NANE38X153WTJC1R700G1MF

4G LTE Whip External Antenna

9001:2015 CERTIFIED

ROHS/REACH COMPLIANT HALOGEN FREE

NIC Components Corp.

Description

The NANE38X153WTJC1R700G1MF is an External Whip antenna designed for 4G LTE applications. It operates within the frequency ranges of 698 ~ 960MHz and 1710 ~ 2690 MHz making it perfect for Smart meters, Gateways, and Routers

Features

- 4G LTE protocol
- Up to 90° Flexibility
- RoHS Complaint

Specifications

Electrical	
Frequency Range	698 ~ 960 MHz 1710 ~ 2690 MHz
Polarization	Linear
Gain	5.0 dBi @ Zenith
VSWR	< 3.0
Polarization	Linear
Impedance	50 Ω
Material of Plastic	ABS
Connector	SMA Male
Environmental	
Operating Temperature	-40°C~+85°C
ROHS Compliant	Yes

NANE38X153WTJC1R700G1MF

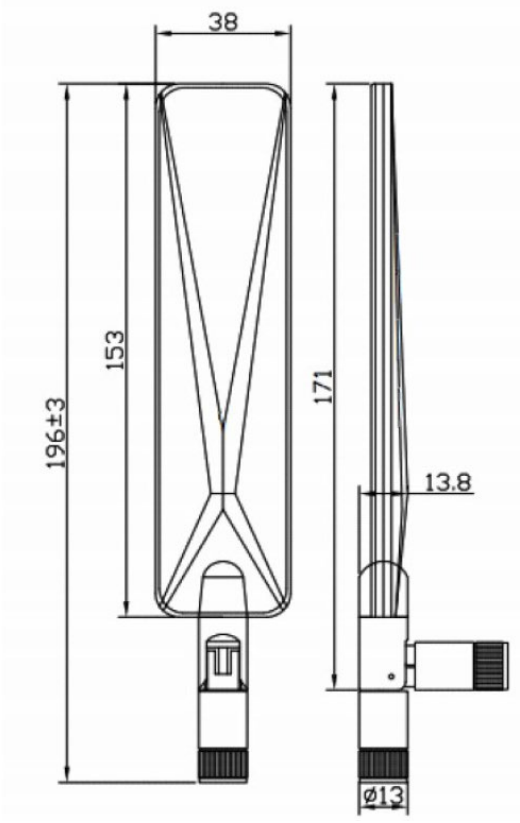
4G LTE Whip External Antenna

Part Number Breakdown

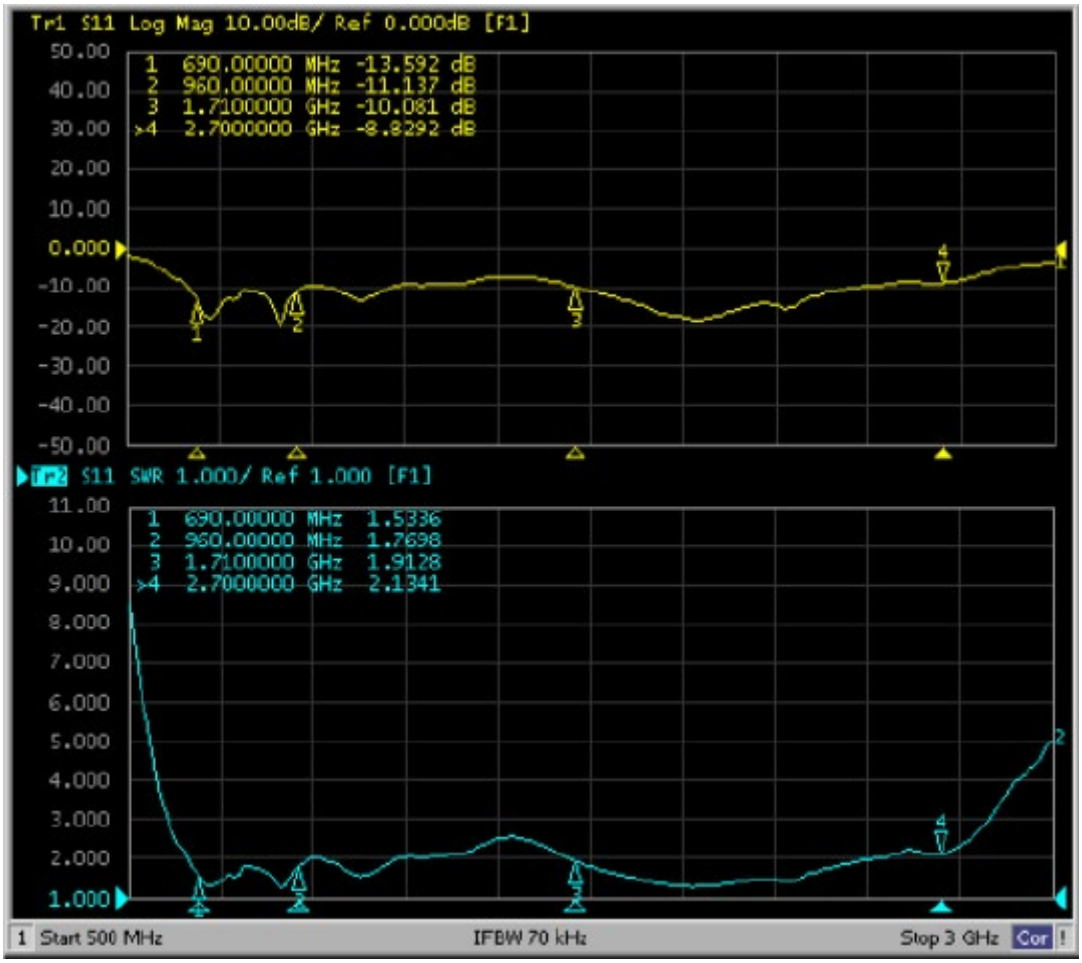
NANE 38X153 W T J C 1R700G 1 M F

- NANE — Series
- 38X153 — Dimensions
- W — Whip Antenna
- T — Tilt
- J — Internal Production Code
- C — Protocol Code
- 1R700G — Center Frequency
- 1 — Number of Frequency Bands
- M — SMA Male Connector
- F — RoHS Compliant

Dimensions



S Parameter Test Data



Radiation Patterns Test Data

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
690	41.35	-3.84	-1.12	-3.27	-1.12	-14.93	3.84	60	38.96	38.58
700	69.26	-1.6	1.12	-1.03	1.12	-15.23	1.6	30	38.67	38.35
710	83.52	-0.78	2.14	-0.01	2.14	-11.06	0.78	15	38.56	38.31
720	79.53	-0.99	2.23	0.08	2.23	-10.01	0.99	15	37.98	37.82
730	80.62	-0.94	2.46	0.31	2.46	-9.97	0.94	15	37.83	37.7
740	83.39	-0.79	2.62	0.47	2.62	-10.1	0.79	15	37.76	37.64
