

Part No. X9001248-4GMSMB1000R

External Magnetic Mount LTE Antenna

700 / 800 / 900 / 1800 / 2100 / 2600 MHz

Supports: LTE Cat 1, LTE-M, SigFox, LoRa, NB-IoT, M2M applications, 2G, 3G, Cellular



Ethertronics family of External antennas are designed to offer the best performances for a wide range of applications. X9001248 is specially developed to deliver stable Gain across 2G, 3G, 4G cellular bands.

This antenna is designed to be mounted on a ground plane for optimal performance

Electrical Specifications

Typical Characteristics in Free Space and on 300 x 250 mm ground plane

Frequency (MHz)	Free space		On 300 x 250 mm Ground Plane	
	698 - 960	1710 - 2690	698 - 960	1710 - 2690
Return Loss	< -5.2 dB	< -5.8 dB	< -5.2 dB	< -6.0 dB
Average Peak Gain	-0.5 dBi	-0.2dBi	1.8 dBi	1.9 dBi
Average Efficiency	33 %		54%	36%
Impedance	50 ohm			

External Magnetic Mount LTE Antenna

Low Band : 698 – 960 MHz

High Band : 1170 – 2690 MHz

KEY BENEFITS

Quicker Time-to-Market

Standard part means fewer design changes with, simple implementation

Easy Assembly using RP-SMA or SMA

Best in Class Performance

External antennas are designed to maintain high efficiency in a variety of device configurations

Great Flexibility

Standard connector to makes easy set-up

RoHS Compliant

Products are the latest RoHS version compliant.

APPLICATIONS

- Telematics
- Smart metering
- Home automation
- Smart city
- Structural health monitoring
- Predictive maintenance
- M2M devices

Mechanical Specifications & Ordering Part Number

Ordering Part Number	X9001248-4GMSMB1000R
Dimensions (mm)	112.0 height 29.0 base diameter
Connector Type	SMA Male
Weight (grams)	50.0
Mounting	Magnetic
Color	Black
Cable	RG-174 / U (1 meter)
Ingress Protection	IP65
Operating Temperature (°C)	-40 to + 70
Radome Material	TPE

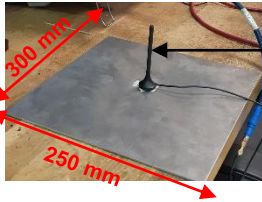


LTE Magnetic mount External antenna specifications

Ethertronics produces a wide variety of standard and custom antennas to meet user needs

