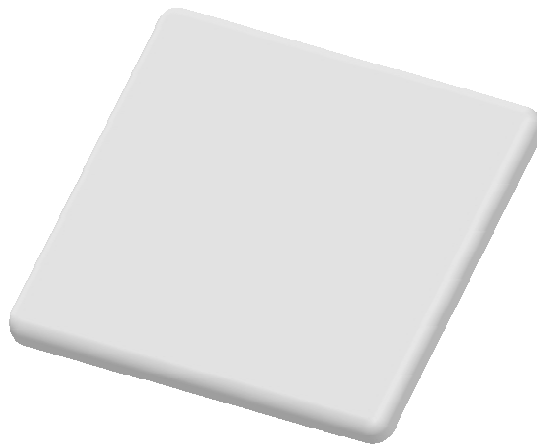


# **ALLISCOM**

## **FA512**

### **5~5.9GHz Passive Antenna**

### **Data Sheet**



**Model No.**     **FA512-SWJJWXLXAS**

**Features**     **Dual Cross Polarization (Linear)**  
**High performance for 5~5.9GHz**  
**Directional Antenna/ Peak Gain 12dBi**  
**Waterproof IP67, Metal AL5052 Base**  
**Resistant to harsh outdoor environment**  
**RoHS Compliant**

**Description**     **The FA512 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

### Electrical Data

Frequency		5~5.9GHz
Average Peak Gain	Port1	12.2dBi
	Port2	12.8dBi
Average Efficiency	Port1	87.9%
	Port2	85.3%
3dB Beam Width	Port1	XZ: 35° / YZ: 35°
	Port2	XZ: 35° / YZ: 35°
VSWR Max.		2.0:1
ECC		< 0.1
Isolation		14dB
Impedance		50Ω
Pattern Type/ Polarization		Directional / Linear

Note: Specifications subject to change without notice.

