

NANE8X50WSMS868M2F

868 / 915 MHz ISM Whip External Antenna



Description

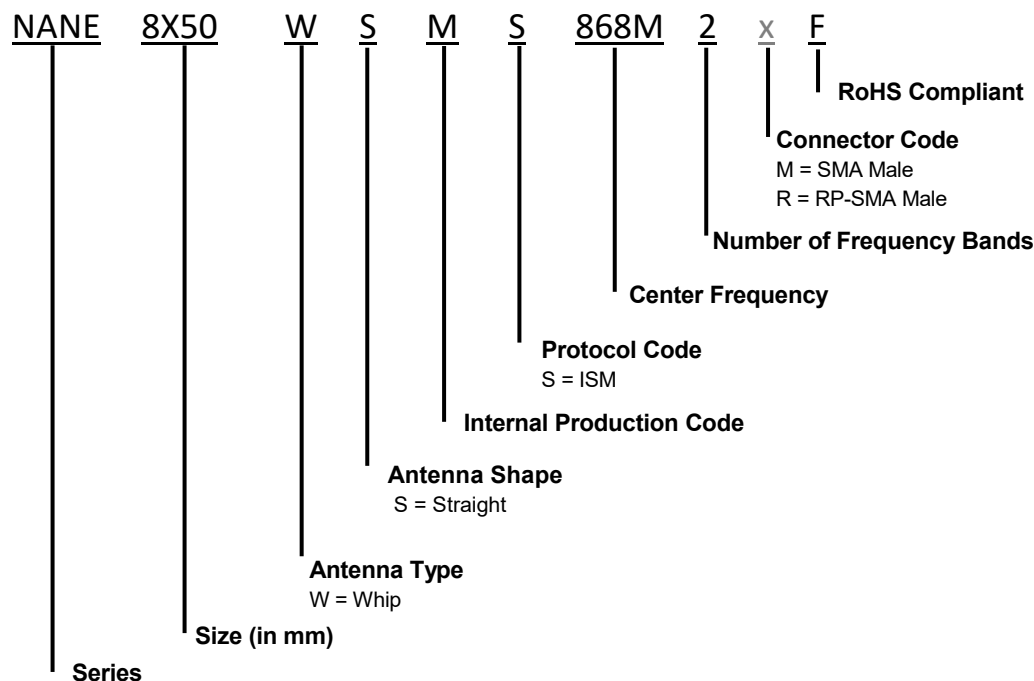
NANE8X50WSMS868M2F is the base part number for an External Straight Whip Antenna designed for ISM applications. It operates within the frequency range of 862 ~ 930 MHz making it perfect for Gateways, Meters and Routers

Features

- 868 / 915 MHz ISM Band
- Straight Connector
- RoHS Compliant



Part Number Breakdown



Part Numbers Options

Part Number	Protocol	Connector
NANE8X50WSMS868M2MF	ISM	SMA Male
NANE8X50WSMS868M2RF	ISM	RP-SMA Male

The table represents assembled part numbers available on www.niccomp.com. For options not listed above please contact NIC

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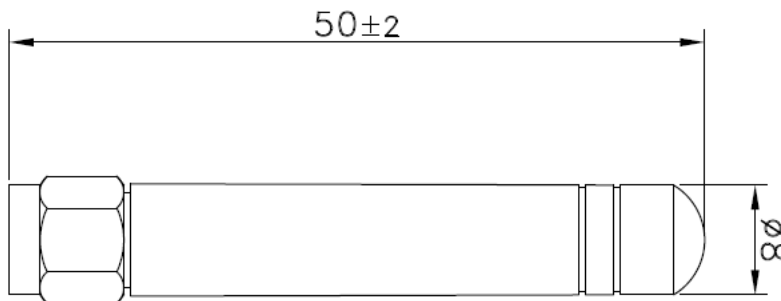
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Specifications

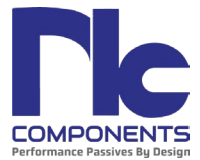
Electrical		
Frequency Range	862~876 MHz (868)	902~928 MHz (915)
Peak Gain	1.4 dBi	3.1 dBi
Average Gain	-1.9 dBi	-1.4 dBi
V.S.W.R	1.8	2.0
Efficiency	64%	73%
Radiation	Omni	
Max Power	1 W	
Electrical Type	Monopole	
Polarization	Linear	
Impedance	50Ω	
Environmental		
Operating Temperature	-30℃~+70℃	
Ingress Protection	IP65	
Weight	6.5 g	
Antenna Color	Black	
RoHs Complaint	Yes	

