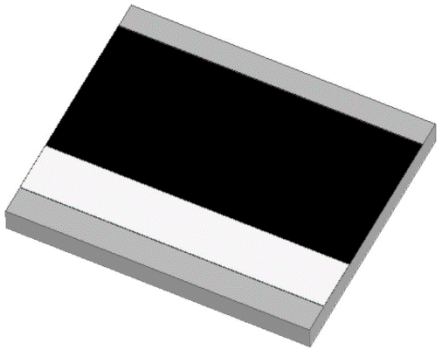
Features

- SMD Chip Antenna
- Frequency: 6.0-8.0 GHz
- Dimensions: 6.0*5.0*0.5mm
- RoHS Compliant

Applications

- Automotive sensors
- Ultra-wideband radios
- Precision surveying
- Remote controls
- Centimeter Level Positioning

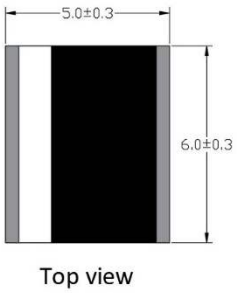


RoHS Compliant
includes all homogeneous materials
(see part numbering system for details)

Specifications

Electrical	
Frequency Range	6000~8000MHz
Center Frequency	7000 MHz
Polarization	Linear
Gain	4.5 dBi typ.
Efficiency	86% typ.
V.S.W.R	2.0 Max
Impedance	50Ω
Dimensions (mm):	
Body Length	6.0 ± 0.30
Width	5.0 ± 0.30
Thickness	0.5 ± 0.15
Connection Type	SMT
Ground Plane	25 mm x 20 mm

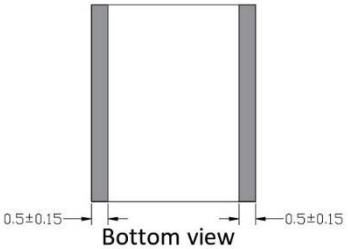
NAN-C U 1B 6050 A F
- F = RoHS compliant
- A = Revision Code (See page 8)
- 6050 = Size (6.0mm x 5.0mm)
- 1B = One Frequency Band
- U= Ultra-Wide Band
- NAN-C = Series



