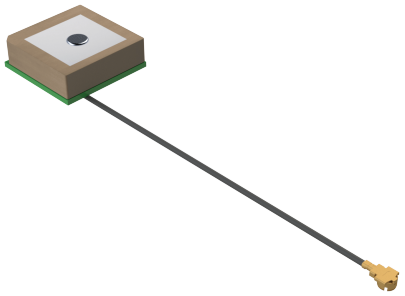
MIA-GPS-15-C

EMBEDDED ACTIVE GPS MICROSTRIP ANTENNA

Part #: 189-00070-01



Description

The MIA-GPS-15-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 55mm 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-15-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 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

Electrical Specifications

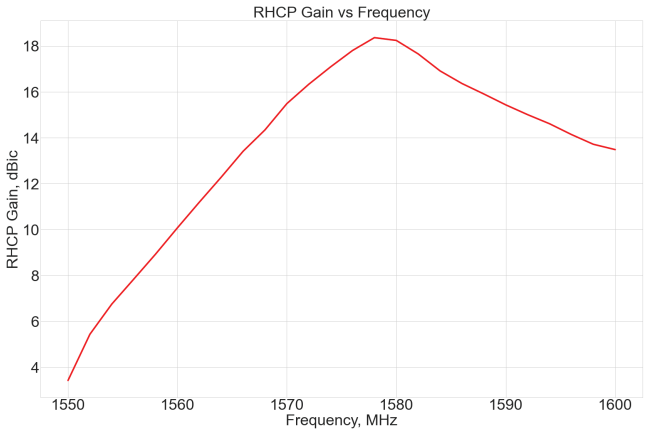
Parameter	Specification
Frequency Range	1575.42 ± 3MHz
Band Width	CF ± 5MHz
Polarization	RHCP
Gain	5dBic @ Zenith
VSWR	< 1.5
Impendance	50 Ω
Axial Ratio	≤ 5dB
Current Consumption	9mA

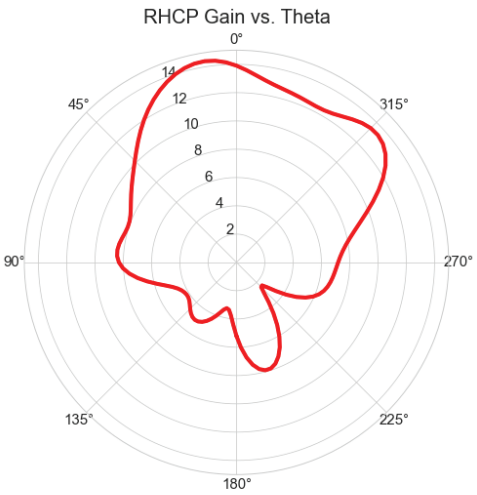
Mechanical Specification

Parameter	Specification
Antenna Dimensions	Ø 15x15x4 mm
Operating Temperature	-40˚C to 85˚C
Connector	IPEX or others
Cable	RF1.13 or others
Substance Compliance	RoHS

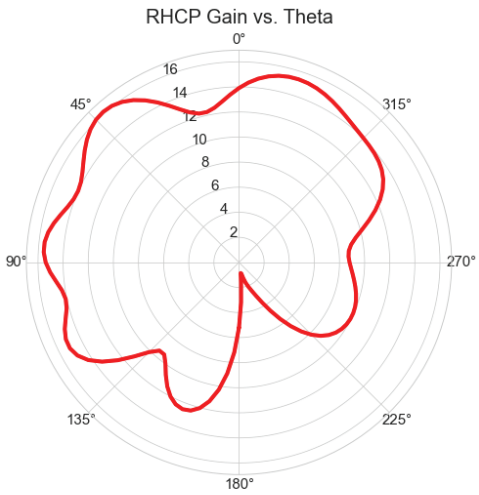
MAXTENA

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

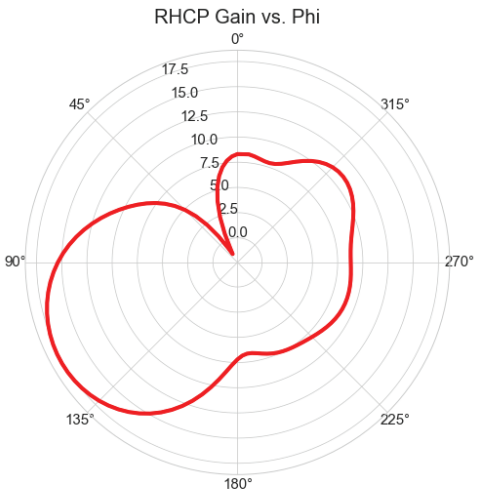




RHCP Gain [dB],Φ = 0 deg, Frequency =1575 MHz



RHCP Gain [dB],Φ = 90 deg, Frequency =1575 MHz



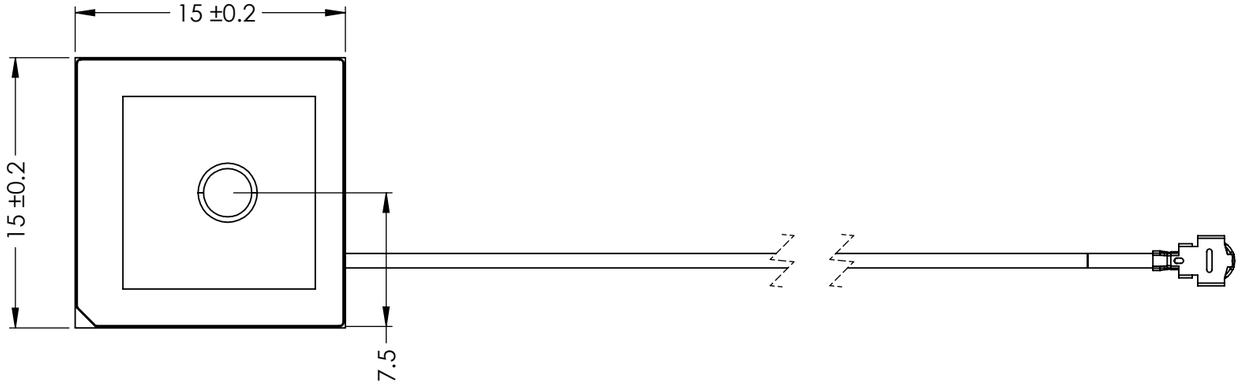
RHCP Gain [dB],Θ = 90 deg, Frequency =1575 MHz

