



Part No. X9001546-4GDSMB

External Hinged 4G / LTE Antenna

700 / 750 / 850 / 900 / 1800 / 1900 / 2100 / 2700 MHz

Supports: LTE Cat 1, LTE-M, SigFox, LoRa, NB-IoT, M2M applications, IoT Gateways, Routers, Access point, Cellular LPWAN



Ethertronics family of External antennas are designed to offer the best performances for a wide range of applications. The 9001546 antenna is specifically designed to deliver the best behavior across the LTE bands. The antenna can be mounted straight or at right angle to the device via an SMA.

External 4G / LTE Antenna

Low Band : 698– 960 MHz
High Band : 1710 – 2690 MHz

Global Operations & Design Support

Ethertronics' global operations support an integrated network of design centers that can take projects from concept to production.

Electrical Specifications

Typical Characteristics measured in Free Space and in 90° bent position

Frequency (MHz)	Free space	
	698 – 960	1710 – 2690
Return Loss	< -6.0 dB	< -8.6 dB
Average Peak Gain	1.61 dBi	1.58 dBi
Average Efficiency	40 %	50 %
Polarization	Vertical	
Feed Point Impedance	50 ohm	

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

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

Mechanical Specifications & Ordering Part Number

Ordering Part Number	X9001546-4GDSMB
Dimensions (mm)	168 Height (straight position) 18 Width
Connector Type	SMA Male
Weight (grams)	25
Hinge	Foldable 90° at the hinge level
Color	Black
Operating Temperature (°C)	-40 to +120
Radome Material	ABS



4G / LTE External antenna specifications

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

LTE Bands Covered by X9001546

LTE Band	Frequency Band (MHz)	Uplink (UL) (MHz)	Downlink (DL) (MHz)	Region	Covered
1	2100	1920 - 1980	2110 - 2170	Global	Yes
2	1900	1850 - 1910	1930 - 1990	NAM	
3	1800	1710 - 1785	1805 - 1880	Global	
4	1700	1710 - 1755	2110 - 2155	NAM	
5	850	824 - 849	869 - 894	NAM	
6	850	830 - 840	875 - 885	APAC	
7	2600	2500 - 2570	2620 - 2690	EMEA	
8	900	880 - 915	925 - 960	Global	
9	1800	1749.9 - 1784.9	1844.9 - 1879.9	APAC	
10	1700	1710 - 1770	2110 - 2170	NAM	
11	1500	1427.9 - 1447.9	1475.9 - 1495.9	Japan	No
12	700	699 - 716	729 - 746	NAM	Yes
13	700	777 - 787	746 - 756	NAM	
14	700	788 - 798	758 - 768	NAM	
17	700	704 - 716	734 - 746	NAM	
18	850	815 - 830	860 - 875	Japan	
19	850	830 - 845	875 - 890	Japan	
20	800	832 - 862	791 - 821	EMEA	
21	1500	1447.9 - 1462.9	1495.9 - 1510.9	Japan	No
22	3500	3410 - 3490	3510 - 3590	EMEA	
23	2000	2000 - 2020	2180 - 2200	NAM	Yes
24	1600	1626.5 - 1660.5	1525 - 1559	NAM	No
25	1900	1850 - 1915	1930 - 1995	NAM	Yes
26	850	814 - 849	859 - 894	NAM	
27	850	807 - 824	852 - 869	NAM	
28	700	703 - 748	758 - 803	APAC,EU	
29	700	N/A	717 - 728	NAM	
30	2300	2305 - 23151	2350 - 2360	NAM	
31	450	452.5 - 457.5	462.5 - 467.5	Global	No
32	1500	N/A	1452 - 1496	EMEA	
33	1900		1900 - 1920		Yes
34	2000		2010 - 2025		
35	1850		1850 - 1910		
36	1900		1930 - 1990		
37	1900		1910 - 1930		
38	2600		2570 - 2620		
39	1900		1880 - 1920		
40	2300		2300 - 2400		
41	2500		2496 - 2690		
42	3500		3400 - 3600		No
43	3700		3600 - 3800		

