



安 徽 蓝 讯 通 信 技 术 有 限 公 司

Anhui Lan-Xun Communication Technology Co., Ltd

Datasheet of Ceramic Component

Product : Chip Antenna

Frequency : 5180-5850 MHz

P/N : LX.ANT-3216-5515-001

*Contents in this sheet are subject to change without prior notice.

Antenna Size : 3216

1. Features

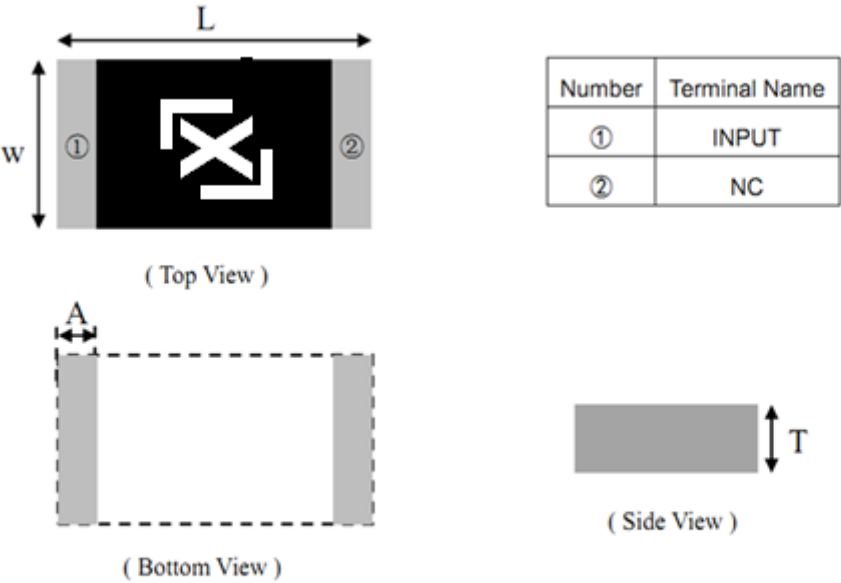
Antenna Frequency for 5180-5850 MHz

2. Applications

For Miniaturized Wireless Fidelity System

3. Shapes & Dimensions(mm)

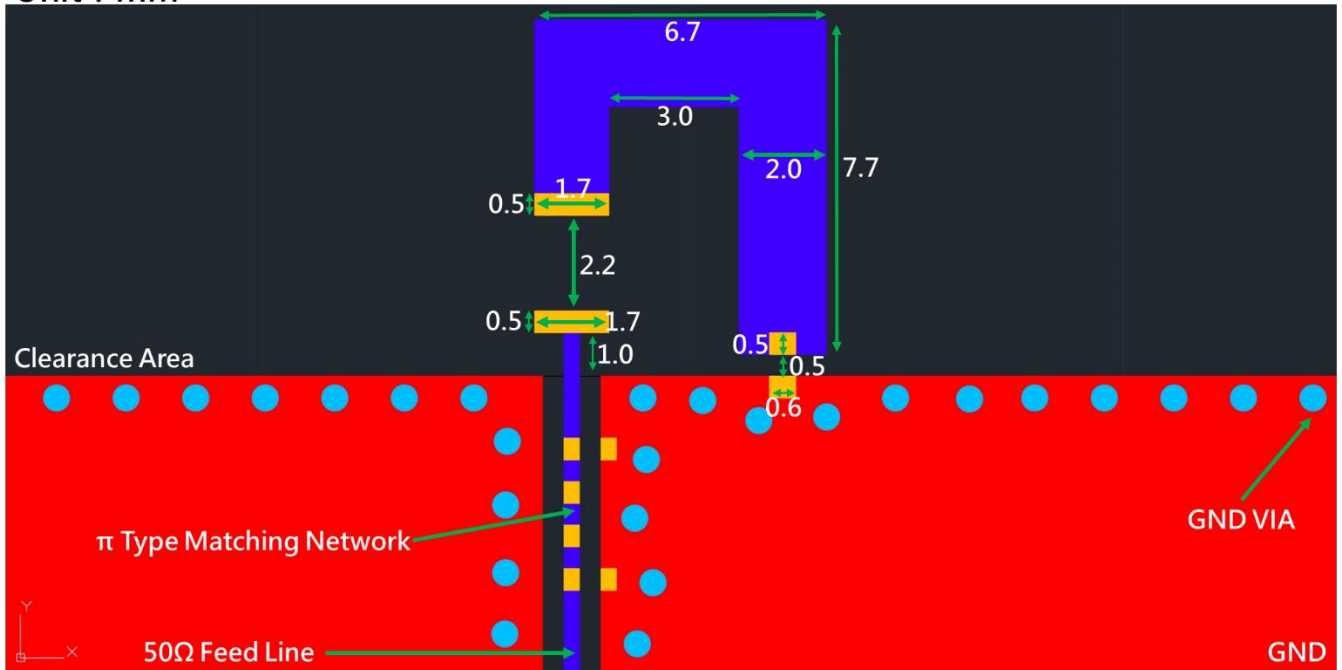
1). Component :



