

Features

- Stable and reliable performance
- Supports ISM 915 MHz Band
- Low Profile, Compact Size
- Low Temperature coefficient of frequency
- RoHs Complaint

Applications

- ISM Band System
- RFID System



Specifications

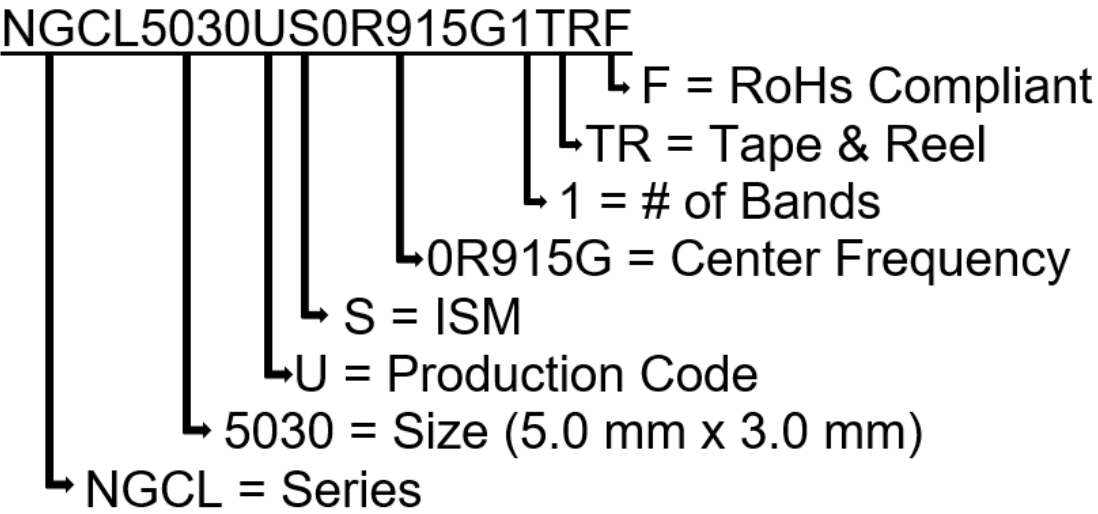
Electrical	
Frequency Range	902 ~ 928 MHz
Center Frequency	915 MHz
VSWR	2 Max.
Peak Gain	0.8 dBi Typ.
Efficiency	52 %
Maximum Input Power	2 W
Polarization	Linear
Impedance	50Ω
Environmental	
Operating Temperature	-40°C~+85°C
Storage Temperature	-5°C~+40°C -40°C~+85°C - After mounting on PCB
Relative Humidity	10% to 70% - Operating & Storage after mounting on PCB 20% to 70% - Storage
Shelf Life	1 year
RoHs Compliant	Yes

