

Features

- WiFi / Bluetooth
- Indoor Type
- 50 Ohm Impedance
- 2400-2500MHz
- Omni Radiation

Applications

- Bluetooth & IEEE 802.11a/b/g
- Wireless Communication
- Portable Device
- Machine To Machine Communication
- Network Devices



Part Numbering Guide

S AT IA 86A7I WF B1

SUNTSU

ANTENNA

INDOOR ANTENNA

PACKAGE SIZE*

86071 = 86.0mm x 7.8mm

APPLICATION

WF = WiFi

FREQUENCY

B1 = 2400-2500MHz

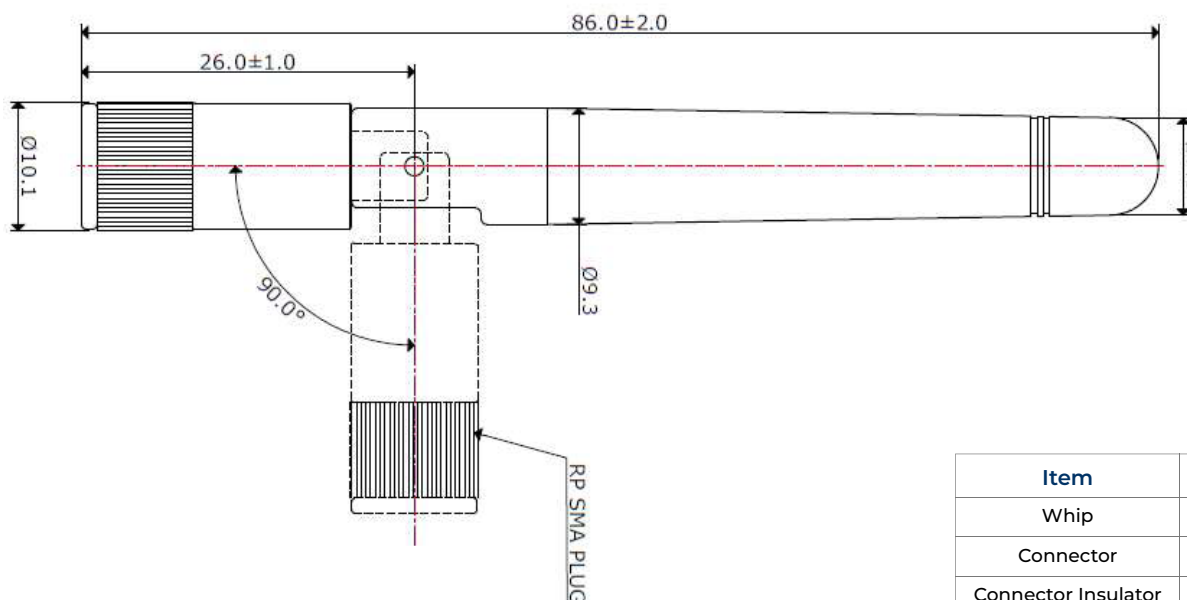


* Where letters denote decimal location (A=.0, B=.1, C=.2, etc.); e.g. B5=0.15, 3A5=3.05, 9A=9.0

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Band	MHz	2400		2500	
Impedance	Ω		50		
Polarization			Vertical		
Peak Gain	dBi		2.23	85	At 2450MHz
Efficiency	%		67		At 2450MHz
VSWR				2	At Center Frequency
Operating Temperature	°C	-20		65	

Outline Drawing

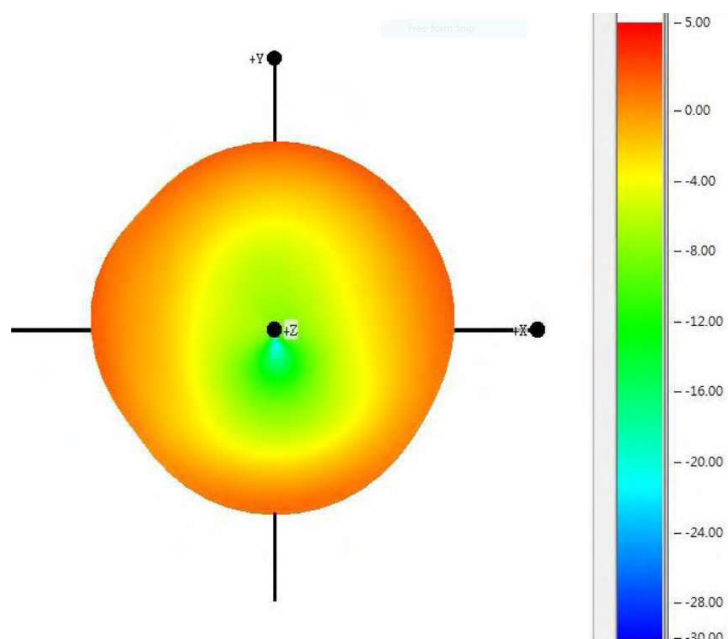
All dimensions are in millimeters (mm) unless otherwise noted.
 Drawings are not to scale.