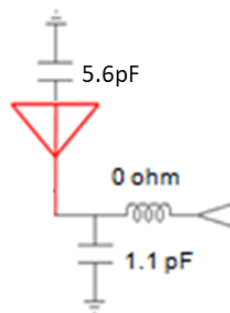
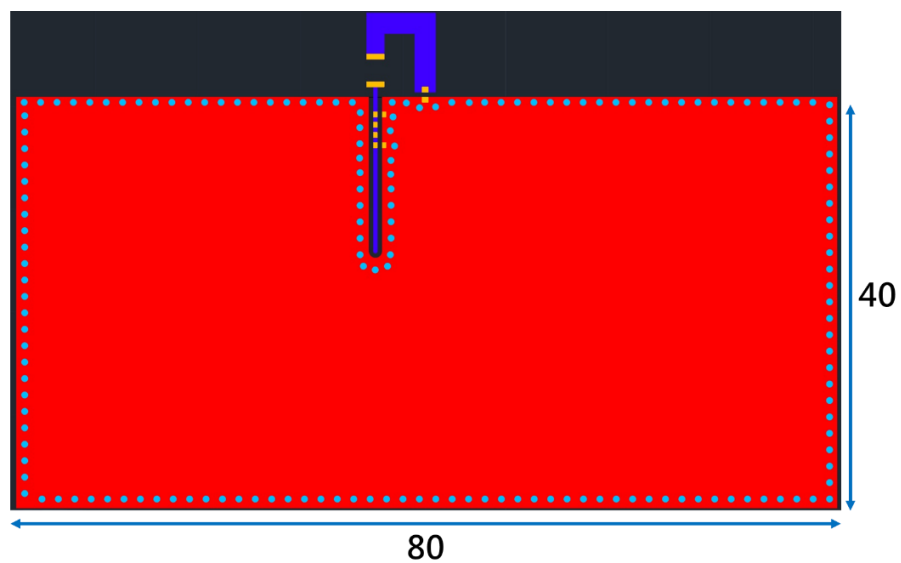
Symbols	L	W	T	A
Dimensions	3.2+/-0.2	1.6+/-0.2	0.5+/-0.1	0.4+/-0.1

2). PCB Cleanzon :