NAM: North America, EMEA: Europe, Middle East, and Africa, APAC: Asia-Pacific, EU: Europe



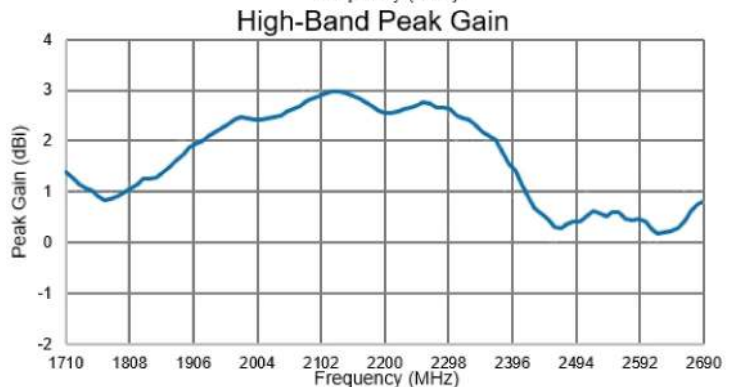
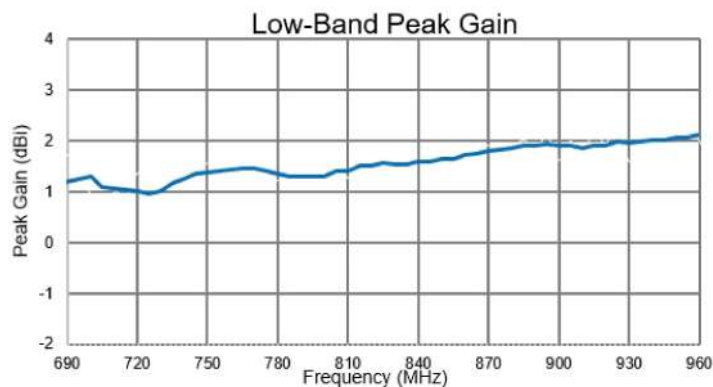