NGCL5030US0R915G1TRF

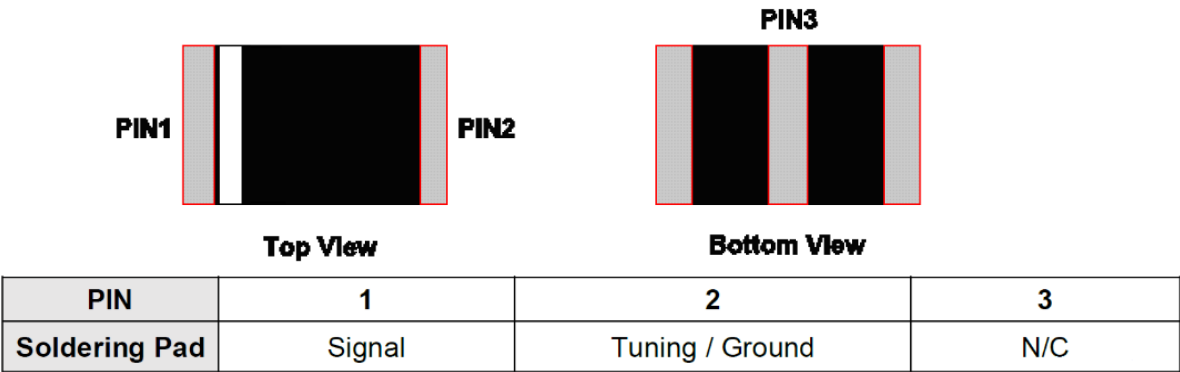
915 MHz ISM Chip Antenna



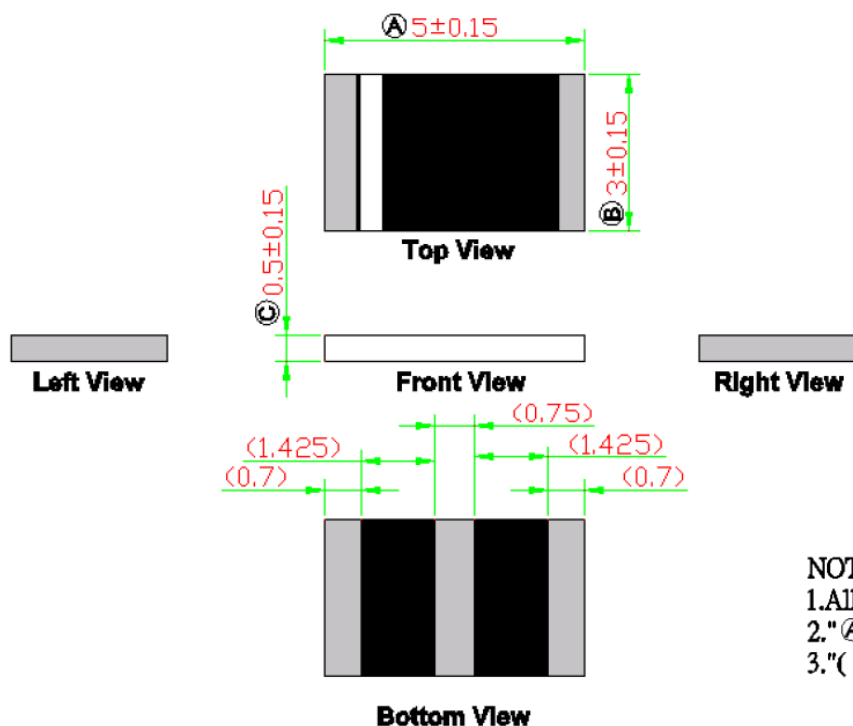
Part Number Breakdown



Pin Definition



Dimension Drawing



NOTE:

1. All materials are RoHS 2.0 compliant.
