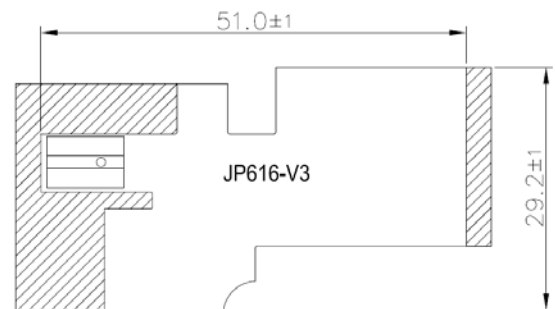


## Antenna Type: Loop

## RFA-LTE-JP616-V3

### Electrical Specifications

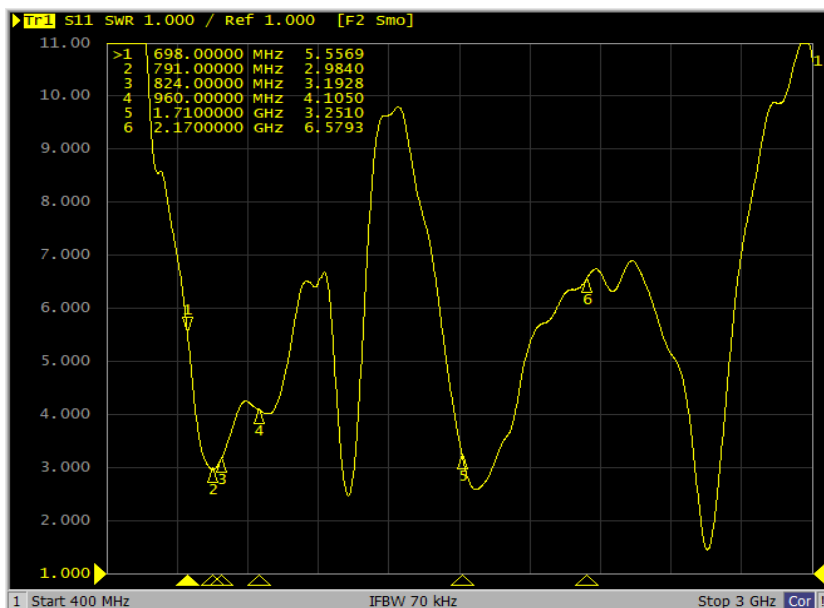
Frequency range	698-960 MHz	1710-2170 MHz
Peak gain	-2.7 dBi	-0.4 dBi
Average gain	-8.18 dBi	-7.53 dBi
Efficiency	15.83 %	21.11 %
VSWR	6.0 : 1 Max.	7.0 : 1 Max.
Polarization	Linear, vertical	
Impedance	50 $\Omega$	
Antenna Material	FPC	