750	80.68	-0.93	2.48	0.33	2.48	-10.69	0.93	15	37.77	37.66
760	80.61	-0.94	2.37	0.22	2.37	-10.6	0.94	15	37.93	37.81
770	64.06	-1.93	1.6	-0.55	1.6	-10.39	1.93	15	37.24	37.1
780	60.09	-2.21	1.66	-0.49	1.66	-10.88	2.21	15	37.19	37.03
790	64.77	-1.89	2.19	0.04	2.19	-10.87	1.89	15	37.73	37.56
800	65.5	-1.84	2.27	0.12	2.27	-9.27	1.84	0	37.94	37.73
810	60.76	-2.16	1.9	-0.25	1.9	-8.11	2.16	0	37.96	37.73
820	54.87	-2.61	1.38	-0.77	1.38	-8.54	2.61	0	38.16	37.9
830	55.72	-2.54	1.33	-0.82	1.33	-8.7	2.54	0	38.49	38.22
840	50.08	-3	0.74	-1.41	0.74	-10.13	3	0	38.52	38.25
850	52.52	-2.8	0.76	-1.39	0.76	-11.06	2.8	0	38.8	38.54
860	52.63	-2.79	0.51	-1.64	0.51	-11.87	2.79	15	39.07	38.78
870	50.53	-2.96	0.06	-2.09	0.06	-12.11	2.96	15	39.12	38.77
880	47.17	-3.26	-0.41	-2.56	-0.41	-12.62	3.26	15	39.36	38.96
890	49.9	-3.02	-0.34	-2.49	-0.34	-13.33	3.02	60	39.65	39.24
900	45.41	-3.43	-0.6	-2.75	-0.6	-15.21	3.43	60	39.83	39.42
910	40.51	-3.92	-0.92	-3.07	-0.92	-16.89	3.92	60	40.07	39.66
920	38.62	-4.13	-0.88	-3.03	-0.88	-17.16	4.13	15	40.27	39.84
930	34.88	-4.57	-0.91	-3.06	-0.91	-16.14	4.57	0	40.25	39.72
940	34.25	-4.65	-0.54	-2.69	-0.54	-14.53	4.65	0	40.32	39.64
950	36.68	-4.36	0.05	-2.1	0.05	-13.11	4.36	15	40.43	39.66
960	39.01	-4.09	0.47	-1.68	0.47	-12.52	4.09	15	40.19	39.43
1700	52.17	-2.83	0.8	-1.35	0.8	-12.74	2.83	15	42.91	42.83
1710	50.32	-2.98	0.47	-1.68	0.47	-13.04	2.98	15	42.93	42.83
1720	44.61	-3.51	0.15	-2	0.15	-13.2	3.51	0	42.39	42.21
1730	45.07	-3.46	0.38	-1.77	0.38	-14.54	3.46	0	42.54	42.32
1740	50.26	-2.99	0.97	-1.18	0.97	-13.49	2.99	0	43.04	42.83
1750	51.97	-2.84	1.18	-0.97	1.18	-13.8	2.84	0	43.34	43.13

