

KATALYST

4x2 MINI ANTENNAS

mini4x2



An Antenna. But Mini.

MINI ANTENNAS

MINI ANTENNA KIT

MINI 4X2 ANTENNA
4x4G/5G | 2xWiFi

WORKS WITH SPARK

DISCOUNTS AVAILABLE WITH VOLUME
ORDERS FOR RESELLERS

Small Build. Big Signal.

The Katalyst Mini Series is proof that big performance doesn't need a big footprint. Whether you're pushing Wi-Fi or powering up 5G, these antennas deliver strong, efficient signals in a small, rugged package.

Measuring just $52 \times 18.6 \times 9$ mm, they fit where others won't and still bring the power. The 90° SMA connector (RP-SMA for Wi-Fi) makes mounting simple, and the durable TPE enclosure keeps them protected in real-world conditions- because flimsy gear isn't welcome here.

The omni-directional design ensures consistent, reliable coverage in every direction. And with a monopole setup, mounting it on a ground plane lets the antenna reach its full potential.

DIMENSIONS

52mm $\times$ 18.6mm $\times$ 9mm

FREQUENCY BAND

700–960MHz,
1710–2690MHz,
3300–6000MHz

EFFICIENCY

Up to 73.6%

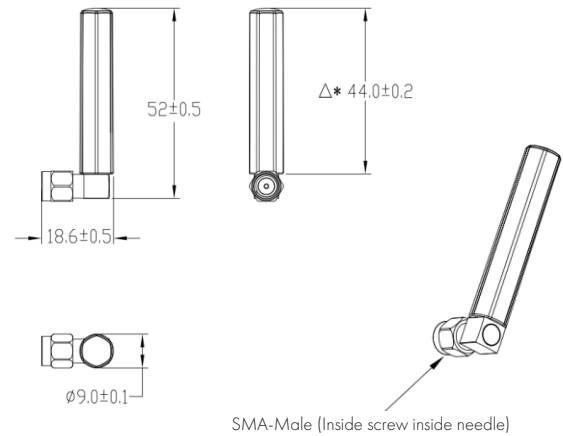
Like, Really Mini.





Test Condition: On 130 × 70 mm EVB

ELECTRICAL	
Frequency Range	700–960 MHz, 1710–2690 MHz, 3300–6000 MHz
Impedance	50 Ω
Polarization	Linear
Radiation Pattern	Omni-directional



SPEC / BAND												
Specification	Band	B71	B12/ B13/ B28	B5/ B8/ B26	n74/ n75/ n76	B1/ B2/ B3	B40	WIFI 2G	B38/ B41	B42/ B48/ n77	n79	WIFI 5G
	Freq. (MHz)	600-700	700-810	820-960	1420-1520	1700-2100	2300-2400	2400-2500	2500-2690	3300-4200	4400-5000	5150-5850
Max. VSWR		-	6.9	3.7	-	2.7	2.2	2.3	2.5	4.5	4.1	3.4
Max. Return Loss(dB)		-	-2.5	-4.8	-	-6.6	-8.3	-8.1	-7.4	-4.0	-4.4	-5.3
AVG Eff. (%)		-	46.0	54.4	-	61.4	71.4	65.9	63.4	57.4	52.6	46.4
AVG AVG Gain (dBi)		-	-3.4	-2.7	-	-2.1	-1.5	-1.8	-2.0	-2.5	-2.9	-3.4
Max. Peak Gain (dBi) Frequency (MHz)		-	0.2 (810)	1.6 (900)	-	2.2 (2170)	2.0 (2330)	2.0 (2500)	2.4 (2540)	2.1 (3740)	2.7 (4930)	2.9 (5240)
VSWR		≤ 6.9										
Return Loss		≤ -2.5 dB										
Peak Gain		≤ 2.9 dBi										

MECHANICAL		ENVIRONMENTAL	
Antenna Dimensions	52 × 18.6 × 9 mm	Operation Temperature	-40 °C to +85 °C
Material & Color	TPE & Black	Storage Temperature	-40 °C to +85 °C
Connector Type	90° SMA Male	RoHS & REACH Compliant	Yes
Mounting Type	Terminal		
Weight	Typ. 7.4 g		



RoHS



GAIN - DETAIL

	Band	Freq. (MHz)	Max peak Gain (dBi)
FDD < 3 dBi	B1	1920-1980	1.8
	B3/n3	1710-1785	1.2
	B8	880-915	1.6
	B18	815-830	0.2
	B19	830-845	0.4
	B26	814-849	0.4
	B28/n28	703-748	-0.6
	n77/n78	3400-4100	2.1
	n79	4500-4900	2.6
TDD < 4 dBi	B39	1888-1920	1.9
	B41/n41 (DISABLE HPUE)	2496-2690	2.4
	B42	3400-3600	2.0

SUPPORTED BANDS

Band	Freq. (MHz)	Uplink (MHz)	Downlink (MHz)	Covered
1	2100	1920-1980	2110-2170	Y
2	1900	1850-1910	1930-1990	Y
3	1800	1710-1785	1805-1880	Y
4	1700	1710-1755	2110-2155	Y
5	850	824-849	869-894	Y
7	2600	2500-2570	2620-2690	Y
8	900	880-915	925-960	Y
9	1800	1749.9-1784.9	1844.9-1879.9	Y
11	1500	1427.9-1447.9	1475.9-1495.9	-
12	700	699-716	729-746	Y
13	700	777-787	746-756	Y
14	700	788-798	758-768	Y
17	700	704-716	734-746	Y
18	850	815-830	860-875	Y
19	850	830-845	875-890	Y
20	800	832-862	791-821	Y
21	1500	1447.9-1462.9	1495.9-1510.9	-
22	3500	3410-3490	3510-3590	Y
23	2100	2000-2020	2180-2200	Y
24	1600	1626.5-1660.5	1525-1559	-



