



SUNNYWAY

SWE038

PN: SZ20228WB56



Features:

- Frequency bands from 600~6000MHz.
- Sustained High Efficiency and Performance.
- 193.00 x φ 13.00mm
- Impedance 50 Ohm.

Applications:

- Application of 5G/4G/3G/2G equipment
- Network Devices
- Security Terminals
- Router/CPE
- Gateways
- Others

Sunnyway Technology

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1. Electrical Specifications

Standards	5G&4G&3G&2G/NB-IoT/CAT M1		
	600~960MHz	1400~2700MHz	3000~6000MHz
Frequency range (MHz)	600~960MHz	1400~2700MHz	3000~6000MHz
Peak Gain (dBi)	-3.0~4.5	0.5~5.0	1.0~6.0
Average Gain (dB)	-7.0~-2.2	-5.7~-1.0	-6.0~-1.7
VSWR	< 5.0	< 4.0	< 4.0
Return Loss (dB)	< -3.5	< -5.0	< -5.0
Efficiency (%)	20.0~60.0	27.0~79.0	25.0~68.0
Polarization mode	Linear	Linear	Linear
Radiation pattern	Omni-Directional	Omni-Directional	Omni-Directional
Output impedance (Ω)	50	50	50
Max. Input Power(W)	5	5	5

2. Mechanical and Environmental Specification

Mounting Type	Connector Mount
Connector Type	SMA Male
Antenna size(mm)	193.00 x ϕ 13.00
Material	ABS
Operating Temperature (°C)	- 40 °C ~ + 85 °C
Storage Temperature(°C)	- 40 °C ~ + 85 °C