Item	Material
Whip	TPE55D
Connector	Brass
Connector Insulator	Teflon

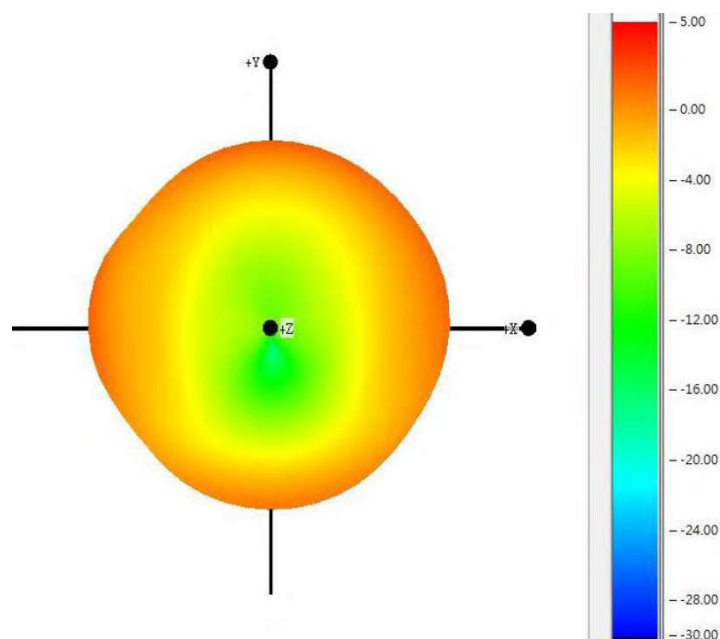
3D Radiation Pattern (Unit: dBi)

2400MHz



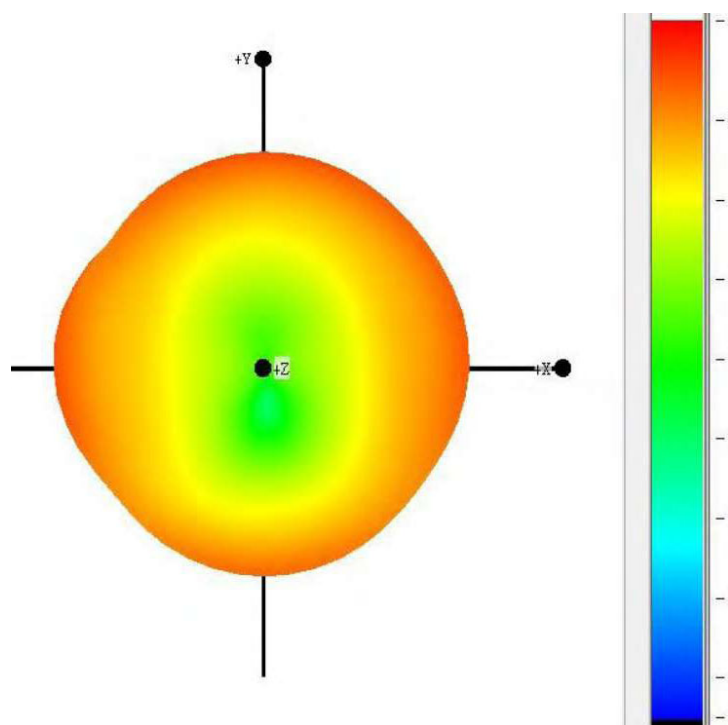
3D Radiation Pattern (Unit: dBi)