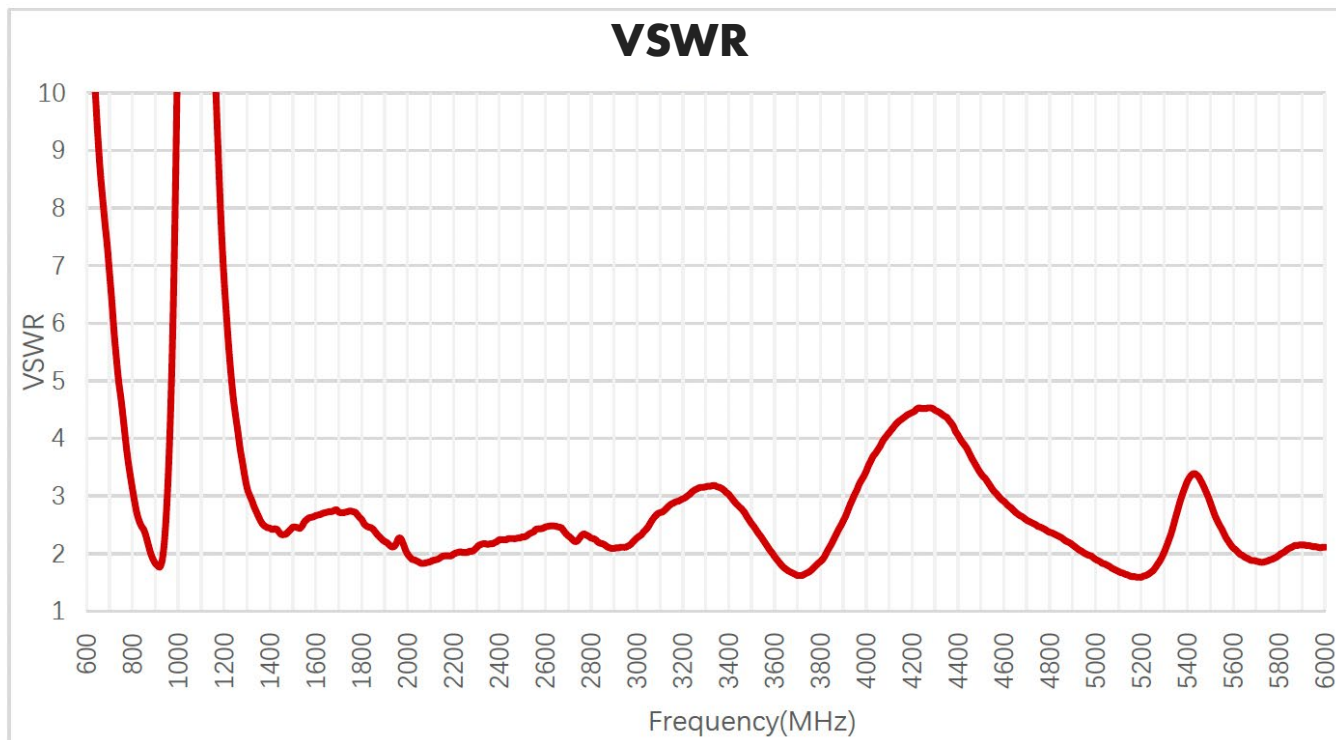
SUPPORTED BANDS				
Band	Freq. (MHz)	Uplink (MHz)	Downlink (MHz)	Covered
25	1900	1850-1915	1930-1995	Y
26	850	814-849	859-894	Y
28	700	703-748	758-803	Y
31	450	452.5-457.5	462.5-467.5	-
34	2100	2010-2025		Y
38	2600	2570-2620		Y
39	1900	1880-1920		Y
40	2300	2300-2400		Y
41	2500	2496-2690		Y
42	3500	3400-3600		Y
48	3500	3550-3700		Y
66	1700	1710-1780	2110-2200	Y
71	600	663-698	617-652	-
74	1500	1427-1470	1475-1518	-
77	3500	3300-4200		Y
78	3500	3300-3800		Y
79	4500	4400-5000		Y

NOTE: Covered Y means means efficiency > 20 %.



