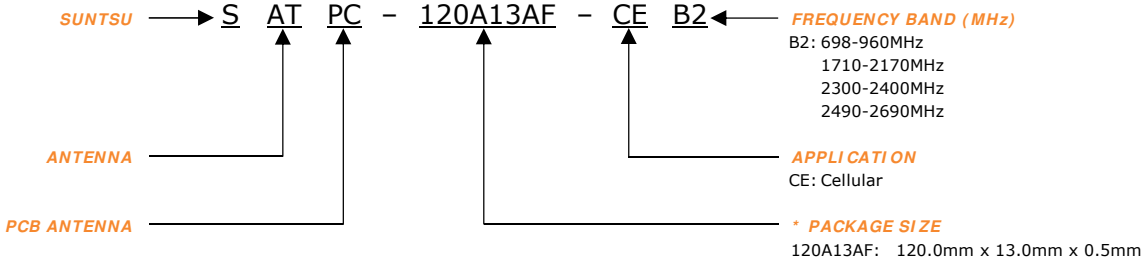
SATPC-120A13AF-CEB2

120.0mm x 13.0 x 0.5mm PCB ANTENNA

FEATURES	APPLICATIONS
- LTE Full Band/3G/GSM - PCB Type - Stable And Reliable Performance - 698-960, 1710-2170, 2300-2400 & 2490-2690MHz - Compact Size With Efficient Reception	- LTE Modem - Automotive Sensors - Smart Outdoor Devices - Machine To Machine Wireless Communication - Mobile Systems

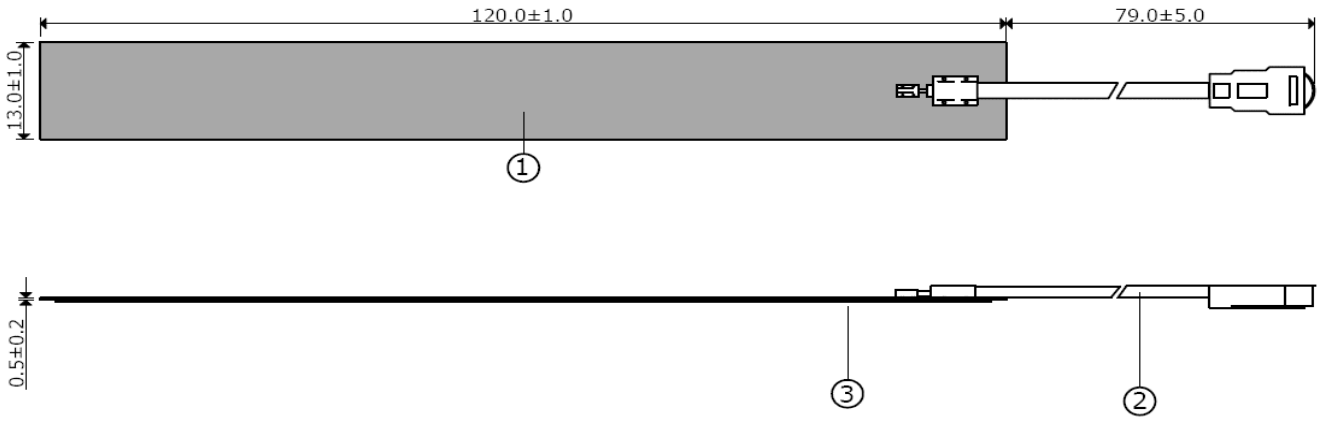
PART NUMBERING GUIDE



* Where letters denote decimal location A=.0, B=.1, C=.2, etc. Ex: B5=0.15, 3A5=3.05, 9A=9.0
To customize your parameters, contact a Suntsu representative.

