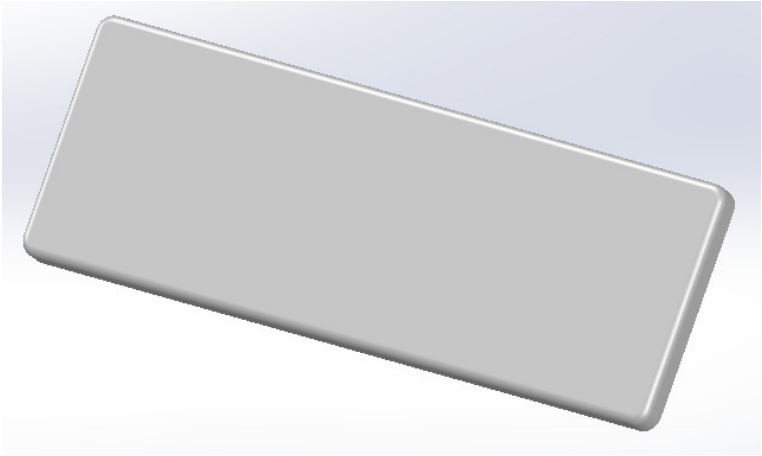
ALLISCOM
FB512
5.1~5.8GHz Passive Antenna
Data Sheet



Model No. FB512-SWJJWXLXAS

Features

- Dual Cross Polarization (Linear)
- High performance for 5.1~5.8GHz Directional Antenna/ Peak Gain 12dBi
- Waterproof IP67, Metal AL5052 Base
- Resistant to harsh outdoor environment
- RoHS Compliant

Description

The FB512 is a directional, IP67 waterproof antenna for use in transportation and remote monitoring applications. This antenna delivers advanced MIMO antenna technology for WiFi in a compact package. The functions of WiFi include 802.11a/n and emerging 802.11ac. The antenna has its own ground-plane and can radiate on any mounting environment such as metal or plastic without affecting performance. This antenna is particularly suitable for trains, buses and commercial transport applications.

1. Electrical Specifications

Frequency		5.1~5.8GHz
Average Peak Gain	Port1	13.9dBi
	Port2	12.1dBi
Average Efficiency	Port1	84.6%
	Port2	82.1%
3dB Beam Width	Port1	XZ: 15° / YZ: 55°
	Port2	XZ: 15° / YZ: 60°
VSWR Max.		2.0:1
ECC		< 0.1
Isolation		14dB
Impedance		50Ω
Pattern Type/ Polarization		Directional / Linear

Note: Specifications subject to change without notice.