Radiation Performance Test

VSWR

**VSWR**

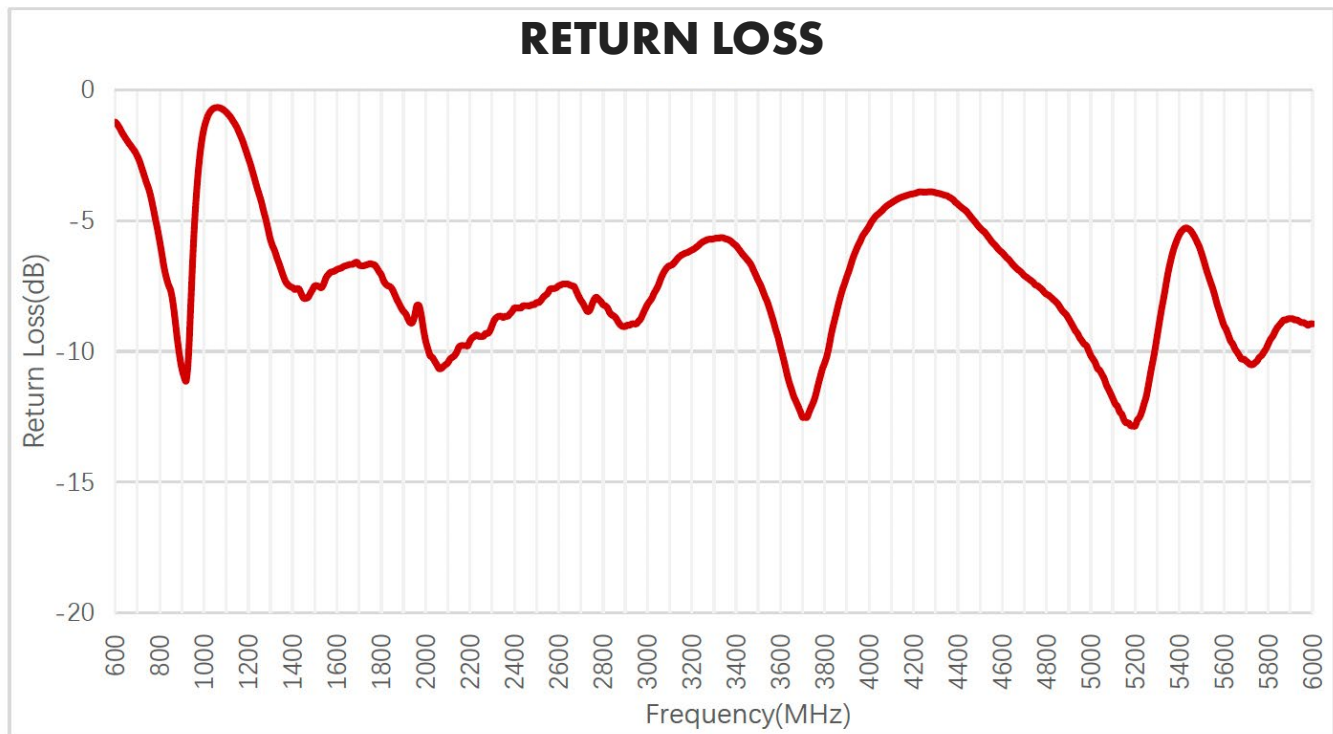
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
VSWR	-	-	6.4	2.6	1.8	3.7	-	2.7	2.7	2.3

Frequency (MHz)	1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
VSWR	2.2	1.9	2.2	2.3	2.5	2.0	2.6	1.9	2.9	2.1



Radiation Performance Test

Return Loss



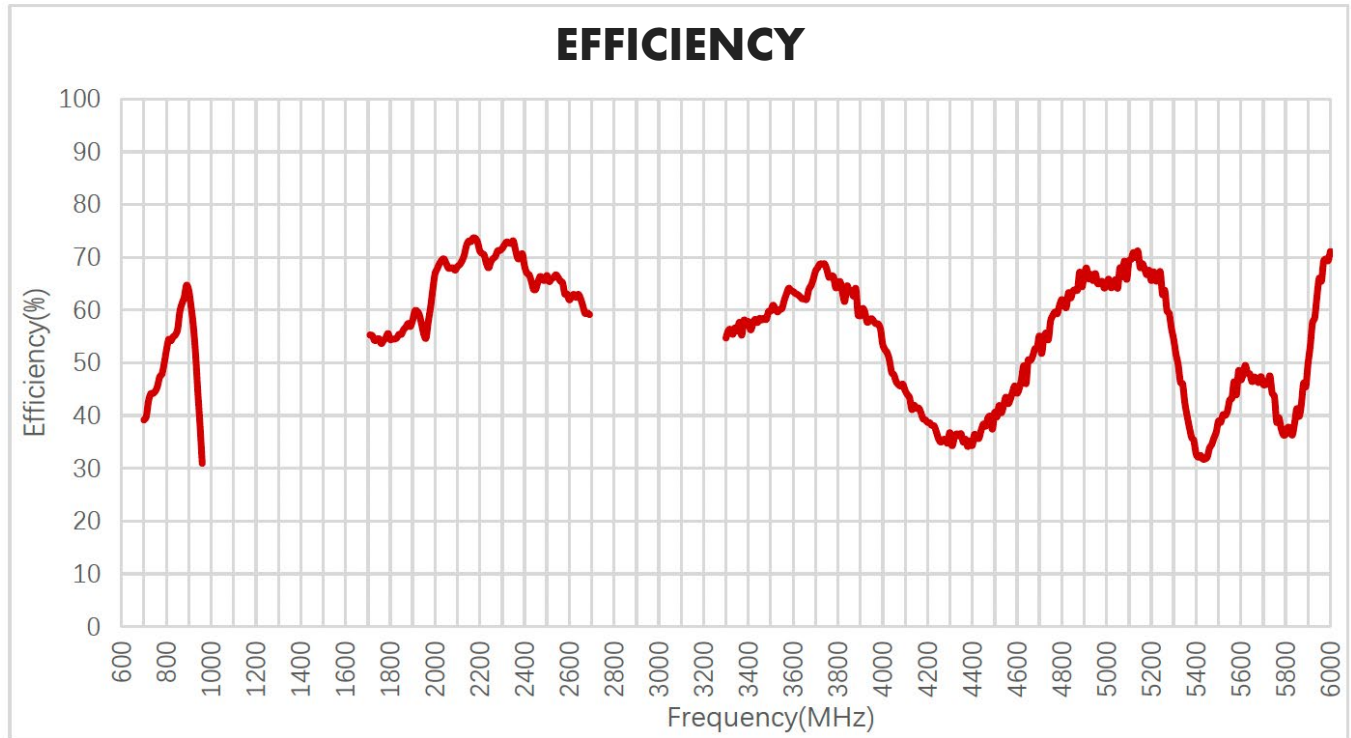
RETURN LOSS (dB)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Return Loss (dB)	-	-	-2.7	-7.2	-10.7	-4.8	-	-6.7	-6.7	-8.2
Frequency (MHz)	1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
Return Loss (dB)	-8.7	-10.0	-8.7	-8.3	-7.5	-9.8	-7.1	-10.2	-6.3	-8.9