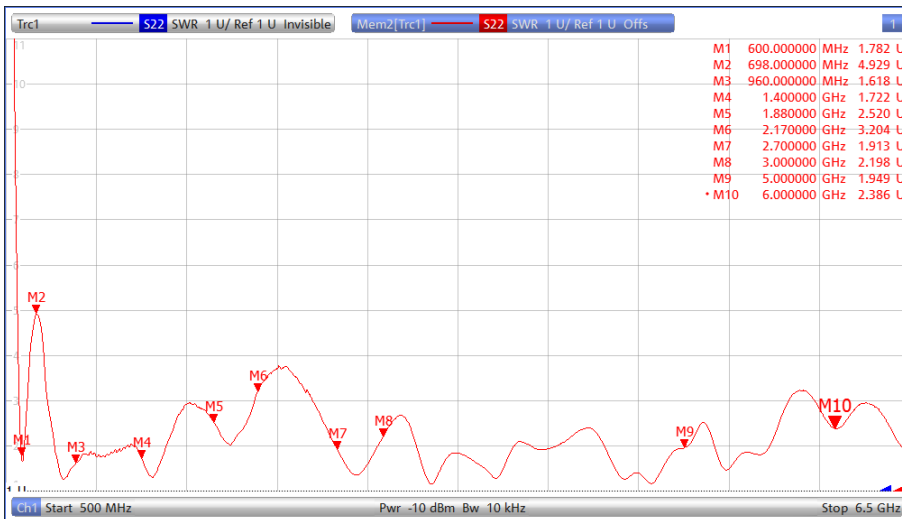


3. Antenna parameters

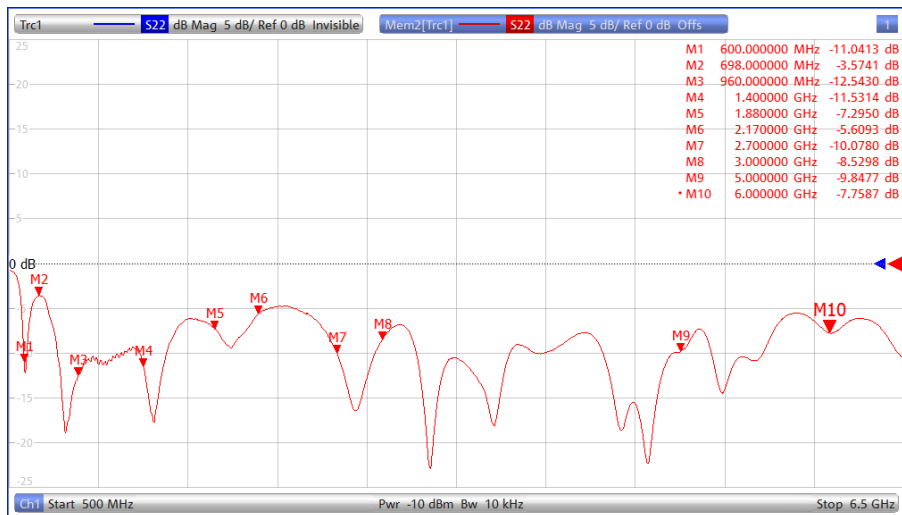
3.1 General Specification

FRE (MHz)	600	698	960	1400	1880	2170	2700	3000	5000	6000
VSWR	1.7	4.9	1.6	1.7	2.5	3.2	1.9	2.1	1.9	2.3
Return Loss	-11.0	-3.5	-12.5	-11.5	-7.2	-5.6	-10.0	-8.5	-9.8	-7.7
Eff (%)	20.0	35.2	55.7	78.9	49.3	29.8	35.8	46.2	58.5	65.5
Average	-7.0	-4.5	-2.5	-1.0	-3.1	-5.3	-4.5	-3.4	-2.3	-1.8