Dimension Drawing



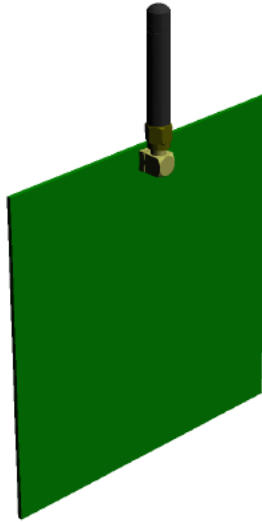
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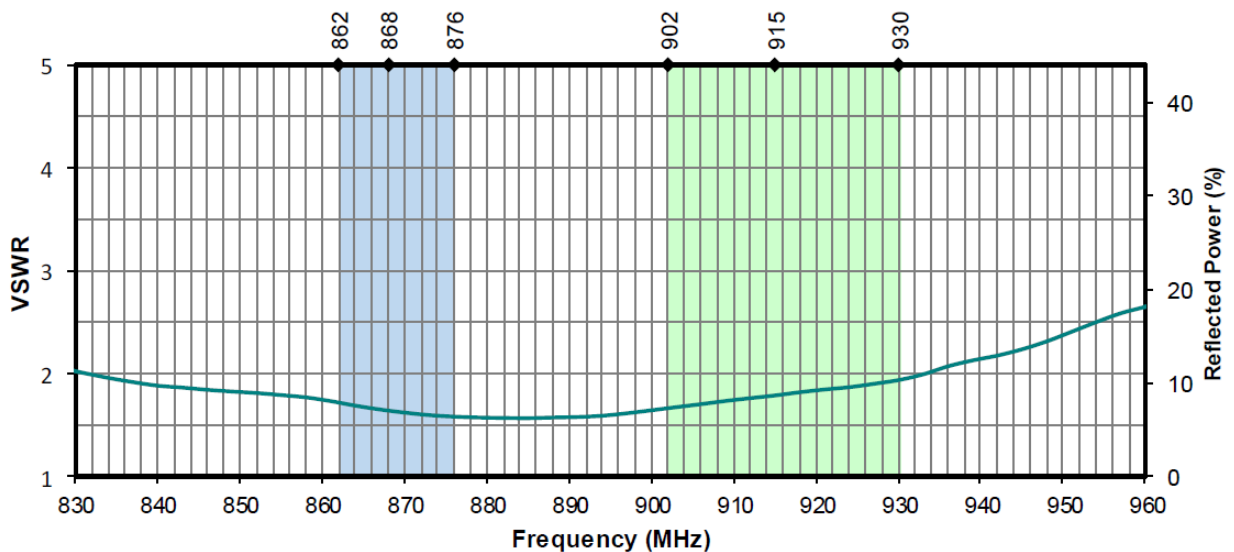


Antenna Set Up

This antenna is a 1/4-wave monopole antenna which requires ground plane to achieve high performance. Test with an adjacent ground plane (120 mm x 120 mm) as shown below, and provides reference insight into the antenna's performance when attached directly to a printed circuit board's connector. The charts on the following pages represent data taken with the antenna oriented at the edge of the ground plane.