Radiation Performance Test

Efficiency

**EFFICIENCY (%)**

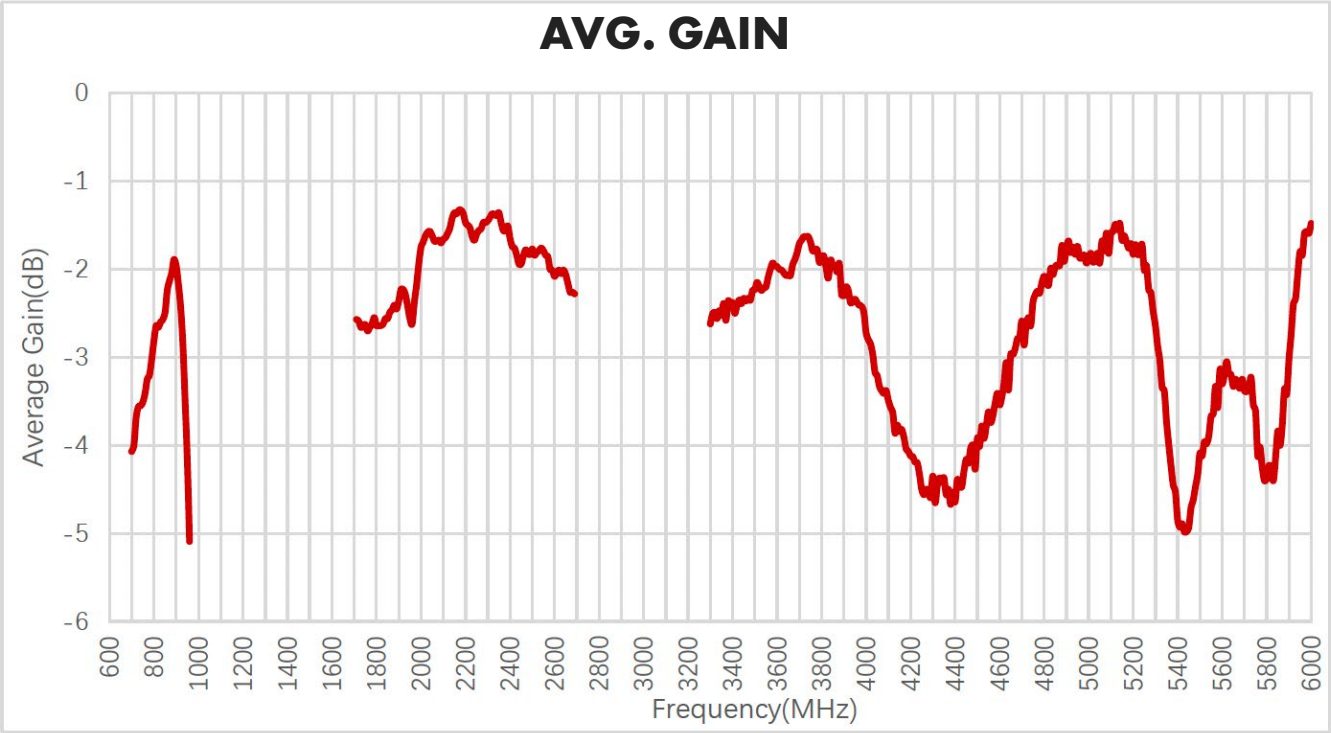
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Efficiency (%)	-	-	39.8	54.9	63.7	31.0	-	55.3	54.5	57.5

Frequency (MHz)	1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
Efficiency (%)	55.4	72.1	73.1	64.0	61.9	63.5	55.1	65.0	39.0	71.1



Radiation Performance Test

Average Gain



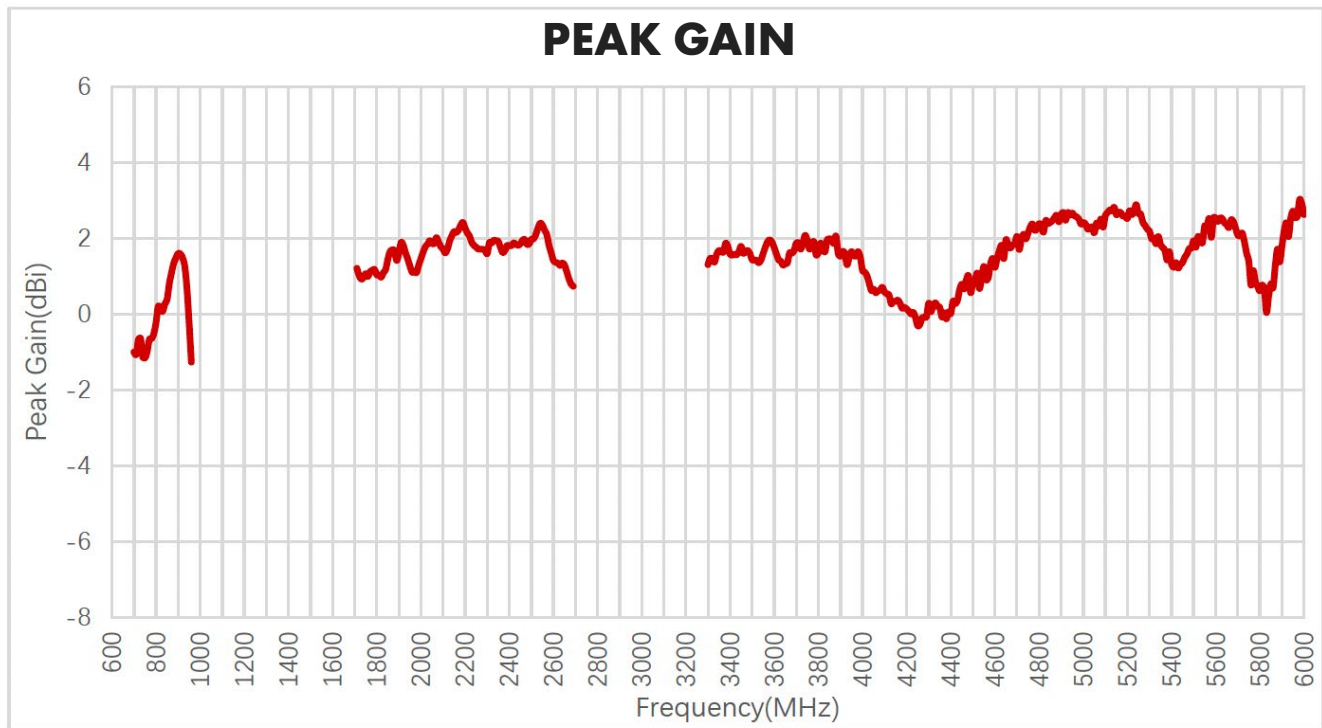
AVERAGE GAIN (dB)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Average Gain (dB)	-	-	-4.0	-2.6	-2.0	-5.1	-	-2.6	-2.6	-2.4
Frequency (MHz)	1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
Average Gain (dB)	-2.6	-1.4	-1.4	-1.9	-2.1	-2.0	-2.6	-1.9	-4.1	-1.5



