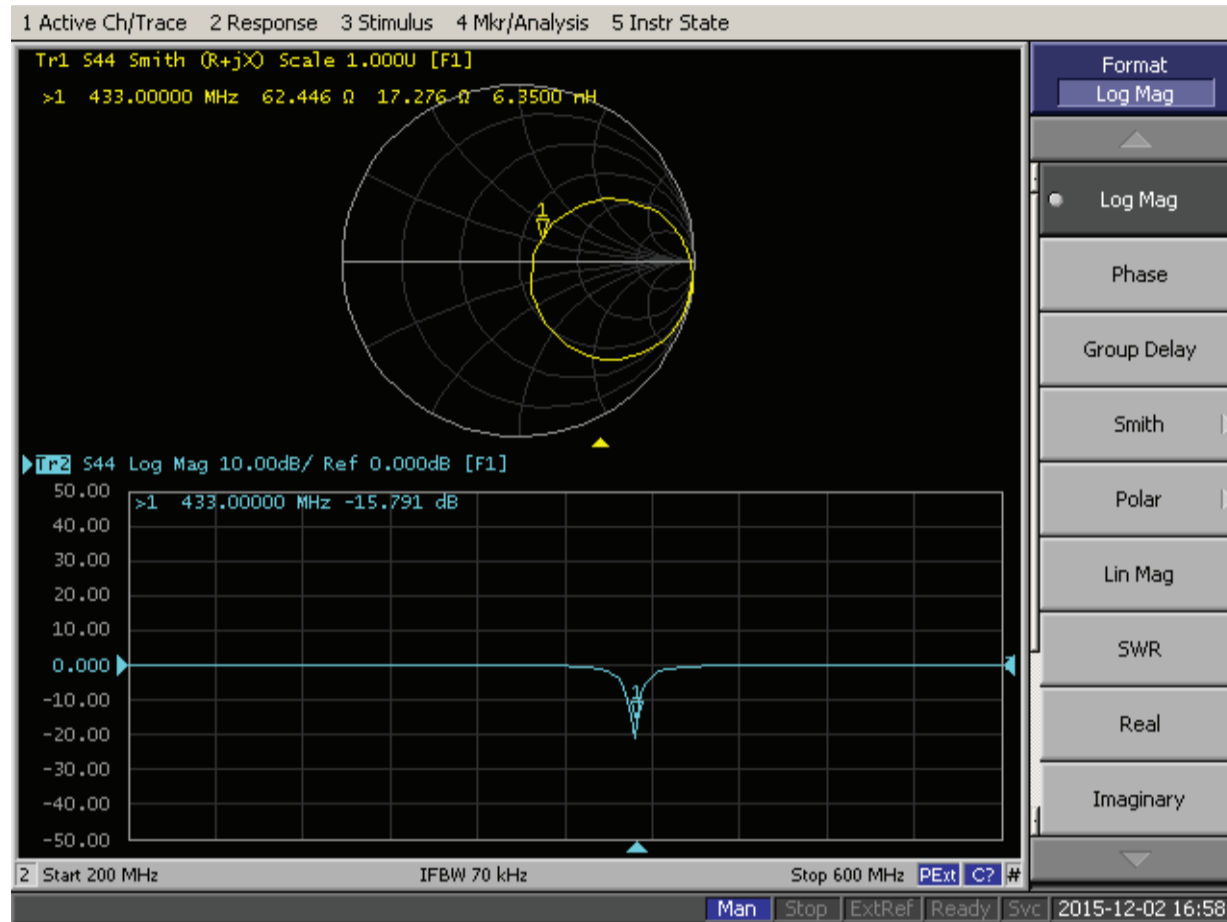
12.0 x 4.0 x 1.6mm



RoHS/RoHS II Compliant

MSL = 1

## ANTENNA RESPONSE – SMITH CHART AND RETURN LOSS S11

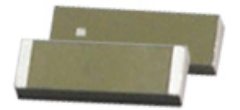