Unit : mm



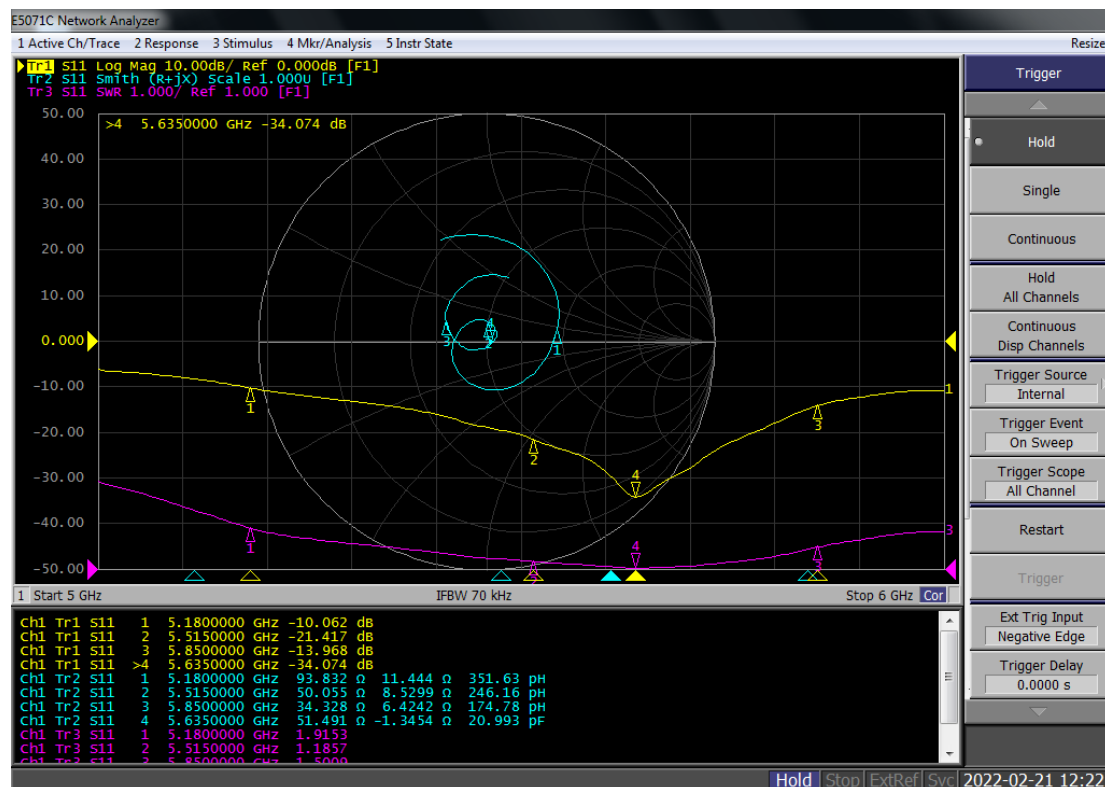
4. Evaluation Board and Matching Circuits



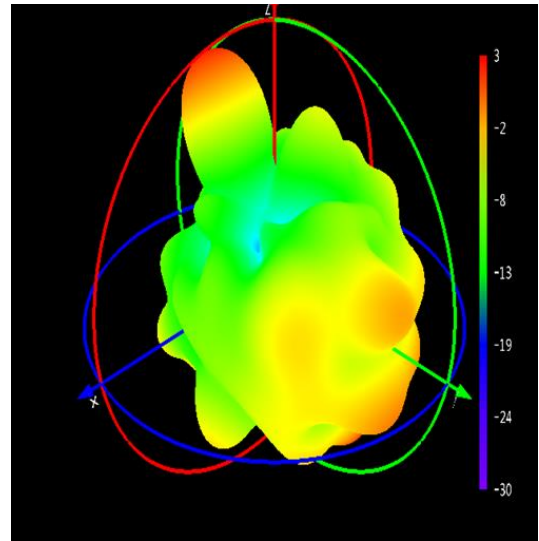
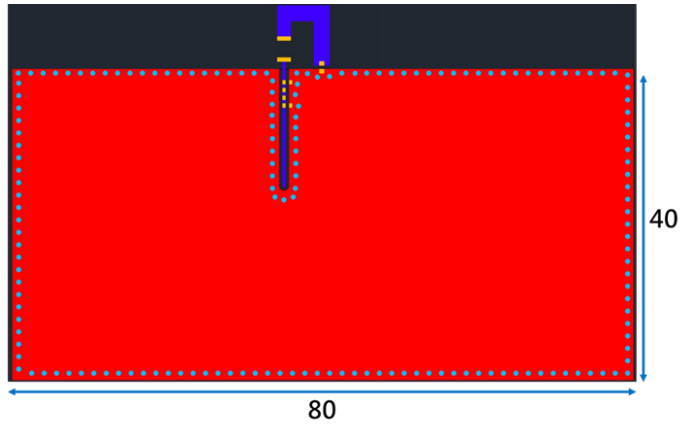
5. Electrical Characteristics