2450MHz

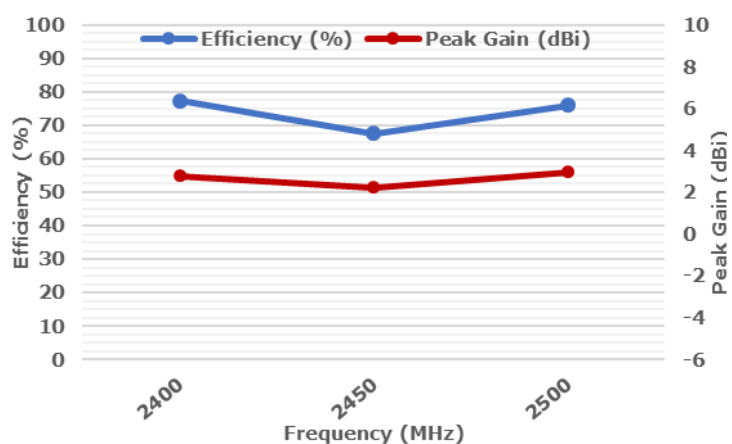


3D Radiation Pattern (Unit: dBi)

2500MHz



Efficiency vs Frequency



Frequency	2400	2450	2500
Efficiency	77.4	67.5	75.9
Peak Gain	2.79	2.23	2.95

Electrical Test

Return Loss

Tr3 S11 Log Mag 10.00dB/ Ref 0.000dB [F2]

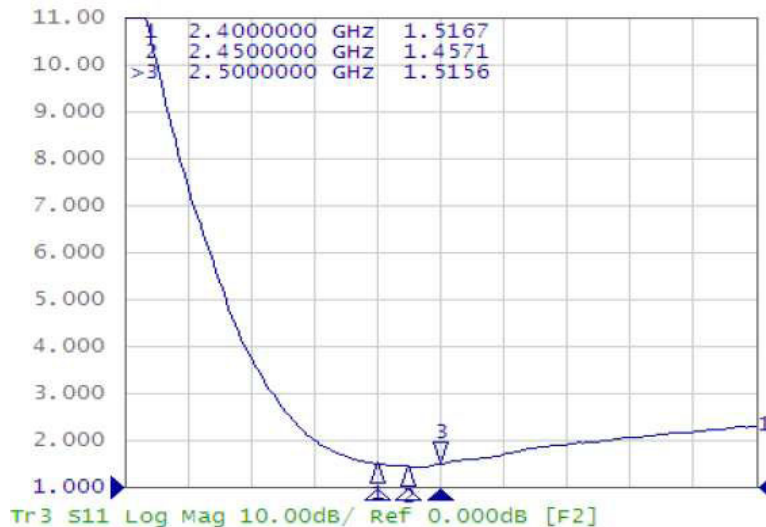


Electrical Test

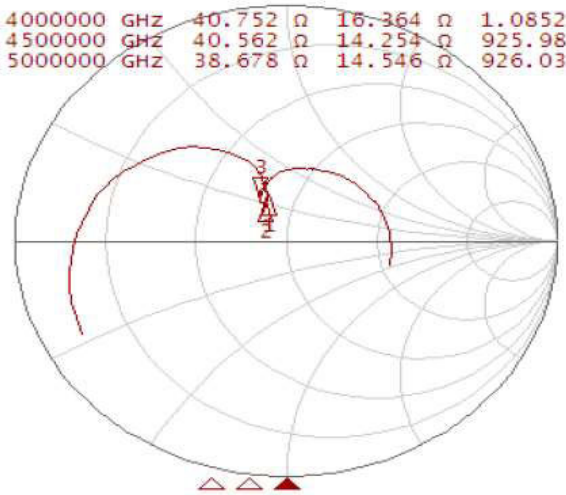
VSWR & Smith Chart

Tr1 S11 SwR 1.000/ Ref 1.000 [F2]

Tr2 S11 Smith (R+jX) Scale 1.000u [F2]



1	2.400000	GHZ	40.752	Ω	16.364	Ω	1.0852	nH
2	2.450000	GHZ	40.562	Ω	14.254	Ω	925.98	pH
>3	2.500000	GHZ	38.678	Ω	14.546	Ω	926.03	pH



Environmental & Mechanical Specifications

High Temperature Test	70°C for 48 hours, and then to normal temperature/humidity High Temperature Test for 24hours.
Low Temperature Test	-20°C for 48 hours, and then to normal temperature/humidity for 24hours.
Humidity Test	65°C / 90%RH for 48 hours, and then to normal temperature/humidity for 24hours.
Thermal Shock Test	-20°C for 30 min and +70°C for 30 min. 48 cycles, then expose to normal temperature/humidity for 24 hours or more.