Radiation Performance Test

Peak Gain

**PEAK GAIN (dBi)**

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Peak Gain (dBi)	-	-	-1.1	0.1	1.6	-1.3	-	1.2	1.0	1.7
Frequency (MHz)	1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
Peak Gain (dBi)	1.3	2.1	1.9	1.9	1.4	1.8	2.1	2.4	1.9	2.6

MAX PEAK GAIN (dBi)

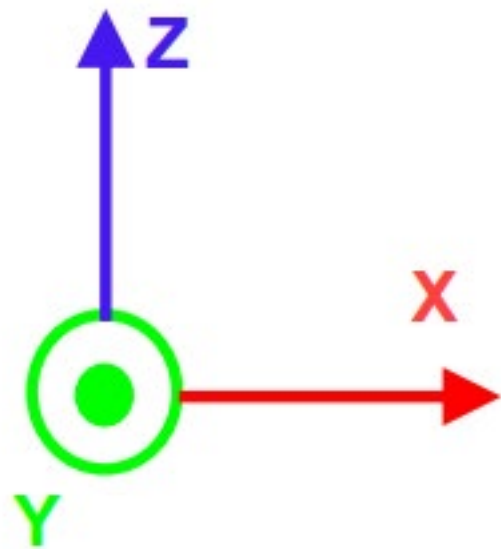
Band	B71	B12 /B13 /B28	B5 /B8 /B26	n74 /n75 /n76	B1 /B2 /B3	B40	Wi-Fi 2G	B38 /B41	B42 /B48 /n77	n79	Wi-Fi 5G
Frequency (MHz)	-	810	900	-	2170	2330	2500	2540	3740	4930	5420
Peak Gain (dBi)	-	0.2	1.6	-	2.2	2.0	2.0	2.4	2.1	2.7	1.4