Return Loss, Efficiency and Peak Gain Plots

Typical performance measured in Free Space and on a 300x250mm ground plane

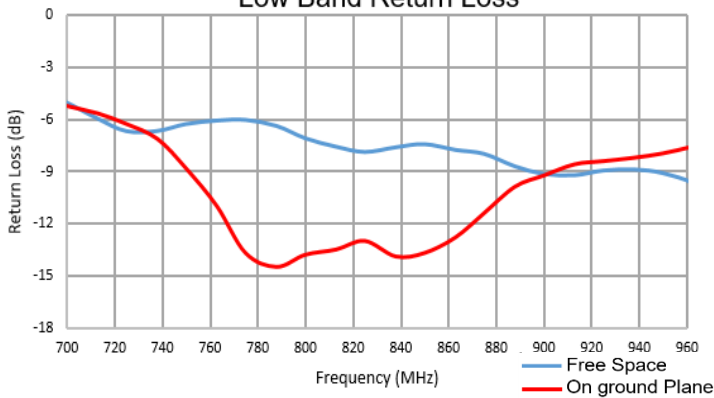


X9001248-4GMSMB1000R

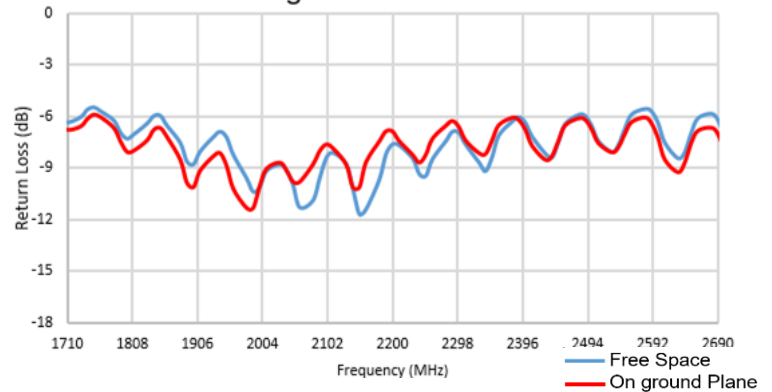


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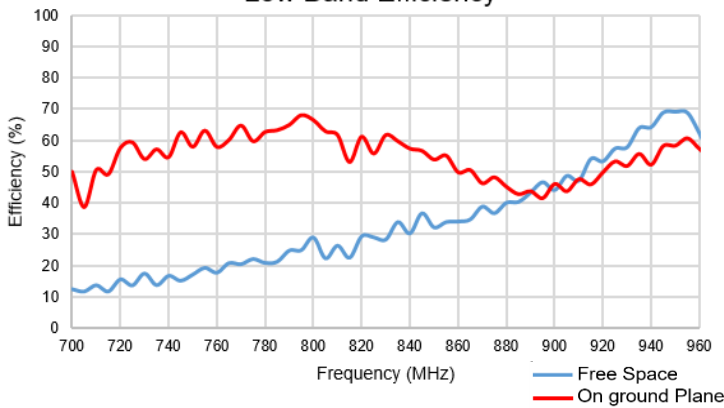
Low Band Return Loss



