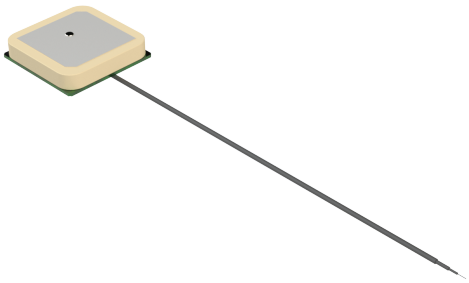
MIA-1516-C

GPS/GLONASS ACTIVE EMBEDDED ANTENNA

Part #: 189-00077-01



Description

MIA-1516-C is a high gain antenna customized for GPS frequencies. This advanced ceramic patch antenna includes an LNA and front-end SAW filter to reduce out of band noise with IPEX MHFI® (U.FL compatible) connector and 109 mm cable length.

This antenna is designed for embedded applications which feature high performance GPS applications such as GPS handheld units, mobile devices, and tracking devices. The MIA-1516-C utilizes a special semi ceramic based material which leads to higher upper hemisphere efficiency and a lower axial ratio as compared to regular patch antennas. This allows the antenna to be superior and a top choice for demanding GPS multi-band/multi-frequency antenna requirements.

Our patch antenna offerings are perfect for projects with a smaller scope and budget for which high-performance and lower weight is not a primary factor for consideration for the antenna. It features a low noise figure and high-linearity LNA. The interface connector is available in U.FL or other. Cable length can also be customized.

Features

- GPS & GLONASS coverage
- Active LNA circuitry
- Custom cable/connector options
- Compact size
- Custom tuning

Applications

- Vehicle and fleet tracking
- Military & security
- Asset tracking
- Embedded applications
- Oil & gas industries
- Navigation devices
- Mining equipment
- LBS & M2M applications
- Handheld devices
- Law enforcement

Electrical Specification

Parameter		Specification		
Antenna	Frequency Range	1575.42 ± 1.023 MHz	1602 ± 8 MHz	
	Gain	-1 dBi typ.	2 dBi typ.	
	Polarization	RHCP		
LNA	Frequency Range	1575.42 ± 1.023 MHz	1602 ± 8 MHz	
	Gain	30 ± 3dB		
	Noise Figure	≤ 1.5 dB		
	Impedance	50Ω		
	VSWR	≤ 2.0		
Input Voltage		min:2.5 V	typ.: 3 V	max:5 V
Current Consumption		≤ 25mA, typ.: 15mA (at 5 V)		

Mechanical Specification

Parameter	Specification
Antenna Dimensions	25.1 x 25.1 x 7.4 mm
Antenna Type	Embedded
Operating Temperature	-40˚C to 85˚C
Connector	Custom Connector Options
Cable Type	RF Coaxial Cable

*Mounted on the 70 x 70 mm Ground plane

MAXTENA

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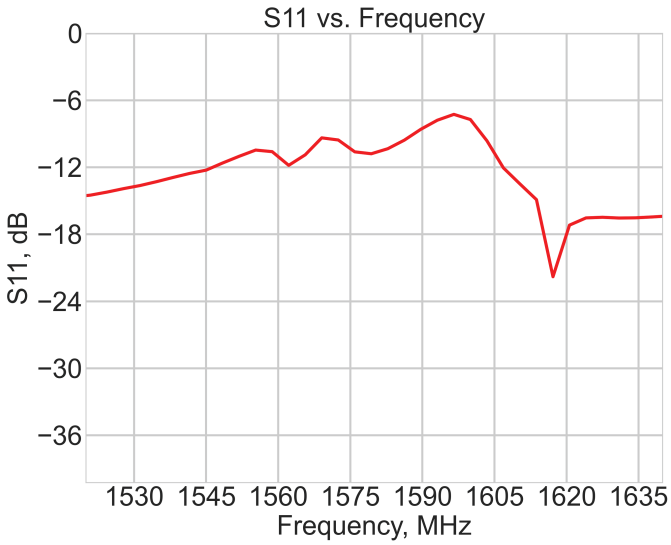

