

Allystar

GNSS Antenna Family

ALLYSTAR GNSS antenna products employ ALLYSTAR's unique active antenna technology, providing high performance, with high gain, great axial ratio, low noise figure, and a good out-band rejection. The antenna product family provides you a complete set of antenna solutions for different applications, from meter-level to centimeter-level, single band to multi-band, and single system to multi-system.

Standard Active Antenna

AGR6116 active antenna adopts Allystar's unique technology to achieve GNSS dual-band system operation, covering signals from multiple frequency. AGR6116 uses a peculiar RF architecture, providing excellent noise figure and high gain. The antenna is portable with dual band features, which can be used on trackers, navigation devices and autonomous vehicles.



Dual-band Antenna for Rover Station

AGR6302/AGR6303 is a dual-band GNSS active antenna for rover station, covering GPS, BDS, Galileo, GLONASS, IRNSS and QZSS system. Featuring stable signal quality, the high efficiency external antenna can be used together with GNSS receiver, which can be adopted in a wide variety of automotive and industrial navigation fields.

General Specifications

	AGR6116	AGR6302	AGR6303
Support system	GPS: L1, L1C, L5C BDS: B1I, B1C, B2a Galileo: E1, E5a NavIC: S-L5 QZSS: L5	GPS: L1, L2C BDS: B1I, B1C, B2I Galileo: E1, E5b GLONASS: L1, L2 QZSS: L1-C, L2C	GPS: L1, L1C, L5C BDS: B1I, B1C, B2a Galileo: E1, E5a GLONASS: L1 NavIC: S-L5 QZSS: L5
Antenna features			
Architecture	One pin feed	Stack four feed	Stack four feed
Axial ratio	< 3.0 dB	< 2.0 dB	< 2.0 dB
Gain	1.98-2.68 dBi	3.0-5.0 dBi	3.0-5.0 dBi
Polarization	RHCP	RHCP	RHCP
RF performance			
LNA gain	28 dB typ.	27 dB typ.	27 dB typ.
Noise figure	≤ 2.0 dB	≤ 2.0 dB	≤ 2.0 dB
Output SWR	< 2.5	< 2.5	< 2.5
Output impedance	50 Ohm	50 Ohm	50 Ohm
Out-band rejection	In-band ±50 MHz > 30 dB	In-band ±80 MHz > 35 dB	In-band ±80 MHz > 35 dB
Support voltage	3.0-5.0 V/3.3V typ.	3.0-5.0 V/3.3V typ.	3.0-5.0 V/3.3V typ.
Power consumption	< 15 mA @ 3.3V	< 20 mA @ 3.3V	< 20 mA @ 3.3V
Mechanicals			
Dimension	56.5*56.5*21 mm	79*24 mm (D*H)	79*24 mm (D*H)
Interface	SMA-M-M	SMA-M-M	SMA-M-M
Mounting	Magnet mount	Magnet mount	Magnet mount
Water proof	IP67	IP67	IP67
Environment			
Operation temp.	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Certification	ROHS & REACH	ROHS & REACH	ROHS & REACH