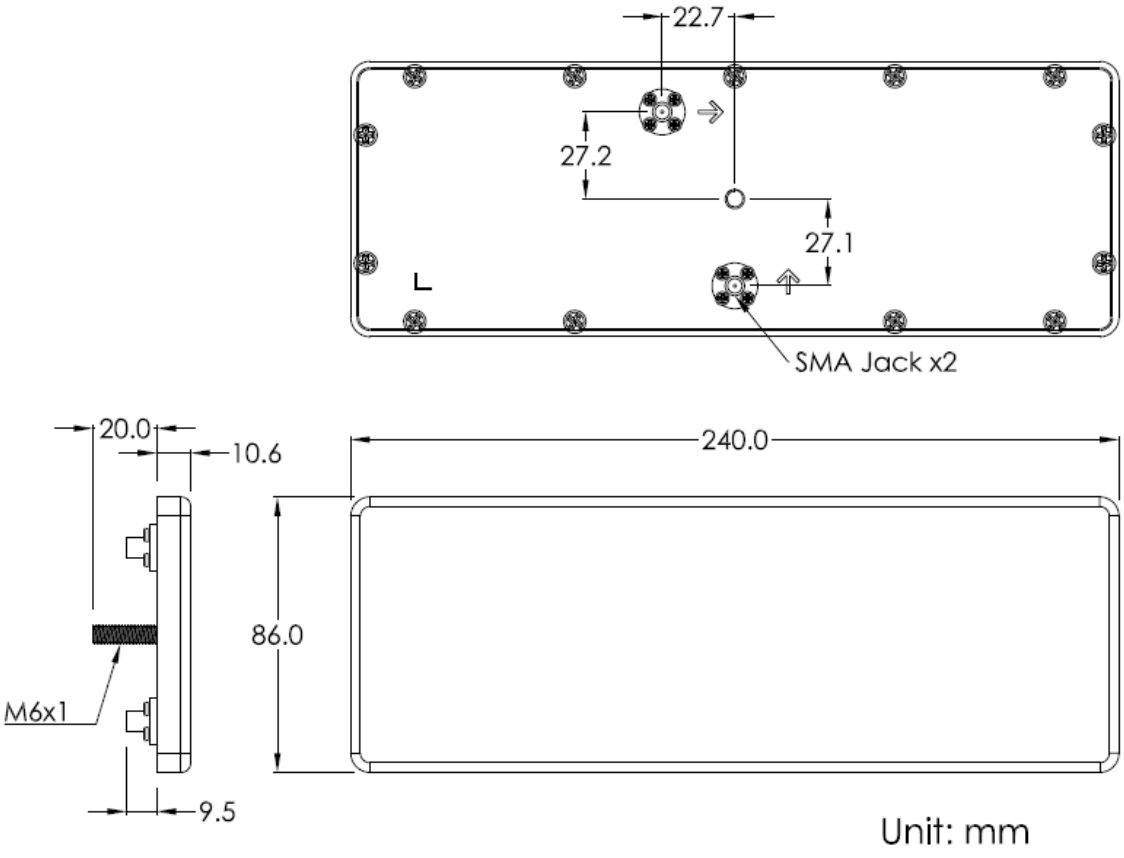
2. Mechanical Specifications

2.1 Mechanical

Housing Material	Top: ASA / Bottom: AL 5052
Size	240 *86 *10.6 mm
Connector	SMA Jack (Female)
Mounting	Permanent mount
Housing Color	White

Note: Specifications subject to change without notice.

2.2 Dimension

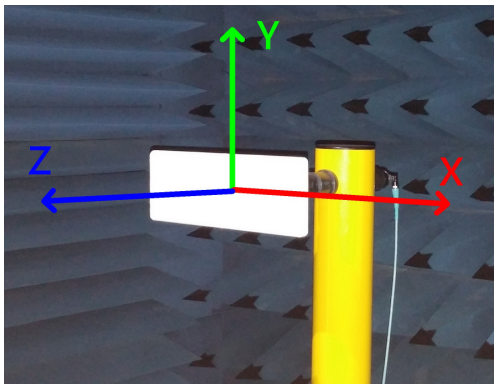


3. Environmental Specification

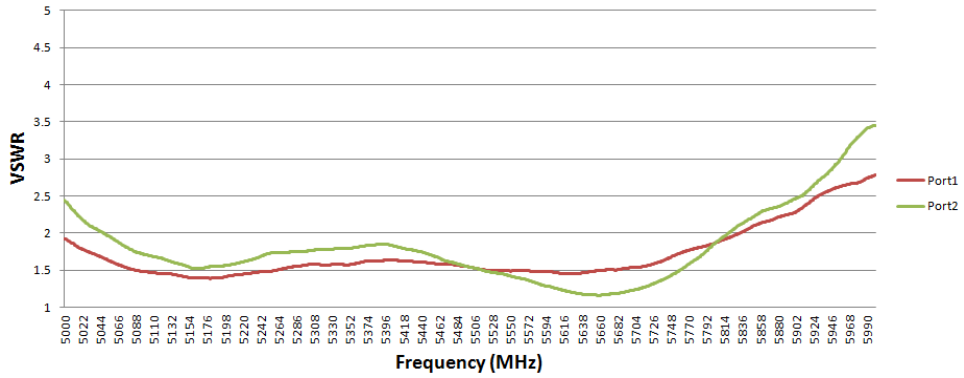
Operating Temperature	-40°C to +70°C
Storage Temperature	-40°C to +85°C
Humidity	95%~100% RH
Degrees of Protection	IP67 (Dustproof and Waterproof)

Note: Specifications subject to change without notice.