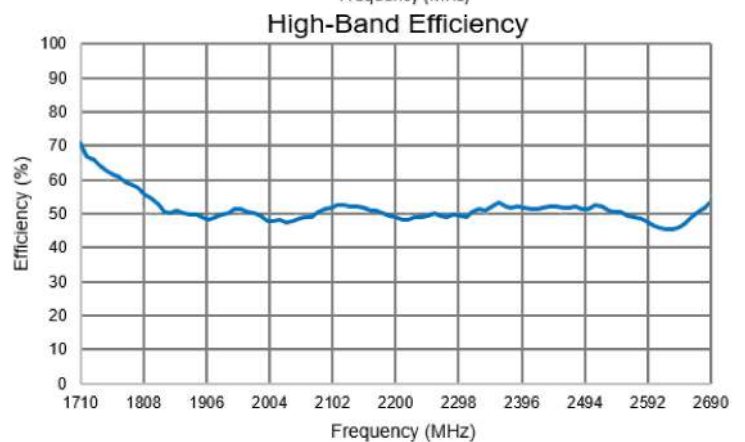
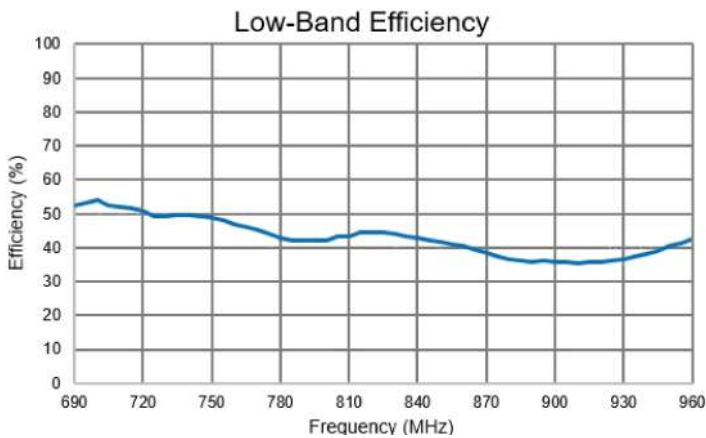
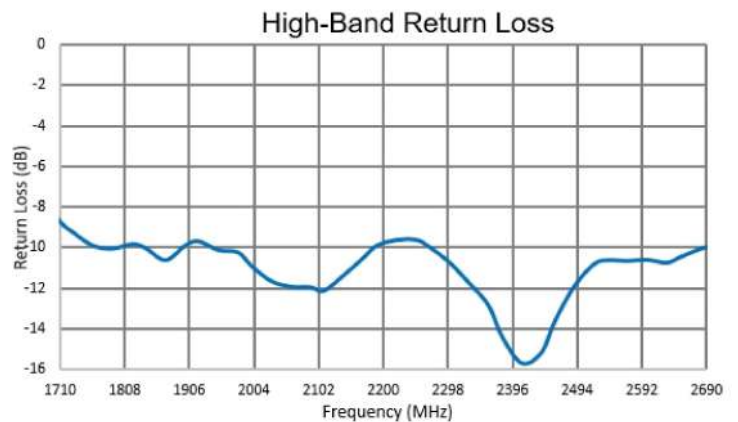
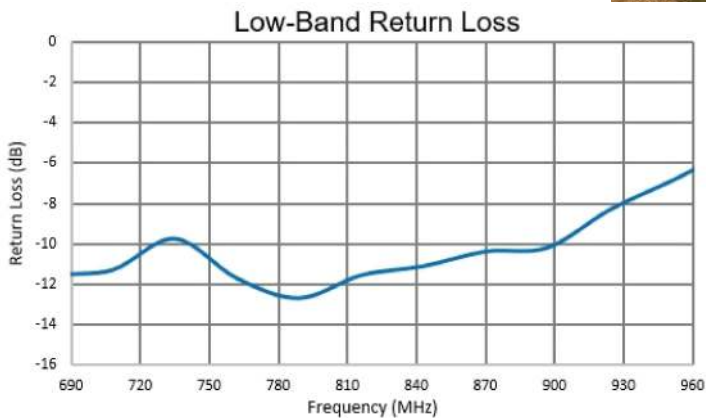
4G / LTE External antenna specifications