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4G LTE Whip External Antenna

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Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
1760	51.57	-2.88	1.16	-0.99	1.16	-16.36	2.88	0	43.47	43.24
1770	49.05	-3.09	0.92	-1.23	0.92	-19.19	3.09	0	43.46	43.23
1780	47.09	-3.27	0.65	-1.5	0.65	-20.82	3.27	15	43.43	43.19
1790	43.84	-3.58	0.16	-1.99	0.16	-18.69	3.58	15	43.24	42.93
1800	44.37	-3.53	0.51	-1.64	0.51	-18.92	3.53	15	43.22	42.83
1810	49.6	-3.05	1.09	-1.06	1.09	-18.59	3.05	15	43.51	43.1
1820	51.69	-2.87	1.26	-0.89	1.26	-18.33	2.87	15	43.48	43.11
1830	51.89	-2.85	1.15	-1	1.15	-18.64	2.85	15	43.51	43.14
1840	55.49	-2.56	1.31	-0.84	1.31	-19.89	2.56	60	43.51	43.17
1850	57.87	-2.38	1.33	-0.82	1.33	-16.66	2.38	45	43.63	43.35
1860	58.49	-2.33	1.2	-0.95	1.2	-19.62	2.33	45	43.69	43.39
1880	66.37	-1.78	1.42	-0.73	1.42	-17.35	1.78	60	43.65	43.38
1890	67.09	-1.73	1.4	-0.75	1.4	-18.7	1.73	60	43.67	43.34
1900	67.56	-1.7	1.4	-0.75	1.4	-19.28	1.7	60	43.64	43.41
1910	66.75	-1.76	1.37	-0.78	1.37	-19.44	1.76	60	43.69	43.44
1920	66.17	-1.79	1.42	-0.73	1.42	-19.6	1.79	60	43.79	43.57
1930	65.56	-1.83	1.48	-0.67	1.48	-20.08	1.83	60	43.89	43.65
1940	67.08	-1.73	1.66	-0.49	1.66	-20.83	1.73	60	43.87	43.66
1950	68.34	-1.65	1.83	-0.32	1.83	-22	1.65	60	43.95	43.7
1960	67.39	-1.71	1.83	-0.32	1.83	-22.62	1.71	60	43.94	43.69
1970	74.81	-1.26	2.32	0.17	2.32	-21.78	1.26	60	44.09	43.96
1980	72.74	-1.38	2.27	0.12	2.27	-23.37	1.38	60	44.17	43.95
1990	73.84	-1.32	2.48	0.33	2.48	-23.81	1.32	60	44.2	44.06
2000	76.6	-1.16	2.87	0.72	2.87	-21.91	1.16	45	44.57	44.42
2010	75.86	-1.2	3.08	0.93	3.08	-22.16	1.2	30	44.69	44.52
2020	78.13	-1.07	3.39	1.24	3.39	-22.47	1.07	30	44.86	44.78
2030	80	-0.97	3.62	1.47	3.62	-20.65	0.97	30	45.04	44.98
2040	81.94	-0.87	3.79	1.64	3.79	-21.18	0.87	30	45.12	45.07
2050	80.96	-0.92	3.79	1.64	3.79	-24.78	0.92	30	45.01	44.95
2060	86.09	-0.65	4.13	1.98	4.13	-26.67	0.65	30	45.26	45.2
2070	82.58	-0.83	4.01	1.86	4.01	-19.48	0.83	30	45.22	45.06
2080	84.25	-0.74	4.13	1.98	4.13	-19.03	0.74	30	45.28	45.12
2090	86.59	-0.63	4.25	2.1	4.25	-18.21	0.63	30	45.5	45.36
2100	90.79	-0.42	4.41	2.26	4.41	-17.03	0.42	30	45.71	45.51
2110	67.67	-1.7	3.02	0.87	3.02	-17.51	1.7	30	44.31	44.12
2120	67.05	-1.74	2.82	0.67	2.82	-16.99	1.74	30	44.53	44.39
2130	67.44	-1.71	2.7	0.55	2.7	-16.69	1.71	30	44.47	44.28
2140	65.99	-1.81	2.51	0.36	2.51	-17.01	1.81	30	44.41	44.26
2150	62.81	-2.02	2.23	0.08	2.23	-17.91	2.02	30	44.38	44.31