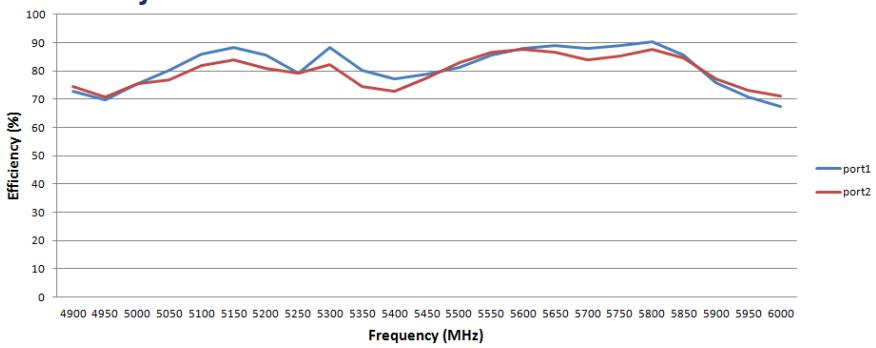
4. Appendix **Antenna Measurement**



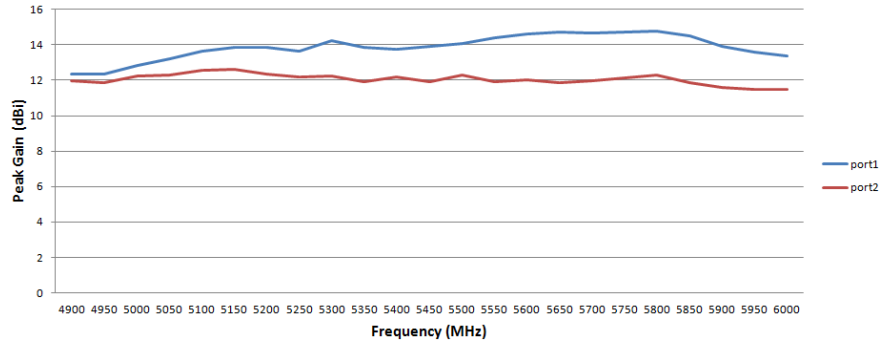
- **VSWR**



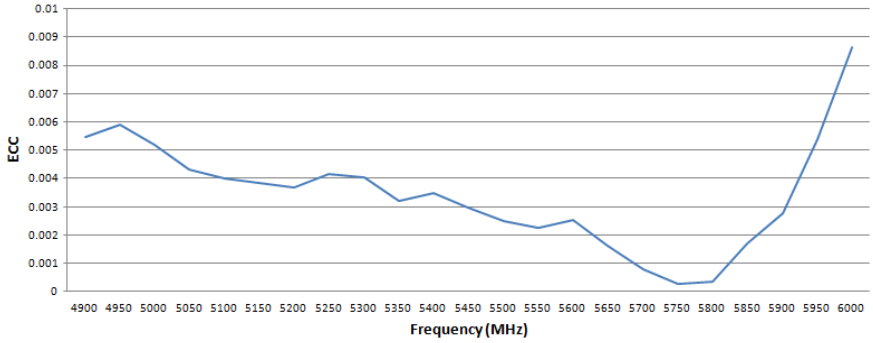
- **Efficiency**



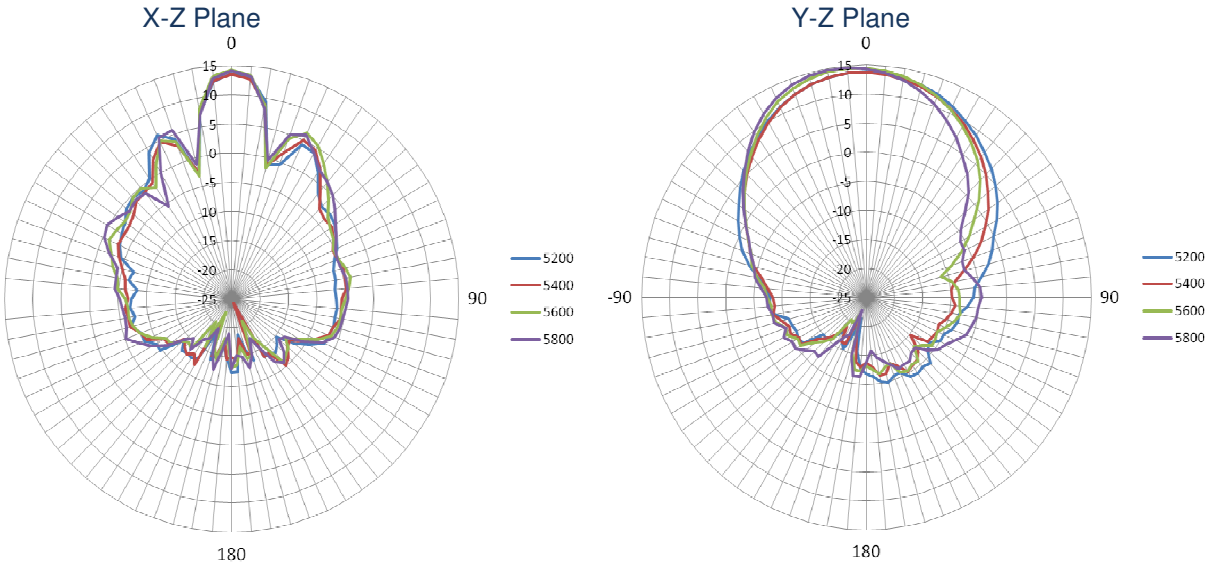
- **Peak Gain**



- **Envelope Correlation Coefficient (ECC)**

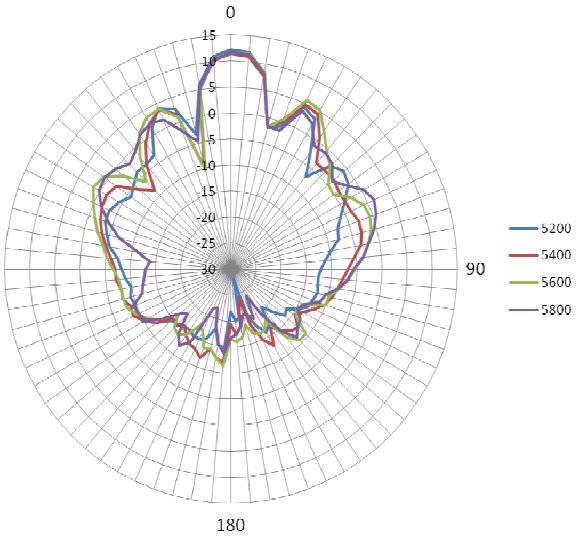