VSWR

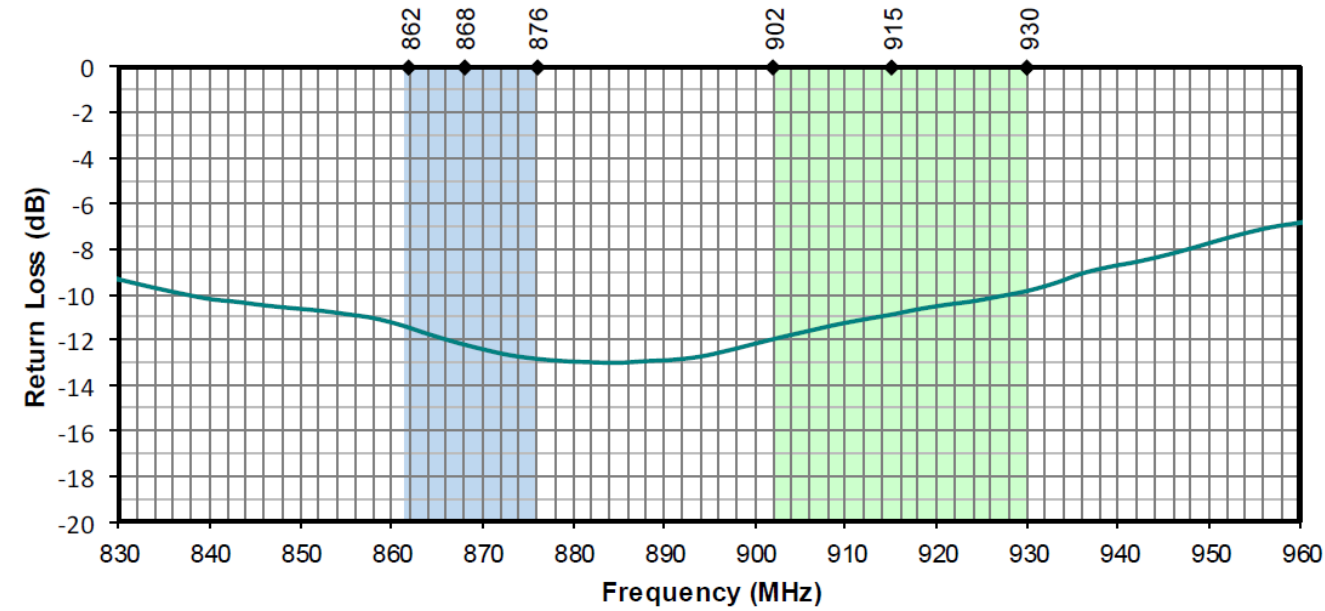


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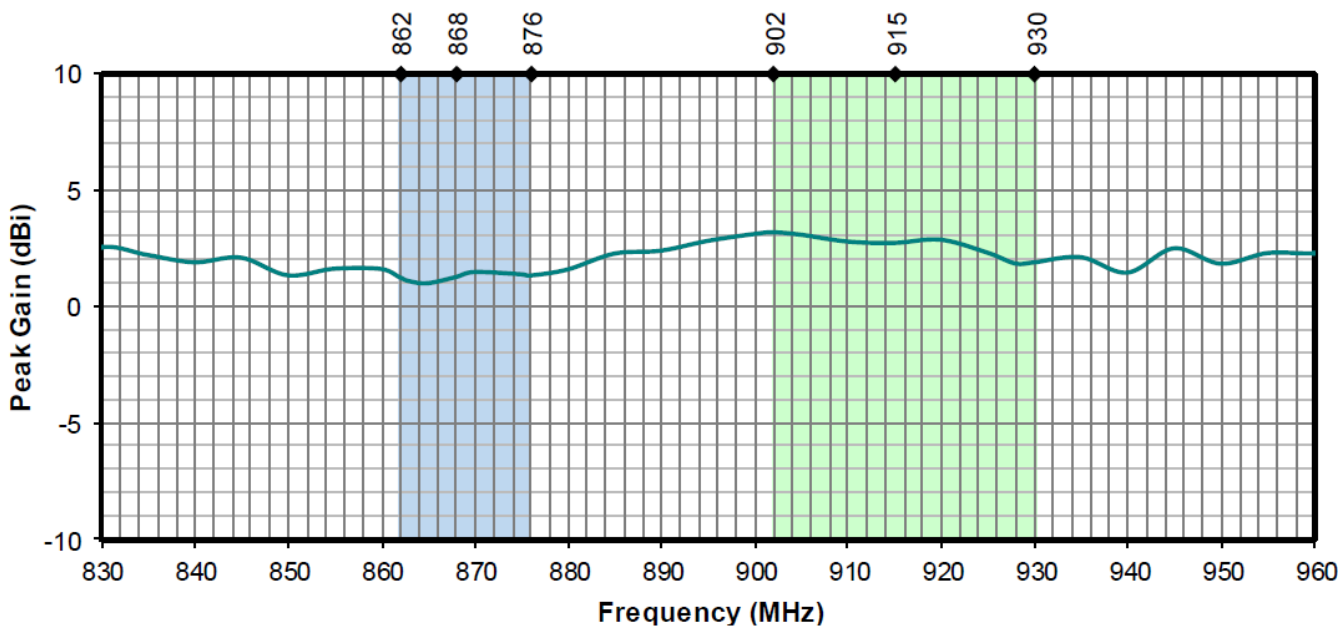
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Return Loss