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4G LTE Whip External Antenna

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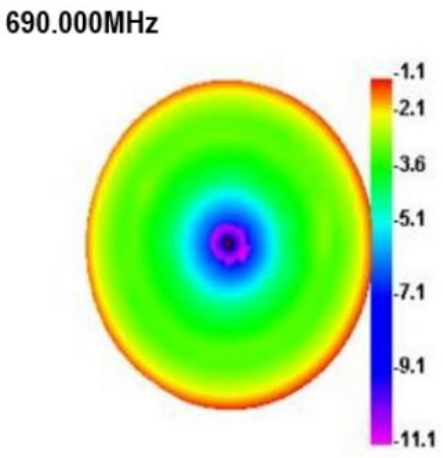
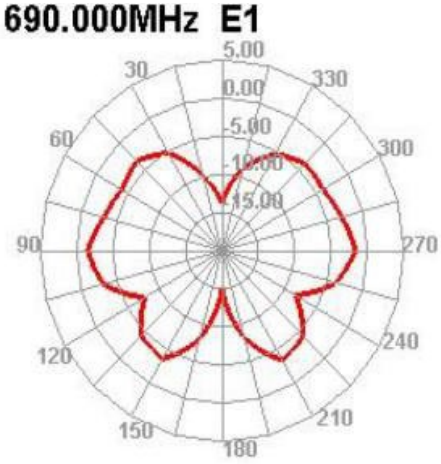
NIC Components Corp.