Top view

PIN Definition

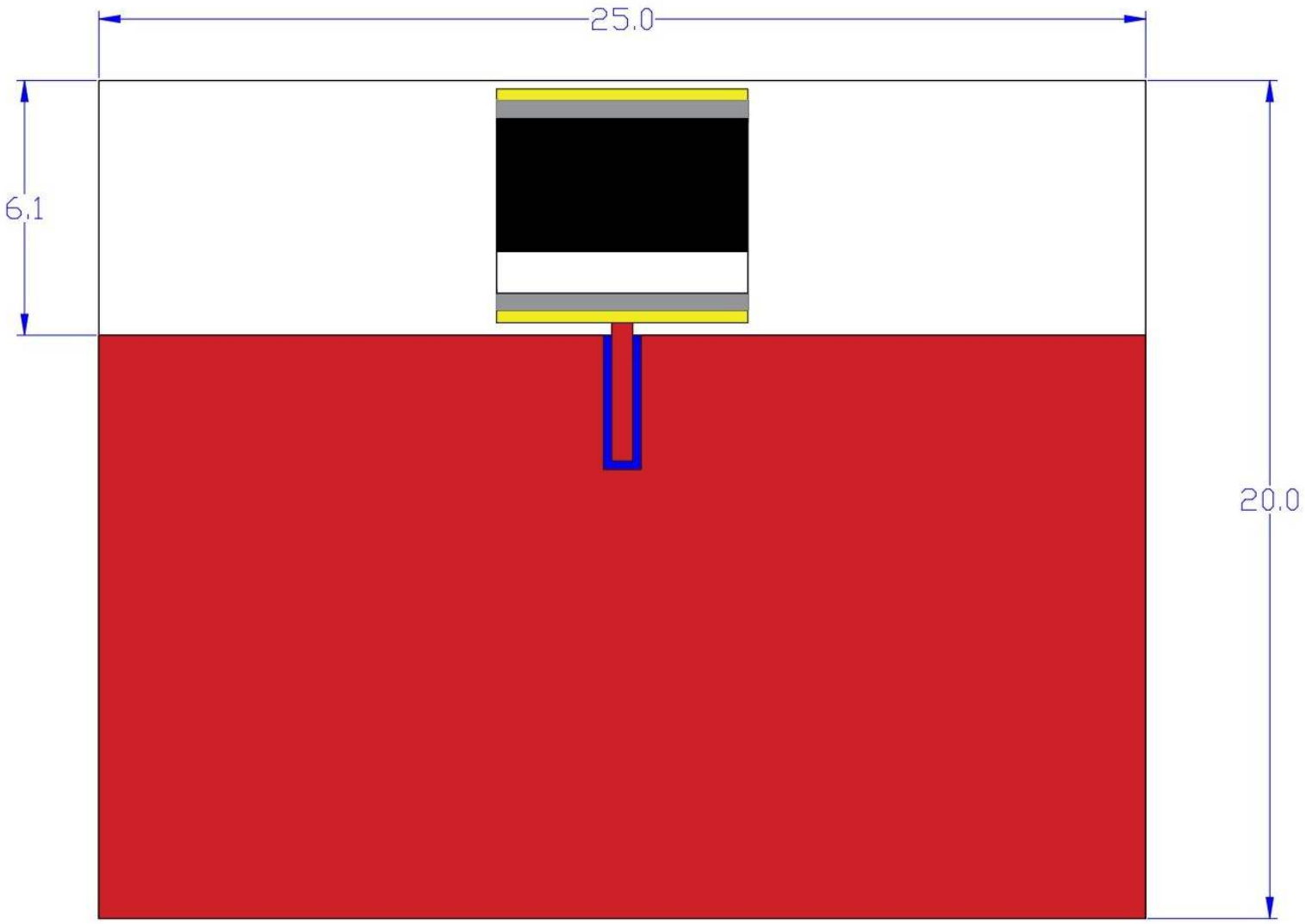
Top view Bottom view



Bottom view

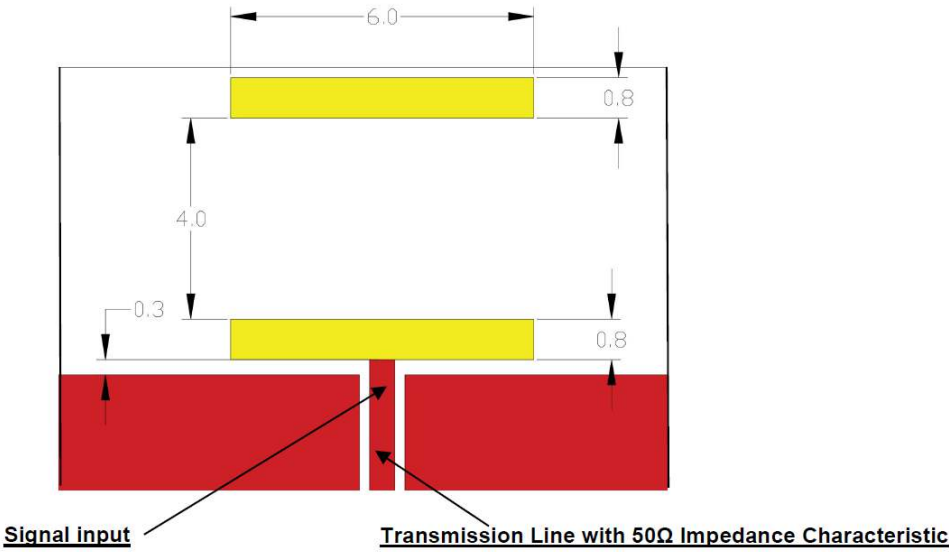
PIN	1	2
Soldering PAD	Signal	N/A