3D & 2D Radiation Pattern

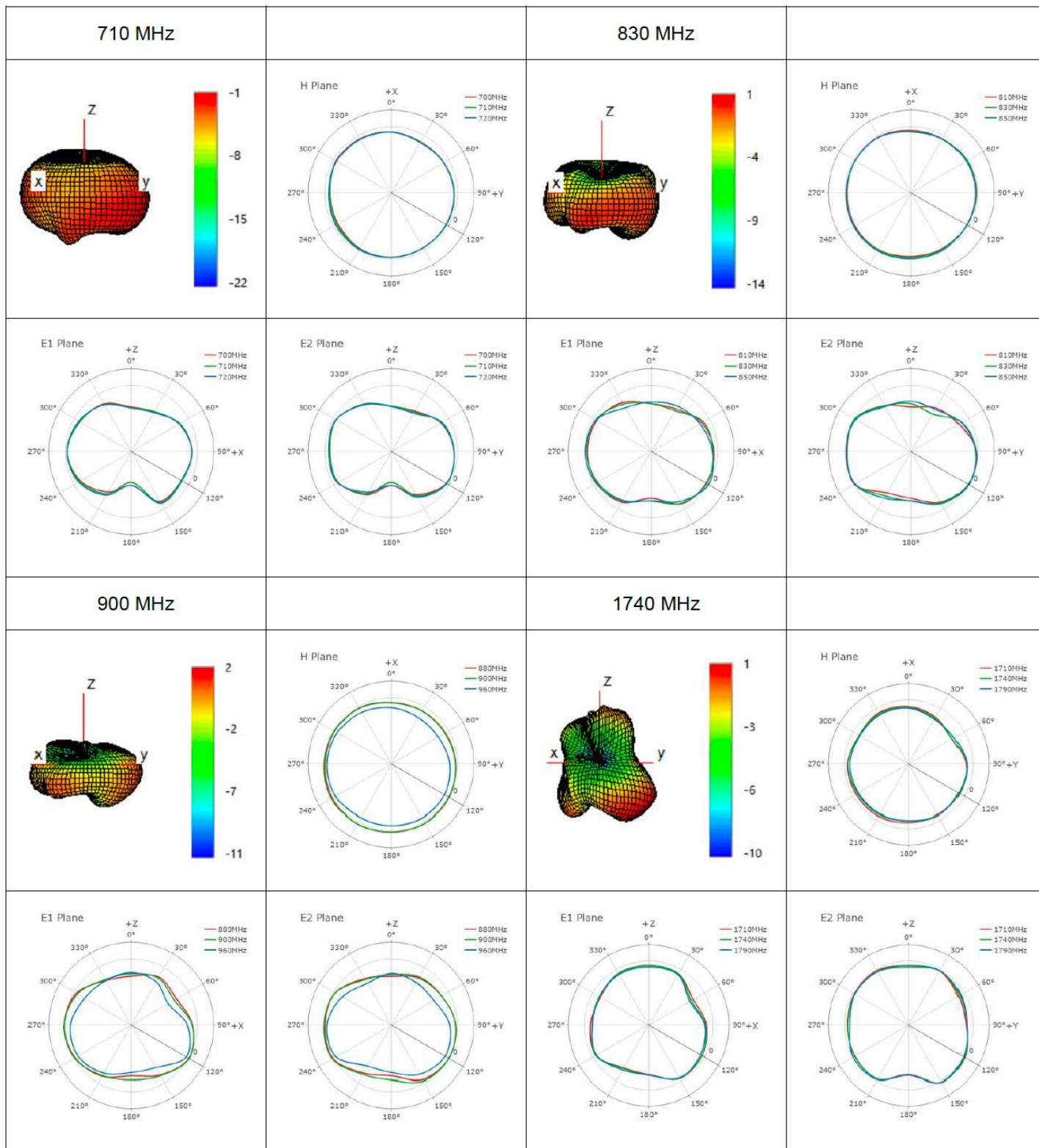
Test Condition: On 130 × 70 mm EVB

Test Chamber: GL-G-1



