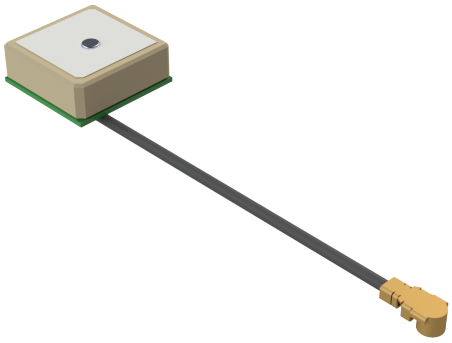
MIA-GPS-12-C

Embedded GPS Active Antenna – 12mm

Part #: 189-00073-01



Description

The MIA-GPS-12-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 200 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-GPS-10-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.

Electrical Specification

Parameter		Specification
Antenna	Frequency Range	1575.42 ± 1.023 MHz
	Gain	-4.5 dBic Typ. @zenith
	Polarization	RHCP
	Axial Ratio	≤ 4 dB @zenith
LNA	Frequency Range	1575.42 ± 1.023 MHz
	Gain	≥ 23 dB; 25 dB typ.
	Noise Figure	1.4 dB typ.
	Impedance	50Ω
	VSWR	≤ 2.0
Input Voltage		min:2.7 V typ.: 3.0 V max:3.3 V
Current Consumption		≤ 15mA, typ.: 10mA (at 3.0V)

Mechanical Specification

Parameter	Specification
Antenna Dimensions	12 x 12 x 6 mm
Antenna Type	Embedded
Operating Temperature	-40˚C to 85˚C
Connector	I-PEX
Cable Type	RF Coaxial Cable

Features

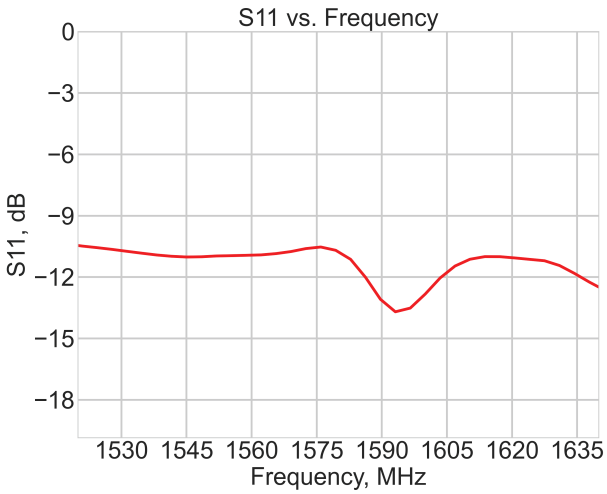
- GPS L1 frequency
- Active LNA circuitry
- Compact size
- Custom tuning
- Custom connector/Cable size
- Excellent out-of-band signal rejection
- Ideal antenna solution for RTK systems

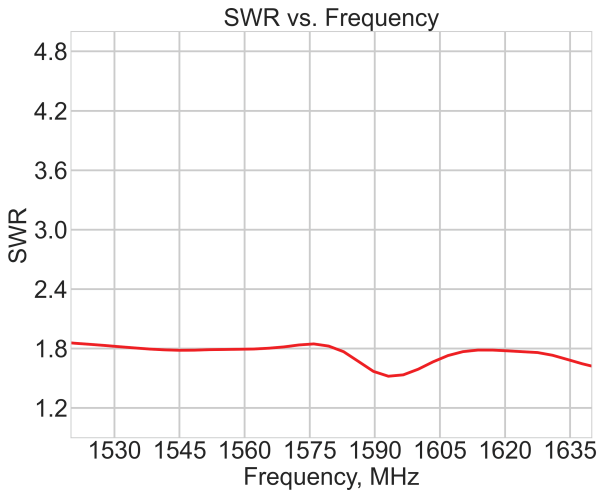
Applications

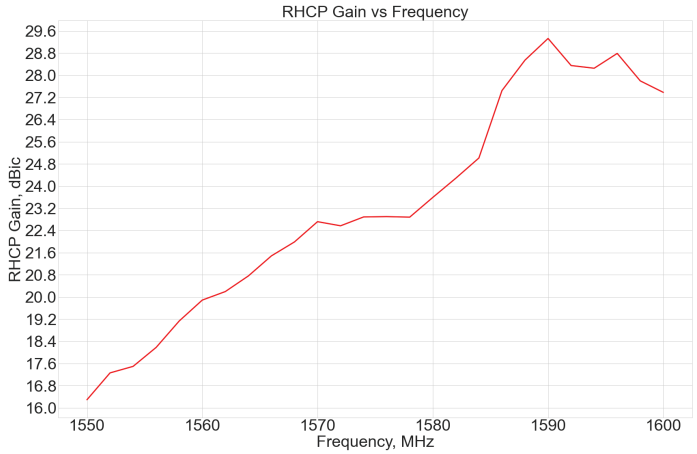
- Vehicle and fleet tracking
- Military & security
- Asset tracking
- Embedded applications
- Oil & gas industries
- Navigation devices
- Mining equipment
- LBS & M2M applications
- Handheld devices
- Law enforcement