2. "A~C" Critical Dimensions.
3. "()" Reference Dimensions.

Dimensions (mm) & Mechanical

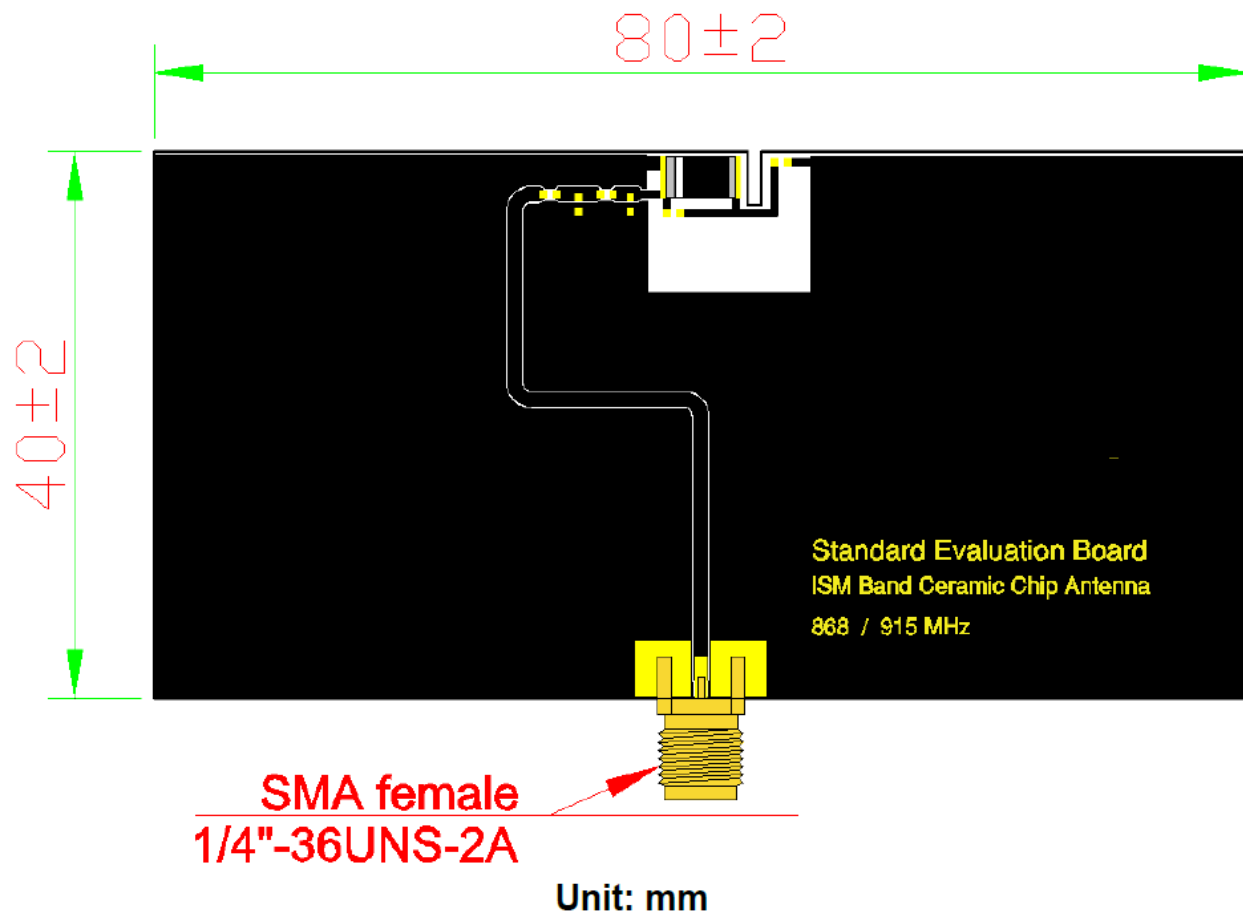
Body Length (A)	5.0 ± 0.15
Width (B)	3.0 ± 0.15
Thickness (C)	0.5 ± 0.15
Connection Type	SMT
Ground Plane	80 mm x 40 mm
Material	Ceramic