Evaluation Board

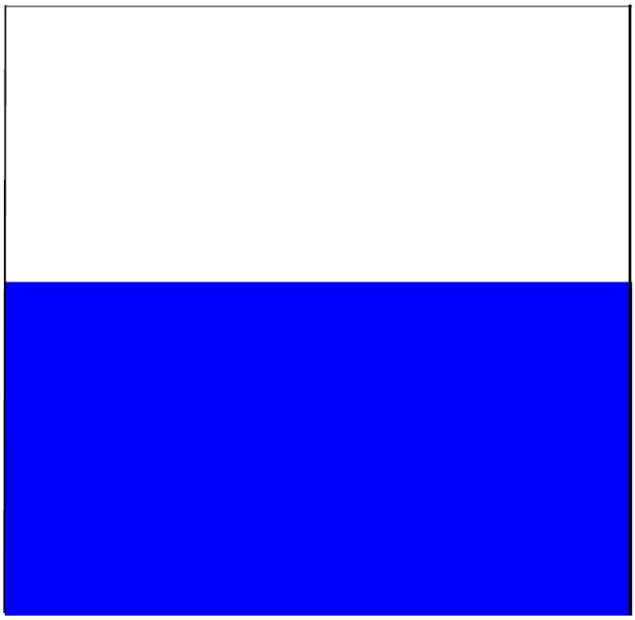


Solder Ground Pattern

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