Part Number	LX.ANT-3216-5125-001
Central Frequency	5515 MHz
Bandwidth	670 (typ.) MHz
V.S.W.R	≤ 2.0
Peak Gain	3.05 dBi
Impedance	50 Ω
Polarization	Linear
Azimuth Beamwidth	Omni-directional

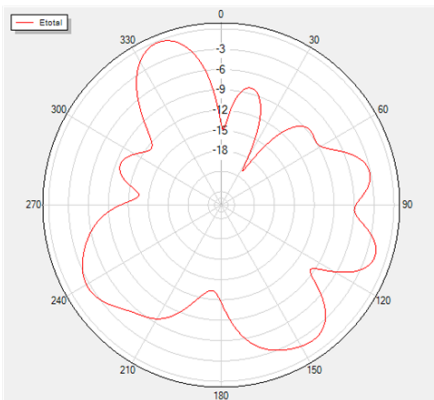
6. Return Loss



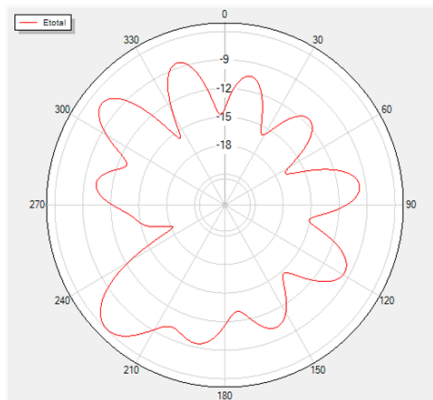
7. Radiation Pattern & Efficiency



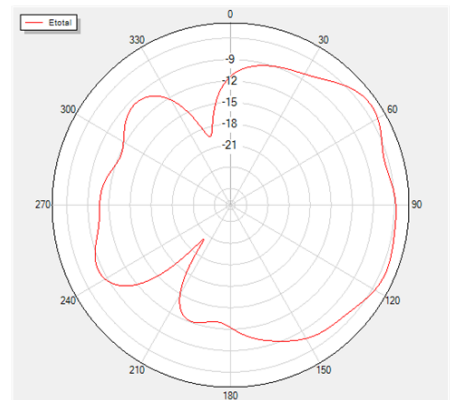
Phi=90 Freq=5520MHz



Phi=0 Freq=5520MHz

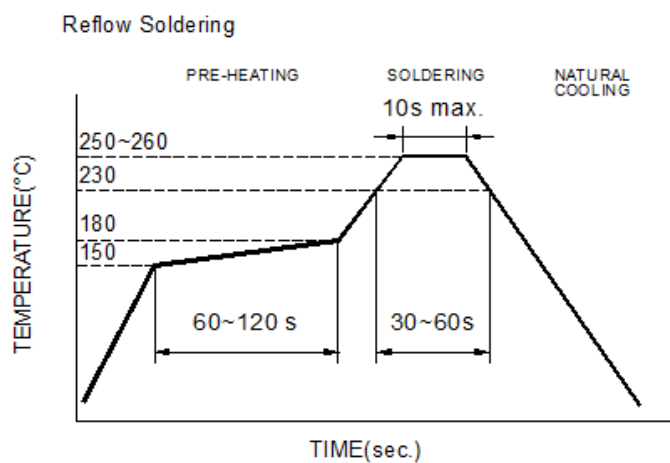


Theta=90 Freq=5520MHz



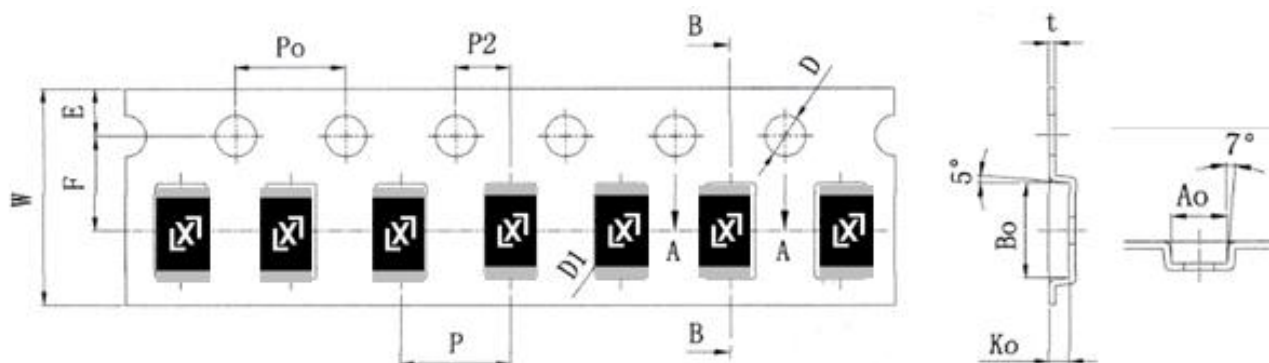
Frequency (MHz)	5180	5515	5850
Efficiency (dB)	-4.51	-3.86	-4.91