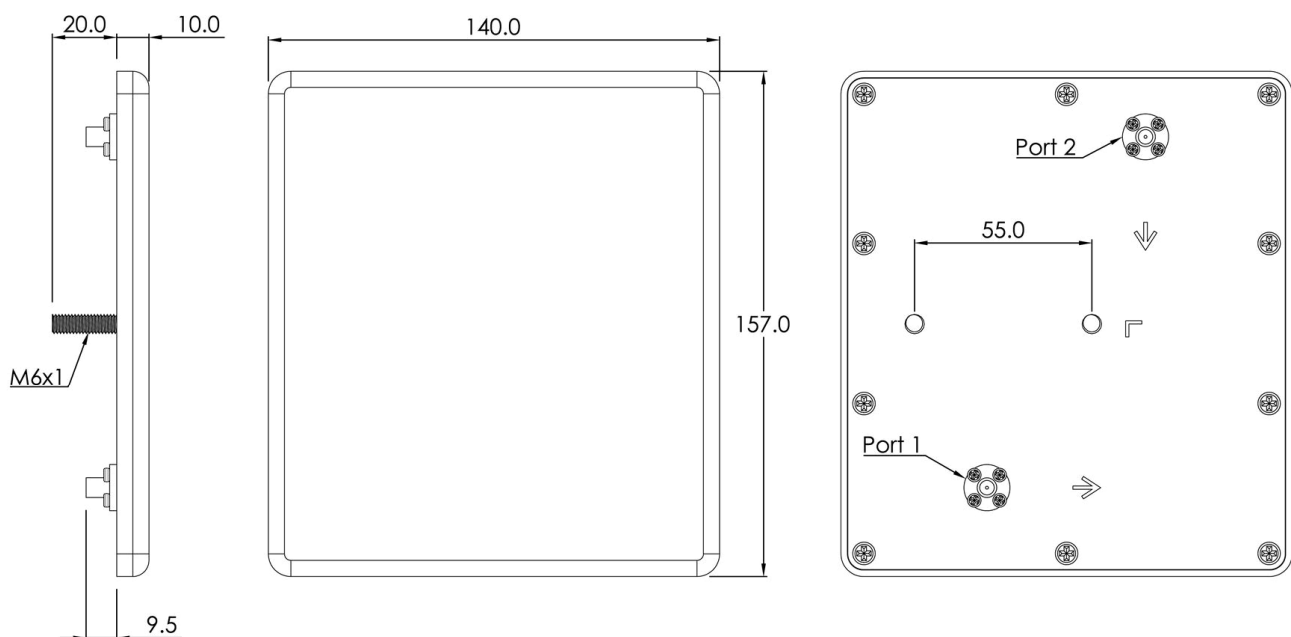
## 2. Mechanical Specifications

### 2.1 Mechanical Data

Housing Material	Top: ASA / Bottom: AL 5052
Size	157 *140 *10 mm
Connector	SMA Jack (Female)
Mounting	Permanent mount
Housing Color	White

Note: Specifications subject to change without notice.

### 2.2 Dimension



Housing Material:  
Top: ASA  
Bottom: AL 5052

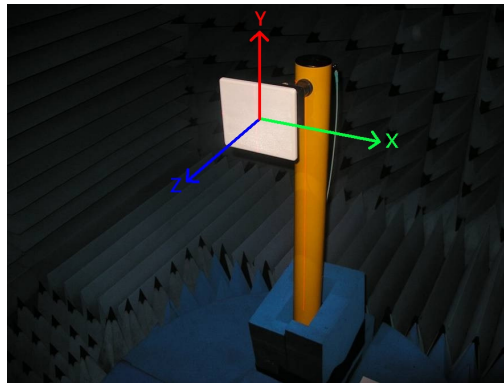
Unit: mm

### 3. Environmental Specification

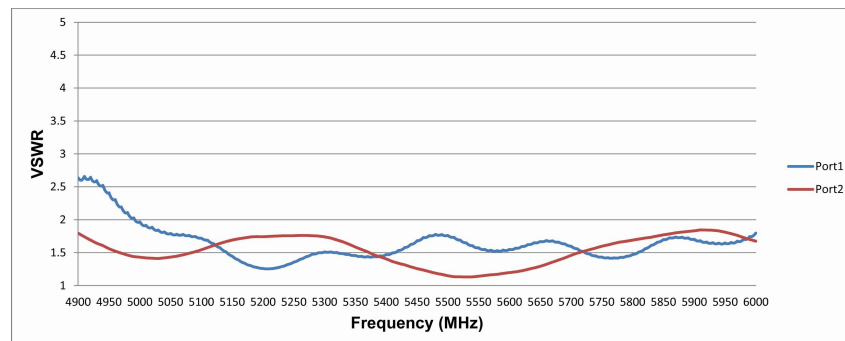
Operating Temperature	-40°C to +70°C
Storage Temperature	-40°C to +85°C
Humidity	95%~100% RH
Degrees of Protection(With Housing)	IP67 (Dustproof and Waterproof)

Note: Specifications subject to change without notice.