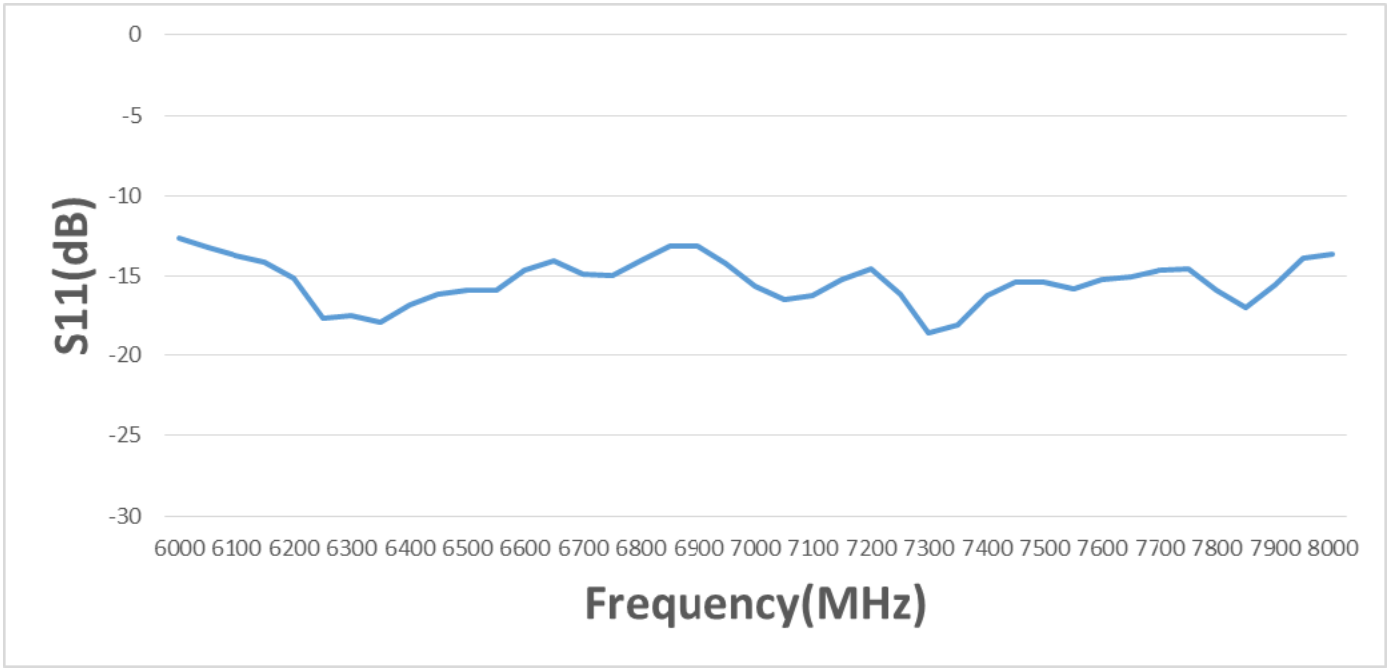


Top View

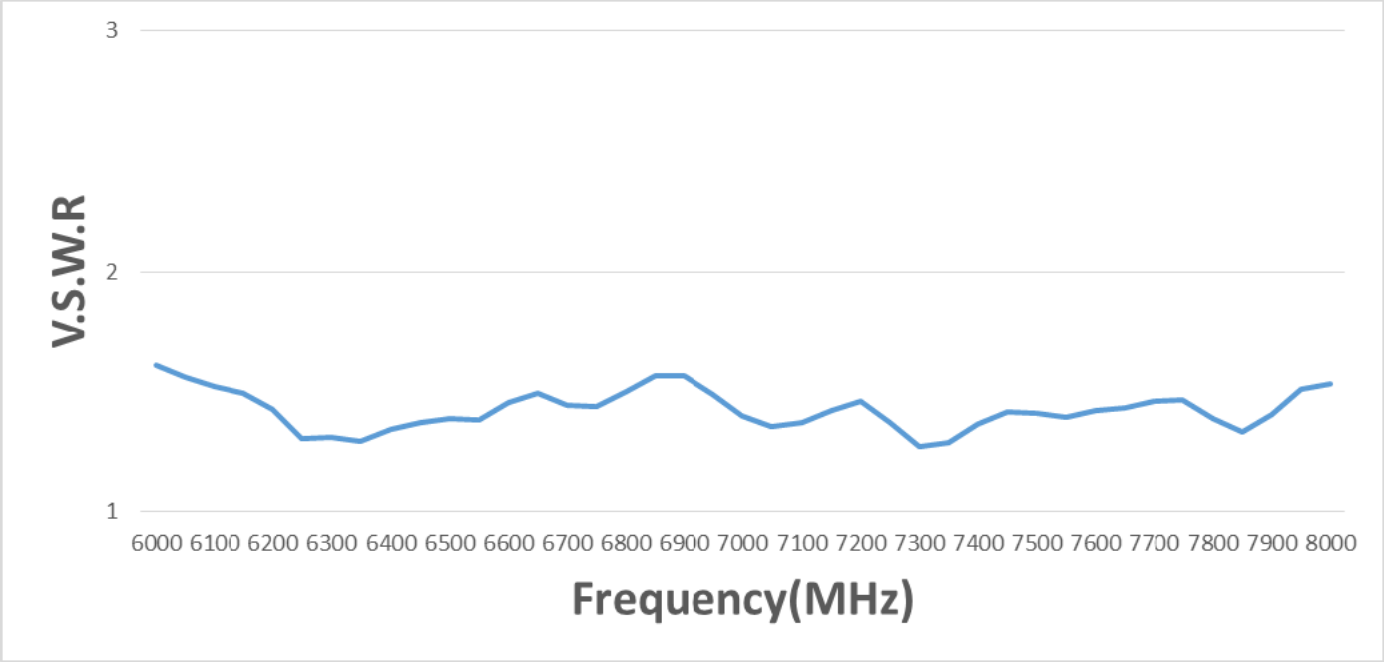


Bottom View

Return Loss

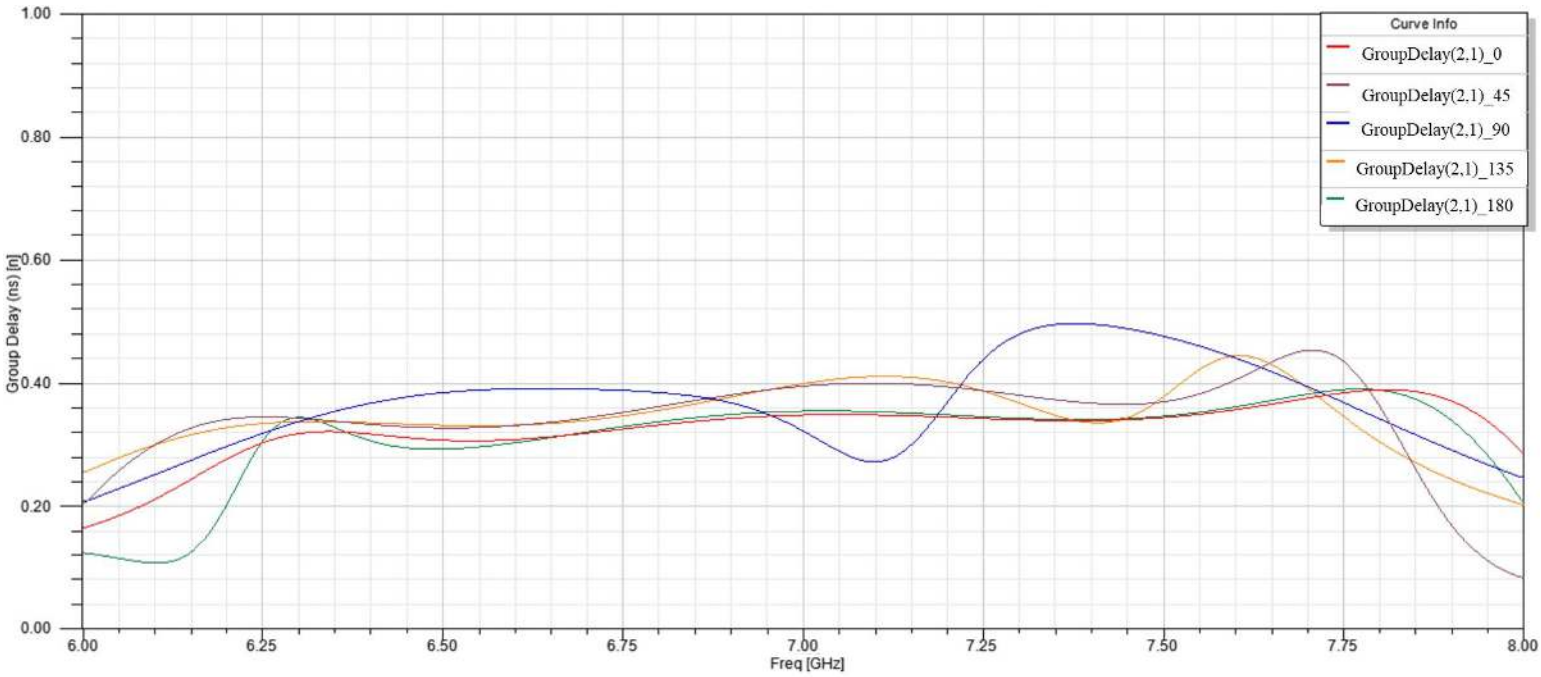


V.S.W.R