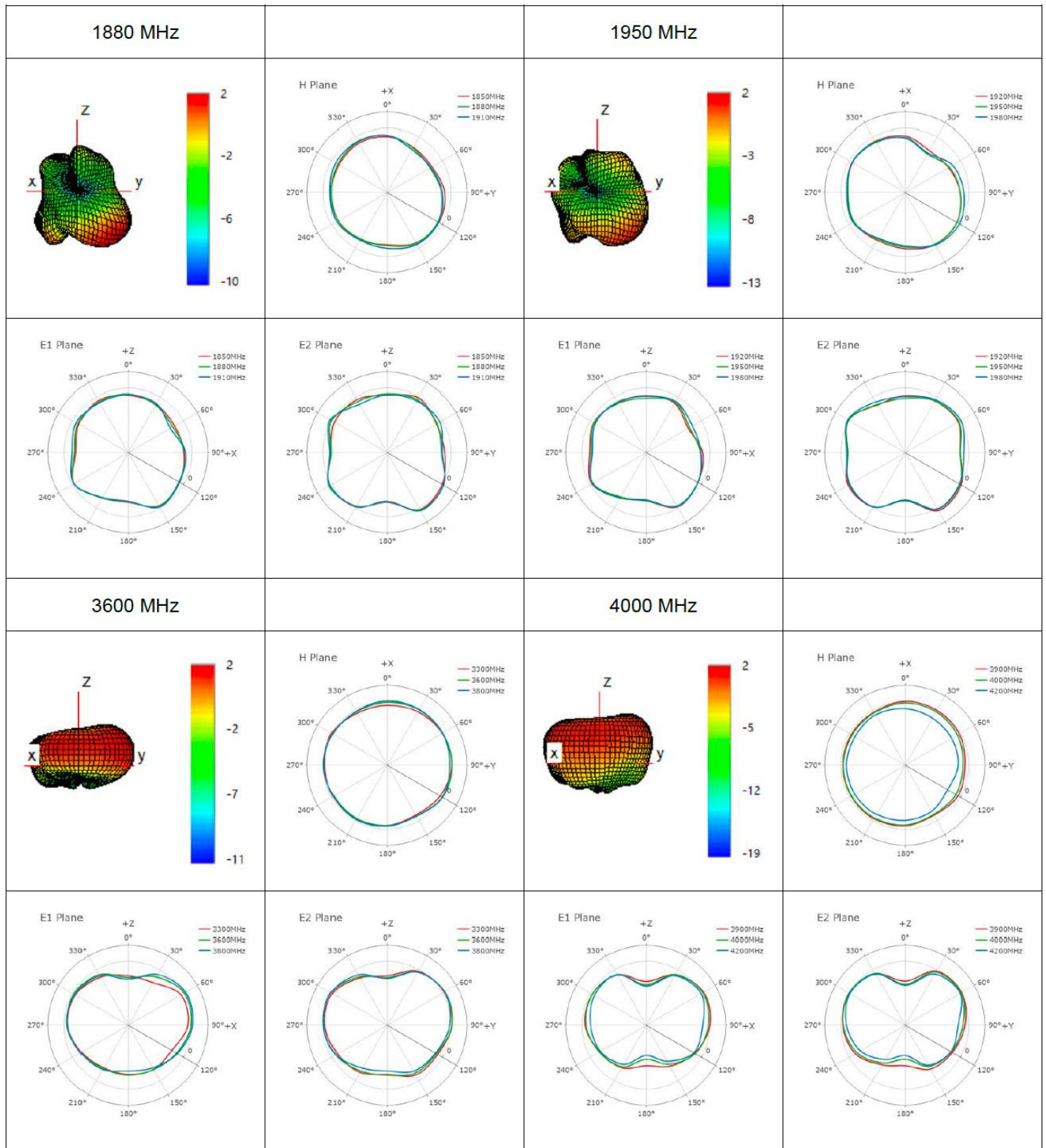


On 130 × 70 mm EVB



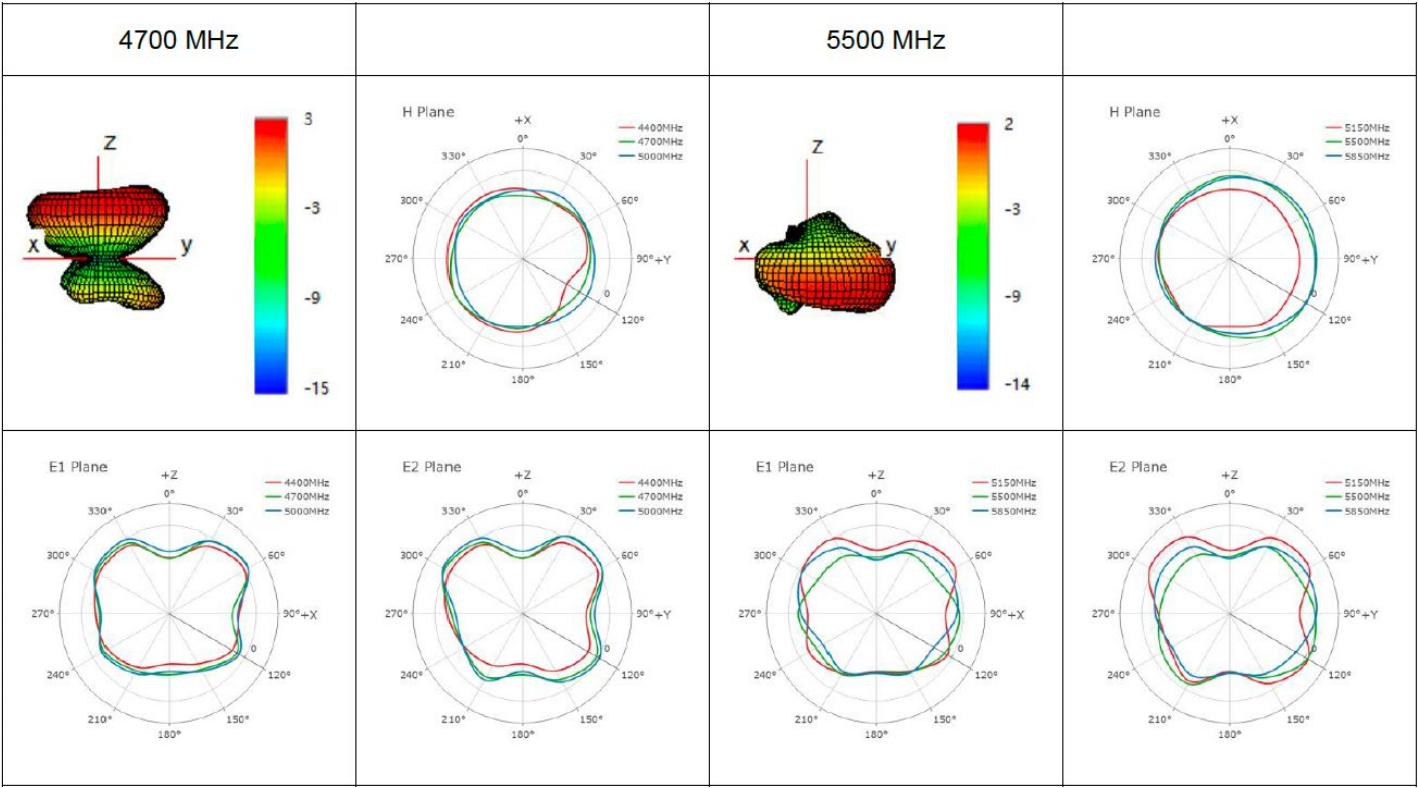


On 130 × 70 mm EVB



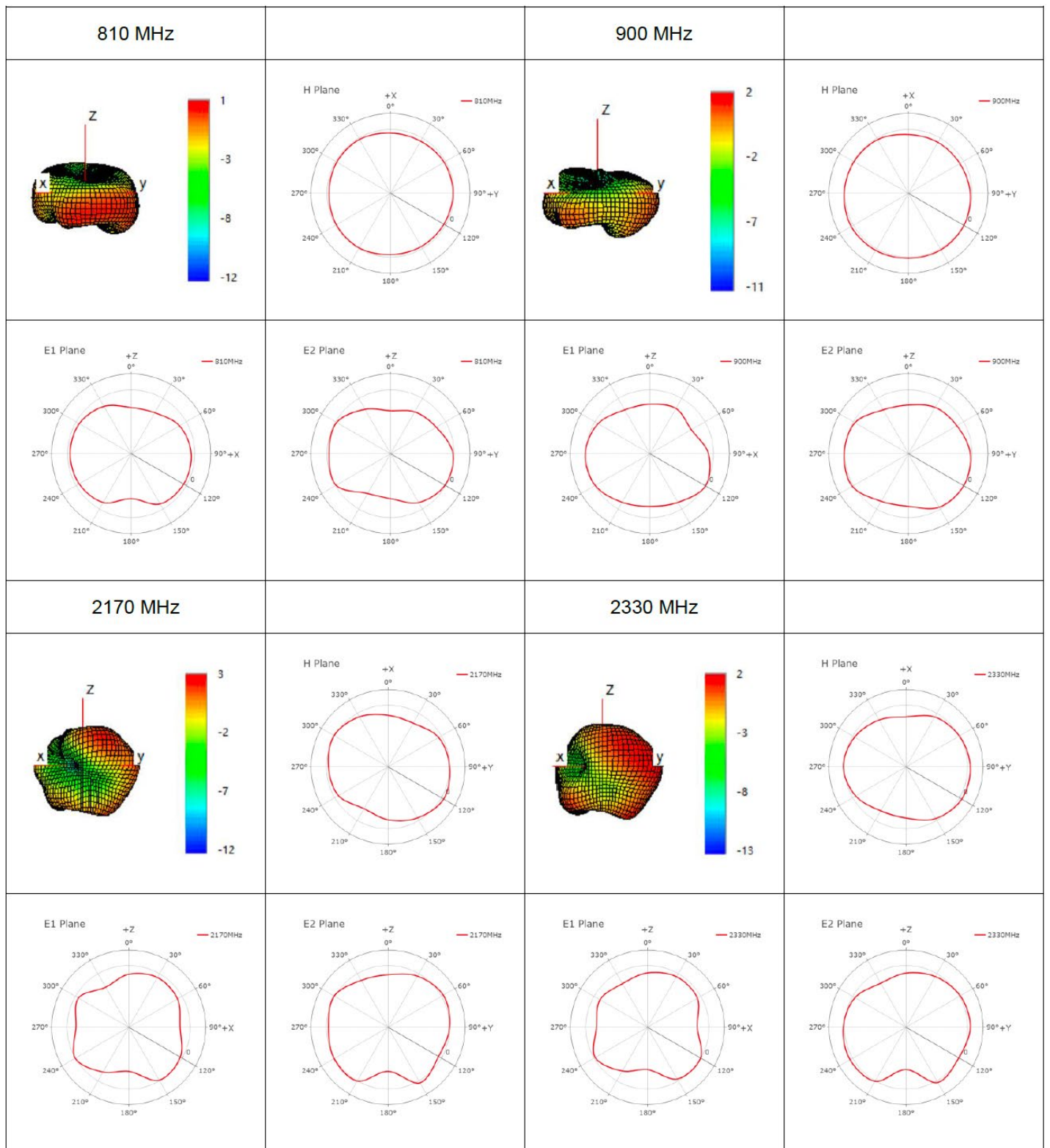


