

MAN1216Q25

Quadrifilar Helix Antenna For GNSS



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For L1/L2/L5 G1/G2 B1/B2/B3 E1/E5

MAN1216Q25

58.7 x Φ 27.7mm

All Use For RF & Microwave

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FEATURES

- 1, High gain and low Noise Figure.
- 2, Light weight less then 20g.
- 3, Convenient connect both DC bias and RF Signal through SMA
- 4, IP67 compliance



DESCRIPTION

The MAN1216Q25 is a Quadrifilar Helix antenna in structure, which has better gain and wide-angle circular polarization characteristics compared to traditional antennas. It can receive more low elevation satellite signals. Especially suitable for devices such as UAV, handheld devices, wearable devices, etc. It convenient connected both DC bias and RF Signal through one SMA. All Antennas are 100% RF tested.

MAXIMUM RATINGS

Characteristic	Ratings	Units
Weight	15	g
Operating Temperature Range	-40~+85	°C
Storage Temperature Range	-40~+85	°C
Moisture Sensitivity Levels	3	MSL
Classification of Waterproof	IP67	

ANTENNA CHARACTERISTICS

Item	Frequency Range	Min.	Typ.	Max.
Gain(dB)	GPS L1		2	
	GPS L2		2	
	GPS L5		-2	
	GLONASS G1		-1.5	
	GLONASS G2		-1.0	
	BDS B1		1.5	
	BDS B2a		-2	
	BDS B2b		1.0	
	BDS B3i		-2	
	GALILEO E1		2	
	GALILEO E5a		-2	
	GALILEO E5b		1	
Characteristics Impedance (Ω)			50 (Nominal)	
Polarization			RHCP	
Covering Range (°)			360	
Out Put VSWR (:1)				2
Pear Axial Ratio (dB)				3

• Ta: +25±5°C

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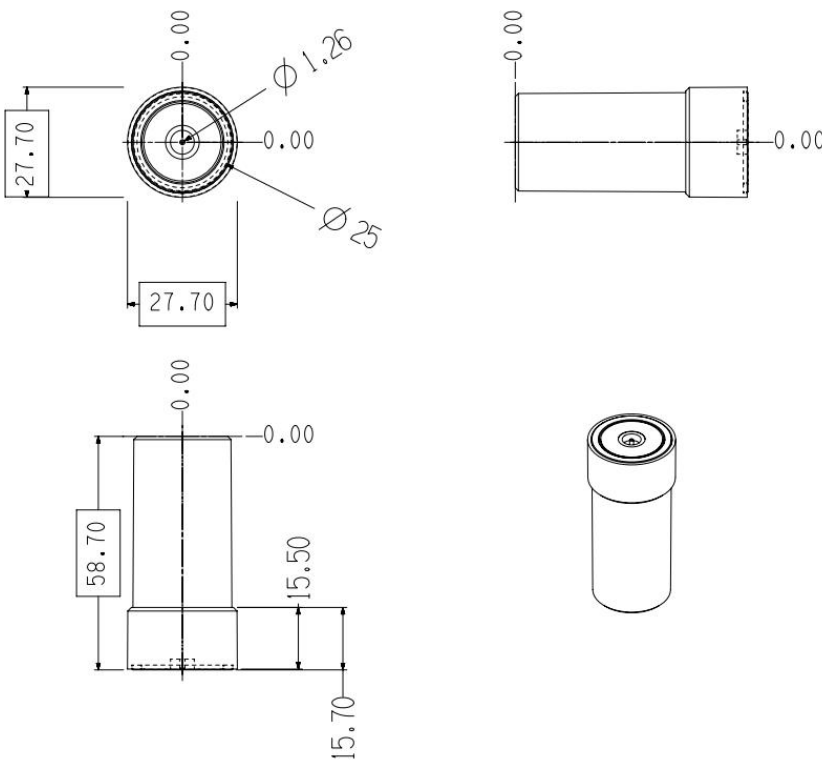


AMPLIFIER CHARACTERISTICS

Item	Frequency Range (MHz)	Min.	Typ.	Max.
Gain (dB)		-	37	
Noise Figure (dB)				1.5
Output VSWR (:1)				2
Voltage (V)		3.3		16
Current (mA)			13	

• Ta: +25±5°C

SHAPES AND DIMENSIONS



Revision	Description	Date
Rev0	Preliminary	2024/2/26
Rev1	Modify image	2025/5/16
Rev2	Modify image	2025/8/8