

Approval Paper

Internal Antenna

Manufacturer: SUPREMA

MODEL: FSF2 ODB

PART No: FSF2 ODB BLE Antenna

page2 ----- Spec

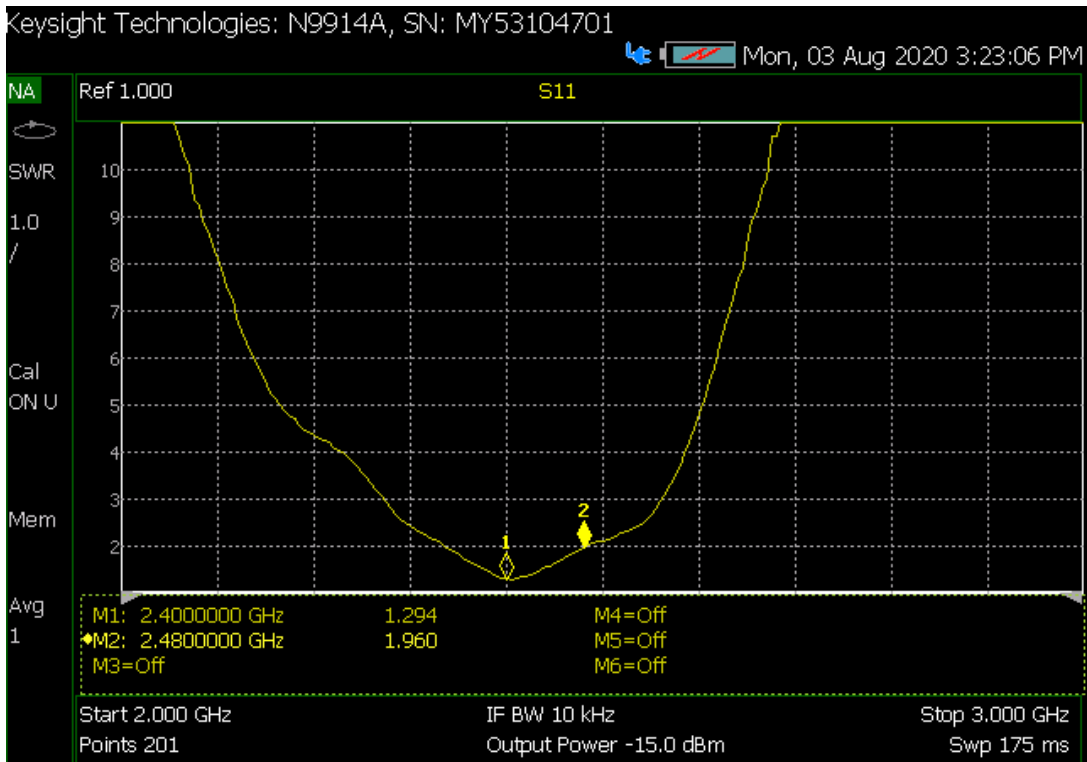
page3----- Electrical Performance Data

page4 ----- Drawing & picture

Spec

Band	2.4GHz ISM
Frequency	2.4~2.483GHz
VSWR	≤ 2.5
Peak Gain	4.02 ~ 5.35 dBi
Avg Gain	-3.87 ~ -3.13 dBi
Directivity	Directional
Polarization	Linear
Impedance	50 Ohms
TYPE	PCB(FR4) type PIFA