On 130 × 70 mm EVB



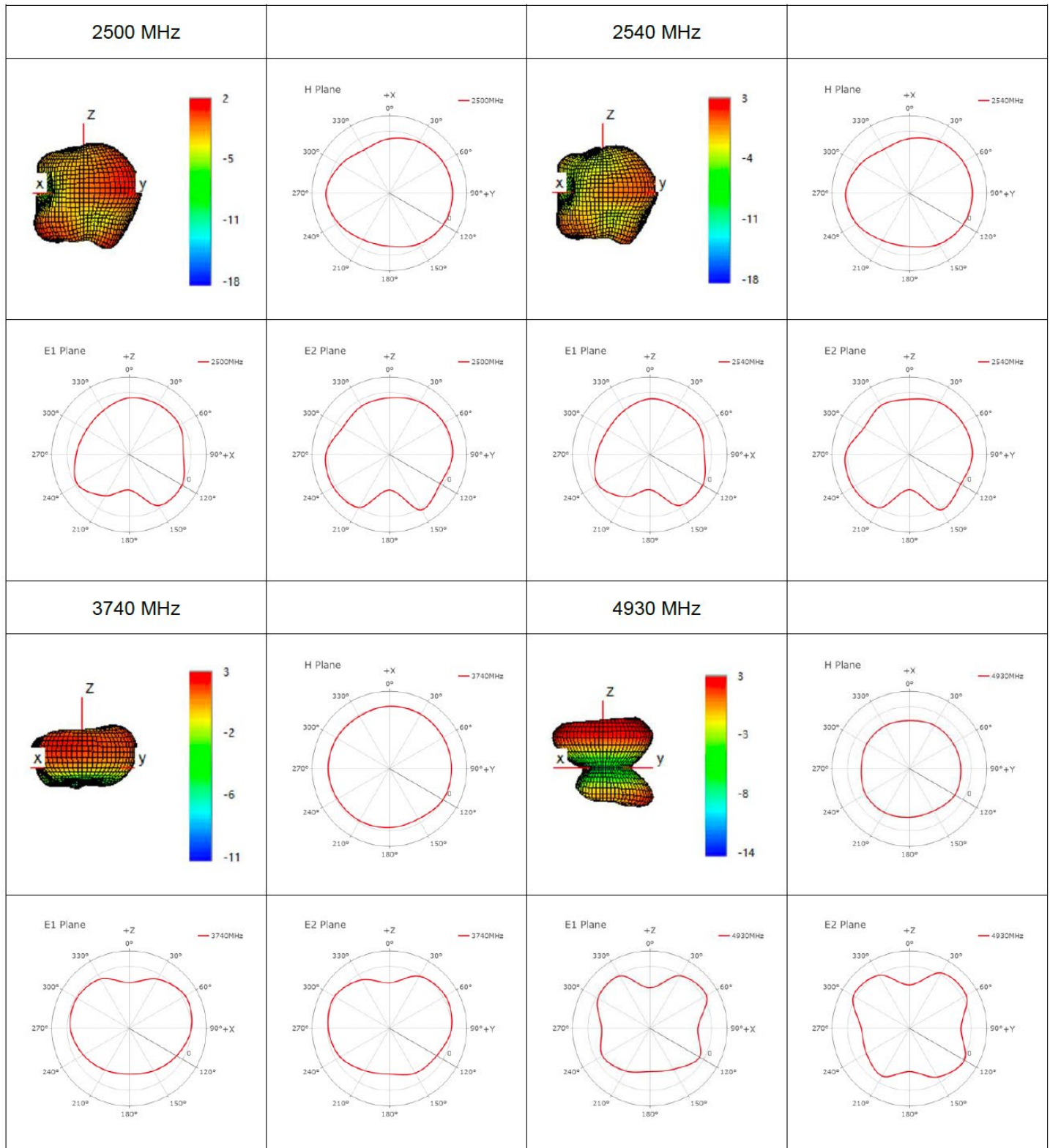


Max Peak Gain





Max Peak Gain





Max Peak Gain