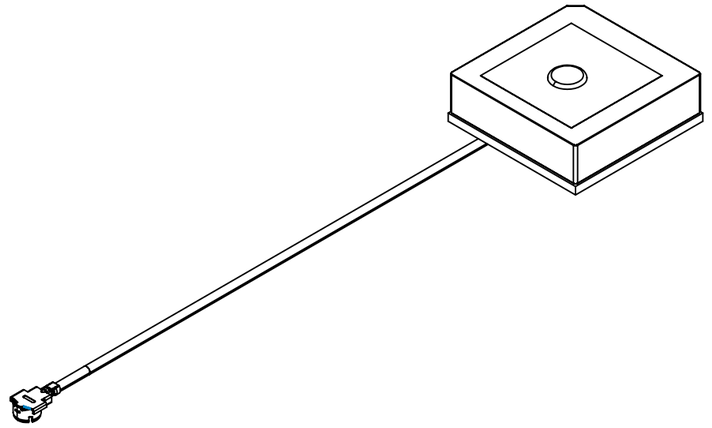
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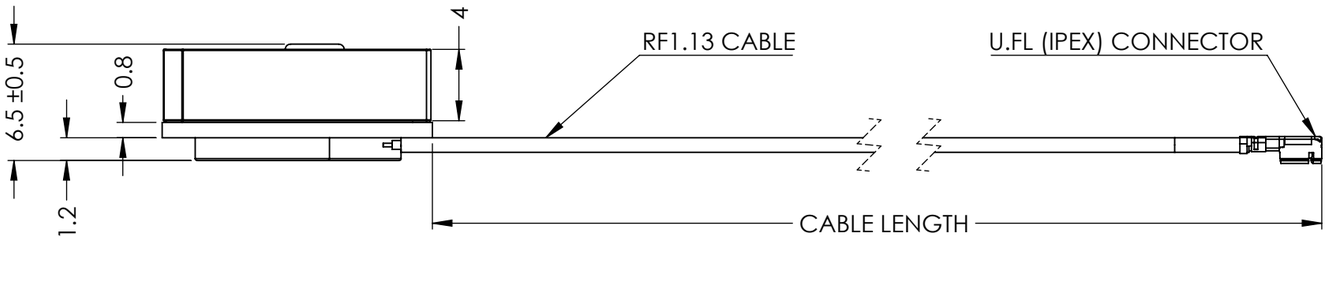
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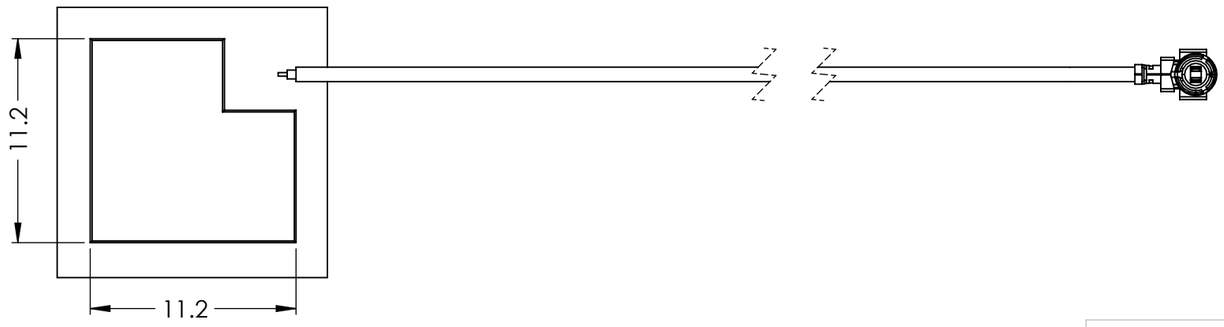
www.maxtena.com

DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-08-20	SZ









NOTES:

1. FREQUENCY: 1575.42
2. CUSTOMIZABLE CABLE AND CONNECTOR TYPE
3. OPERATING TEMPERATURE: -40°C TO +85°C
4. STORAGE TEMPERATURE: -40°C TO +85°C

ITEM 189-00070 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
1	INITIAL RELEASE	2021-08-20	SZ

189-00070 CONFIGURATION TABLE			
DASH NO	CABLE TYPE	CABLE LENGTH	CONNECTOR TYPE
-01	RF1.13	55 mm	U.FL (IPEX)

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN MM TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± .5° BEND ± ONE PLACE DECIMAL ± 1.0 TWO PLACE DECIMAL ± .50	DRAWN	SZ	2021-08-20
	CHECKED	ZX	2021-08-20
	ENG APPR.	NPC	2021-08-20
	MFG APPR.		
	Q.A.		
INTERPRET GEOMETRIC TOLERANCING PER:	CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.		
THIRD ANGLE PROJECTION			
DO NOT SCALE DRAWING			

MAXTENA, INC

TITLE:

189-00070
MIA-GPS-15-C

SIZE	DWG. NO.	REV
B	117-00497-01	A
CAGE CODE: 5KQH7	SCALE: NONE	SHEET 1 OF 1

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