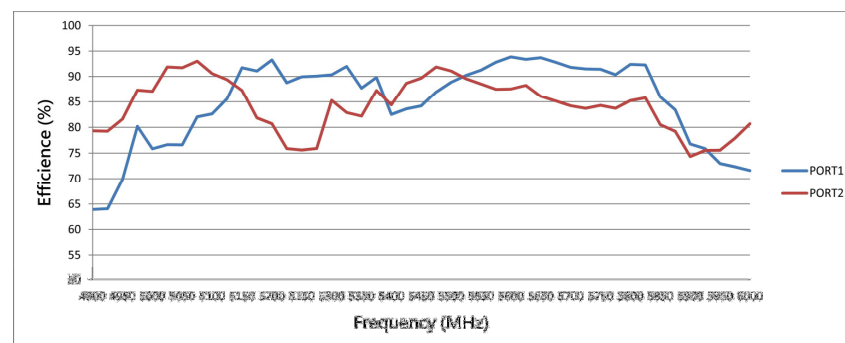
### 4. Appendix: Antenna Measurement



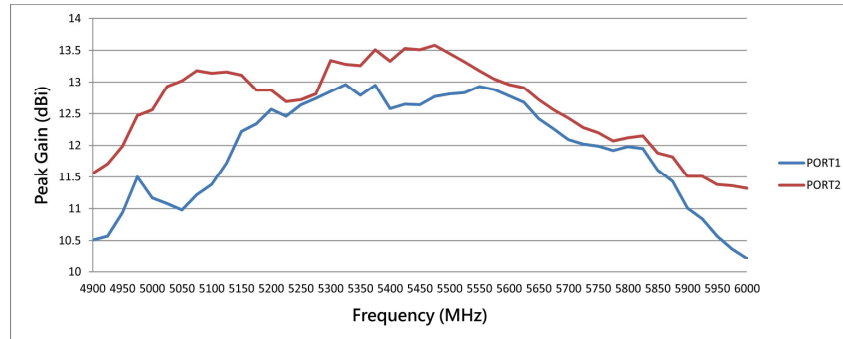
#### ● VSWR



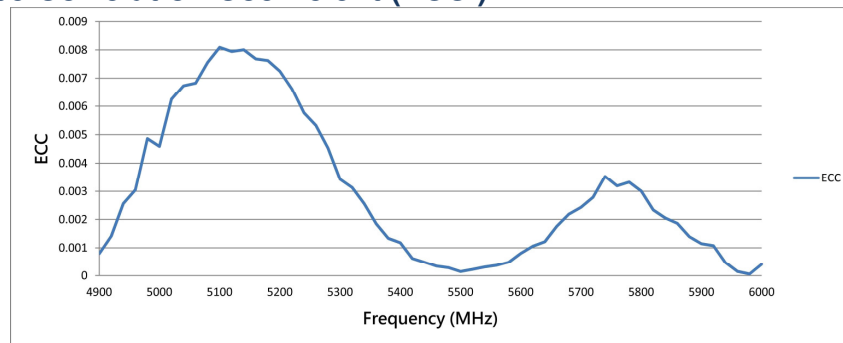
#### ● Efficiency



## ● Peak Gain

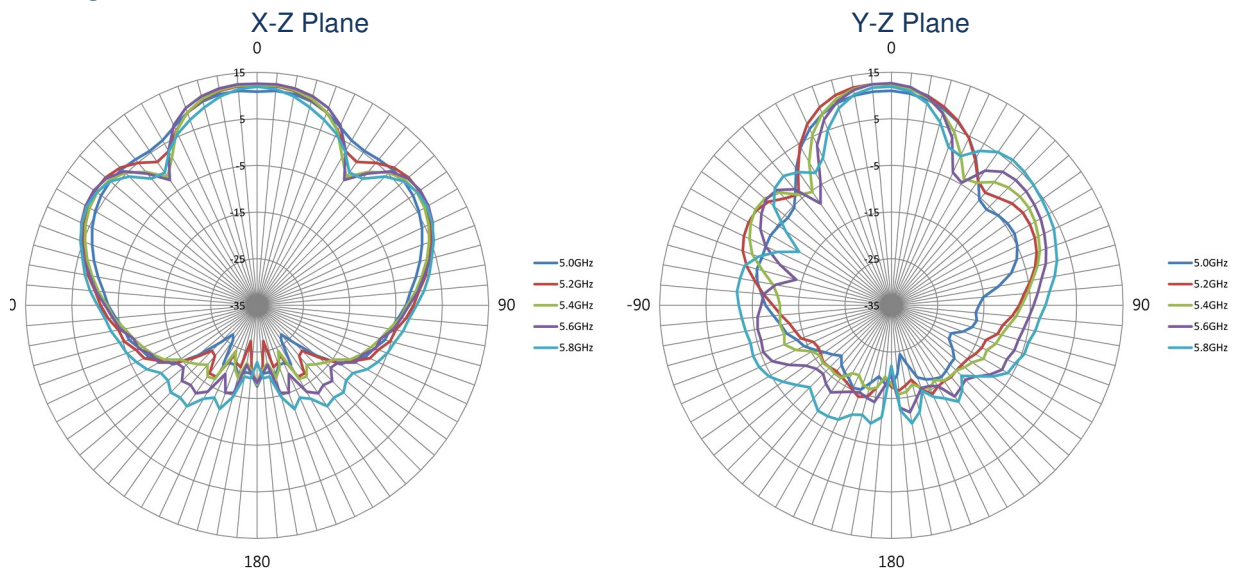


