

Printed Inverted F Antenna

Data Sheet

Antenna Model Number: Printed Inverted F

Technical details of Antenna provided below:

Frequency	Antenna Type	Max Gain (dBi)	Impedance (Typical)
902-928 MHz	PCB Printed Inverted F Antenna	1.0	50 ohms

Dielectric constant: 4.3 +/-0.2 @ 1GHz.

Isolation between S6G2-MCM0 & PCB Printed IFA: S6G2-MCM0 RF Port is connected to Host Printed IFA without any RF pad attenuator in between.

Procedure for Antenna Design Verification: Below is the list of tests performed to verify Antenna's design performance.

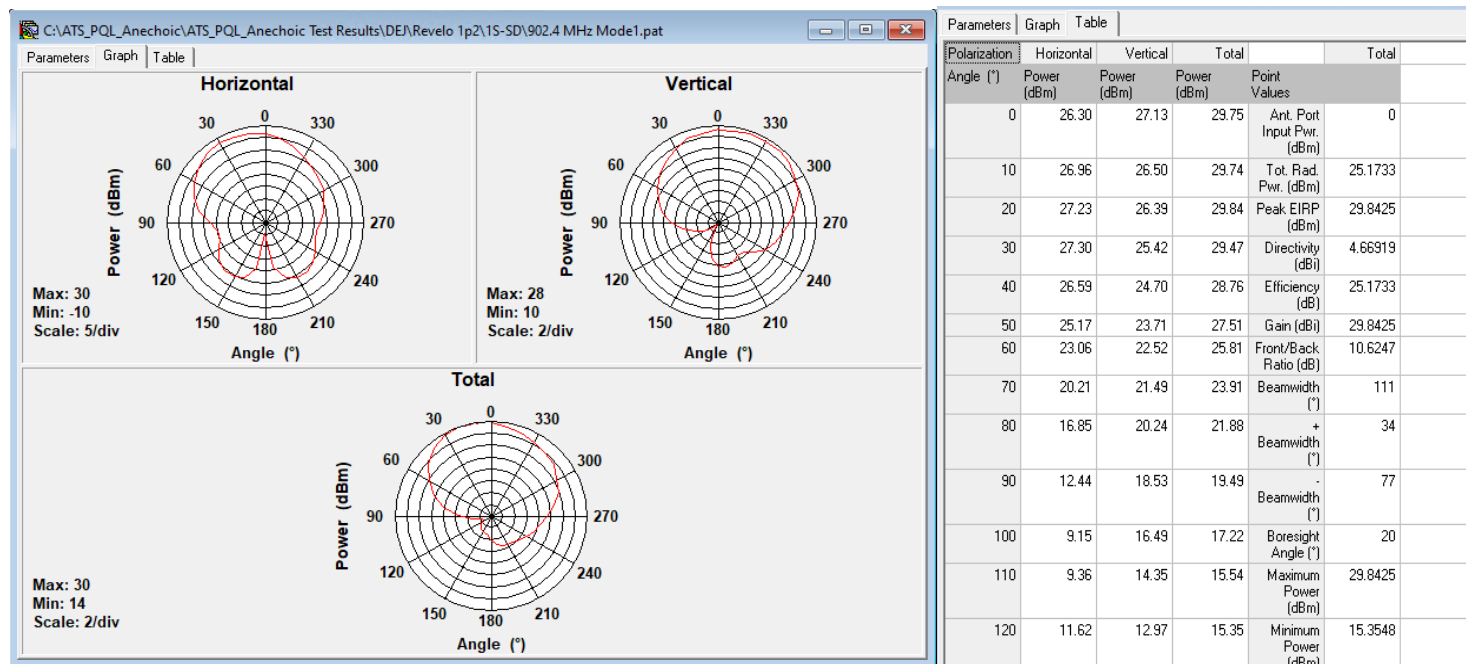
1. S-parameters characterization
2. Radiation Pattern Measurement
3. ERP measurement
4. Radiated Sensitivity measurement

Shown below are the dimensions of Printed Inverted F Antenna.

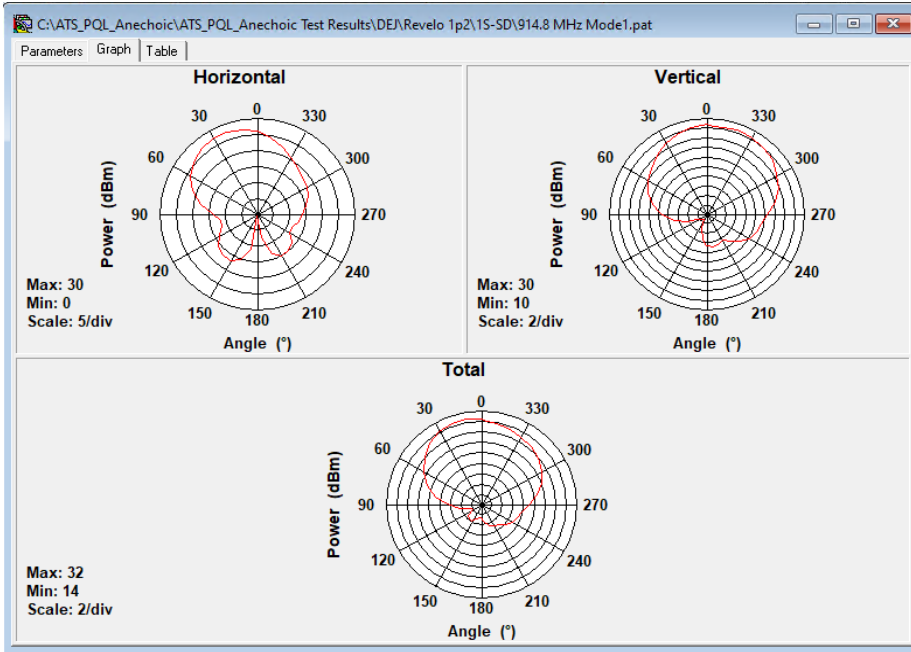
Radiation Pattern results of this Antenna are shown below.

