

# ME A-4-GGC

## GPS/GLONASS & 2G/3G

Part #: 100-00119-01



### Description

Maxtena's MEA-4-GGC GPS/GLONASS & 2G/3G cellular solution is a high performance antenna in one compact and secure housing. It covers GPS/GLONASS (1575-1610 MHz) and 2G & 3g Cellular (824-894 MHz), & (1850-1990 MHz). This low-profile antenna is a magnetic mount with rugged ABC plastic housing and is ideal for the most demanding environment challenges. The standard MEA-4-GGC comes with 1 meters RG174 cable and SMA connectors for both GPS/GLONASS and cellular cables. Cable and connectors are customizable upon request. The MEA-4-GGC provides outstanding performance for any telematics, remote monitoring, and fleet management application.

### Features

- Covers the following bands: GSM/GPRS/CDMA/PCS/DCS/WCDMA/UMTS/HSPA/GPS/ GLONASS
- Low profile antenna for easy installation
- High LNA Gain
- Low noise figure
- Ultra-low power consumption
- IP65 water resistant
- Customizable cable length
- Customizable connector
- Foam Adhesive or Magnet
- ROHS Compliant

### Applications

- Fleet management
- Monitoring
- Telematics

#### GPS GLONASS Electrical Specifications

Frequency Range (MHz)	1575.42 / 1602 MHz
VSWR	2.0 : 1 Max
Impedance	50 $\Omega$
Polarization	Linear
Gain @ Zenith	1 dBi Typ. @ 1575 MHz 1 dBi Typ. @ 1602 MHz

#### LNA Electrical Specifications

Frequency Range (MHz)	1575.42 / 1602 MHz
VSWR	2.0 : 1 Max
Impedance	50 $\Omega$
Antenna Gain (@3.3 V)	28 dB Typ. / 25 dB Min
DC Power Input	3~5 V
Noise Figure	2.5 dB Typ.
Power Consumption	9 mA Typ.

#### Cellular Electrical Specifications

Frequency Range (MHz)	824~894 MHz / 1850~1990 MHz
VSWR	824~894 MHz $\leq$ 3.5 1850~1990 MHz $\leq$ 3
Impedance	50 $\Omega$
Peak Gain	1.0 dBi Typ. @824~894 MHz 5.0 dBi Typ. @1850~1990 MHz
Average Efficiency	824~894 MHz $\geq$ 20% 1850 ~1990 MHz $\geq$ 35%

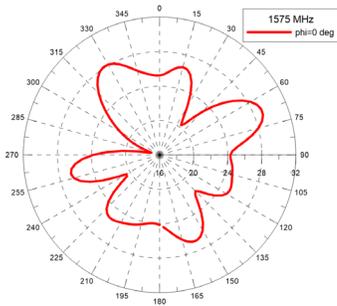
### Mechanical Specifications

Antenna Dimensions	58.15 x 56.2 x 16.8 mm
Mounting Function	Magnet or Foam Adhesive
Operating Temperature	-40 °C ~ +85 °C
Housing Material & Color	PC & Black
Cable	RG-174
Cable Length	1M
Connector	SMA/FAKRA or customer specification
Waterproof	IP65