## ● Envelope Correlation Coefficient (ECC)

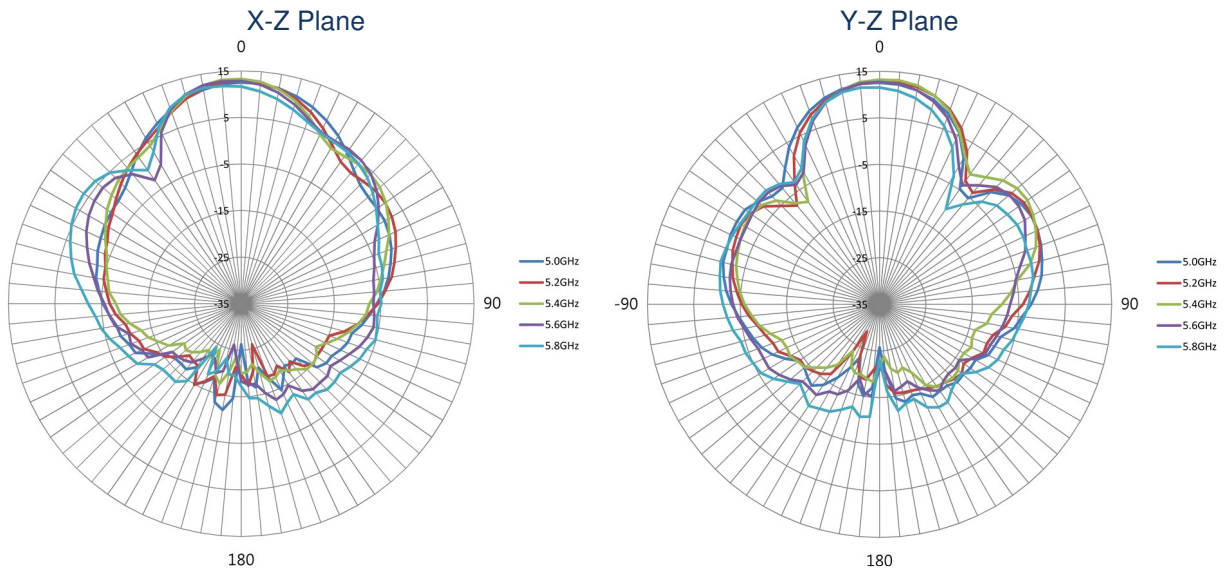


## ● Radiation Pattern

### ● PORT1



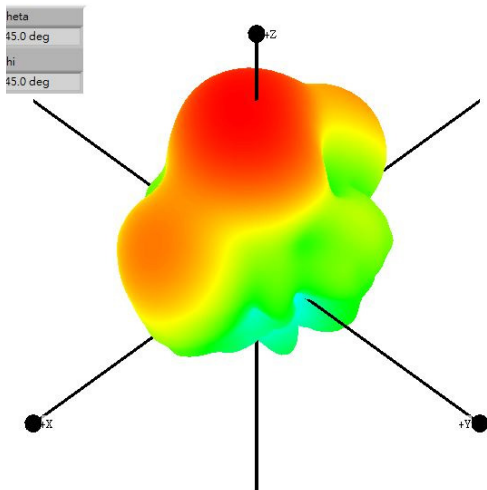
- PORT2



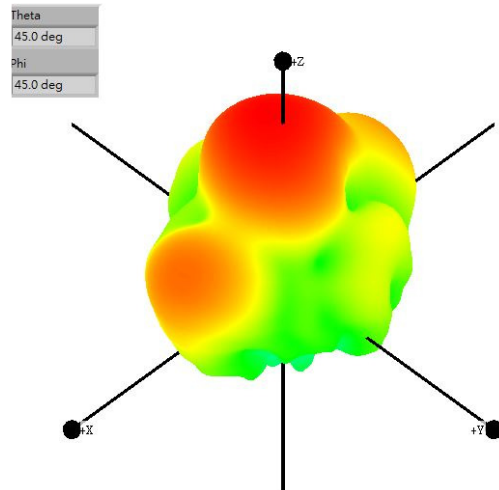
- 3D Radiation Pattern

- PORT1

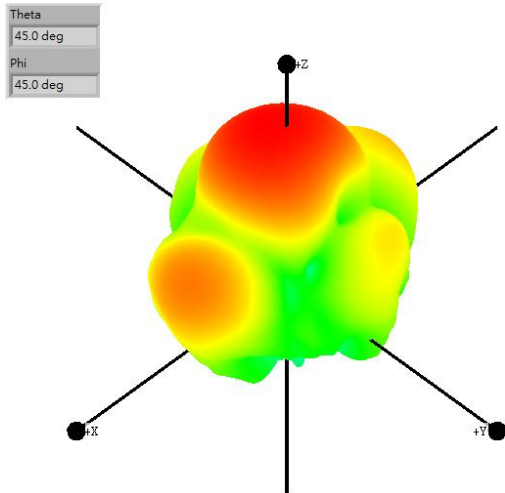