- **Radiation Pattern**
  - PORT1

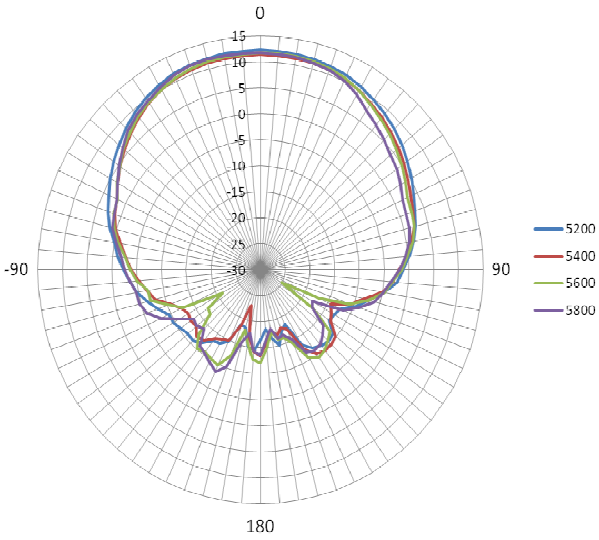


- PORT2

X-Z Plane



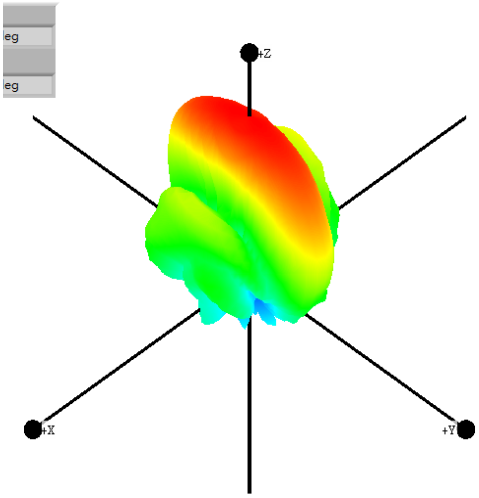
Y-Z Plane



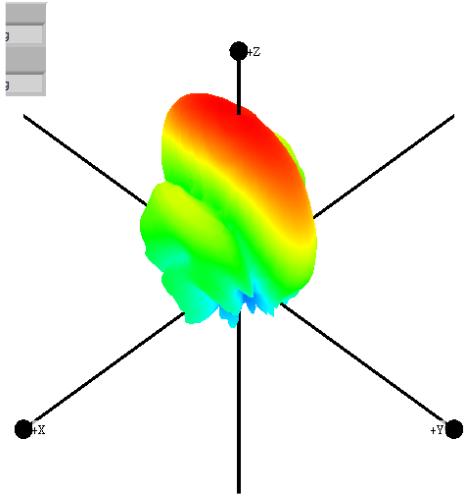
3D Radiation Pattern

PORT1

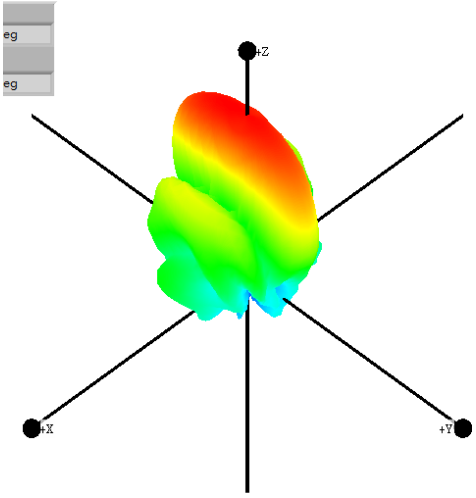
5200MHz-Peak Gain: 13.8dBi



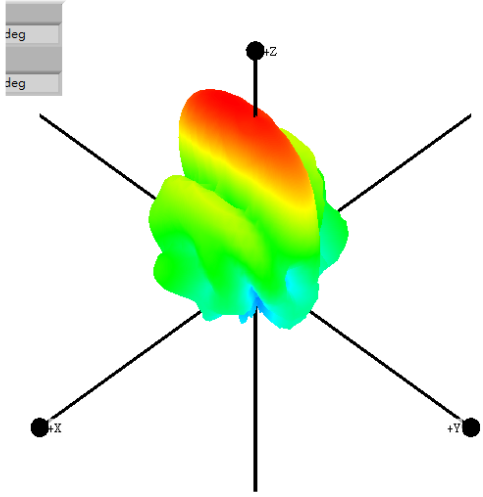