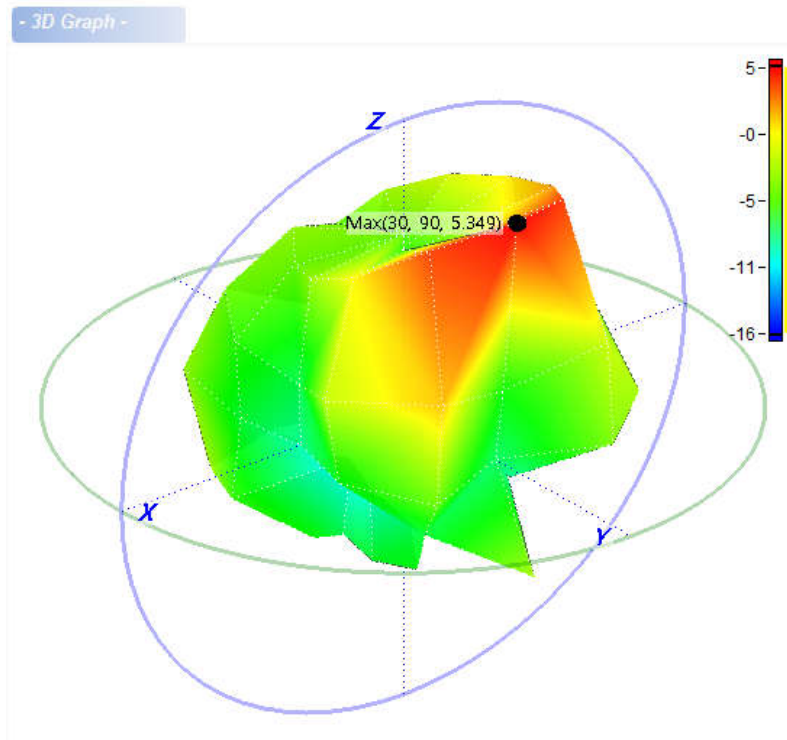
VSWR



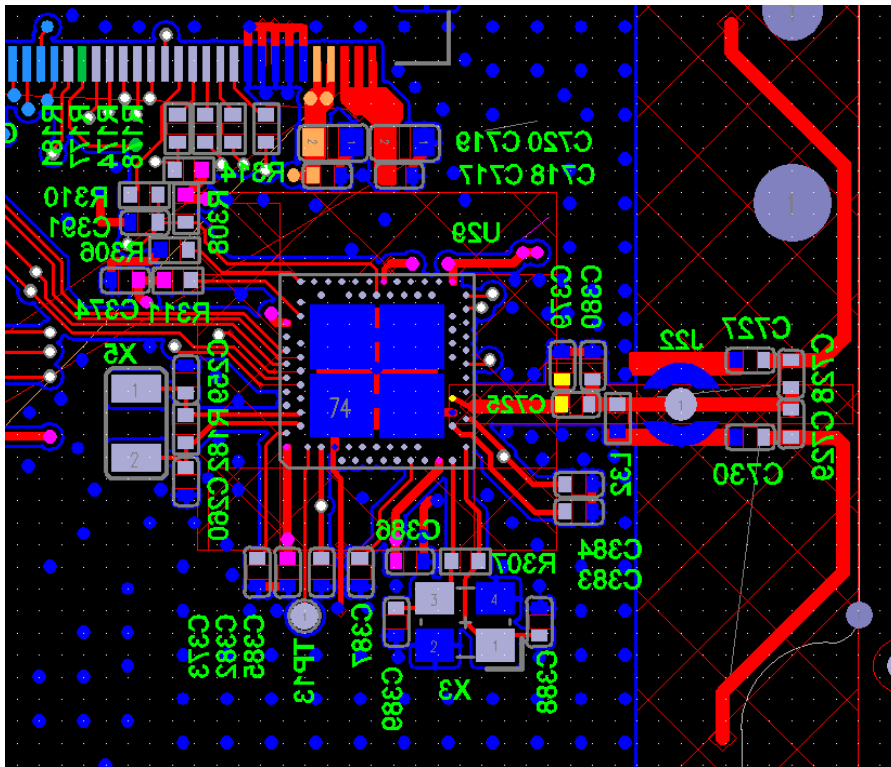
Radiation

No	Frequency	Peak Value		Minimum Value		Avg. Gain	Efficiency
	[MHz]	Value[dBi]	Degree	Value[dBi]	Degree	[dBi]	[%]
1	2400.00	5.35	30 / 90	-16.23	180 / 270	-3.13	48.64
2	2430.00	5.02	30 / 90	-14.86	180 / 270	-3.24	47.41
3	2460.00	4.48	30 / 90	-13.02	180 / 300	-3.50	44.71
4	2480.00	4.02	30 / 90	-15.63	150 / 0	-3.87	41.00