NGCL5030US0R915G1TRF

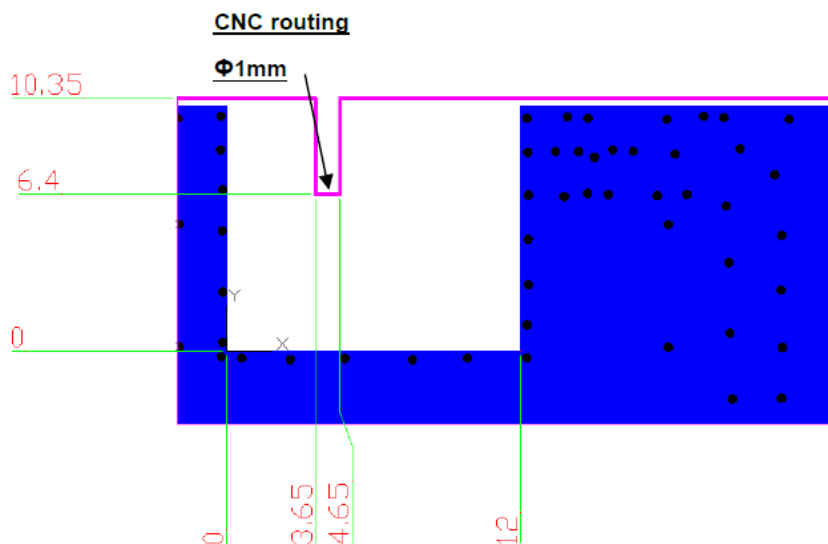
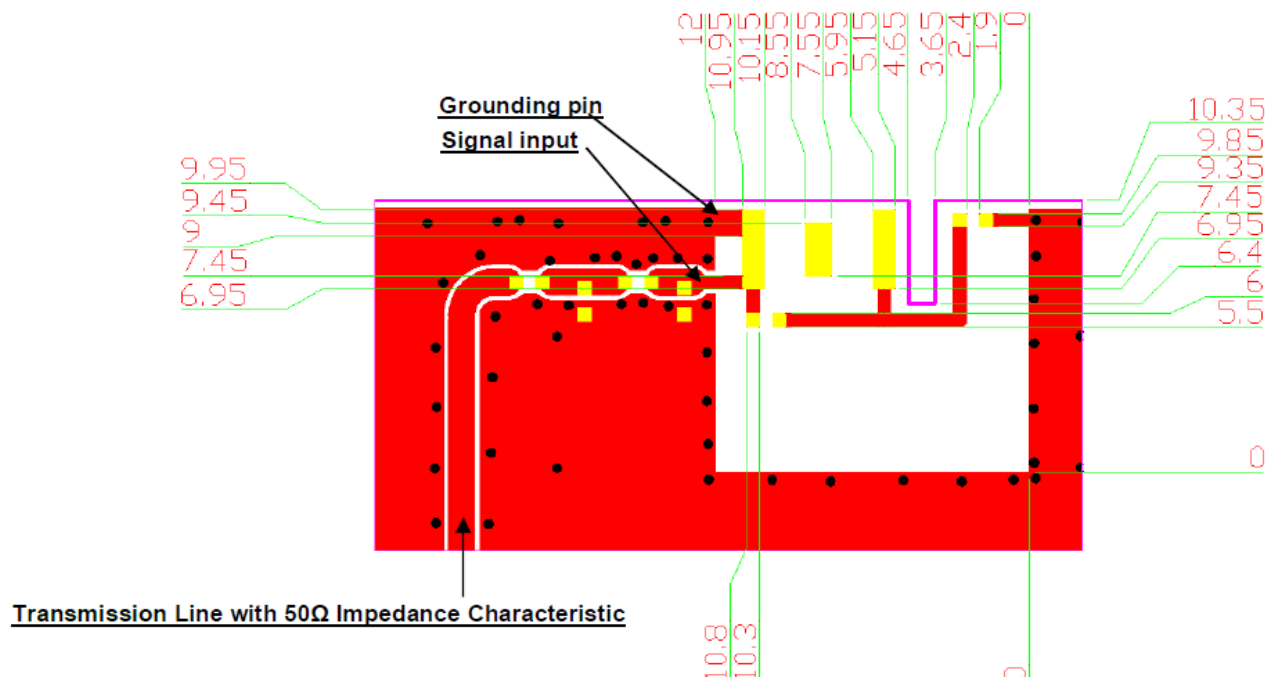
915 MHz ISM Chip Antenna