5400MHz-Peak Gain: 13.5dBi



5600MHz-Peak Gain: 14.6dBi

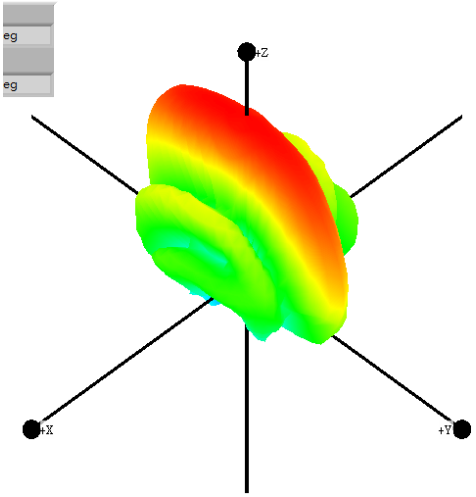


5800MHz-Peak Gain: 14.1dBi

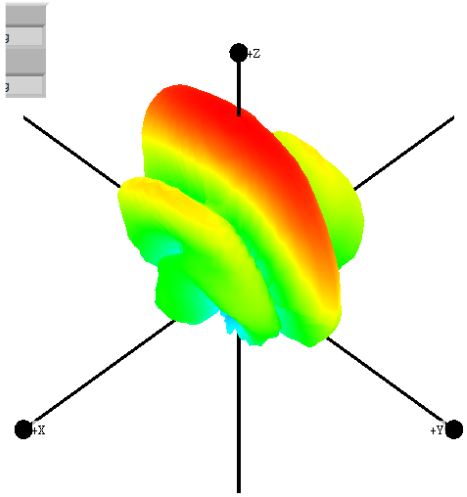


- **PORT2**

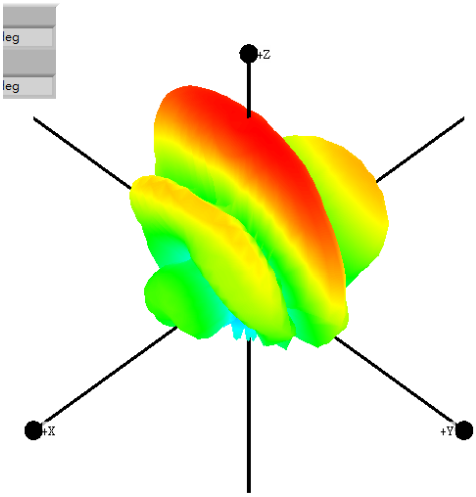
5200MHz-Peak Gain: 12.34dBi



5400MHz-Peak Gain: 12.19dBi



5600MHz-Peak Gain: 12.03dBi



5800MHz-Peak Gain: 12.3dBi