ELECTRICAL PARAMETERS (At 25ºC)	UNITS	MIN.	TYP.	MAX	REMARKS
Frequency Band	MHz	698		960	
Impedance	Ω		50		
Polarization			Linear		
Peak Gain	dBi		2.8		At 824MHz
Efficiency	%		60		At 824MHz
Operating Temperature	ºC	-40		85	
Frequency Band	MHz	1710		2170	
Impedance	Ω		50		
Polarization			Linear		
Peak Gain	dBi		2.7		At 1950MHz
Efficiency	%		66.1		At 1950MHz
Operating Temperature	ºC	-40		85	
Frequency Band	MHz	2300		2400	
Impedance	Ω		50		
Polarization			Linear		
Peak Gain	dBi		3.2		At 2350MHz
Efficiency	%		69.5		At 2350MHz
Operating Temperature	ºC	-40		85	
Frequency Band	MHz	2490		2690	
Impedance	Ω		50		
Polarization			Linear		
Peak Gain	dBi		1.1		At 2590MHz
Efficiency	%		53.8		At 2590MHz
Operating Temperature	ºC	-40		85	

OUTLINE DRAWING (NOTE: All dimensions are in millimeters [mm], unless otherwise noted. Drawings are not to scale.)

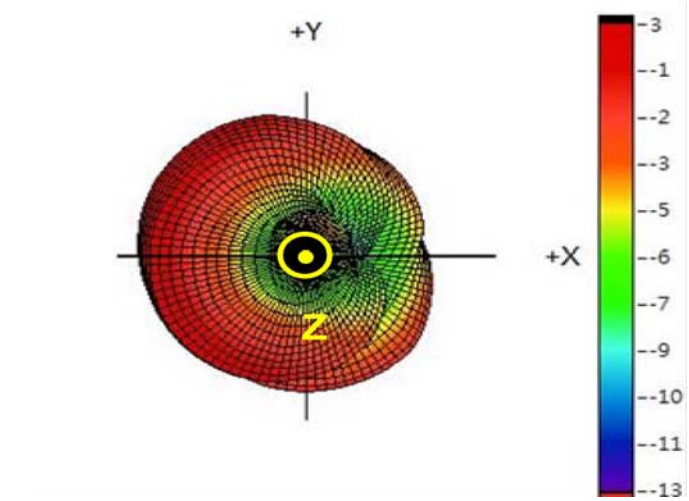


Item	Material
1	FR4 PCB
2	IPEX Connector and Cable with OD of 1.13
3	Adhesive Tape

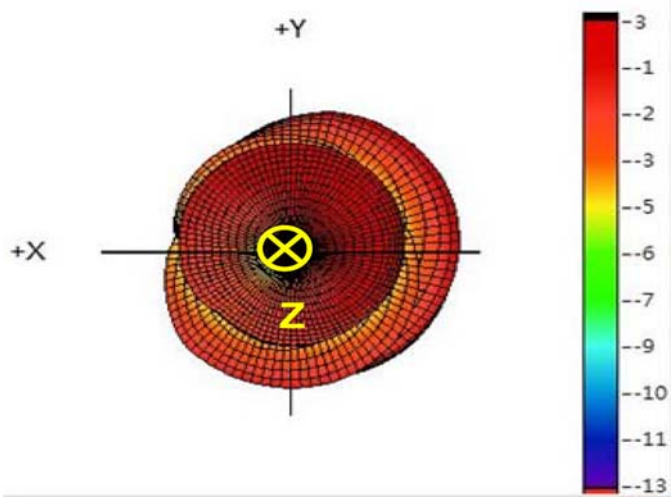
Telephone • 949.305.0220
Facsimile • 949.305.0221

3D RADIATION PATTERN (UNIT: dBi) AND EFFICIENCY vs FREQUENCY

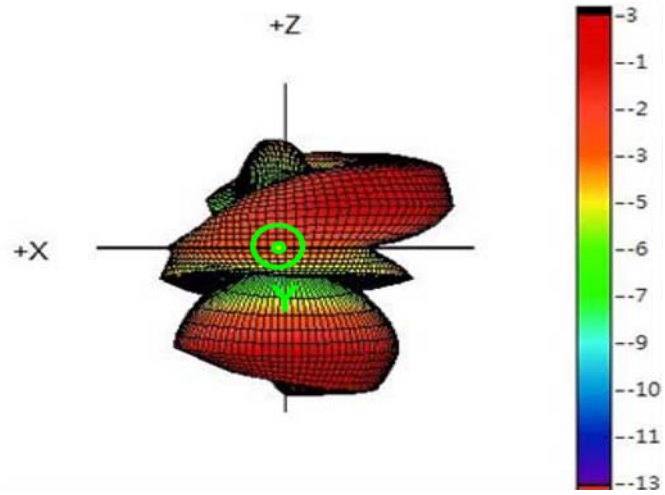
824MHz



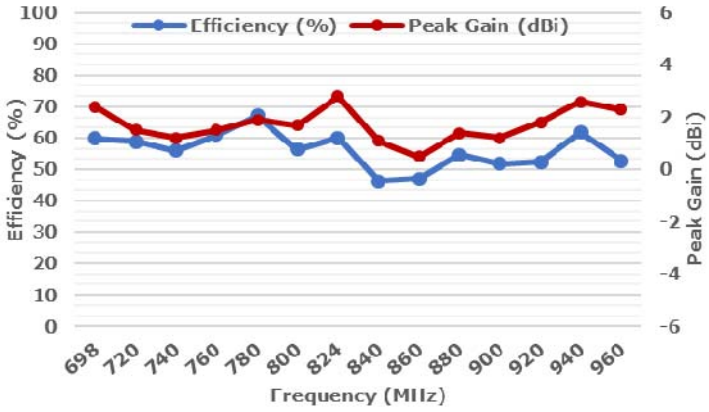
824MHz



824MHz

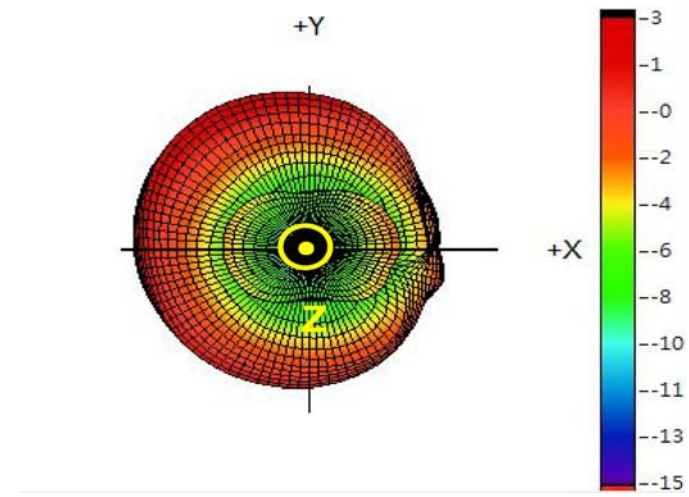


824MHz

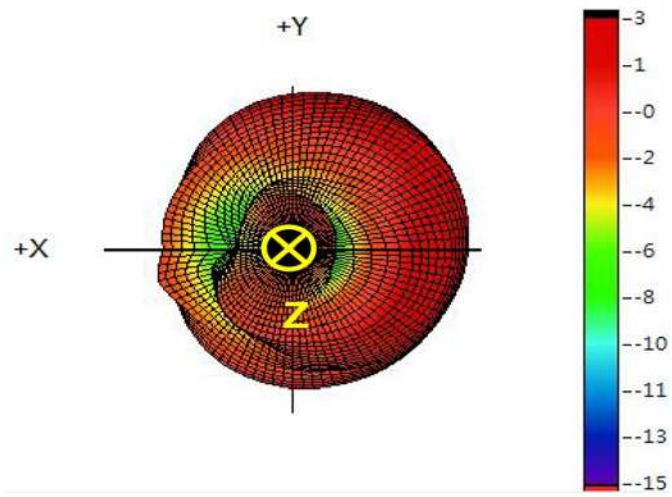


Freq.	698	720	740	760	780	800	824	840	860	880	900	920	940	960
Eff. (%)	59.8	58.9	56	61	67.1	56.4	60	46.2	47.1	54.7	51.9	52.4	61.8	52.7
P.G.	2.4	1.5	1.2	1.5	1.9	1.7	2.8	1.1	0.5	1.4	1.2	1.8	2.6	2.3

1950MHz

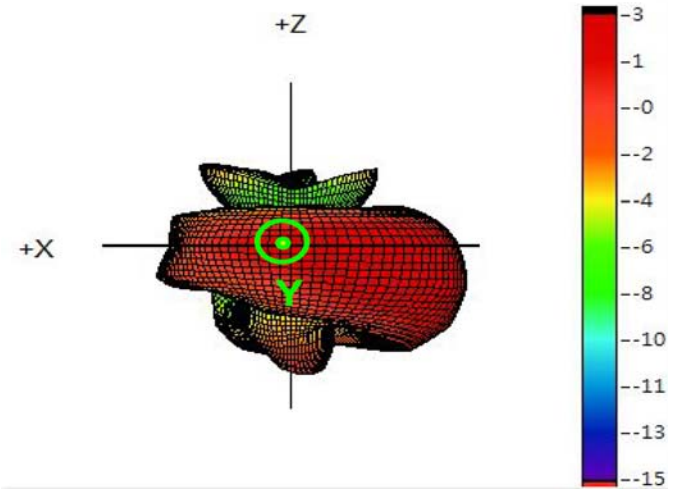


1950MHz

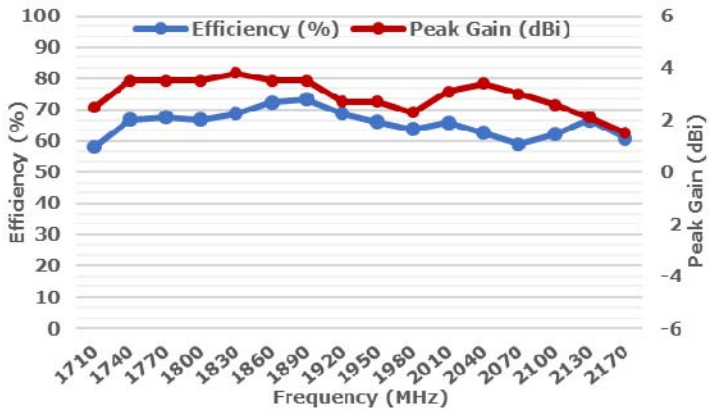


3D RADIATION PATTERN (UNIT: dBi) AND EFFICIENCY vs FREQUENCY

1950MHz

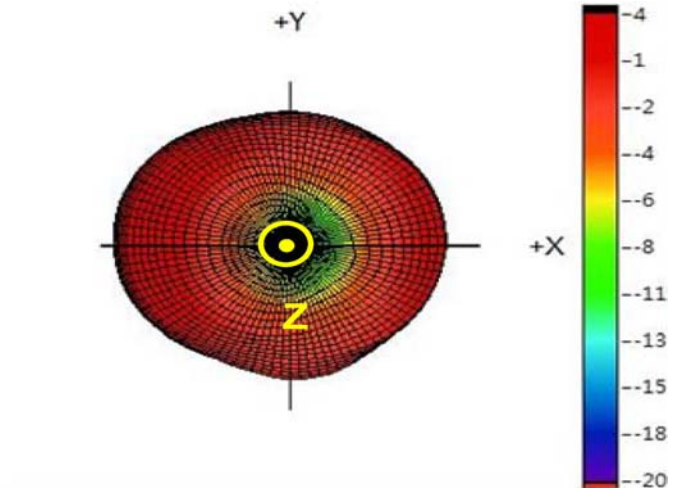


1950MHz

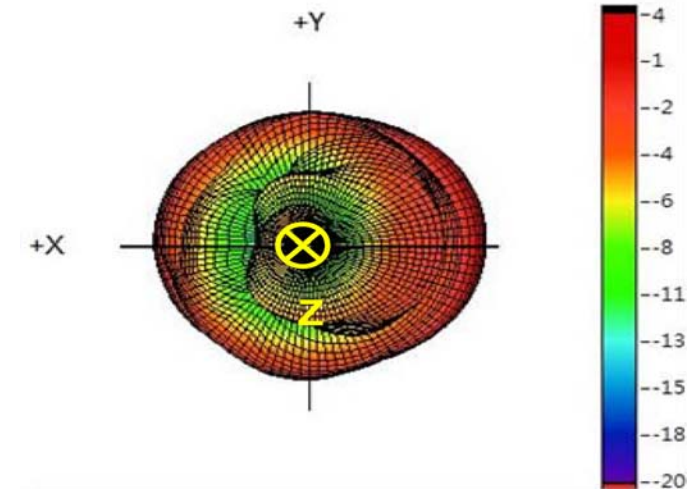


Freq.	1710	1740	1770	1800	1830	1860	1890	1920	1950	1980	2010	2040	2070	2100	2130	2170
Eff. (%)	58.2	66.8	67.5	66.7	68.7	72.3	73.3	68.7	66.1	63.7	65.8	62.5	59	62.1	66.5	60.8
P.G.	2.5	3.5	3.5	3.5	3.8	3.5	3.5	2.7	2.7	2.3	3.1	3.4	3	2.6	2.1	1.5

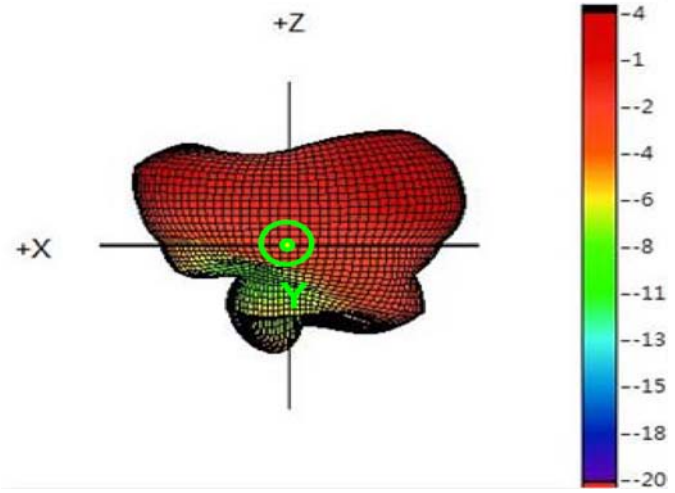
2350MHz



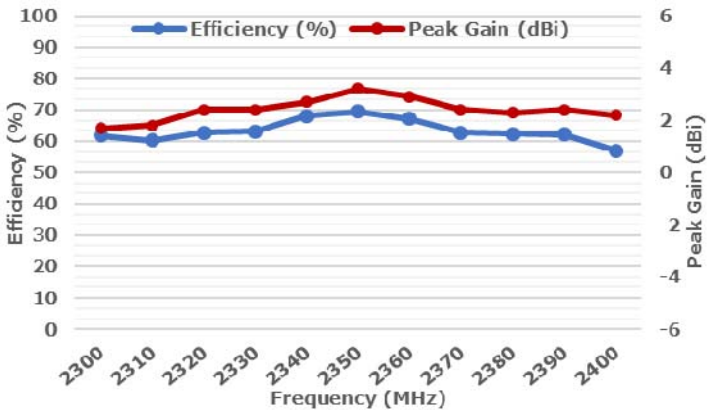
2350MHz



2350MHz



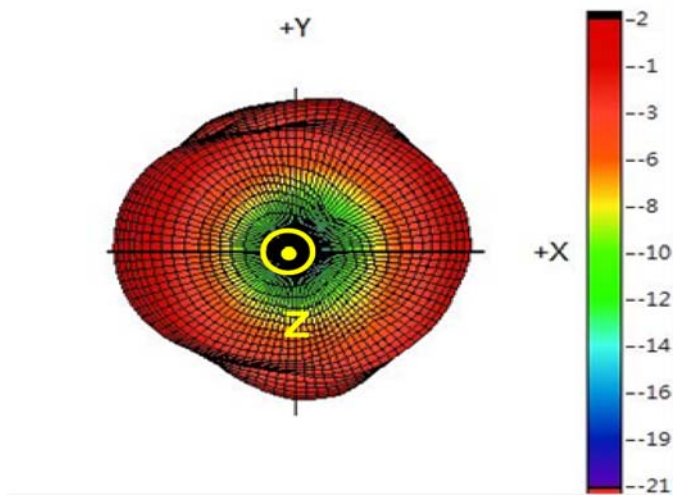
2350MHz



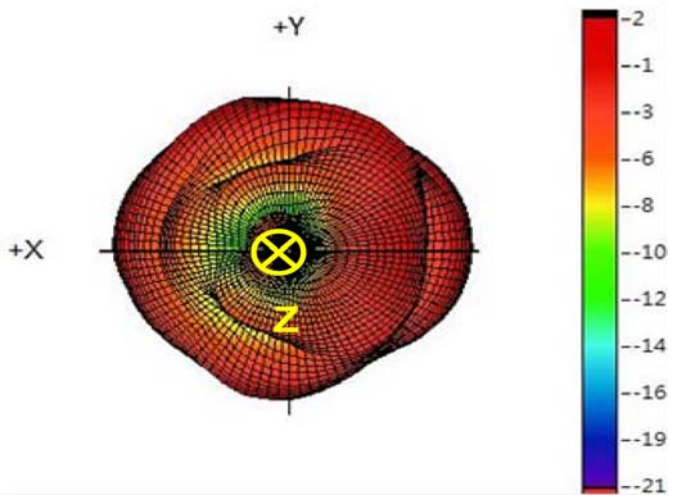
Freq.	2300	2310	2320	2330	2340	2350	2360	2370	2380	2390	2400
Eff. (%)	61.8	60.3	62.7	63.2	68.2	69.5	67.1	62.8	62.4	62.2	57
P.G.	1.7	1.8	2.4	2.4	2.7	3.2	2.9	2.4	2.3	2.4	2.2

3D RADIATION PATTERN (UNIT: dBi) AND EFFICIENCY vs FREQUENCY

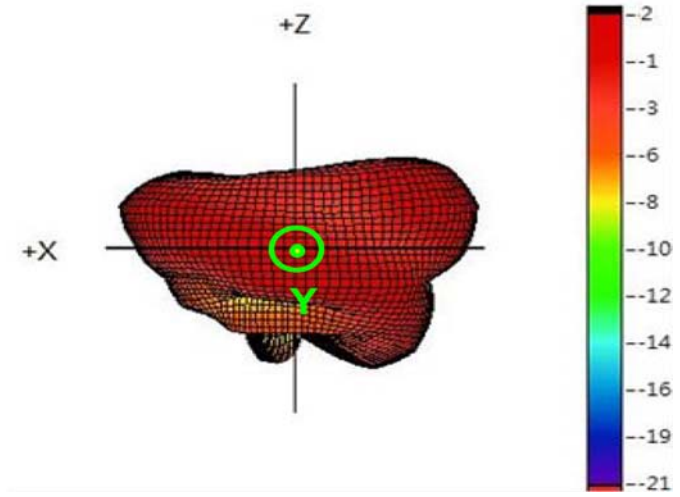
2590MHz



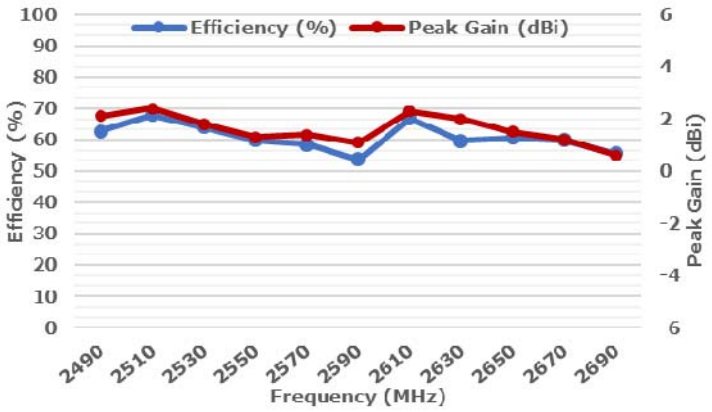
2590MHz



2590MHz



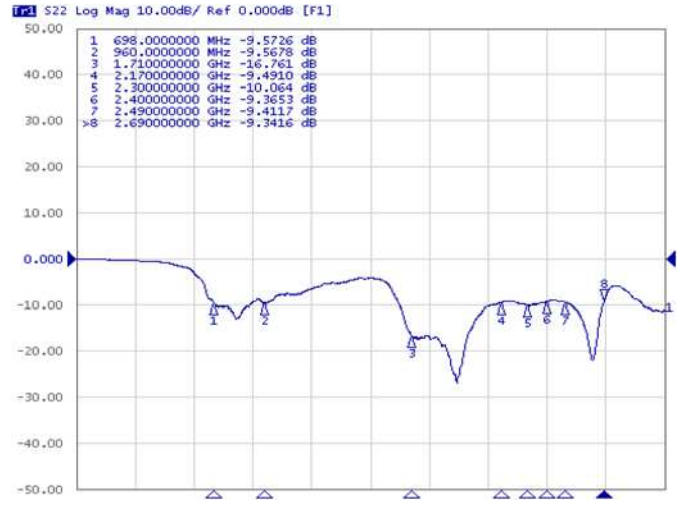
2590MHz



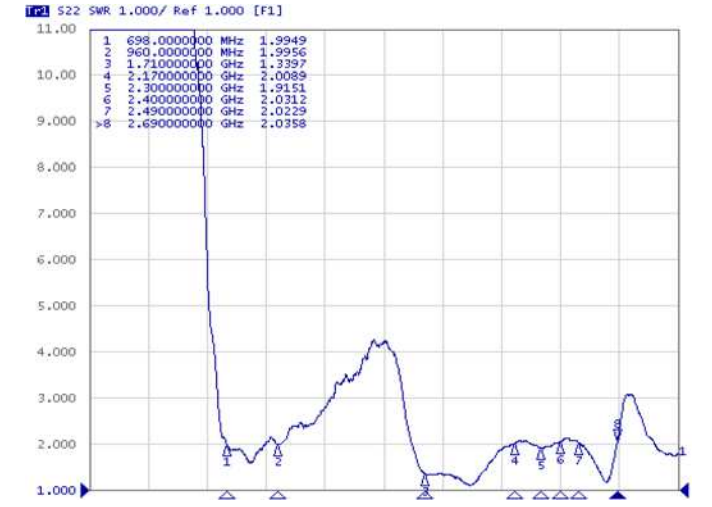
Freq.	2490	2510	2530	2550	2570	2590	2610	2630	2650	2670	2690
Eff. (%)	62.7	67.9	64	59.8	58.6	53.8	66.8	59.6	60.7	59.8	55.6
P.G.	2.1	2.4	1.8	1.3	1.4	1.1	2.3	2	1.5	1.2	0.6

ELECTRICAL TEST

RETURN LOSS



VSWR



ENVIRONMENTAL & MECHANICAL SPECIFICATIONS	
High Temperature Test	85°C for 500 hours, and then to normal temperature/humidity for 24hours.
Low Temperature Test	-30°C for 500 hours, and then to normal temperature/humidity for 24hours.
Humidity Test	85°C / 90-95% for 96 hours, and then to normal temperature/humidity for 24hours.
Thermal Shock Test	-30°C for 30 min and +85°C for 30 min. 5 cycles, then expose to normal temperature/humidity for 24 hours or more.
Vibration Test	5 to 200 to 5Hz, swept in 10min, 4.5G at max(2mm amplitude), in X and Y directions for 2 hours each and in Z direction for 4 hours.