Efficiency (%)	35	41	32
Gain (dBi)	1.58	3.05	2.02

8. Reflow Soldering Standard Condition



9. Packaging and Dimensions 3.2*1.6mm

◆ Plastic Tape

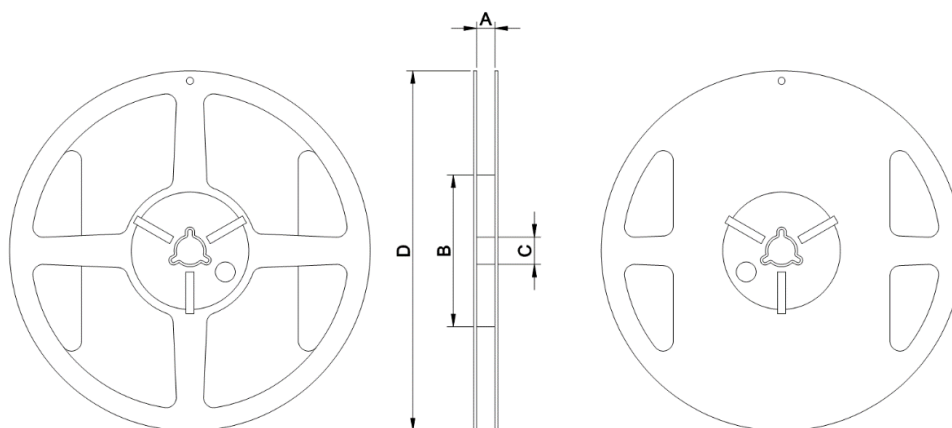


外觀	規格	公差
W	8.00	±0.10
P	4.00	±0.10
E	1.75	±0.10
F	3.50	±0.05
P2	2.00	±0.05
D	1.50	+0.10 -0.00
D1	1.00	±0.10
Po	4.00	±0.10
10Po	40.00	±0.20

外觀	規格	公差
Ao	1.85	±0.10
Bo	3.50	±0.10
Ko	0.73	±0.10
t	0.23	±0.05

◆ Remarks for Package

Reserve a length of 150~200mm for the trailer of the carrier and 250~300 mm for the leader of the carrier and further 250mm of cover tape at the leading part of the carrier.