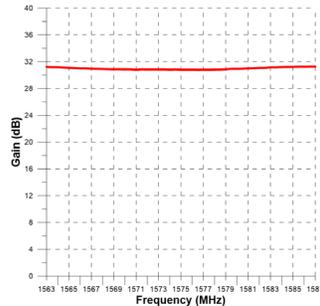
### Radiation Specifications

1575.42 / 1602 MHz

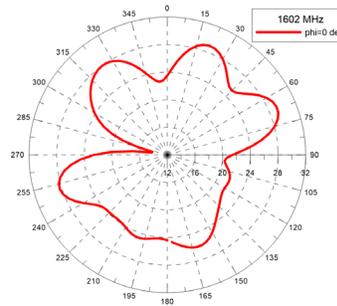
Etotal vs. Theta



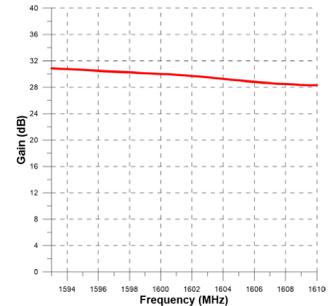
Gain vs. Frequency



Etotal vs. Theta



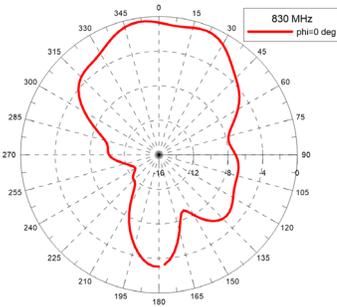
Gain vs. Frequency



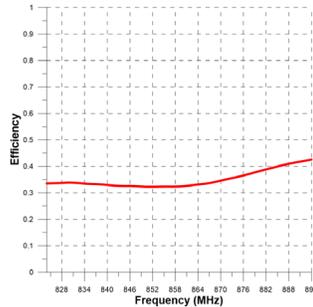
### Radiation Specifications

824~894 MHz

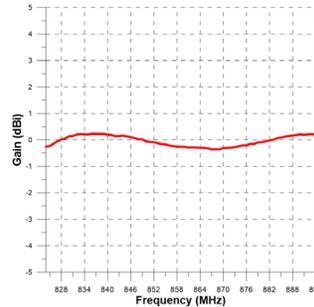
Etotal vs. Frequency



Efficiency vs. Frequency



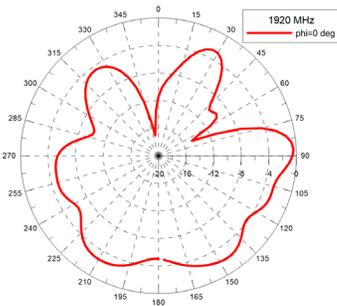
Gain vs. Frequency



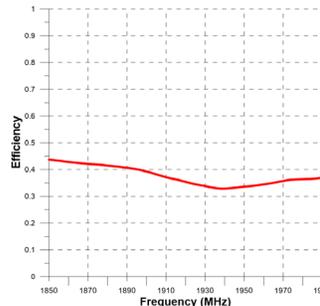
### Radiation Specifications

1850~1990 MHz

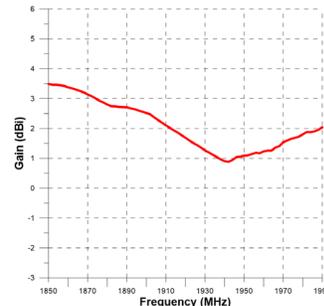
Etotal vs. Theta



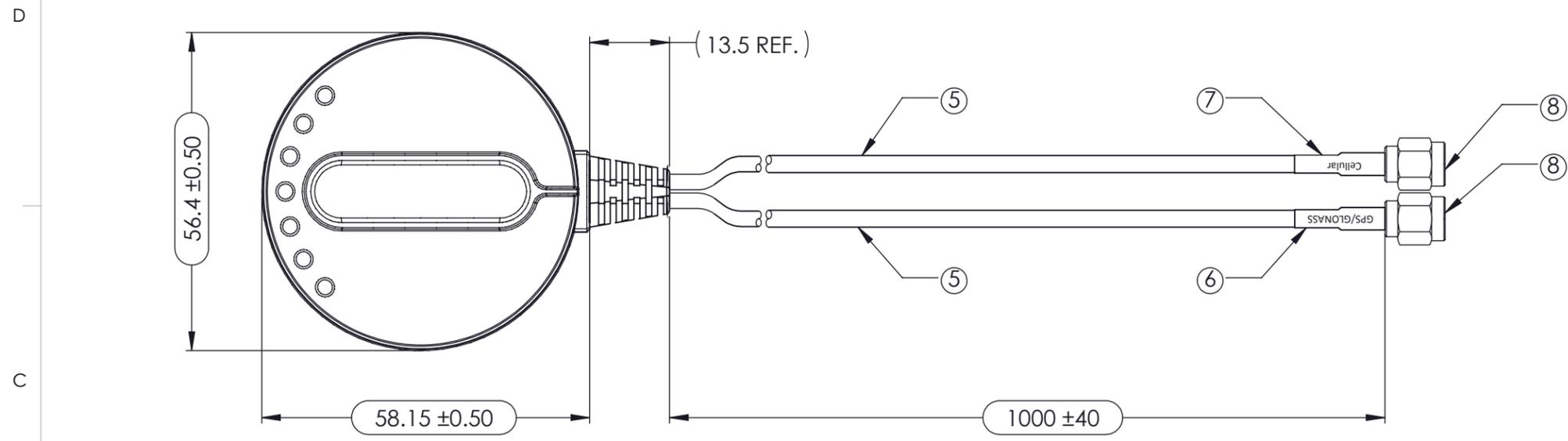
Efficiency vs. Frequency



Gain vs. Frequency



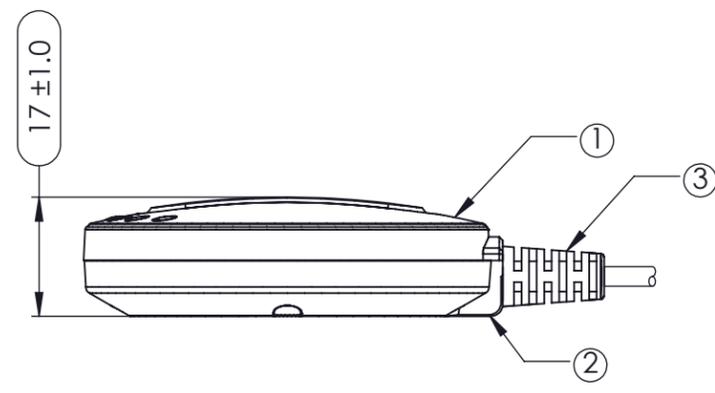
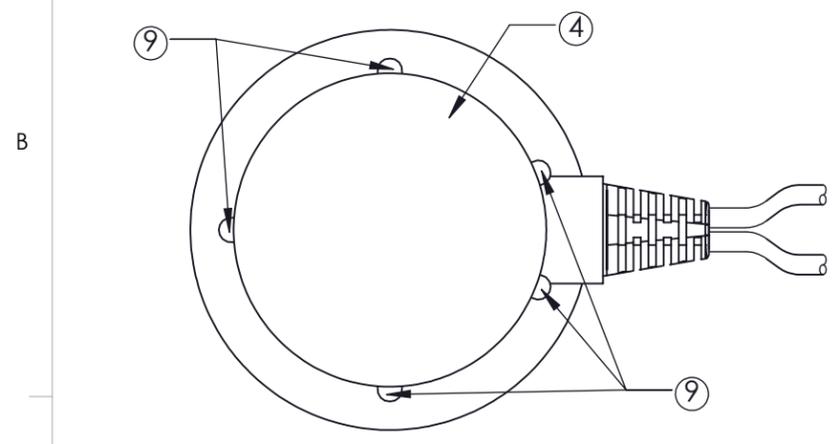
DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2019-08-22	ZX



NOTE:  
 GPS-GLONASS Active Antenna:  
 Frequency: 1575.42/1602 MHz.

Cellular Antenna:  
 Frequency: GSM 850/1900  