Evaluation Board

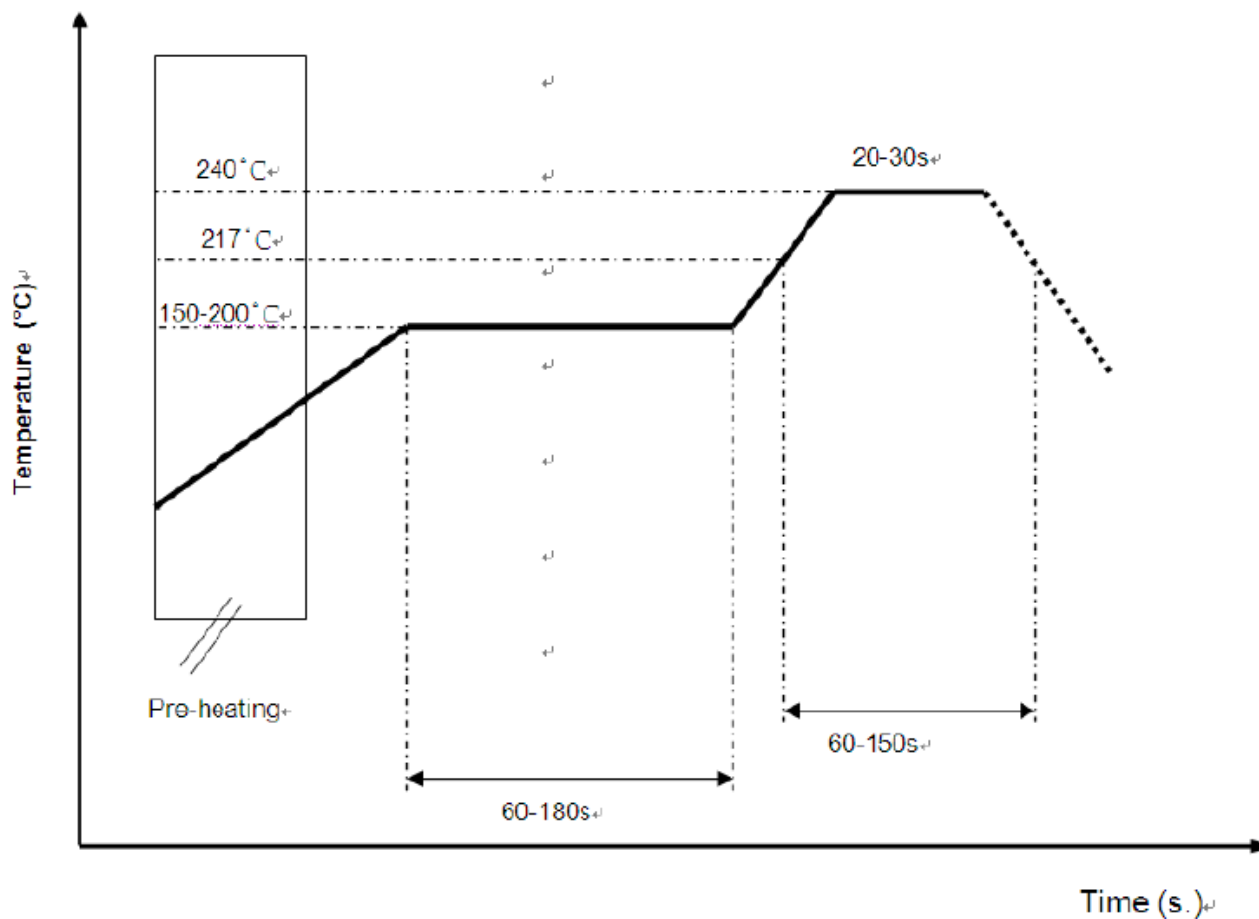


The gold areas represent the solder land pattern. Any recommendations on the matching circuit will be provided according to the customer's installation conditions.