3.2 VSWR



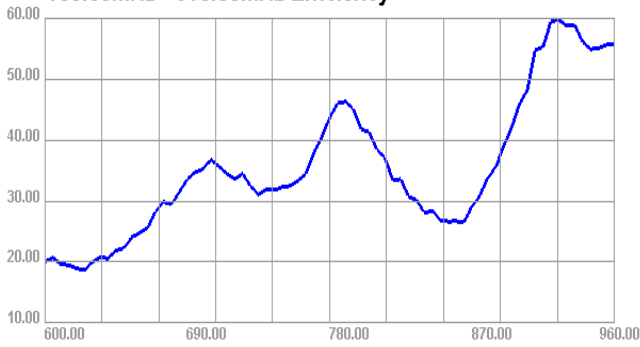
3.3 Return Loss



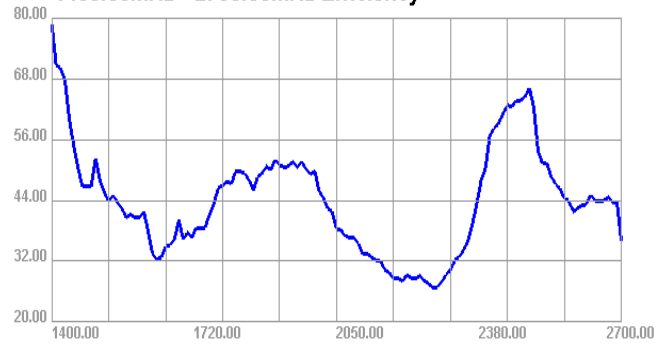


3.4 Efficiency

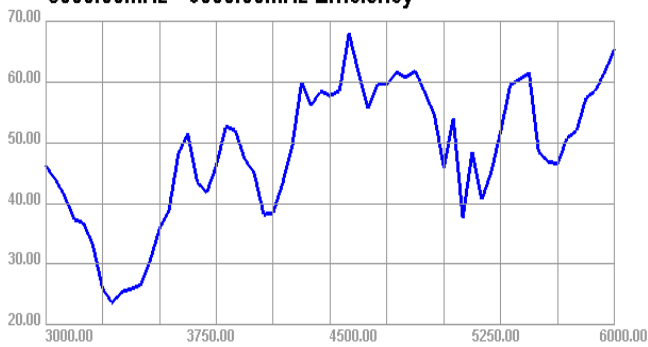
600.00MHz - 960.00MHz Efficiency



1400.00MHz - 2700.00MHz Efficiency

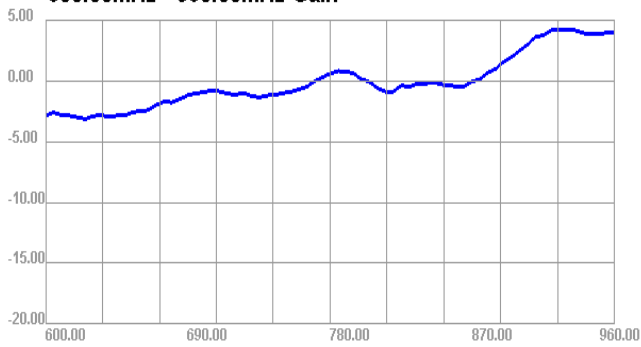


3000.00MHz - 6000.00MHz Efficiency

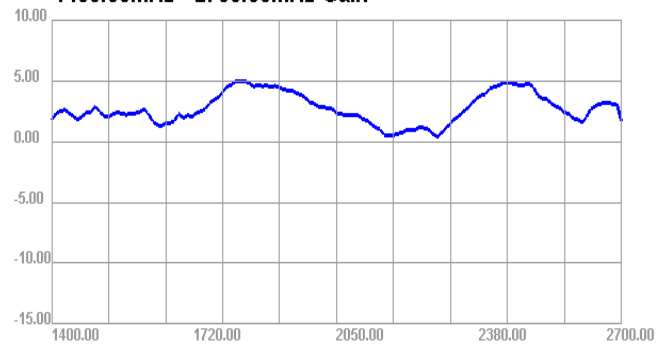


3.5 Gain

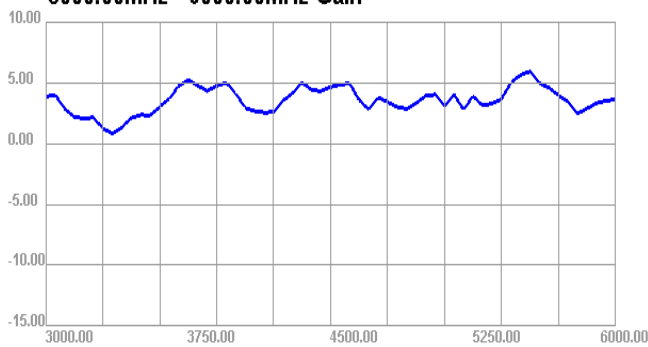
600.00MHz - 960.00MHz Gain



1400.00MHz - 2700.00MHz Gain



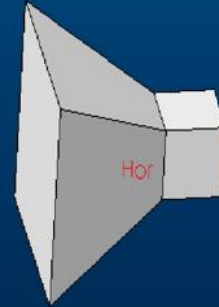
3000.00MHz - 6000.00MHz Gain



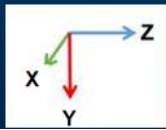


3.6 Directional pattern

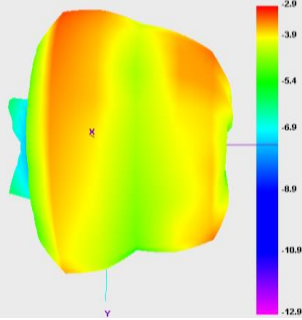
H plane: the tangent of XY
 E1 plane: the tangent of XZ
 E2 plane: the tangent of YZ



