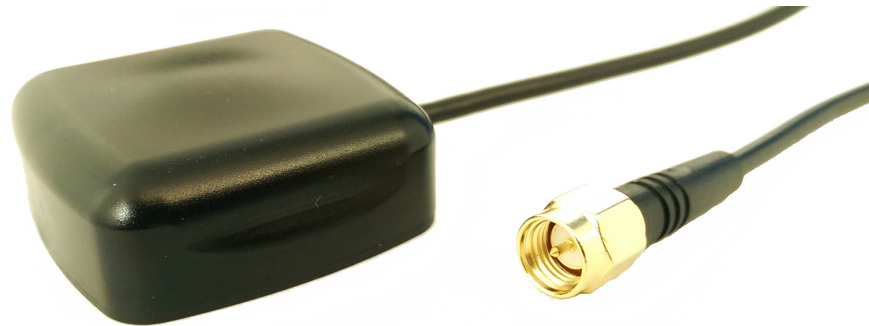


ALLISCOM

Antenna

Data Sheet



Model No. X830B

Feature

- High Performance**
- Powerful Magnets**
- Concealable, Flat structure**
- Waterproof IP67**
- Connector with SR protection**

Description

The X830B is a high performance and quality antenna for GPS navigation.

Allis Communications X830B is a waterproof Magnetic Mount Antenna. This is a perfect antenna for external use with harsh outdoor environment. The RF connector and cable length can be customized as required.

1. Electrical Specifications

1.1 Patch Antenna

Frequency	1575.42MHz \pm 3MHz
VSWR	1.5 max.
Bandwidth	20MHz Min. At -10dB
Axial Ratio	3dB max. at 1575MHz at 0 degree
Impedance	50 Ω
Peak Gain	4dBic min. at 0° (7cm x 7cm ground plane)
Gain Coverage	\geq -4dBic at $-90^\circ \leq \theta \leq 90^\circ$ (over 75% volume)
Polarization	RHCP

1.2 Amplifier Module

Gain	27dB @ 2.7VDC ; 36 dB @ 6VDC
Out VSWR	2.0 Max.
Noise Figure	1.5dB Typ.
DC Voltage	2.7 to 6 V
DC Current	9.5 \pm 2.5mA

1.3 Gain Pattern

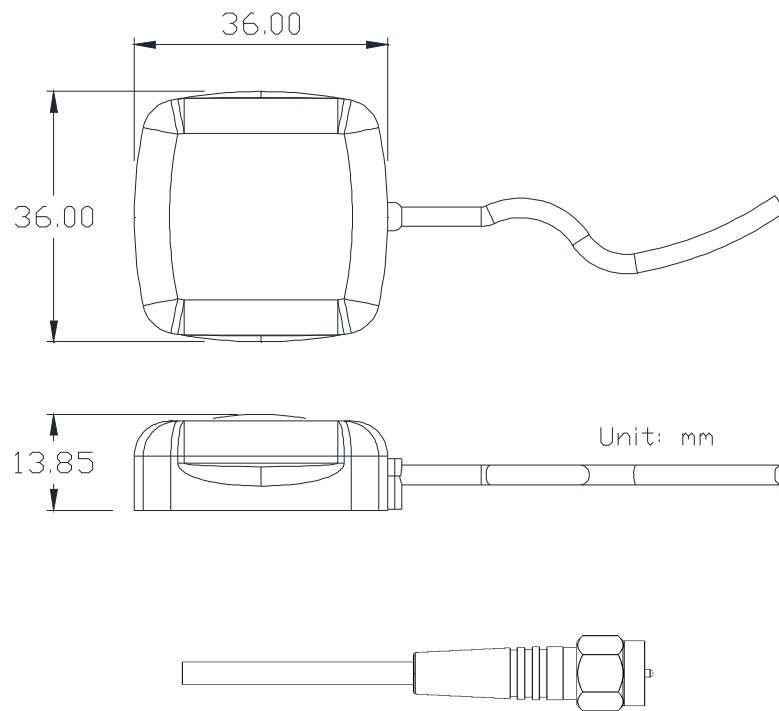
Item	Peak gain (at 0°)	Axial Ratio (at 0°)	Test Voltage and Cable Length
X830B	28.94dBic	1.14dB	Voltage:5V , Cable:5m, Loss \div 6.5dB
	24.66dBic	1.15dB	Voltage:5V , Cable:5m, Loss \div 6.5dB