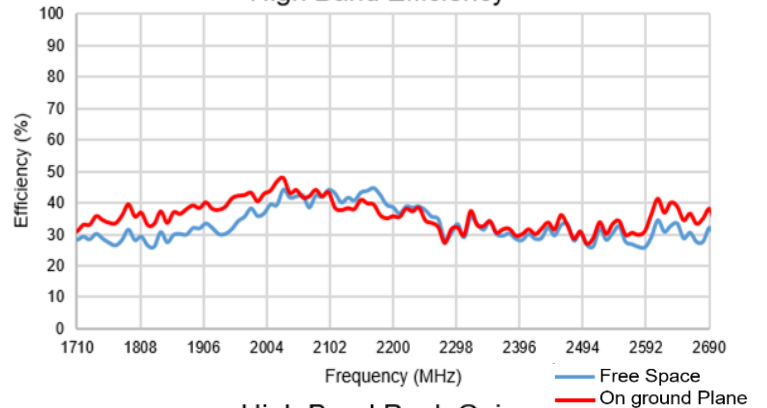
High Band Return Loss



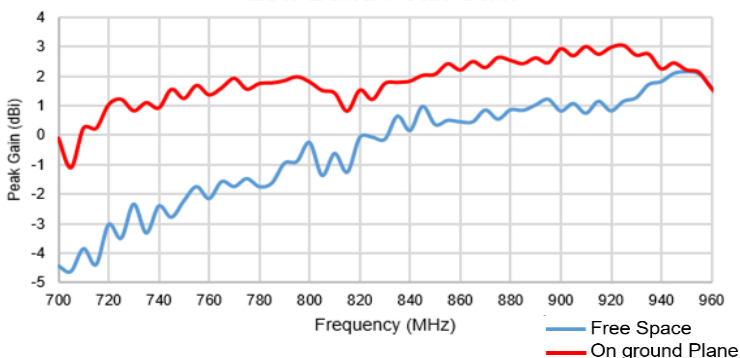
Low Band Efficiency



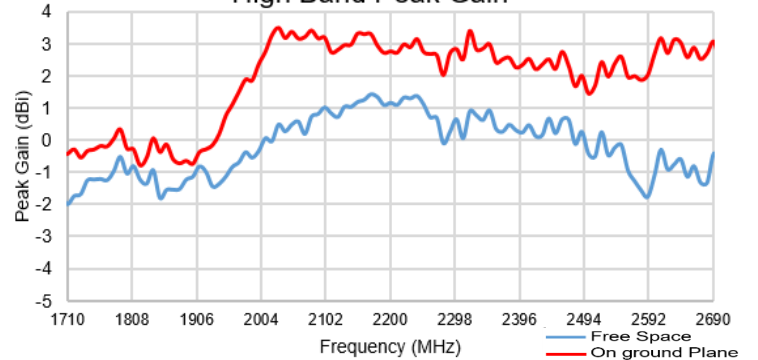
High Band Efficiency



Low Band Peak Gain



High Band Peak Gain





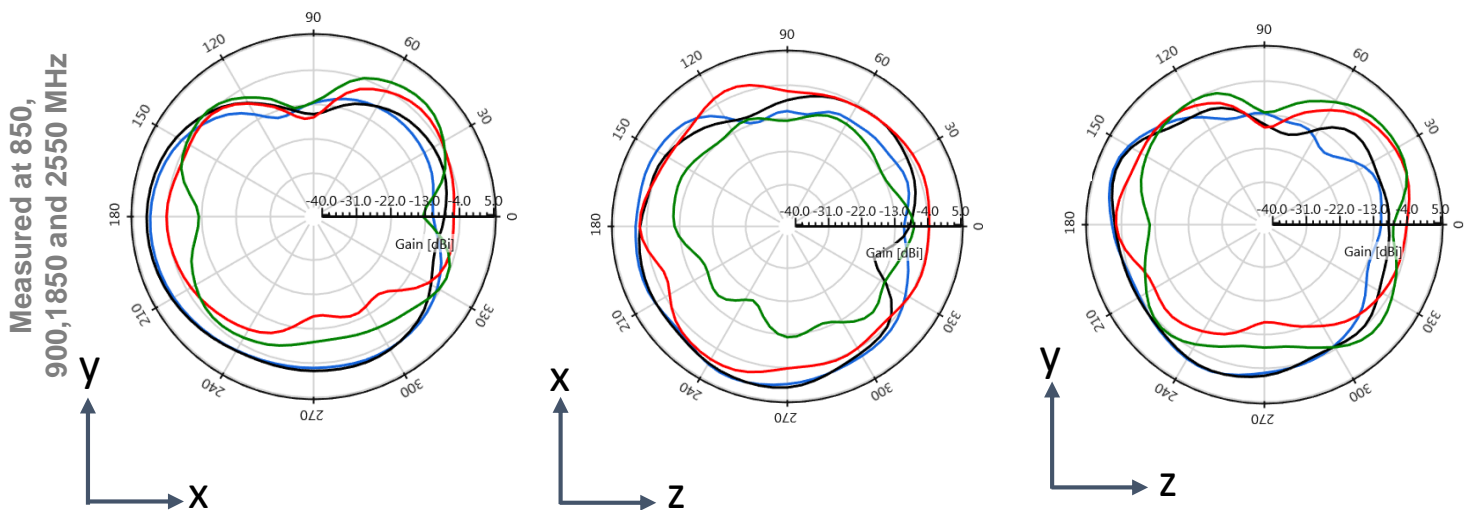
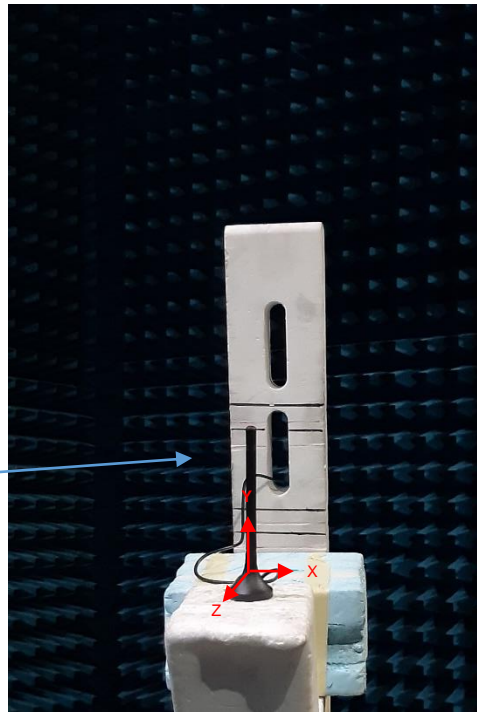
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Radiation Patterns Plots