◆ Reel (5000 pcs/Reel)

Tape Width(mm)	A(mm)	B(mm)	C(mm)	D(mm)	Chip/Reel(pcs)
8	9.0±0.5	60±2	13.5±0.5	178±2	5000

◆ Storage Period

Oxidizable Material, 12 months in vacuum sealed bag, please repack within 168 hours by re-seal the package treatment after using.

Storage Temperature Range : <30 degree C, Humidity : <60%RH

10. Dependability Test

Test item	Test condition / Test method	Specification
Solderability IEC 60068-2-58 GB/T2423.28	*Solder bath temperature: $240\pm5^{\circ}\text{C}$ *Immersion time: 2 ± 0.5 sec Solder: Sn96.5Ag3.0Gu0.5 for lead-free.	At least 95% of a surface of each terminal electrode must be covered by fresh solder.
Leaching (Resistance to dissolution of metallization) JIS C5101	*Solder bath temperature: $260\pm5^{\circ}\text{C}$ *Leaching immersion time: 10 ± 1 sec Solder : Sn96.5 Ag3.0 Gu0.5 for lead-free.	Loss of metallization on the edges of each electrode shall not exceed 25%.
Resistance to soldering heat IEC 60068-2-58 GB/T2423.28	*Preheating temperature: $120\sim150^{\circ}\text{C}$, 1 minute. *Solder temperature: $260\pm5^{\circ}\text{C}$ *Immersion time: 10 ± 1 sec Solder: Sn96.5Ag3.0Gu0.5 for lead-free Measurement to be made after keeping at room temperature for 24 ± 2 hrs.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature. Loss of metallization on the edges of each electrode shall not exceed 25%.
Drop Test IEC 60068-2-32 GB/T2423.8 Customer's specification.	*Height : 50 cm *Test Surface: Rigid surface of concrete or steel. *Times : 6 surfaces for each units ; 2 times for each side.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.
Vibration IEC 60068-2-6 GB/T 2423.10	*Frequency : 10Hz~55Hz~10Hz(1min) *Total amplitude : 1.5mm *Test times: 6hrs.(Two hrs each in three mutually perpendicular directions)	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.
Adhesive Strength of Termination IEC60068-2-21 GB/T 2423.6	*Pressurizing force : $5\text{N}(\leq 0603)$; $10\text{N}(>0603)$ *Test time: 10 ± 1 sec	No remarkable damage or removal of the termination.

Bending test IEC 60068-2-21 GB/T 2423.29	The middle part of substrate shall be pressurized by means of the pressurizing rod at a rate of about 1 mm/s per second until the deflection becomes 2mm and then pressure shall be maintained for 10±1 sec. Measurement to be made after keeping at room temperature for 24±2 hours.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.
Temperature cycle IEC60068-2-14 GB/T 2423.22	30 minutes at -40°C±2°C. 10~15 minutes at room temperature. 30minutes at +85°C±2°C. 10~15 minutes at room temperature. Total 100 continuous cycles Measurement to be made after keeping at room temperature for 24±2 hrs.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.
High temperature IEC 60068-2-2 GB/T2423.2	*Temperature: 85±2°C. *Test duration: 500+24/-0 hours. Measurement to be made after keeping at room temperature for 24±2 hrs.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics.
Humidity (steady conditions) IEC60068-2-3 GB/T 2423.3	*Humidity : 85±5%R.H. *Temperature: 85±2°C. *Time : 500+24/-0 hrs. Measurement to be made after keeping at room temperature for 24±2 hrs ※ 200hrs measuring the first data then 300hrs data.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.
Low temperature IEC 60068-2-1 GB/T2423.1	*Temperature: -40±2°C. *Test duration: 500+24/-0 hours Measurement to be made after keeping at room temperature for 24±2 hrs.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics at the room temperature.