Peak Gain

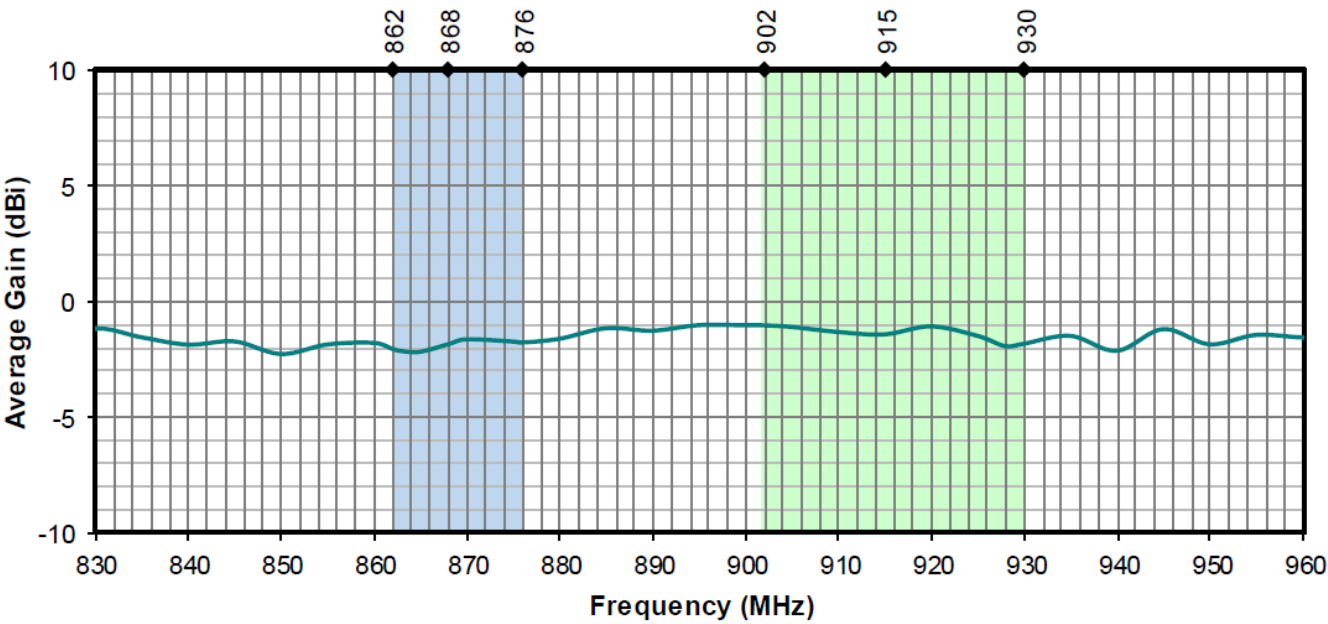


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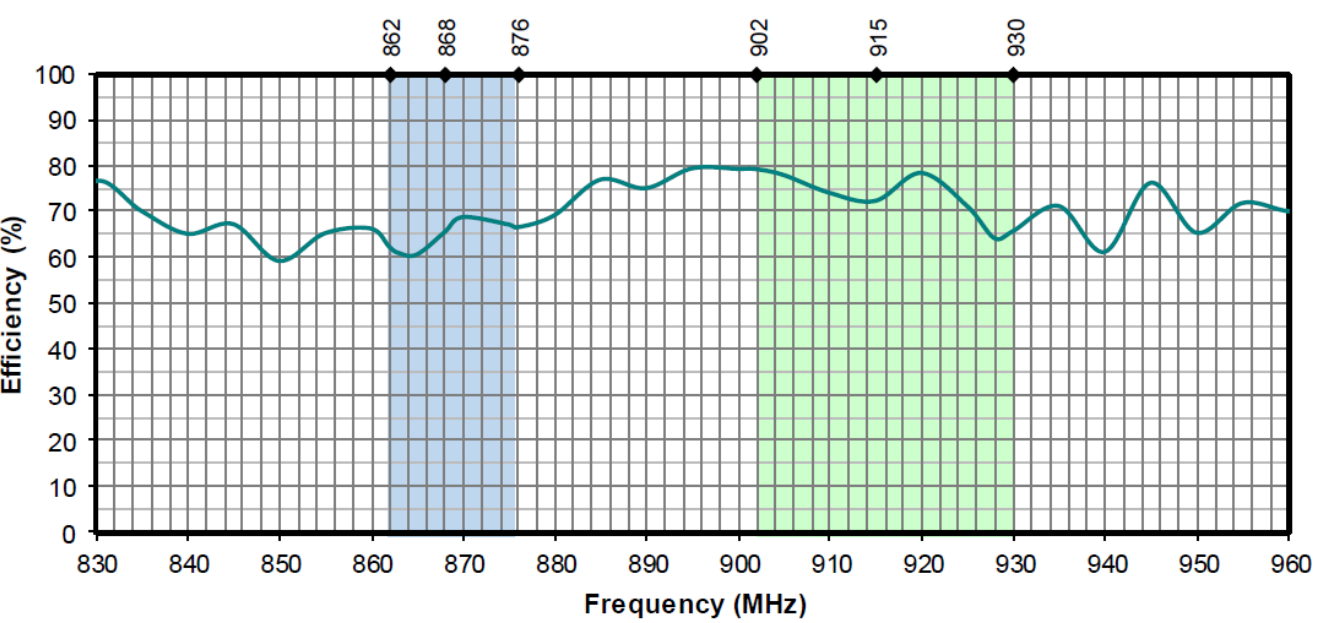
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Average Gain