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ACAG1204-433-T

12.0 x 4.0 x 1.6mm

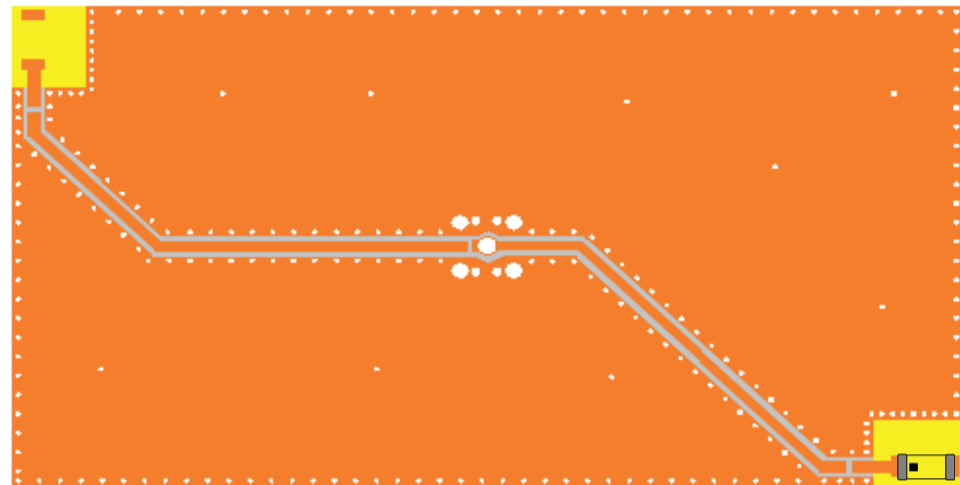
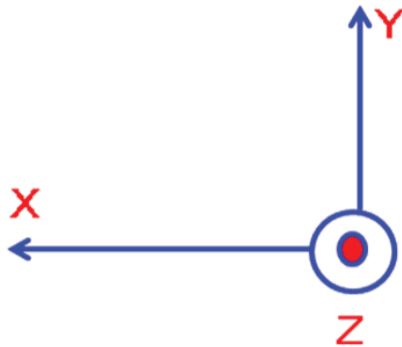