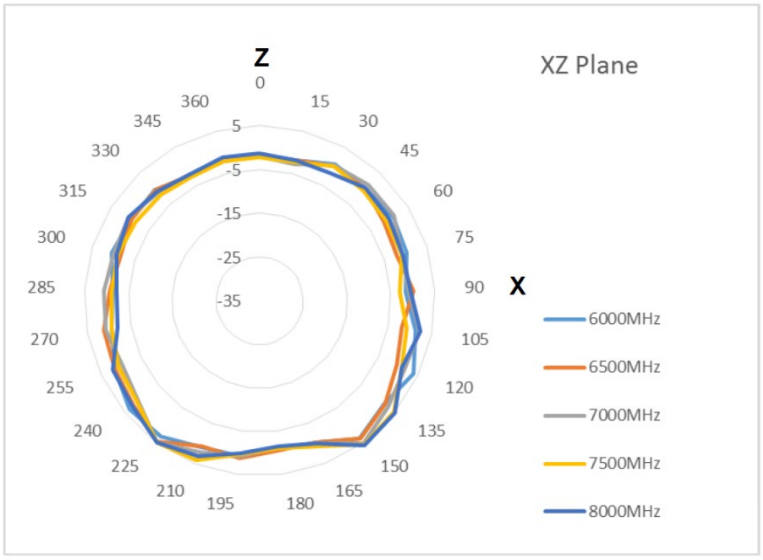


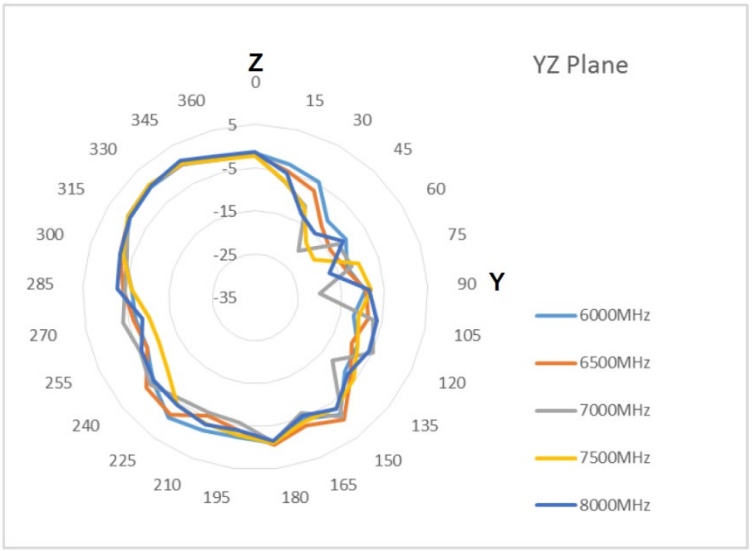
Group Delay vs. Frequency

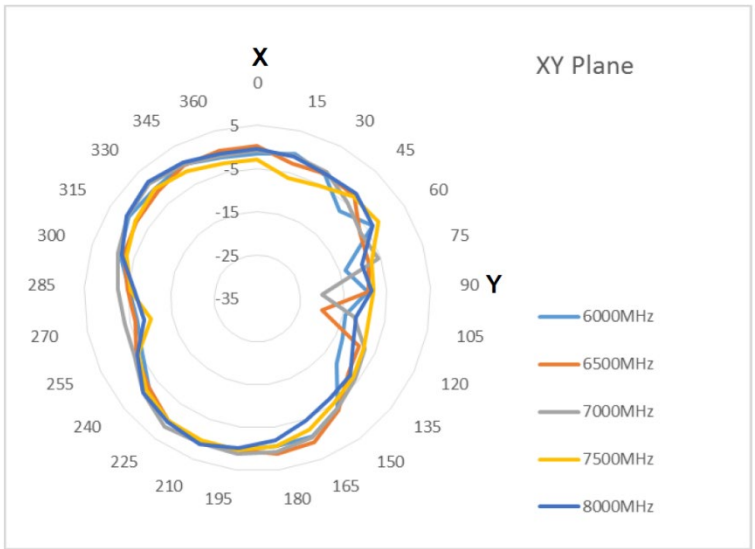
The group delay was simulated for two NAN-CU1B6050AF antennas placed at 1m distance. One of the antennas was kept stationary, while the other was rotated along XZ-cut in 45° intervals



