



Description

The MPA-356-1516 is a high gain antenna customized for GPS, GLONASS and BEIDOU frequencies. This antenna is designed for embedded applications which feature GNSS such tracking devices and IOT solutions. The MPA-356-1516 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 GNSS multiband/multifrequency antenna requirements. The interface connector is a through pin solution. This antenna has to be fully tuned and customized.

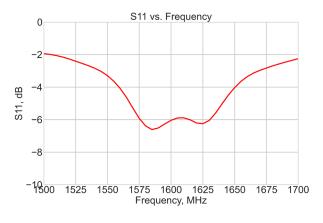
Electrical Specifications

70x70 mm ground plane

Parameter	Design Specifications
Frequency	GPS: 1575.42 MHz ± 1.023 MHz GLONASS: 1602 MHz ± 5 MHz Beidou: 1561.098 MHz ± 2.046 MHz
Center Frequency	1594 MHz ± 6 MHz
Bandwidth	49 MHz min
VSWR	1.5 max
Polarization	RHCP
Gain at Zenith	GPS: +3.7 dBi typ. GLONASS: +4.9 dBi typ. Beidou: +5.2 dBi typ.
Impedance	50 Ohm
Operating Temperature	from -40°C to 85°C

S11 vs. Frequency plot

Measured at 1575.42, 1602, 1561.098 MHz on a 70x70 mm ground plane.



Features

- · GPS, GLONASS, Beidou frequency
- Adhesive mounting
- · Pin connector
- · Compact size
- · Custom tuning

Applications

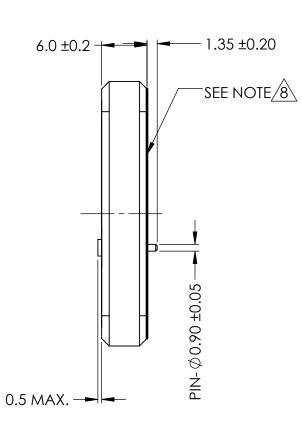
- · Vehicle and fleet tracking
- · Military & security
- · Asset tracking
- · Embedded applications
- Oil & gas industries
- Navigation devices
- · Mining equipment
- · LBS & M2M applications
- · Handheld devices
- · Law enforcement

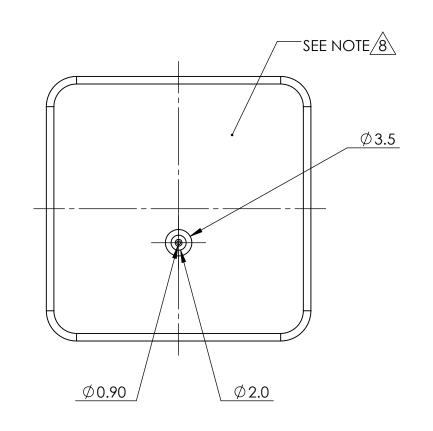


DRAWING REVISION HISTORY REV DESCRIPTION ΒY DATE INITIAL RELEASE 2021-01-27 QΖ

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- 35.0 ±0.2 — 35.0 ± 0.2





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NOTES:

- RANGE OF RECEIVING FREQUENCY: BEIDOU: 1561.098±2.046 MHz GPS: 1575.42±1.023 MHz GLONASS: 1602±5 MHz
- CENTER FREQUENCY: 1594 MHz ±6 MHz(WITH66.14×54.60 MM GND PLANE)
 BANDWIDTH: 46MHz MIN(RETURN LOSS@-10dBi)
 VSWR: 1.5MAX (CENTER FREQUENCY)
 GAIN AT ZENITH:

- BEIDOU: +5.2 dBiTYP. GPS: +3.7 dBi TYP. GLONASS: +4.9 dBi TYP.
- IMPEDANCE: 50 OHM OPERATING TEMPERATURE: -40°C TO +105°
- DOUBLE-SIDE ADHESIVE ON THIS SURFACE FOR INDUSTRIAL USE.

Α	INITIAL RELEASE	2021-01-27	QZ	
REV	DESCRIPTION	DATE	BY	
	ITEM 189-00049-01 REVIS	ION HISTORY	,	

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UNLESS OTHERWISE SPECIFIED:		NAME	DATE	
DIMENSIONS ARE IN MM TOLERANCES: FRACTIONAL± ANGULAR: MACH ± .5° BEND ± INTEGER ± 2 ONE PLACE DECIMAL ± 1.0 TWO PLACE DECIMAL ± 0.50 INTERPRET GEOMETRIC	DRAWN	QZ	2021-01-27	
	CHECKED	ZX	2021-02-02	TITL
	ENG APPR.	NPC	2021-02-04	
	MFG APPR.			
	Q.A.			
TOLERANCING PER: THIRD ANGLE PROJECTION	CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.			SIZ
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TLE:	189-00049-01 MPA-356, 35x35x6MM, BEIDOU/GPS/GLONASS	
SIZE	DWG. NO.	

MAXTENA, INC

B	117-003	96-01
CAG	E CODE: 5KQH7	SCALE: NONE

DO NOT SCALE DRAWING

SHEET 1 OF 1

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