5.0GHz-Peak Gain: 11.2dBi



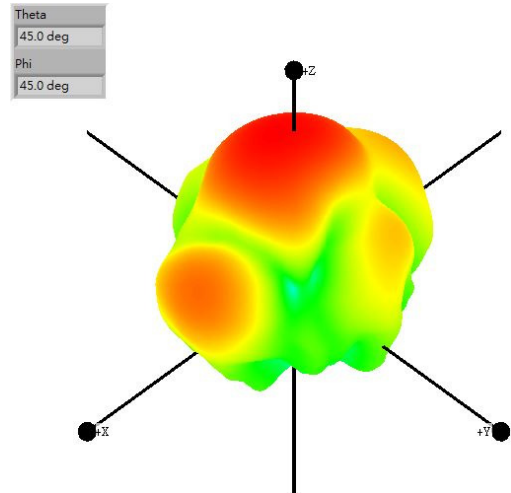
5.2GHz-Peak Gain: 12.6dBi



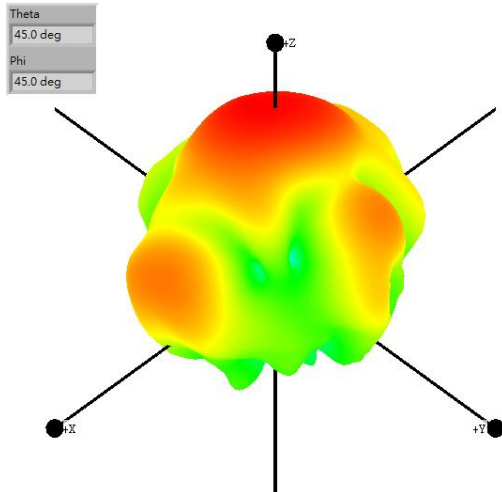
**5.4GHz-Peak Gain: 12.6dBi**



**5.6GHz-Peak Gain: 12.8dBi**

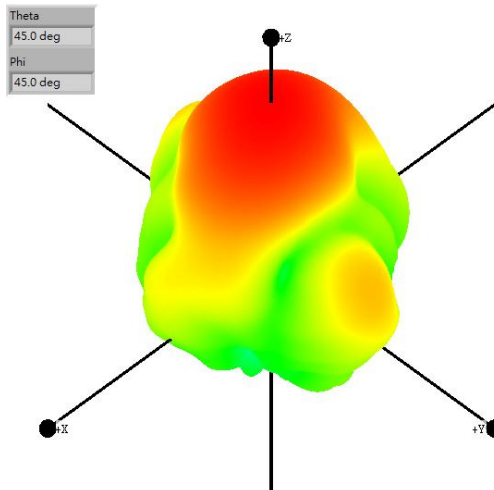


**5.8GHz-Peak Gain: 11.9dBi**

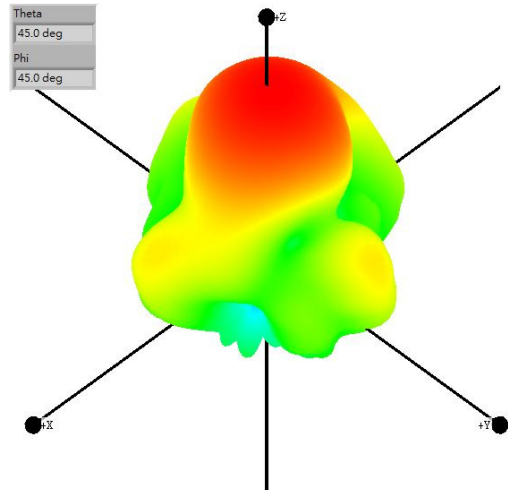