Tx Radiated Power
PSET = 27 dBm
Mode = F2B50

Freq (MHz)
902.4

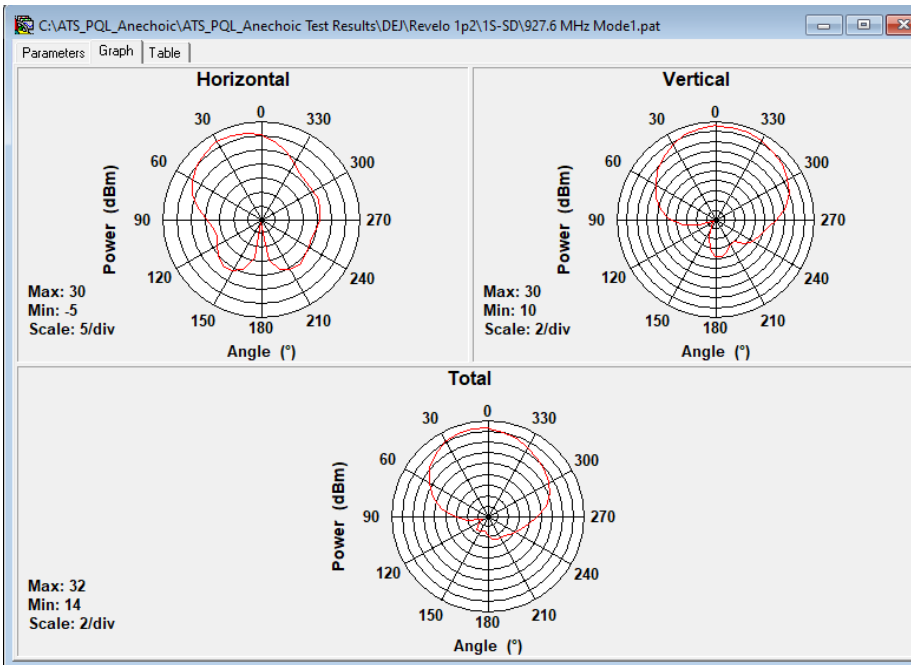


Freq (MHz)
914.8



Polarization	Horizontal	Vertical	Total	Point Values	Total
Angle (°)	Power (dBm)	Power (dBm)	Power (dBm)		
0	25.77	28.46	30.33	Ant. Port Input Pwr. (dBm)	0
10	26.56	28.12	30.42	Tot. Rad. Pwr. (dBm)	25.5765
20	27.05	27.50	30.30	Peak EIRP (dBm)	30.417
30	27.02	26.68	29.86	Directivity (dBi)	4.84047
40	26.44	25.75	29.12	Efficiency (dB)	25.5765
50	25.23	24.58	27.93	Gain (dBi)	30.417
60	23.35	23.69	26.53	Front/Back Ratio (dB)	13.1712
70	20.73	22.57	24.76	Beamwidth (°)	108
80	17.41	21.21	22.72	+ Beamwidth (°)	44
90	13.61	19.26	20.31	- Beamwidth (°)	64
100	11.30	16.95	17.92	Boresight Angle (°)	10
110	11.27	14.07	15.90	Maximum Power (dBm)	30.417
120	13.34	12.18	15.81	Minimum Power (dBm)	15.8123

Freq (MHz)
927.6



Polarization	Horizontal	Vertical	Total	Point Values	Total
Angle (°)	Power (dBm)	Power (dBm)	Power (dBm)		
0	24.96	29.02	30.46	Ant. Port Input Pwr. (dBm)	0
10	25.72	28.71	30.48	Tot. Rad. Pwr. (dBm)	25.6225
20	26.34	28.15	30.35	Peak EIRP (dBm)	30.479
30	26.55	27.39	30.00	Directivity (dBi)	4.85651
40	25.79	26.24	29.03	Efficiency (dB)	25.6225
50	24.65	25.25	27.97	Gain (dBi)	30.479
60	23.02	23.81	26.44	Front/Back Ratio (dB)	12.3508
70	20.69	22.65	24.79	Beamwidth (°)	106
80	17.62	21.07	22.69	+ Beamwidth (°)	44
90	14.34	19.19	20.42	- Beamwidth (°)	62
100	11.73	16.64	17.85	Boresight Angle (°)	10
110	11.41	13.18	15.39	Maximum Power (dBm)	30.479
120	13.05	10.80	15.08	Minimum Power (dBm)	15.0783