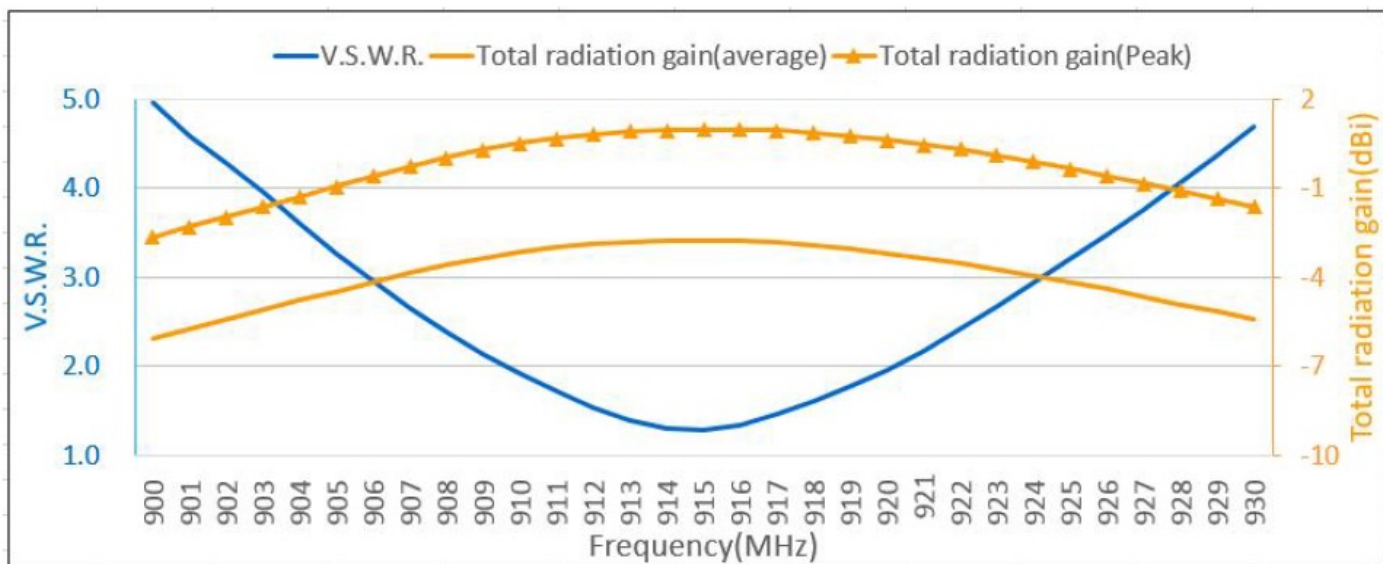


Bottom View

Typical Soldering Conditions

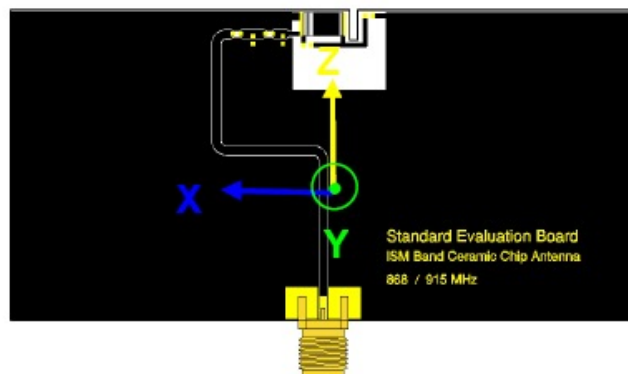
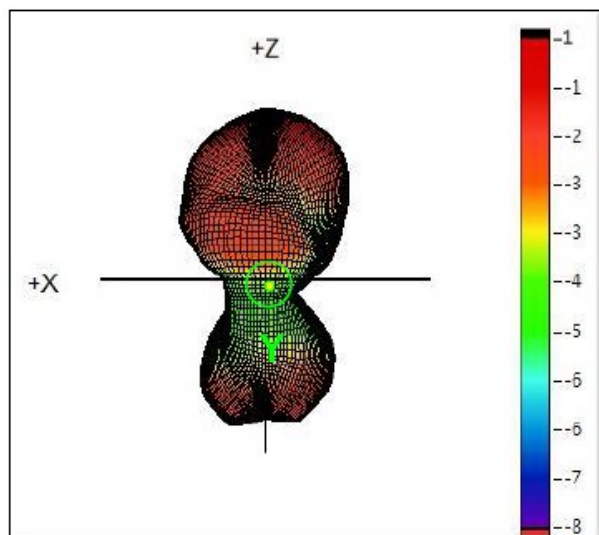
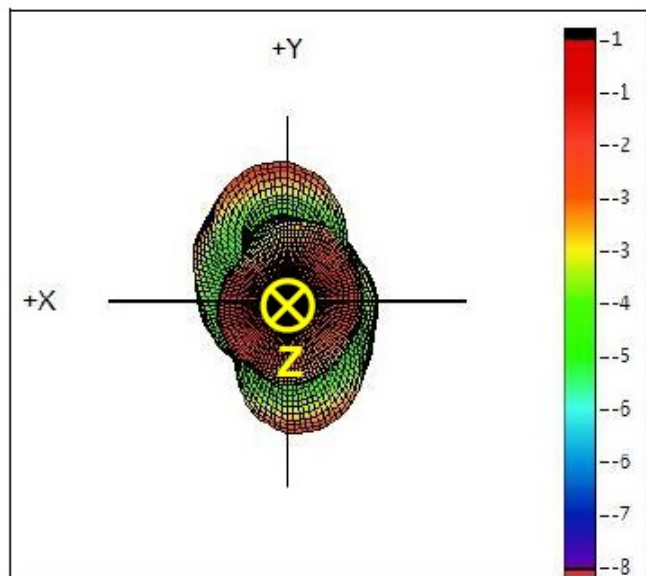
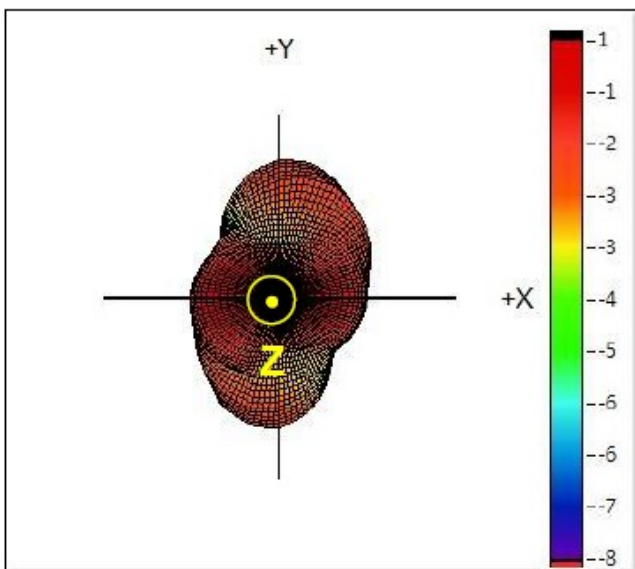