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2160	65.21	-1.86	2.28	0.13	2.28	-18.57	1.86	30	44.5	44.39
2170	64.13	-1.93	2	-0.15	2	-18.83	1.93	30	44.74	44.7
2180	65.63	-1.83	1.78	-0.37	1.78	-17.27	1.83	45	44.71	44.69
2190	68.53	-1.64	1.59	-0.56	1.59	-15.05	1.64	45	45	44.95
2200	71.4	-1.46	1.43	-0.72	1.43	-13.28	1.46	45	45.09	45.01
2210	74.1	-1.3	1.87	-0.28	1.87	-12.89	1.3	30	45.12	45.08
2220	77.42	-1.11	2.39	0.24	2.39	-13.03	1.11	30	45.26	45.2
2230	79.74	-0.98	2.76	0.61	2.76	-13.04	0.98	30	45.26	45.17
2240	80.63	-0.93	3.01	0.86	3.01	-13.55	0.93	30	45.48	45.44
2250	79.02	-1.02	3.04	0.89	3.04	-14.85	1.02	30	45.26	45.18
2260	77.66	-1.1	3.03	0.88	3.03	-16.33	1.1	30	45.38	45.33
2270	79.25	-1.01	3.11	0.96	3.11	-17.31	1.01	30	45.65	45.67
2280	74.45	-1.28	2.74	0.59	2.74	-18.19	1.28	30	45.53	45.52
2290	76.55	-1.16	2.72	0.57	2.72	-18.1	1.16	30	45.9	45.86
2300	75.37	-1.23	2.79	0.64	2.79	-17.99	1.23	15	45.79	45.81
2310	76.66	-1.15	3.09	0.94	3.09	-18.15	1.15	30	45.95	45.82
2320	78.28	-1.06	3.37	1.22	3.37	-19.14	1.06	30	45.96	45.9
2330	79.55	-0.99	3.56	1.41	3.56	-21.11	0.99	15	46.17	46.12
2340	80.7	-0.93	3.62	1.47	3.62	-20.67	0.93	15	46.36	46.27
2350	76.44	-1.17	3.28	1.13	3.28	-20.96	1.17	15	46.31	46.27
2360	73.99	-1.31	2.99	0.84	2.99	-20.25	1.31	30	46.38	46.32
2370	68.02	-1.67	2.5	0.35	2.5	-19.39	1.67	45	46.32	46.3
2380	69	-1.61	2.54	0.39	2.54	-18.12	1.61	60	46.45	46.33
2390	67.25	-1.72	2.48	0.33	2.48	-18.36	1.72	60	46.66	46.66
2400	67.2	-1.73	2.58	0.43	2.58	-19.14	1.73	45	46.78	46.66
2410	64.63	-1.9	2.52	0.37	2.52	-16.84	1.9	45	46.54	46.47
2420	60.06	-2.21	2.21	0.06	2.21	-14.76	2.21	45	46.78	46.77
2430	58.92	-2.3	1.97	-0.18	1.97	-13.23	2.3	45	46.65	46.52
2440	56.97	-2.44	1.59	-0.56	1.59	-12.31	2.44	45	46.79	46.73
2450	55.6	-2.55	1.26	-0.89	1.26	-11.94	2.55	60	46.92	46.83
2460	54.52	-2.63	1.06	-1.09	1.06	-11.92	2.63	60	47.02	46.93
2470	54.43	-2.64	0.92	-1.23	0.92	-12.14	2.64	60	46.82	46.7
2480	54.2	-2.66	0.83	-1.32	0.83	-12.39	2.66	60	47.15	47.03
2490	57.04	-2.44	1.03	-1.12	1.03	-11.84	2.44	60	47.25	47.04
2500	55.26	-2.58	0.95	-1.2	0.95	-11.38	2.58	60	47.08	46.9
2510	51.18	-2.91	0.7	-1.45	0.7	-11.22	2.91	45	47.12	46.99
2520	52.71	-2.78	0.81	-1.34	0.81	-11.17	2.78	60	46.86	46.73
2530	50.09	-3	0.47	-1.68	0.47	-11.93	3	60	46.86	46.77
2540	48.68	-3.13	0.09	-2.06	0.09	-12.49	3.13	60	46.67	46.65