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 in 90° bent position

X9001546-4GDSMB



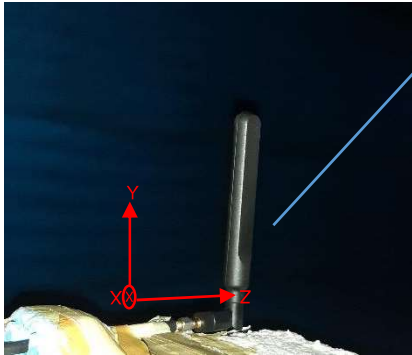


4G / LTE External antenna specifications

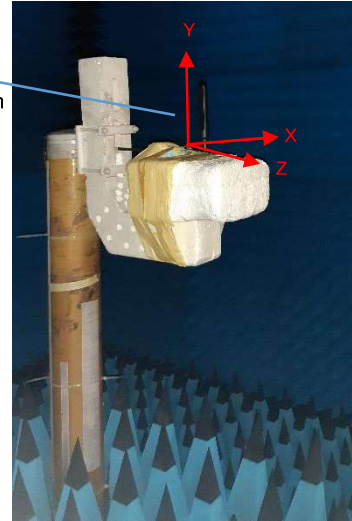
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Radiation Patterns Plots

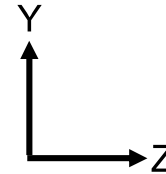
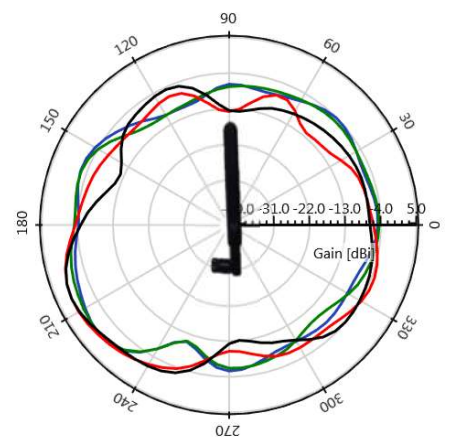
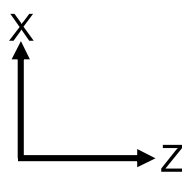
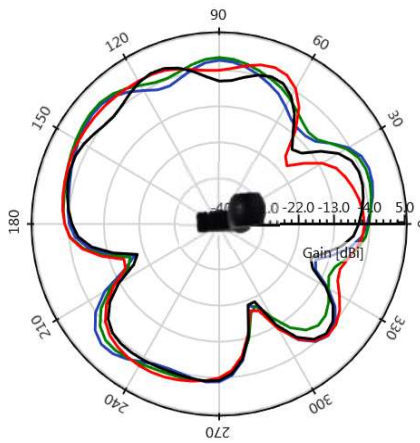
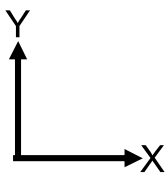
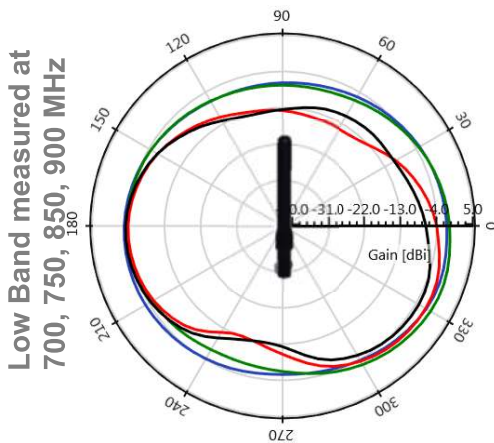
Typical performance antenna measured in Free Space and in 90° bent position
Measured at 700, 750, 850 and 900 MHz



X9001546-4GDSMB
Measured in 90° Bent Position



- 700 MHz
- 750 MHz
- 850 MHz
- 900 MHz





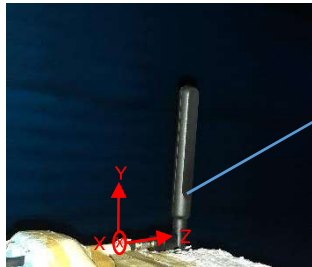
4G LTE External antenna specifications

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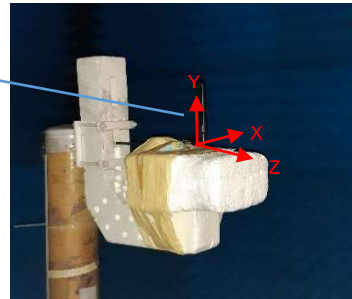
Radiation Patterns Plots