Frequency vs VSWR and Total Radiation Gain

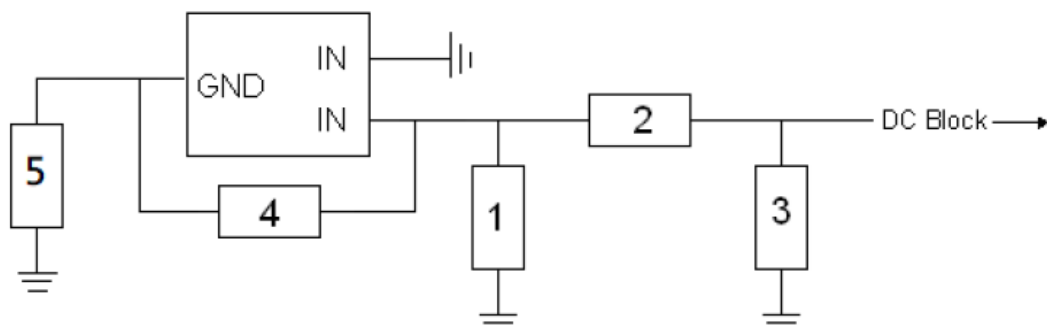
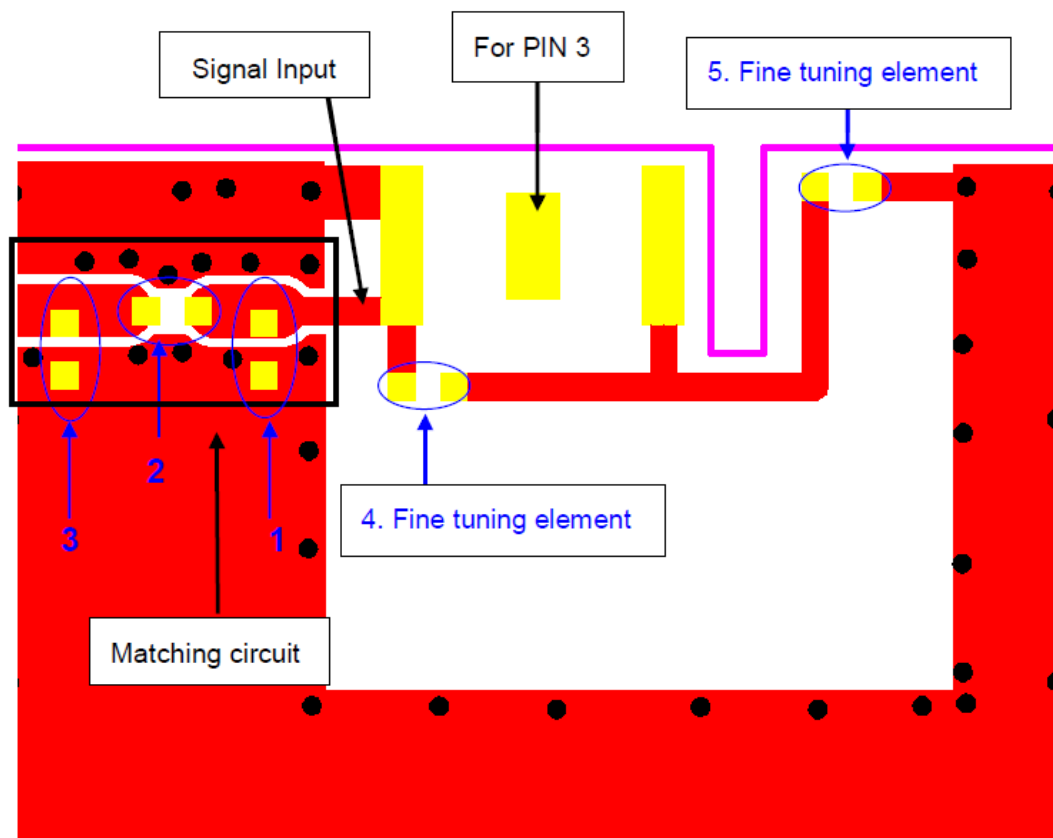