 (824,894,1850,1990 MHz)

Waterproof level: IPX5  
 Note: Critical To Function Dimension Are Mark With (DIM).



NO	DESCRIPTION	Q'TY	REMARK	
9	Screw	SUS ; M2*6L mm	5	
8	Connector	SMA(M)ST	2	Gold Plated
7	H.S Tube(RG-174)	Heat Shrink Tube	1	Blue Tube/White Text
6	H.S Tube(RG-174)	Heat Shrink Tube	1	Blue Tube/White Text
5	Cable	RG-174 Cable	1	Black
4	Sticker	PET	1	Silver
3	SR	PVC	1	Black
2	Antenna Bottom	PC	1	Black
1	Antenna Top	PC	1	Black

ITEM 100-00119-01 REVISION HISTORY			
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UNLESS OTHERWISE SPECIFIED:  
 DIMENSIONS ARE IN MM  
 TOLERANCES:  
 FRACTIONAL ±  
 ANGULAR: MACH ± .5° BEND ±  
 ONE PLACE DECIMAL ± .2  
 TWO PLACE DECIMAL ± .10

INTERPRET GEOMETRIC TOLERANCING PER:

THIRD ANGLE PROJECTION  
 DO NOT SCALE DRAWING

CAD MAINTAINED.  
 CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

MAXTENA, INC

TITLE:  
 100-00119-01  
 MEA-4-GGC

SIZE DWG. NO. REV  
 B 117-00298-01 A

CAGE CODE: 5KQH7 SCALE: NONE SHEET 1 OF 1

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