● **PORT2**

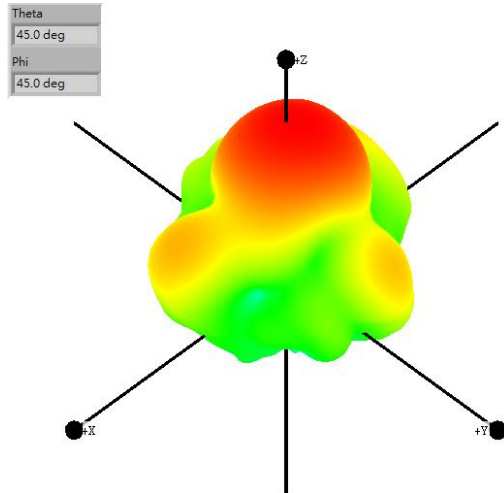
**5.0GHz-Peak Gain: 12.7dBi**



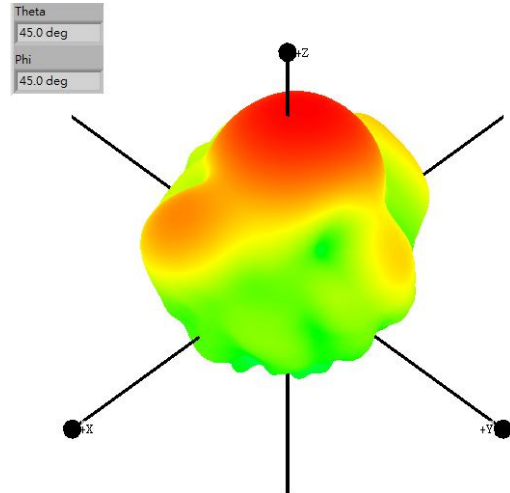
**5.2GHz-Peak Gain: 12.9dBi**



**5.4GHz-Peak Gain: 13.4dBi**



**5.6GHz-Peak Gain: 12.9dBi**



**5.8GHz-Peak Gain: 12.2dBi**