Pattern



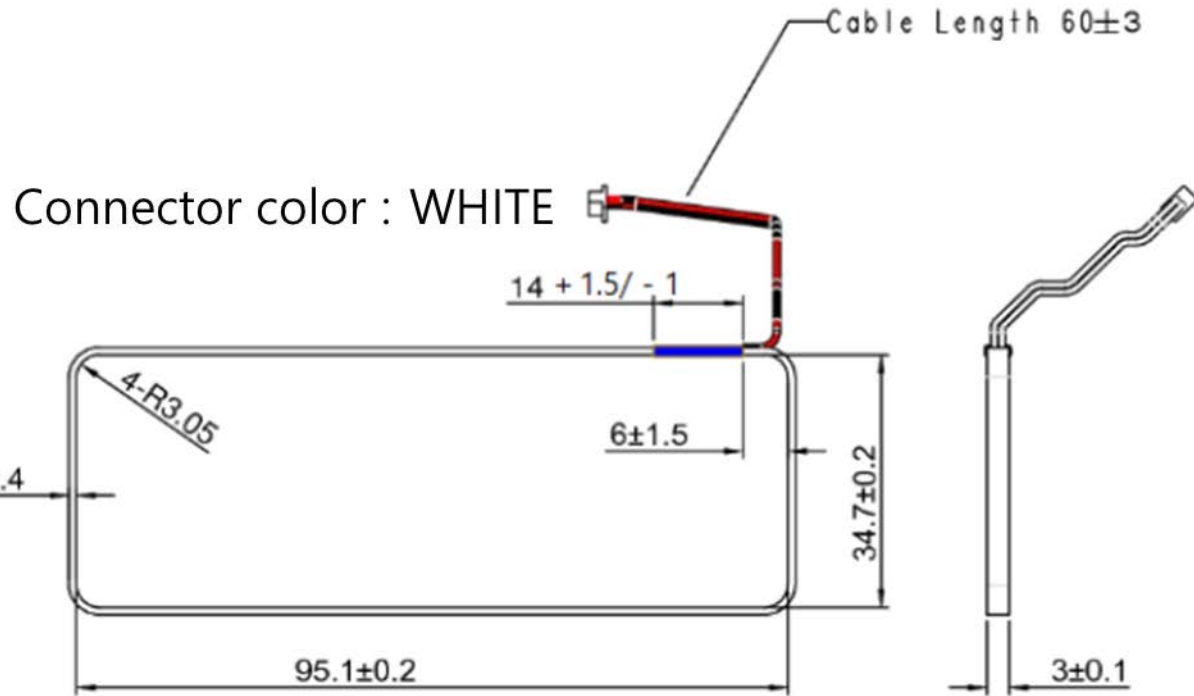
Drawing



Pictures



FSF2-ODB LF RFID Antenna Specification



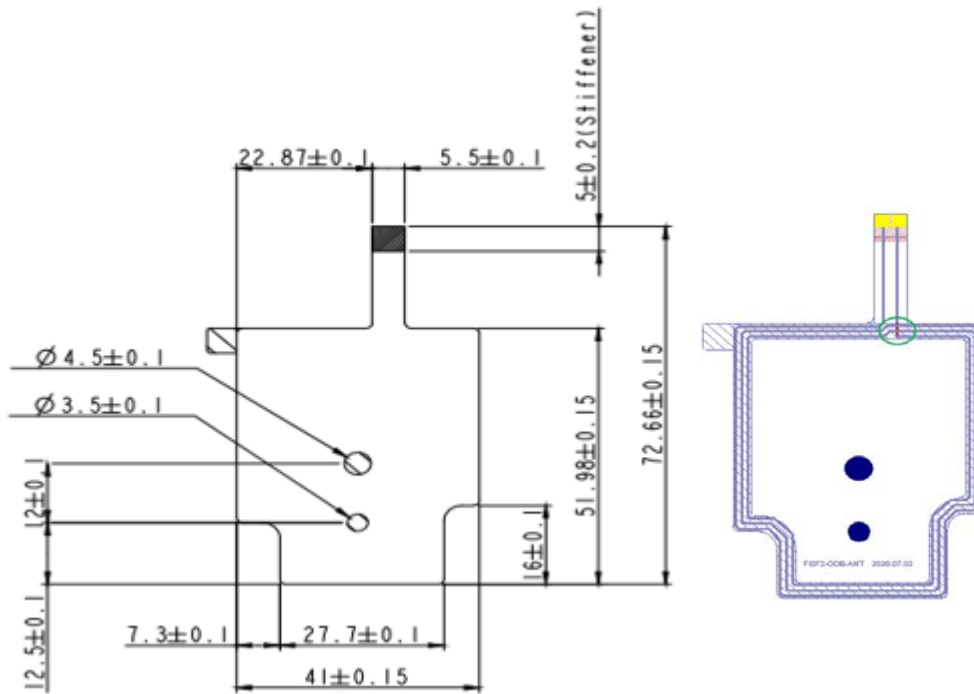
Note

Cable Length and Tolerance : $60\text{mm} \pm 3\text{mm}$
Connector of cable Ass'y need to use 12505HS-2
Thickness of cable & tape color : 28 AWG, Blue
RFID coil raw materials need to use SB-UEW 0.19Ø

Specification

Inductance : $400\mu\text{H} \pm 5\%$ (100KHz, 1V, LCR METER)
0.19Ø / 47turn ± 1 turn
Dimension : mm

FSF2-ODB HF RFID Antenna Specification



Specification

13.56MHz Antenna / 3turn

Dimension : mm