2. Mechanical Specification

2.1 Mechanical

Item	Specification
Material	ABS
Weight(without Cable)	32 grams max.
Connector	SMA Plug
Cable Length	Standard 3m/5m
RF Cable	RG174
Size	36 x 36 x 13.9mm
Housing Color	Black
Mounting	Magnetic base
Waterproof	IP67

2.2 Dimension



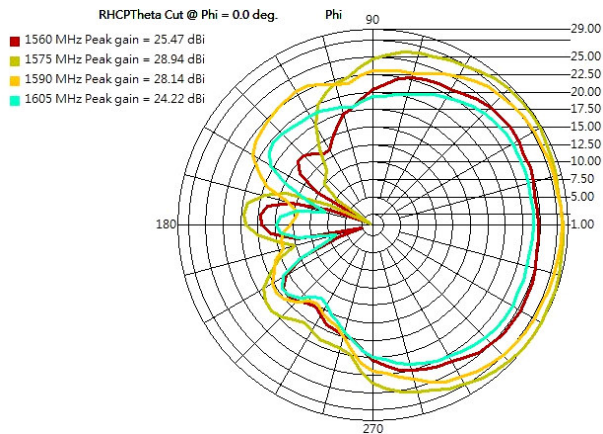
3. Appendix: Gain Patterns

Test Equipment: NSI Spherical near-field measurement system

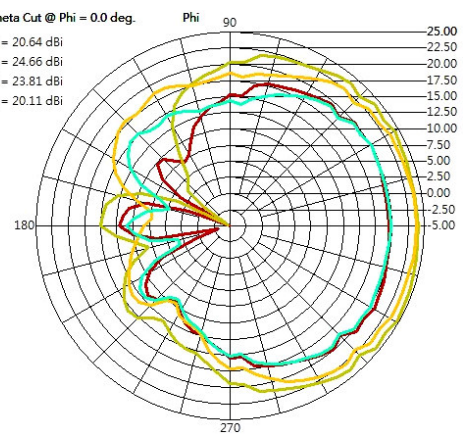
● X830B
Test Voltage : 5V
Cable length: 5m
Cable loss \approx 6.5dB

● X830B
Test Voltage : 3V
Cable length: 5m
Cable loss \approx 6.5dB

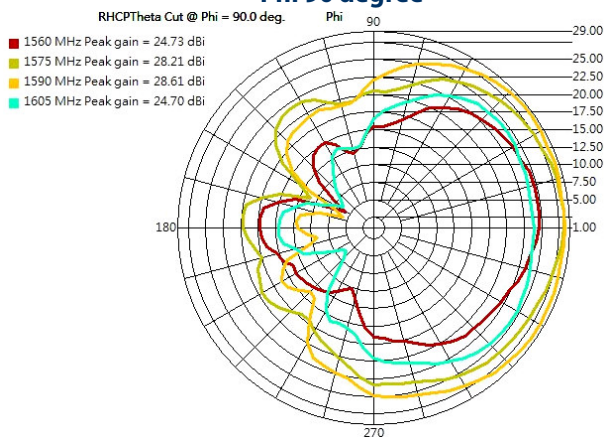
Phi 0 degree



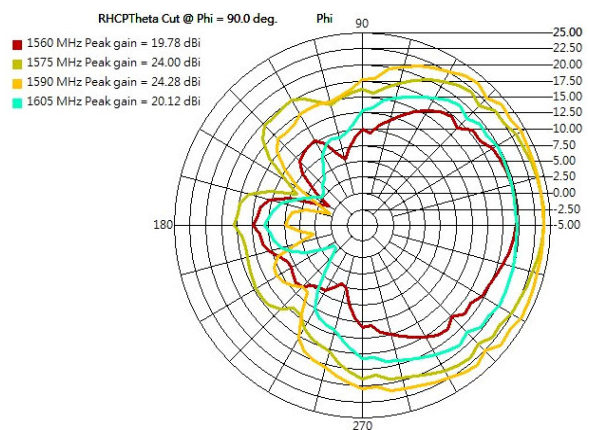
Phi 0 degree



Phi 90 degree



Phi 90 degree



3D Pattern