Typical performance antenna measured in Free Space and in 90° bent position

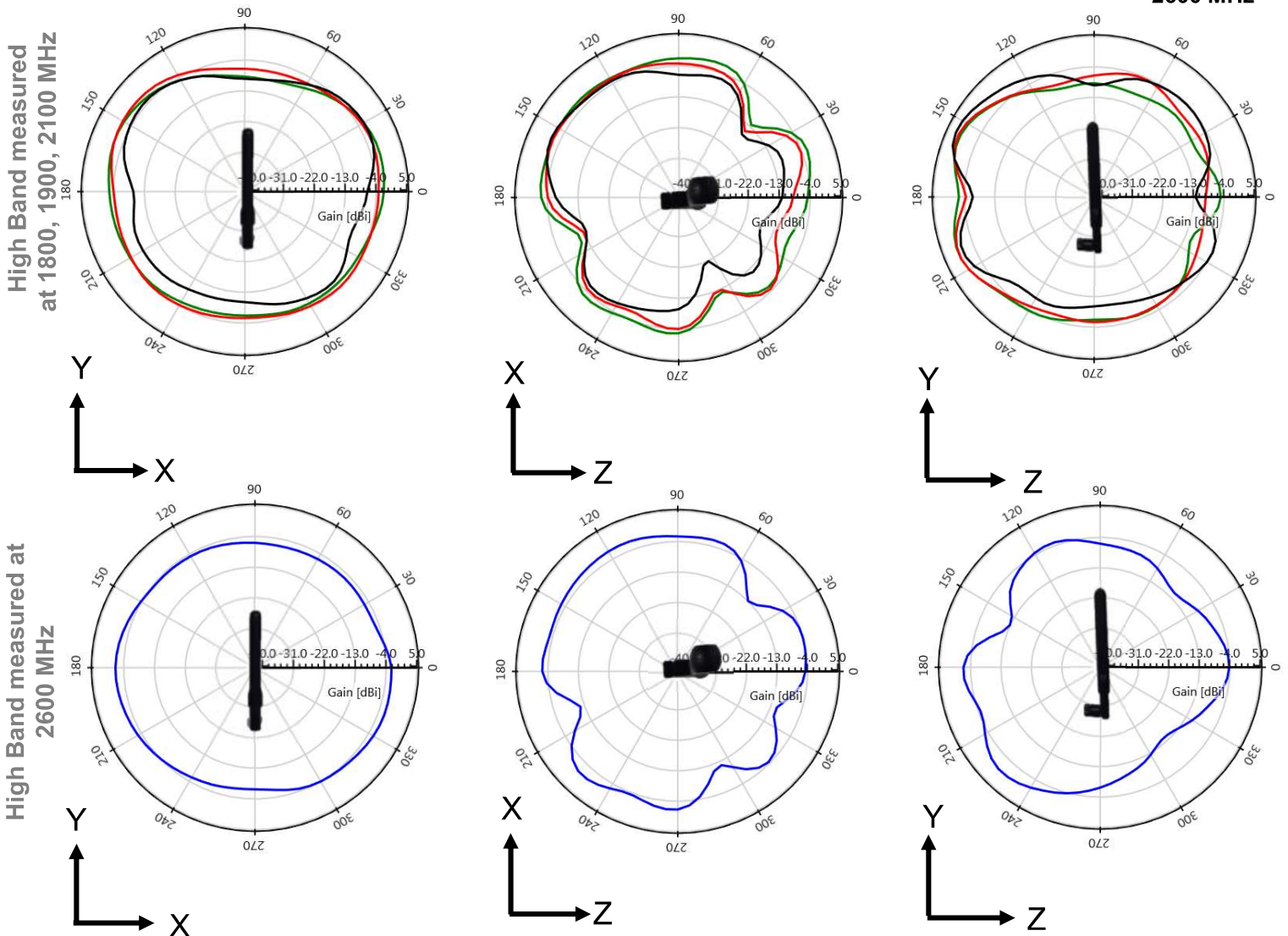
Measured at 1800, 1900, 2100 and 2600 MHz



X9001546-4GDSMB
Measured in 90° Bent Position



- 1800 MHz
- 1900 MHz
- 2100 MHz
- 2600 MHz





4G / LTE External antenna specifications

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Mechanical Specifications

Typical antenna dimensions in mm

Part Number	A (mm)	B (mm)	C (mm)	D (mm)	Connector
X9001546-4GDSMB	168	127	18	13	SMA Male