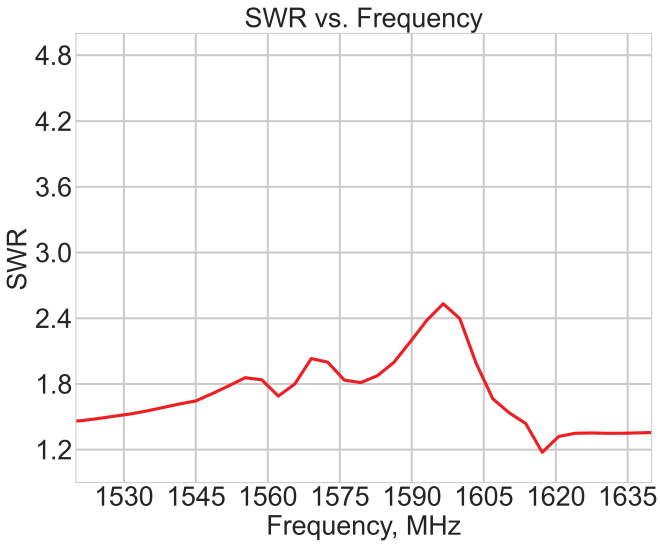

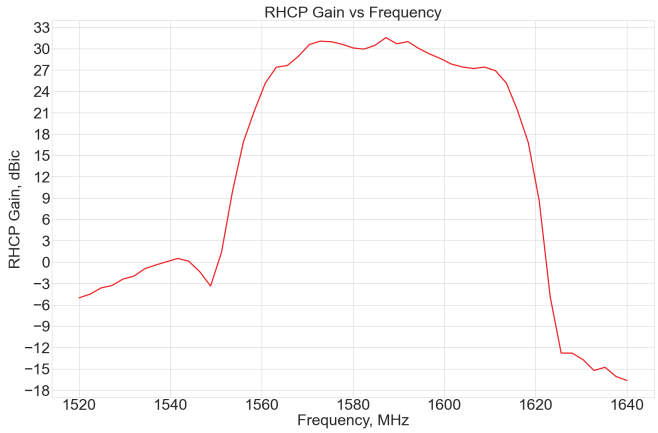

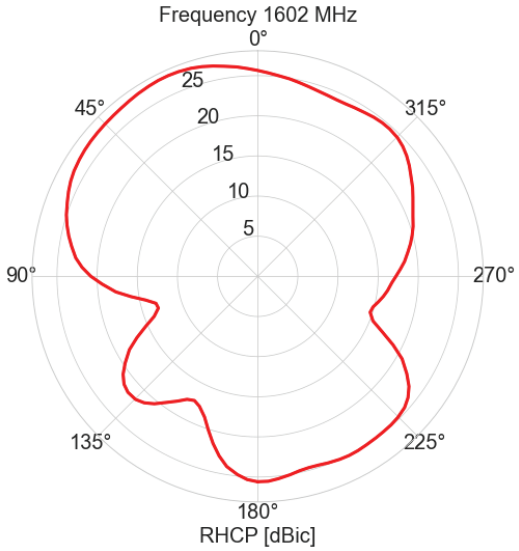

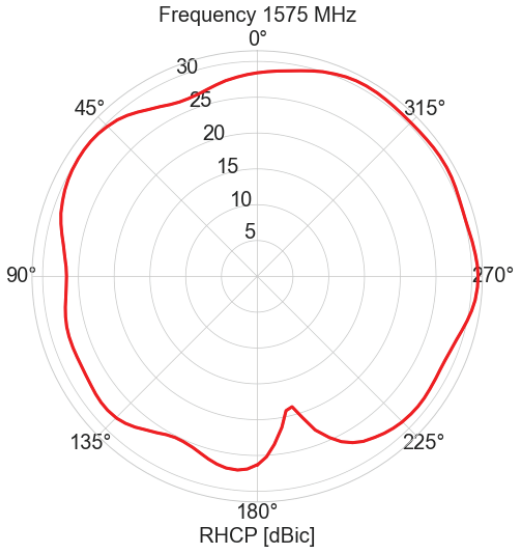

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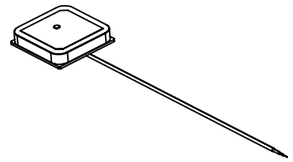
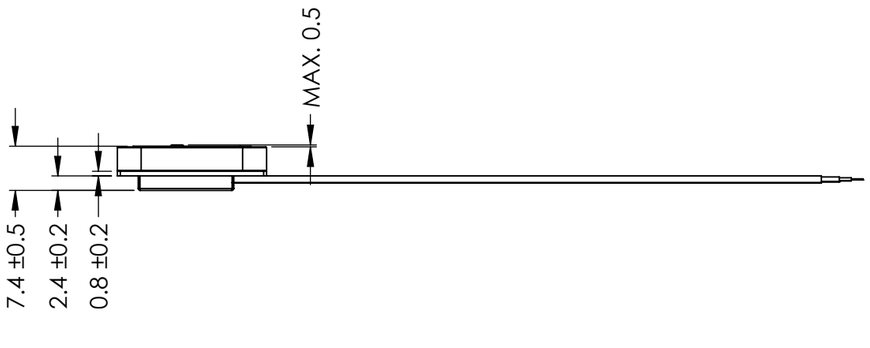
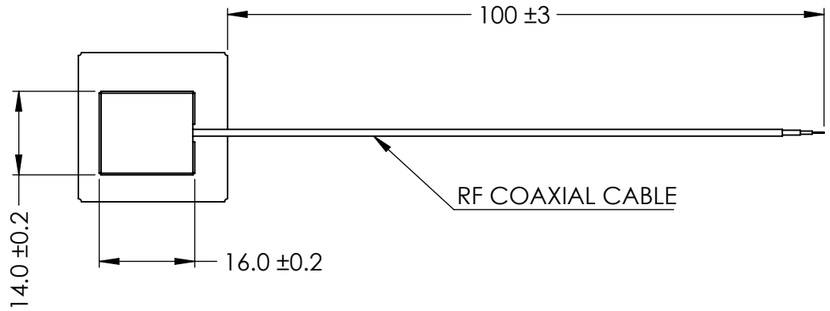
DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-10-08	JET







NOTES:
1. FREQUENCY: 1575.42 MHz, 1602 ±8 MHz
2. CUSTOMIZABLE CABLE AND CONNECTOR TYPE
3. OPERATING TEMPERTATURE: -40° C ~ +85° C
4. STORAGE TEMPERTATURE: -40° C ~ +90° C

189-00077 CONFIGURATION TABLE			
DASH NO	CABLE TYPE	CABLE LENGTH	CONNECTOR TYPE
-01	∅1.13 MM RF COAXIAL	109 MM	NONE

ITEM 189-00077 REVISION HISTORY			
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UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MM
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± .5° BEND ±
ONE PLACE DECIMAL ± 1.0
TWO PLACE DECIMAL ± .50
INTERPRET GEOMETRIC TOLERANCING PER:
THIRD ANGLE PROJECTION
DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	JET	2021-10-08
CHECKED	ZX	2021-10-08
ENG APPR.	NPC	2021-10-08
MFG APPR.		
Q.A.		

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

MAXTENA, INC

TITLE:
189-00077
MIA-1516-C

SIZE	DWG. NO.	REV
B	117-00516-01	A

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