Antenna Radiation Pattern

3D Gain Radiation @ 915 MHz



Frequency Tuning & Matching Circuit

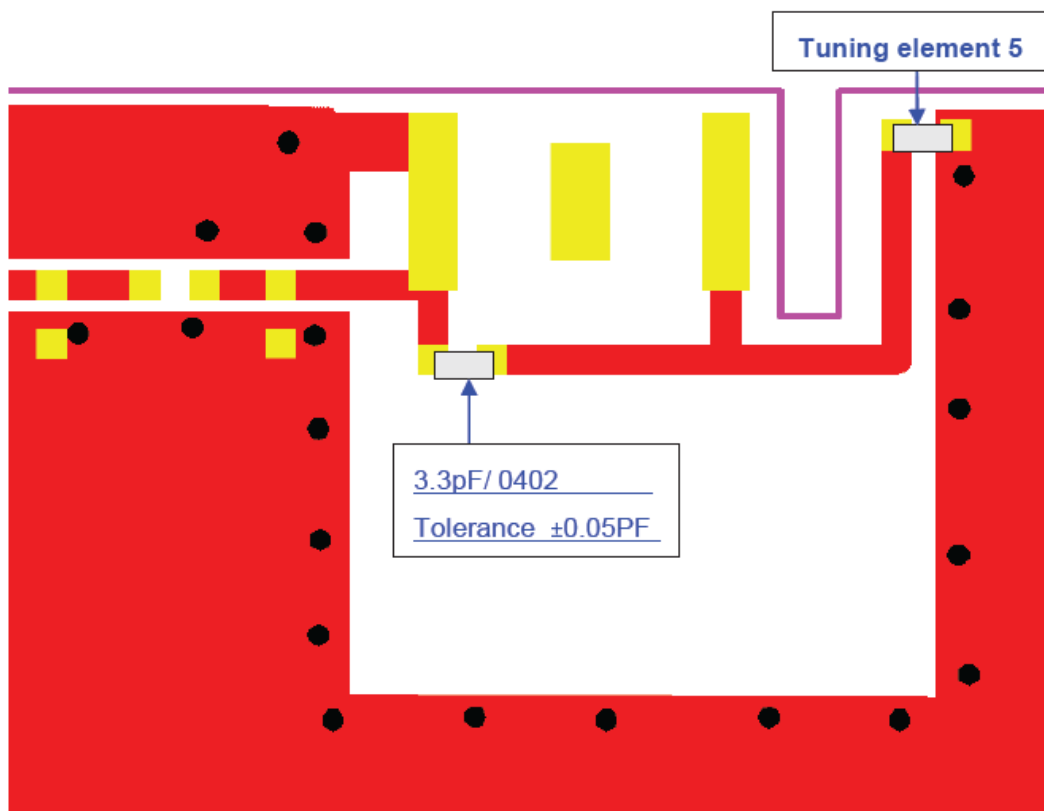




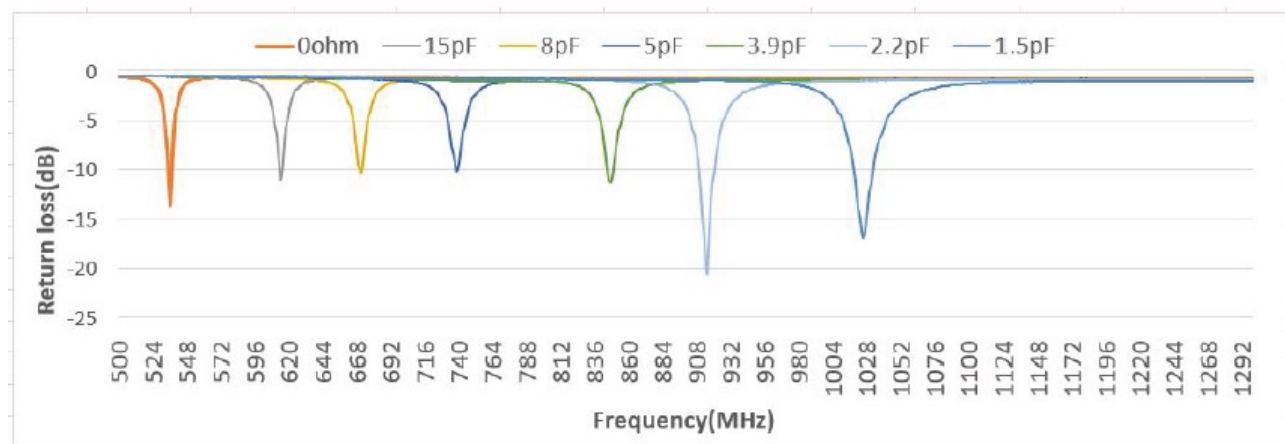
System Matching Circuit Component

Location	Description	Tolerance	NIC Part Number
1 & 3	N/A	-	-
2	6pF, (0402)	±0.05pF	NML04B1N2TRF
4 Fine Tuning Element	3.3pF, (0402)	±0.05pF	NMC-Q0402NPO1R2A50TRPF
5 Fine Tuning Element	2.2pH, (0402)	±0.05pF	NML04B3N9TRF

Reference for the Use of Frequency Tuning Element:



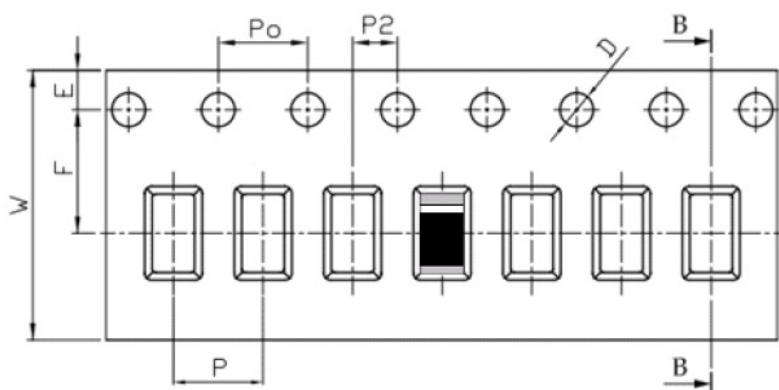
Frequency vs Capacitance of Tuning Element 5



Packing

- (1) Quantity/Reel: 6000 pcs/Reel
- (2) Plastic tape:

a. Tape Drawing



b. Tape Dimensions (unit: mm)

Feature	Specifications	Tolerances
W	12.00	±0.30
P	8.00	±0.10
E	1.75	±0.10
F	5.50	±0.10
P2	2.00	±0.10
D	1.50	+0.10 -0.00
Po	4.00	±0.10
10Po	40.00	±0.20