2D Radiation Gain Pattern

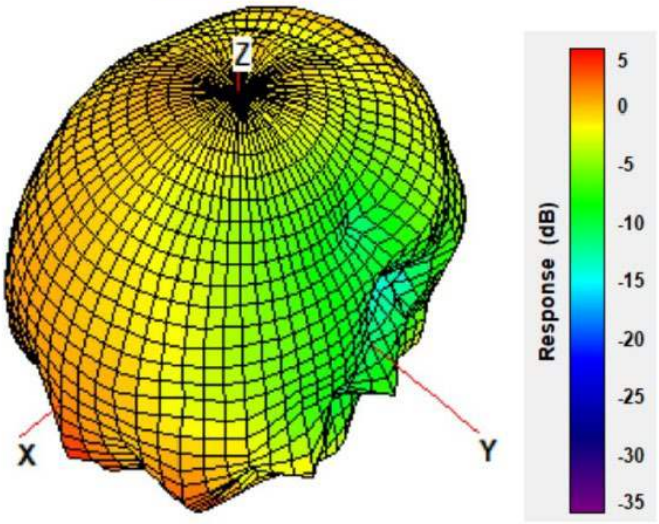




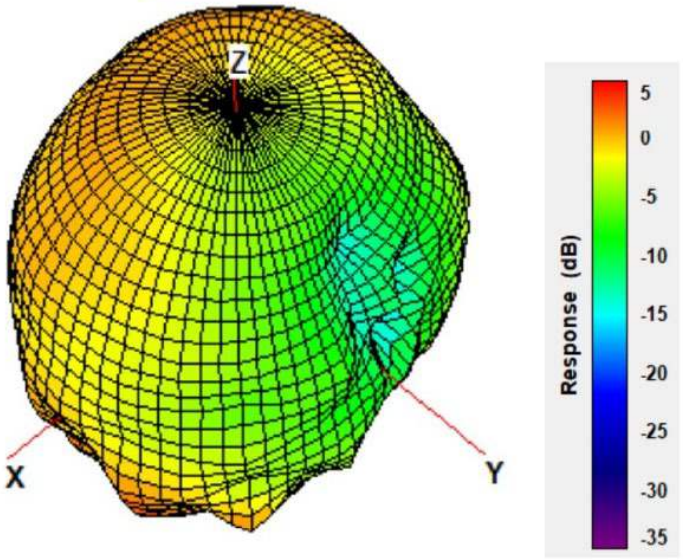


3D Radiation Gain Patterns (with 25 x 20 mm Evaluation Board)