Radiation Efficiency

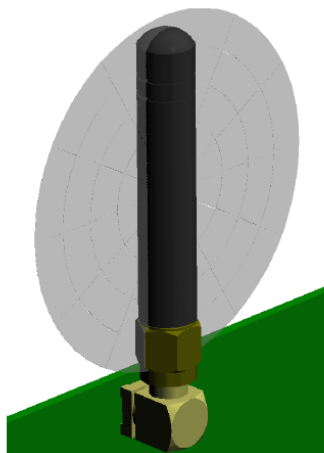


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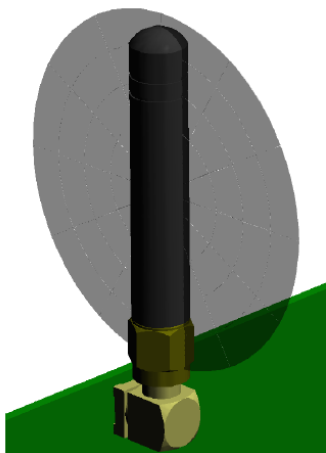
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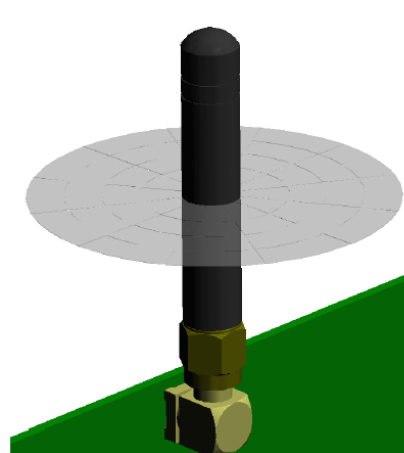
Radiation Patterns



XZ-Plane Gain

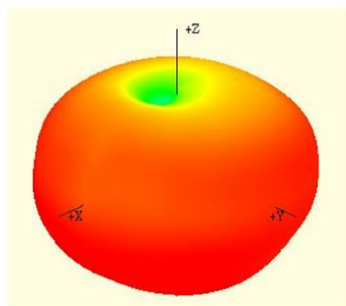


YZ-Plane Gain

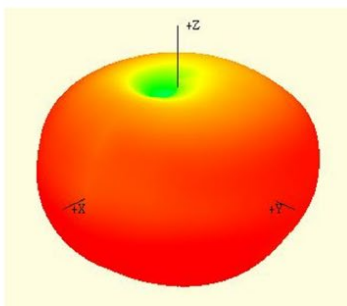


XY-Plane Gain

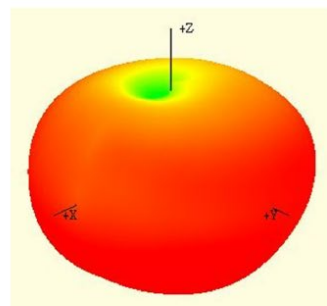
862 MHz ~ 876 MHz (868 MHz)