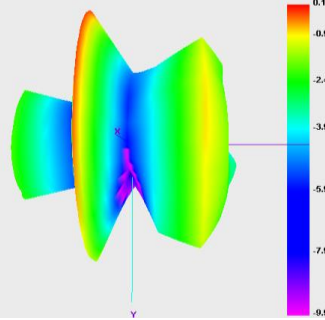
$\theta = 0$
 $\phi = 0$



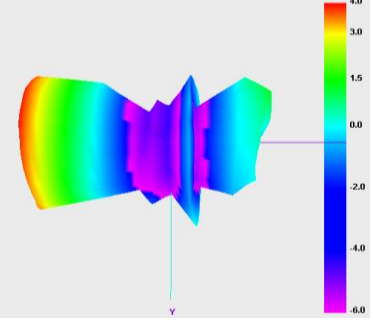
650.000MHz



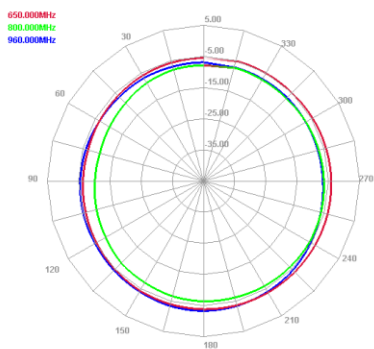
800.000MHz



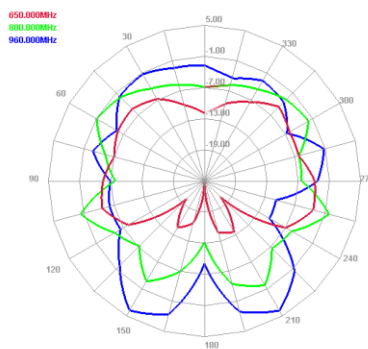
960.000MHz



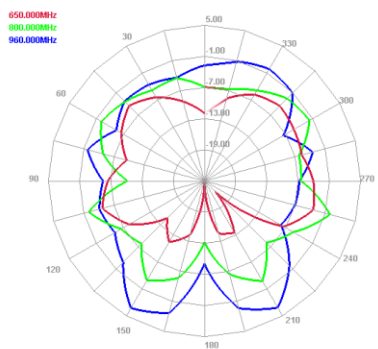
Horizontal

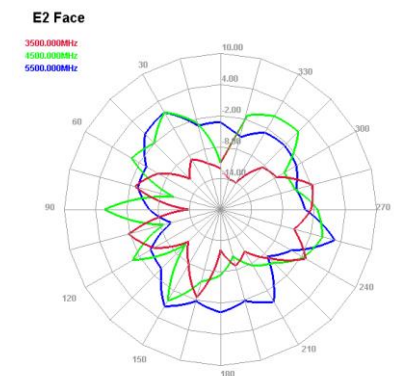
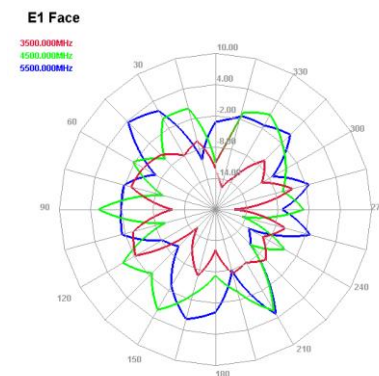
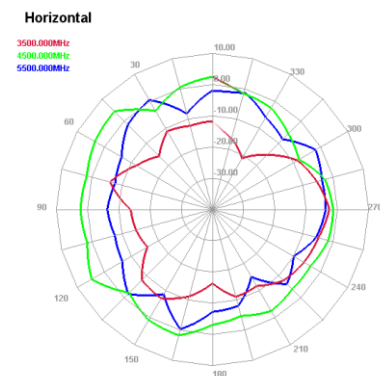
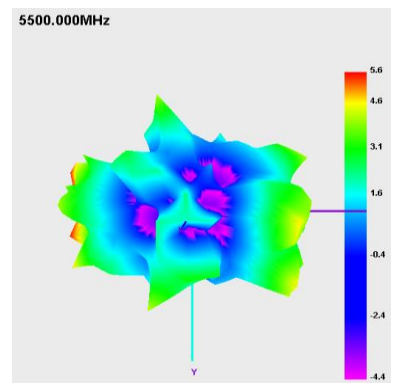
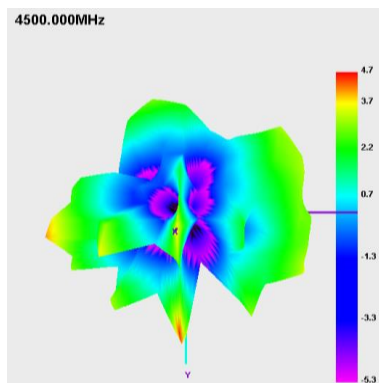
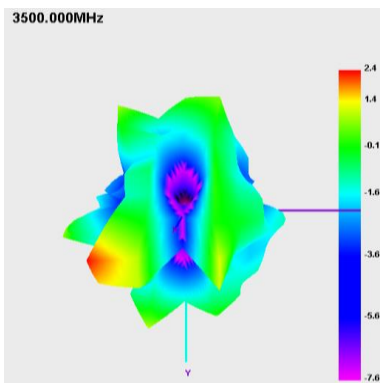
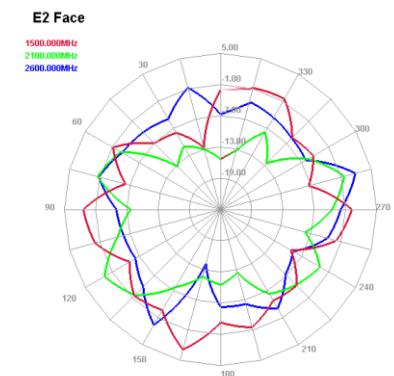
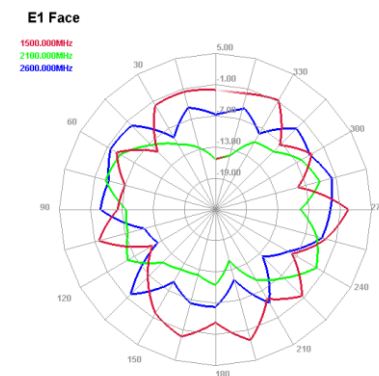
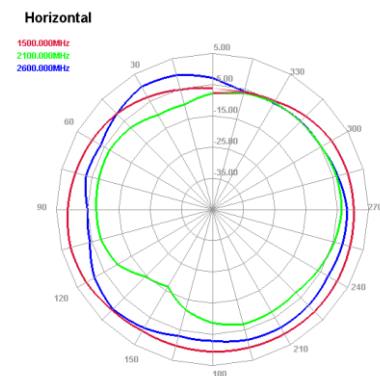
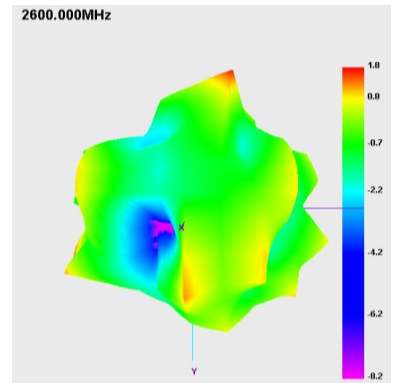
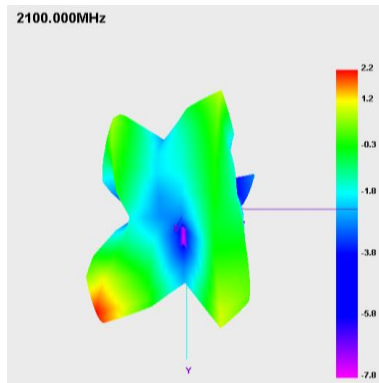
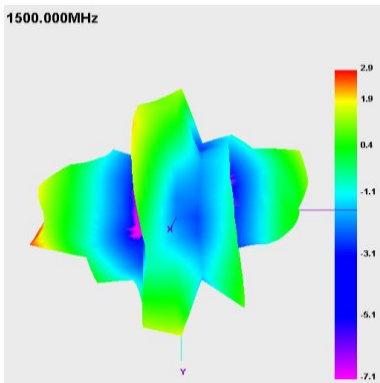