RoHS/RoHS II Compliant

MSL = 1

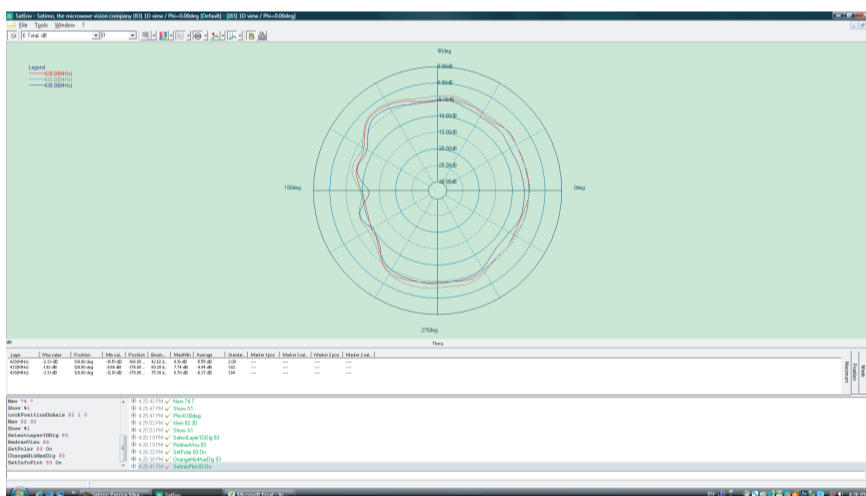
## RADIATION PATTERNS

### Coordinates

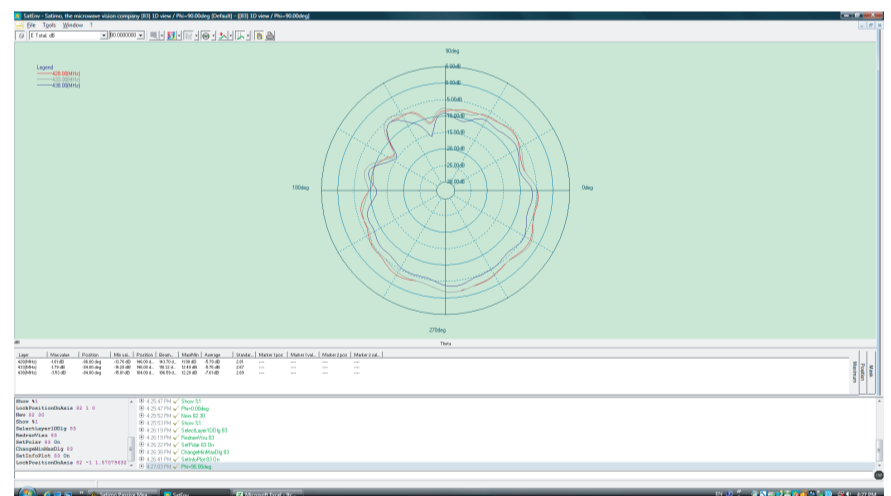


## RADIATION PATTERNS

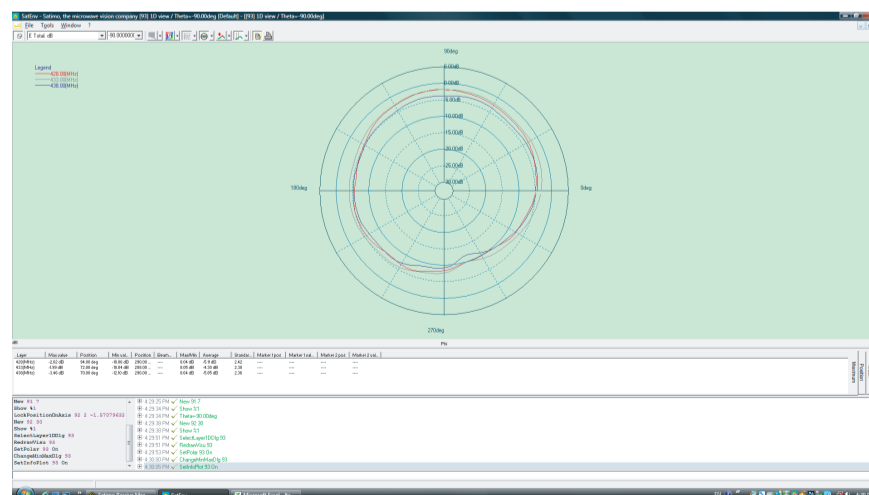
### X-Z Plane



### Y-Z Plane



### X-Y Plane



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# 433 MHz Ceramic Chip Antenna



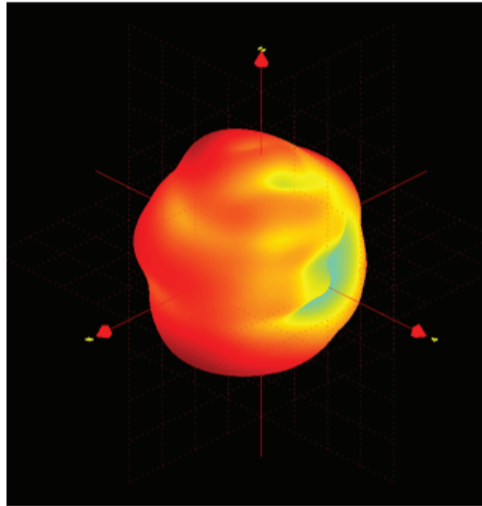
ACAG1204-433-T

12.0 x 4.0 x 1.6mm

 RoHS/RoHS II Compliant

MSL = 1

## 3D PATTERNS



Frequency (MHz)	428	433	438
Avg. Gain (dBi)	-5.55	-4.84	-6.37
Peak Gain (dBi)	-1.85	-1.72	-1.93
Efficiency (%)	33	35	33

## REFLOW SOLDERING STANDARD CONDITION