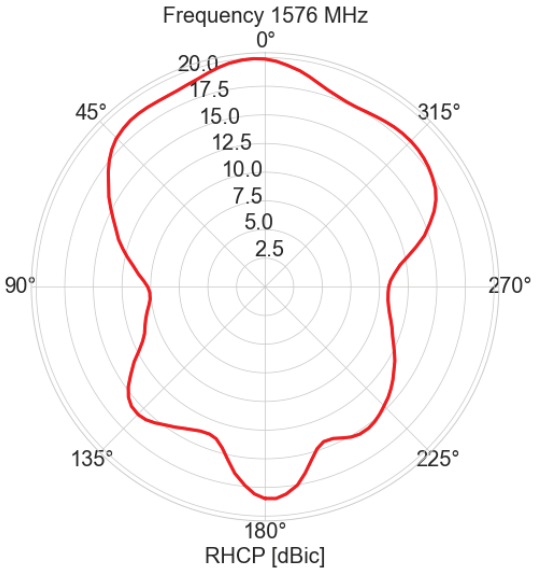
MAXTENA

Maxtena Inc.
7361 Calhoun Place, Suite 102
Rockville, MD 20855
1-877-629-8362
info@maxtena.com
www.maxtena.com







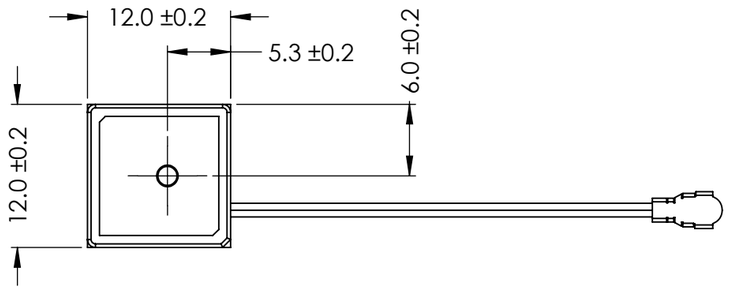


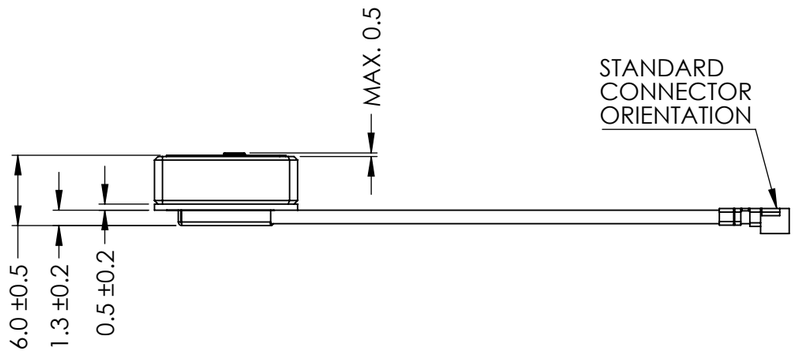
MAXTENA

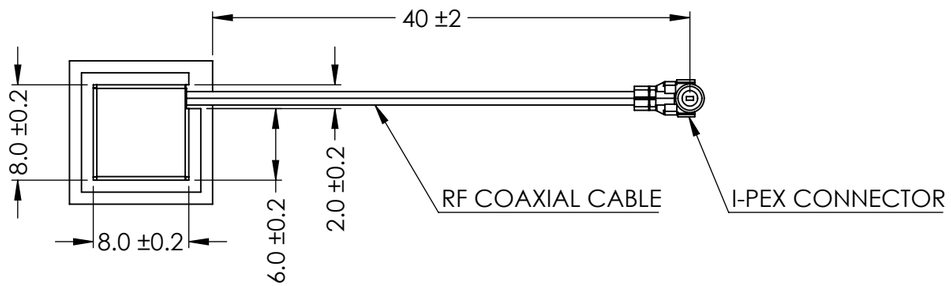
Maxtena Inc.
7361 Calhoun Place, Suite 102
Rockville, MD 20855
1-877-629-8362
info@maxtena.com

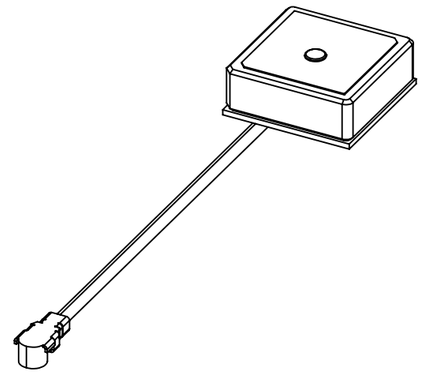
www.maxtena.com

DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-09-24	JET









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

189-00073 CONFIGURATION TABLE				
DASH NO	CABLE TYPE	CABLE LENGHT	CONNECTOR TYPE	CONNECTOR ORIENTATION
-01	∅1.13 MM RF COAXIAL	49 MM	I-PEX	DOWNWARD FACING

ITEM 189-00073 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-09-24	JET

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	2021-09-24
CHECKED	ZX	2021-09-24
ENG APPR.	NPC	2021-09-24
MFG APPR.		
Q.A.		

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

MAXTENA, INC

TITLE:

189-00073
MIA-GPS-12-C

SIZE	DWG. NO.	REV
B	117-00512-01	A

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