E1 Face



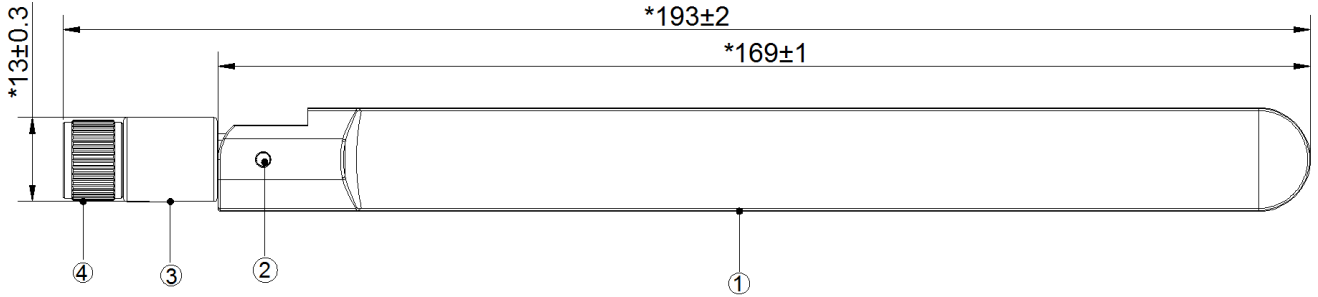
E2 Face







4. Antenna Drawing



Series	Component name	Specification	Color	Quantity
1	Rod set	ABS+PC	black	1
2	The rivet	POM	black	2
3	The solid	ABS	black	1
4	SMA	SMA-J	black	1