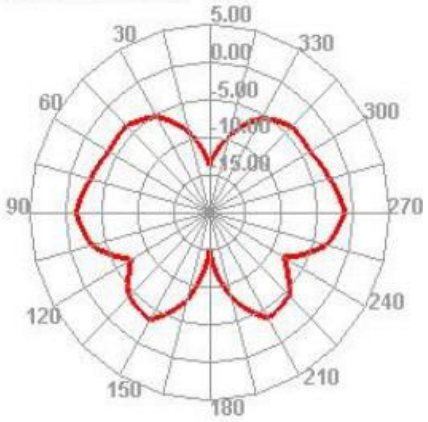
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2550	50.29	-2.99	-0.04	-2.19	-0.04	-12.45	2.99	60	46.89	46.85
2560	53.87	-2.69	0.07	-2.08	0.07	-11.73	2.69	60	46.64	46.58
2570	54.4	-2.64	0.14	-2.01	0.14	-11.53	2.64	60	46.93	46.95
2580	50.57	-2.96	-0.11	-2.26	-0.11	-11.51	2.96	60	46.92	46.77
2590	53.59	-2.71	0.17	-1.98	0.17	-11.29	2.71	60	46.68	46.61
2600	50.13	-3	-0.04	-2.19	-0.04	-11.46	3	60	47.08	46.99
2610	51.24	-2.9	0.06	-2.09	0.06	-11.66	2.9	75	46.94	46.85
2620	54.92	-2.6	0.33	-1.82	0.33	-12.11	2.6	75	46.88	46.79
2630	51.65	-2.87	0	-2.15	0	-13.17	2.87	75	47.1	47.01
2640	63.83	-1.95	0.94	-1.21	0.94	-13.64	1.95	75	47.49	47.35
2650	62.54	-2.04	0.95	-1.2	0.95	-14.79	2.04	75	47.39	47.27
2660	63.8	-1.95	1.2	-0.95	1.2	-14.77	1.95	60	47.66	47.54
2670	69.91	-1.55	1.82	-0.33	1.82	-14.71	1.55	60	47.76	47.6
2680	63.65	-1.96	1.63	-0.52	1.63	-16.19	1.96	30	47.81	47.7
2690	64.73	-1.89	1.89	-0.26	1.89	-17.13	1.89	30	47.82	47.71
2700	52.64	-2.79	1.15	-1	1.15	-16.74	2.79	15	48.01	47.89