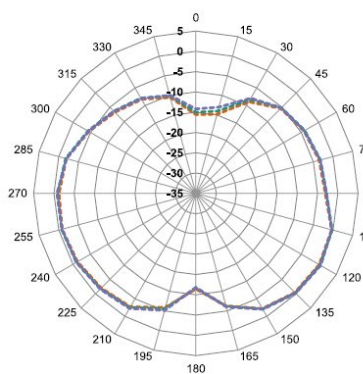
862 MHz



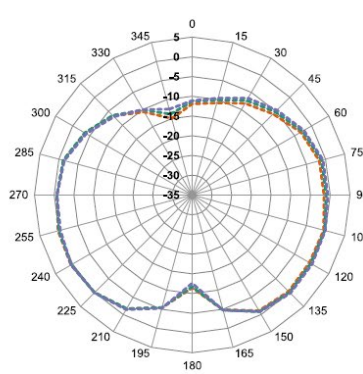
868 MHz



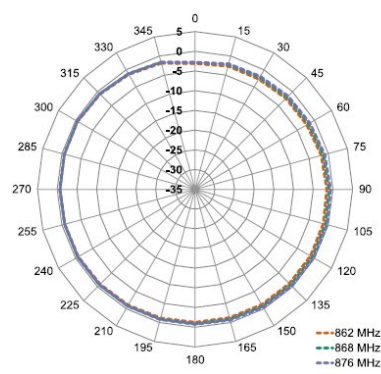
876 MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

Performance Passives By Design

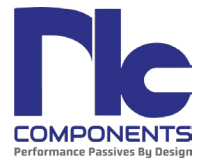
NIC Components Corp.
One Huntington Quadrangle, Suite 1C10, Melville, NY 11747

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www.niccomp.com

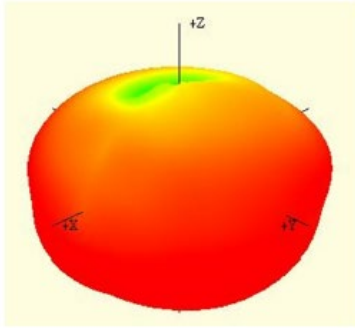
Last Updated 8/20/2025. Specification subject to change without notice. Please check web site or contact NIC for latest information

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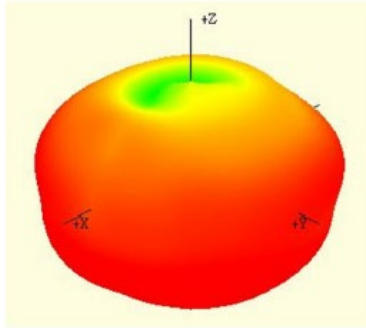
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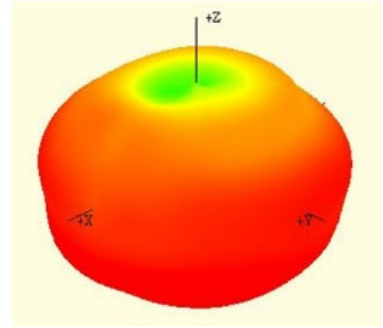
902 MHz ~ 928 MHz (915 MHz)



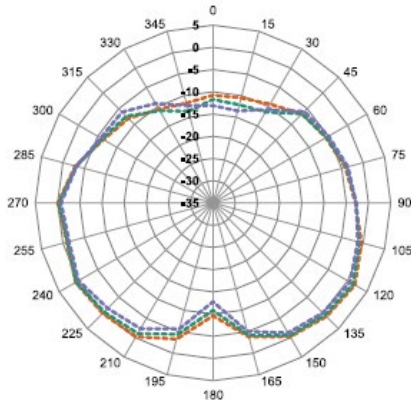
902 MHz



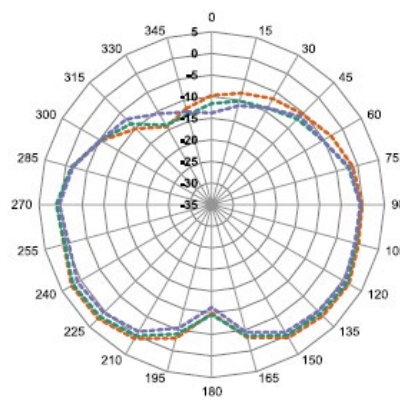
915 MHz



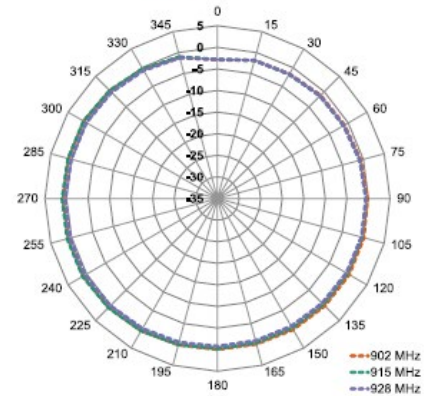
928 MHz



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain