

Preliminary

SPECIFICATION

Chip Antenna

Model No. : SENA_F0165

WRITTEN	CHECKED	APPROVED

Feb. 06, 2012

Notes

The contents of this data sheet are subject to change without notice. Please confirm the specifications and delivery conditions when placing your order.

1. SPECIFICATIONS

1.1. Electrical Specifications

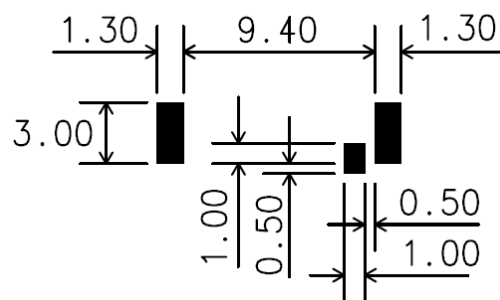
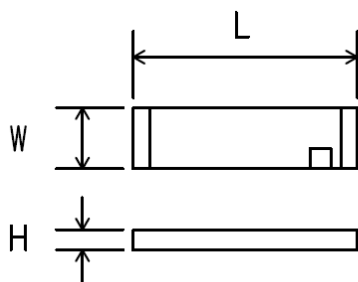
ITEM	SPEC.	Unit
Frequency	2400-2485	MHz
Bandwidth @ VSWR 2.5:1	100	MHz
Peak Gain	1	dBi
Polarization	Linear	
Azimuth Beam Pattern	Omni-directional	
Impedance	50	Ω

- These values are measured on the matched reference test board.

1.2. Mechanical Specifications

Electrode	Silver	
Dimensions (L x W x H)	11 x 3 x 1	mm
Operating Temperature	-45 ~ +85	°C

1.3. Dimension and PCB pattern



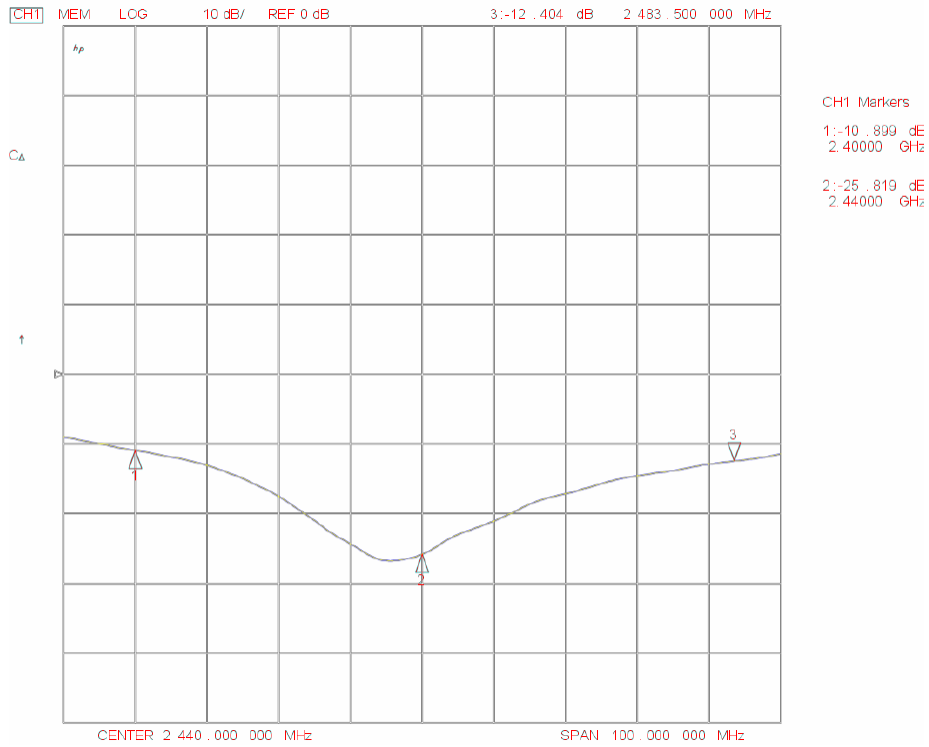
[Recommended PCB pattern]

Direction	Dimension	Unit
L	11	mm
W	3	mm
H	1	mm

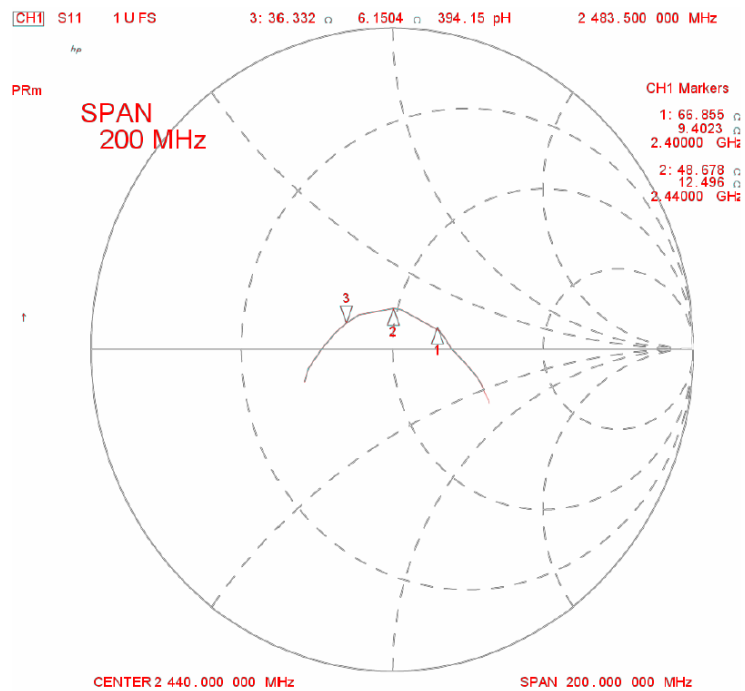
2. MEASUREMENT

2.1. Electrical Characteristic

A. S_{11} (Return Loss)

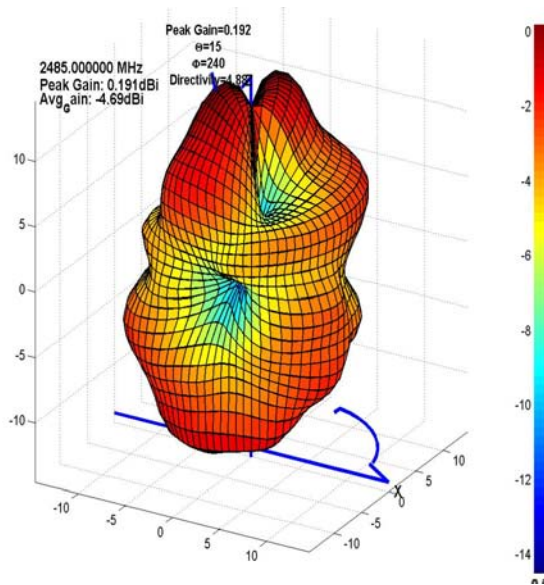
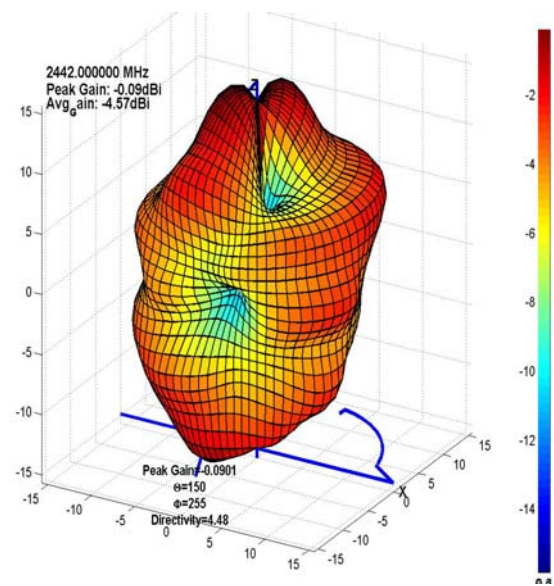
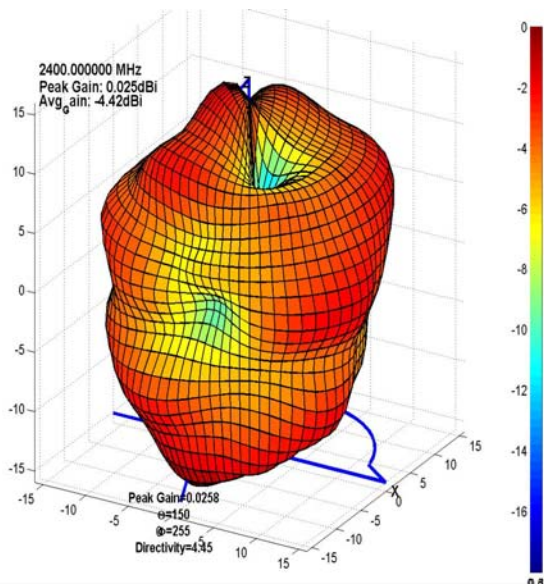


B. (Smith Chart)



3. Radiation Data

Frequency	Efficiency	Average Gain			Max Gain			Max Position	Directivity
		Ver	Hor	Total	Ver	Hor	Total		
2400.000000 MHz	36.1 %	-6.5 dBi	-8.6 dBi	-4.4 dBi	-1.0 dBi	-0.3 dBi	0.0 dBi	Theta150/Pie255	4.45 dB
2442.000000 MHz	34.9 %	-6.7 dBi	-8.7 dBi	-4.6 dBi	-1.7 dBi	-0.4 dBi	-0.1 dBi	Theta150/Pie255	4.48 dB
2485.000000 MHz	33.9 %	-7.0 dBi	-8.6 dBi	-4.7 dBi	-1.8 dBi	-0.8 dBi	0.2 dBi	Theta15/Pie240	4.88 dB



4. RELIABILITY TEST

No	Item	Test condition	Test Requirements
1	Thermal Shock (Temperature Cycle)	1. 1 cycle / step 1: $-40 \pm 3^{\circ}\text{C}$, 30 min step 2: $+85 \pm 3^{\circ}\text{C}$, 30 min 2. Number of cycle: 10 3. Measure after left for 48 hrs min. at room temperature	1. No visual damage 2. VSWR satisfy
2	High Temperature Resistance	1. Temperature: $+85 \pm 5^{\circ}\text{C}$ 2. Time: 96 hours 3. Measure VSWR _C after left for 24 hrs min. at room temperature	1. No visual damage 2. VSWR satisfy
3	Low Temperature Resistance	1. Temperature: $-40 \pm 5^{\circ}\text{C}$ 2. Time: 96 hours 3. Measure VSWR _C after left for 48 hrs min. at room temperature	1. No visual damage 2. VSWR satisfy
4	Humidity (Steady Condition)	1. Humidity: 85% RH 1. Temperature: $+85 \pm 3^{\circ}\text{C}$ 2. Time: 96 hours 3. Measure VSWR _C after left for 48 hrs min. at room temperature	1. No visual damage 2. VSWR satisfy
5	ESD	1. ESD Level: 8kV 2. Mode: Contact discharge 3. Number of cycle: 100 ※ Used Ref test PCB.	1. No visual damage 2. VSWR satisfy

5. SOLDERING RECOMMENDATIOIS

5.1. Reflow Soldering Profile