Radiation Patterns

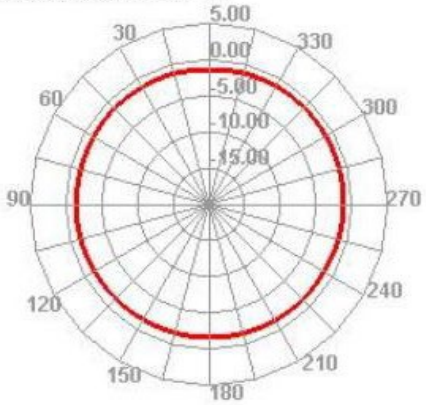




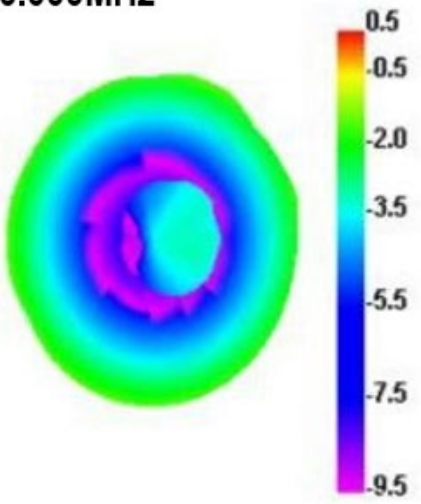
690.000MHz E2



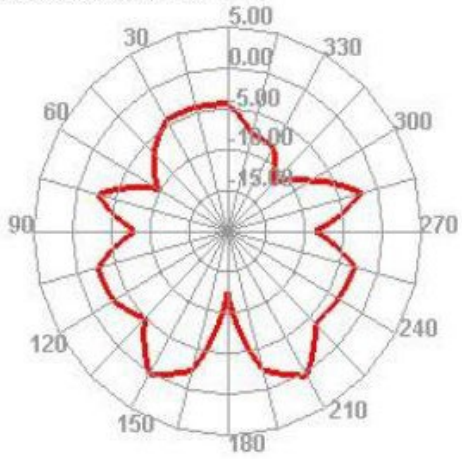
690.000MHz H



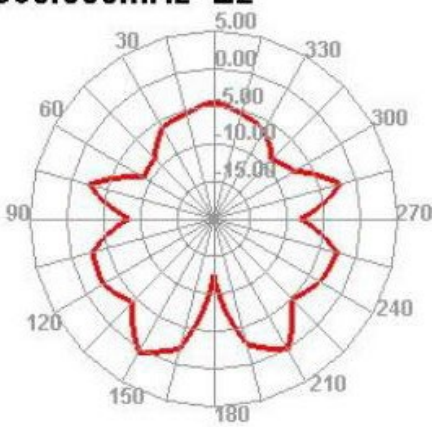
960.000MHz



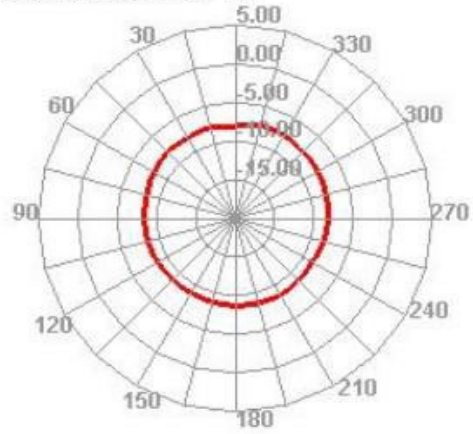
960.000MHz E1

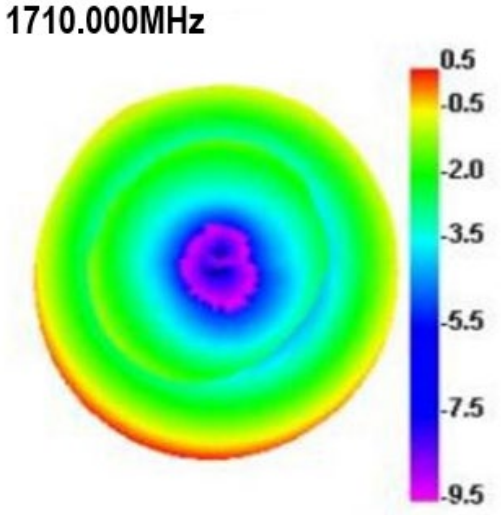


960.000MHz E2



960.000MHz H




1710.000MHz
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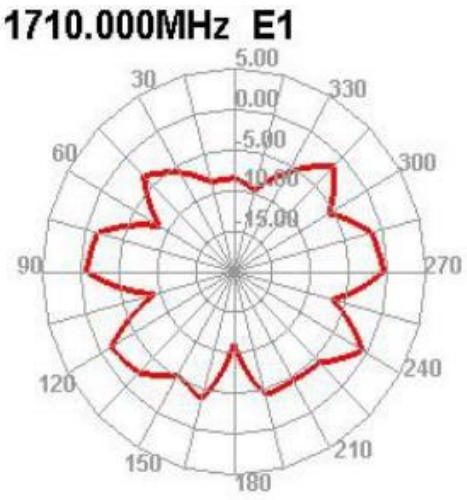
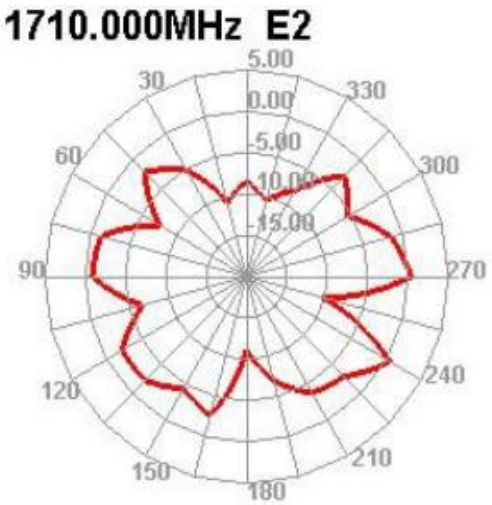
-2.0
-3.5
-5.5
-7.5
-9.5


1710.000MHz E1
5.00
0.00
-5.00
-10.00
-15.00
30
330
60
300
90
270
120
240
150
210
180