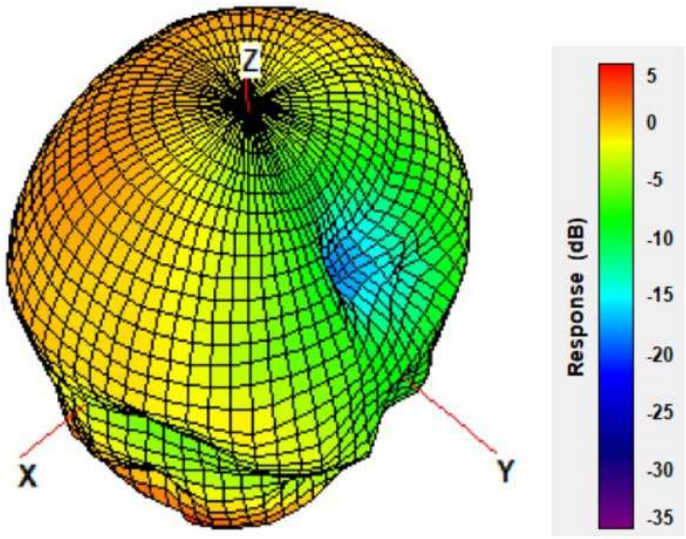
6000 MHz

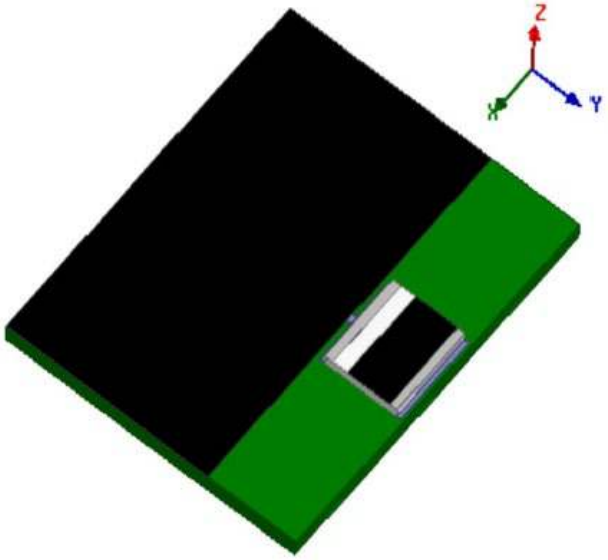


7000 MHz

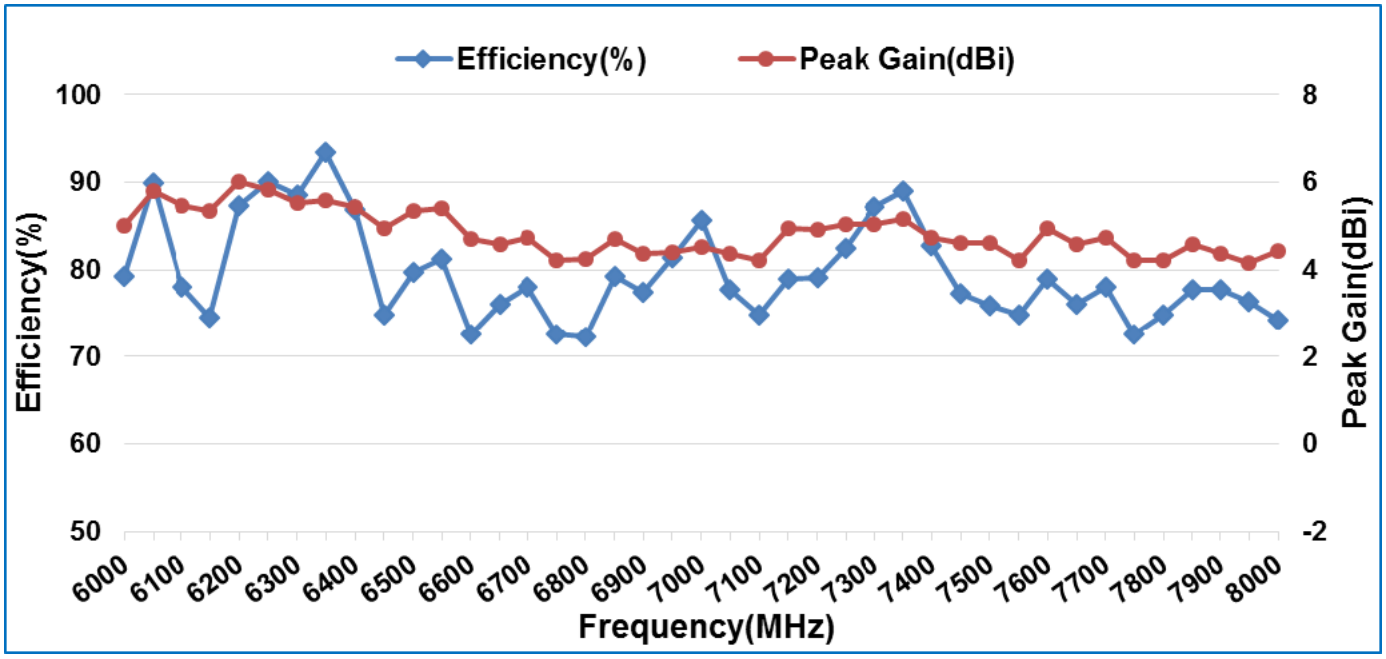


8000 MHz





Efficiency and Peak Gain vs Frequency



Revision History and Status

Revision	Date Issued	Details	Status
A	15 Dec 2020	Initial Release	Supported

- NIC Technical Support: tpmg@niccomp.com
- Compliance Support: rohs@niccomp.com