Typical performance measured in Free Space
Measured at 850, 900, 1850 and 2550 MHz

Free Space

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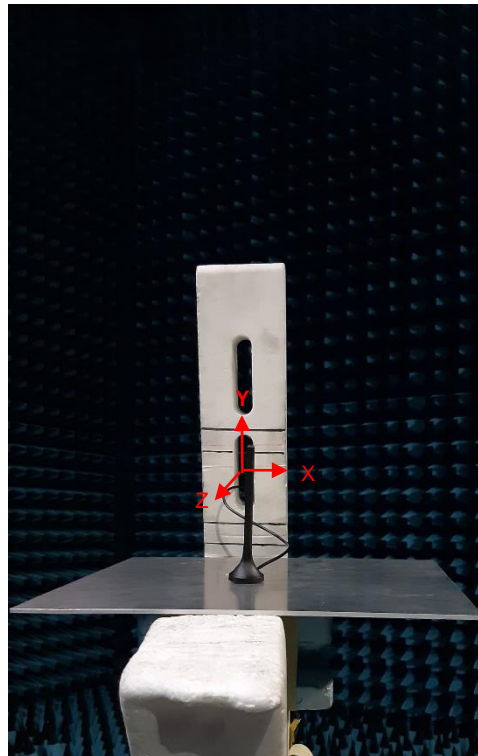


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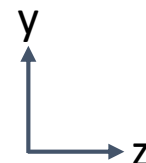
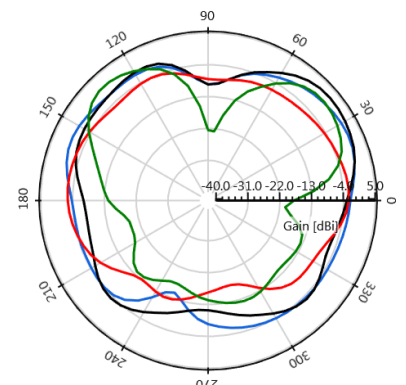
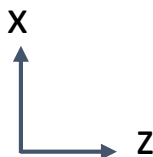
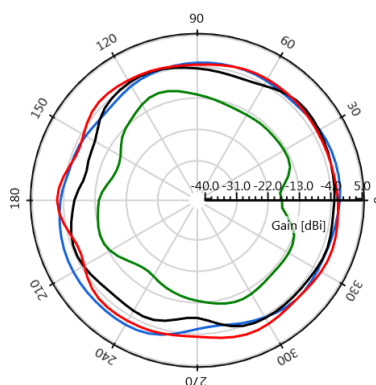
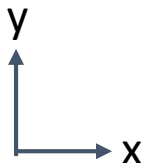
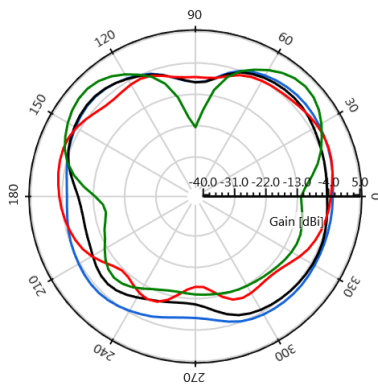
Radiation Patterns Plots

Typical performance measured on 300 x 250 mm ground Plane
Measured at 850, 900, 1850 and 2550 MHz

On Ground Plane



Measured at 850,
900, 1850 and 2550 MHz





LTE Magnetic mount External antenna specifications
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Mechanical Specifications

Typical antenna dimensions in mm

Part Number	A (mm)	Ø (mm)	Connector
X9001248-4GMSMB1000R	112.0	29.0	SMA Male