1710.000MHz E2
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-5.00
-10.00
-15.00
30
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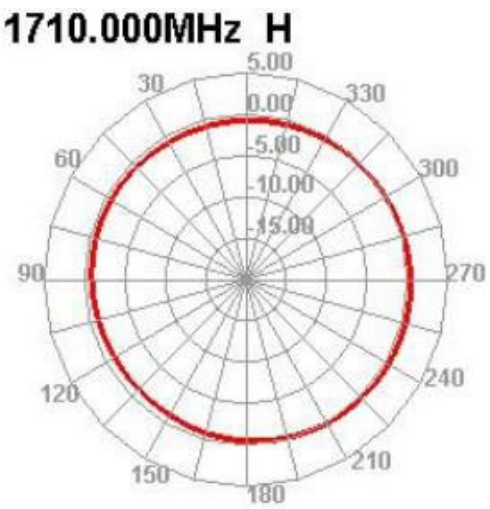
210
180


1710.000MHz H
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-15.00
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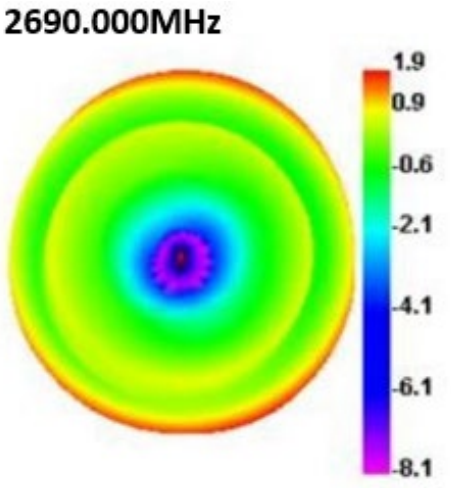
2690.000MHz
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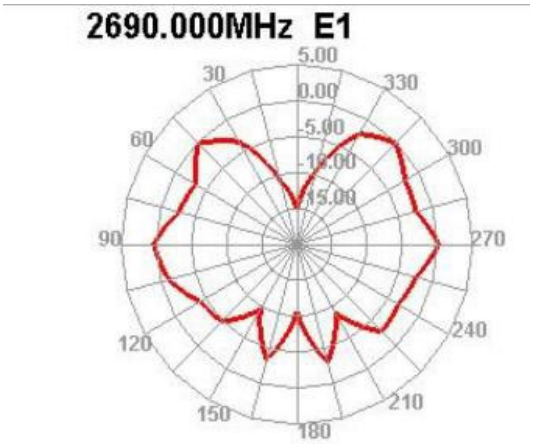
-2.1
-4.1
-6.1
-8.1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-5.00
-10.00
-15.00
30
330
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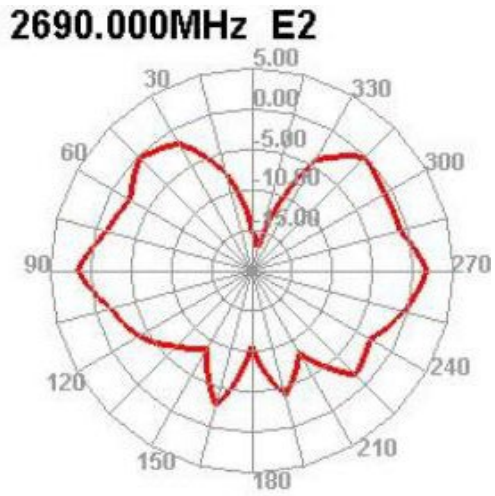
120
240
150
210
180


2690.000MHz E2
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0.00
-5.00
-10.00
-15.00
30
330
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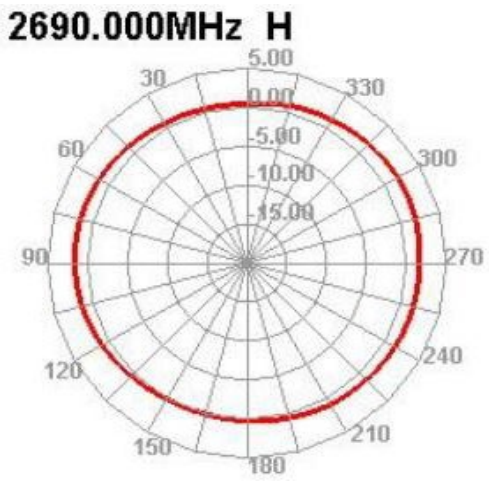
300
90
270
120
240
150
210
180


2690.000MHz H
5.00
0.00
-5.00
-10.00
-15.00
30
330
60
300
90
270
120
240
150
210
180