### Environmental & Mechanical Characteristics

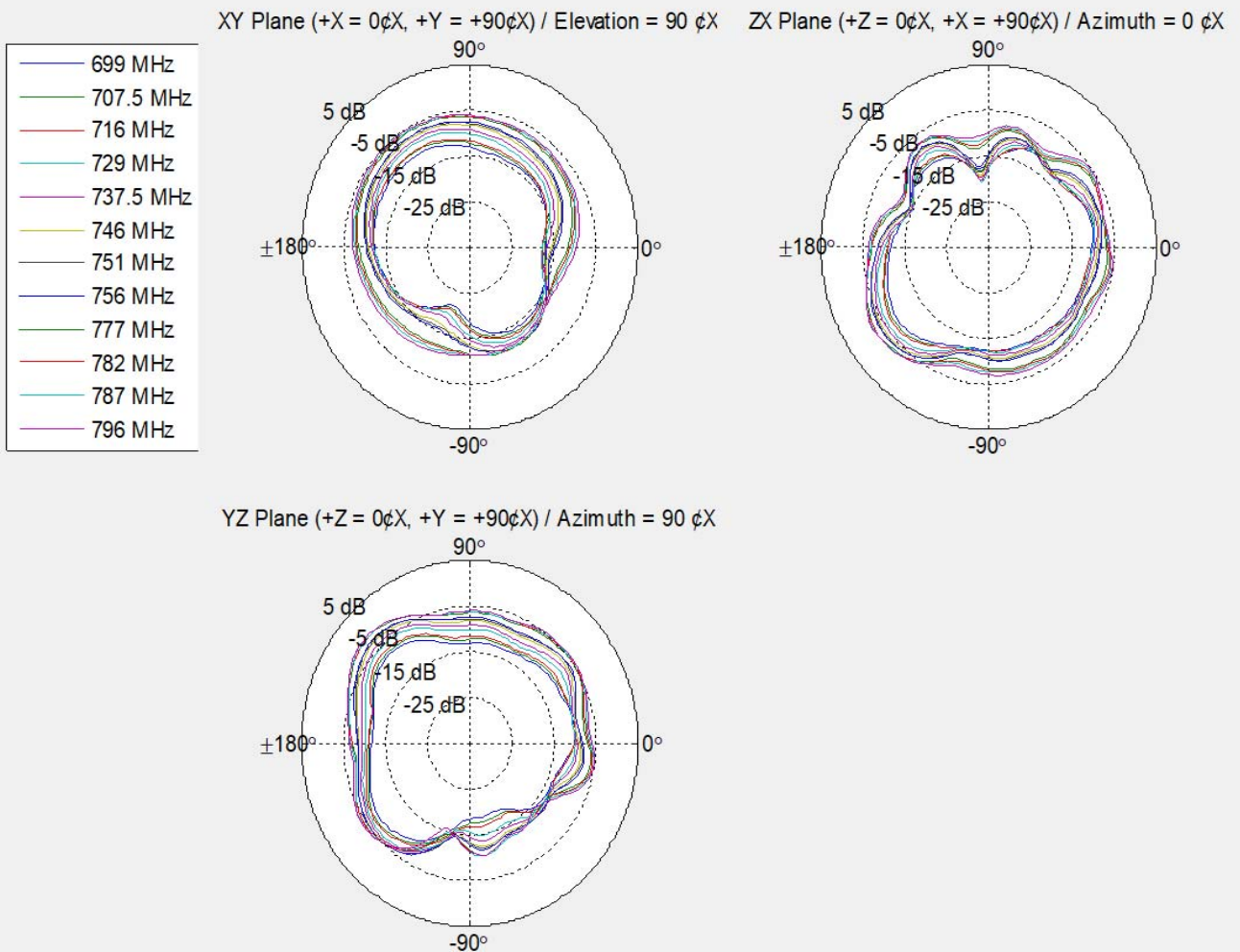
Temperature	-10°C to +55°C
Humidity	95% @ 25°C

### VSWR



## Radiation Pattern

L1 Band = 650 - 798 MHz % L1 BAND

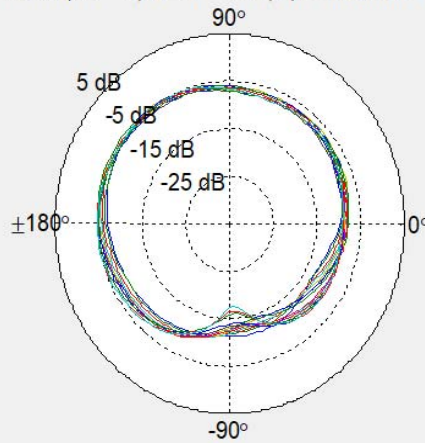


## Radiation Pattern

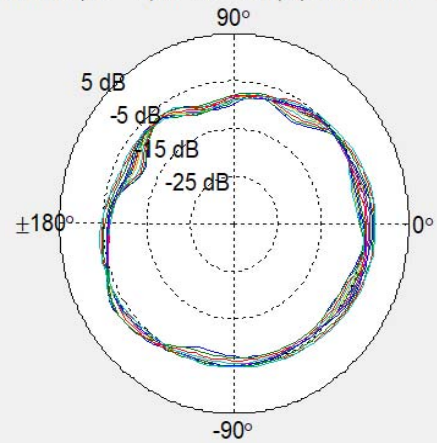
L2 Band = 792 - 960 MHz % L2 BAND

- 816 MHz
- 824 MHz
- 836.5 MHz
- 837 MHz
- 847 MHz
- 849 MHz
- 857 MHz
- 869 MHz
- 881.5 MHz
- 885 MHz
- 894 MHz
- 897.5 MHz
- 910 MHz
- 930 MHz
- 942.5 MHz

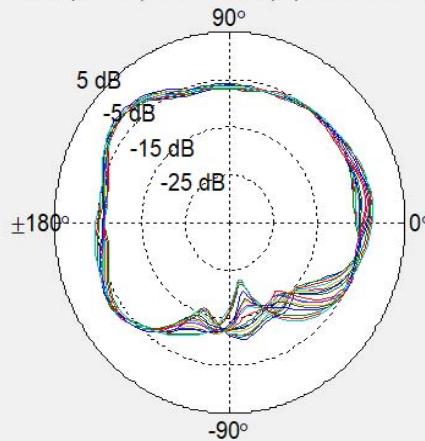
XY Plane (+X = 0°ϕX, +Y = +90°ϕX) / Elevation = 90°ϕX



ZX Plane (+Z = 0°ϕX, +X = +90°ϕX) / Azimuth = 0°ϕX

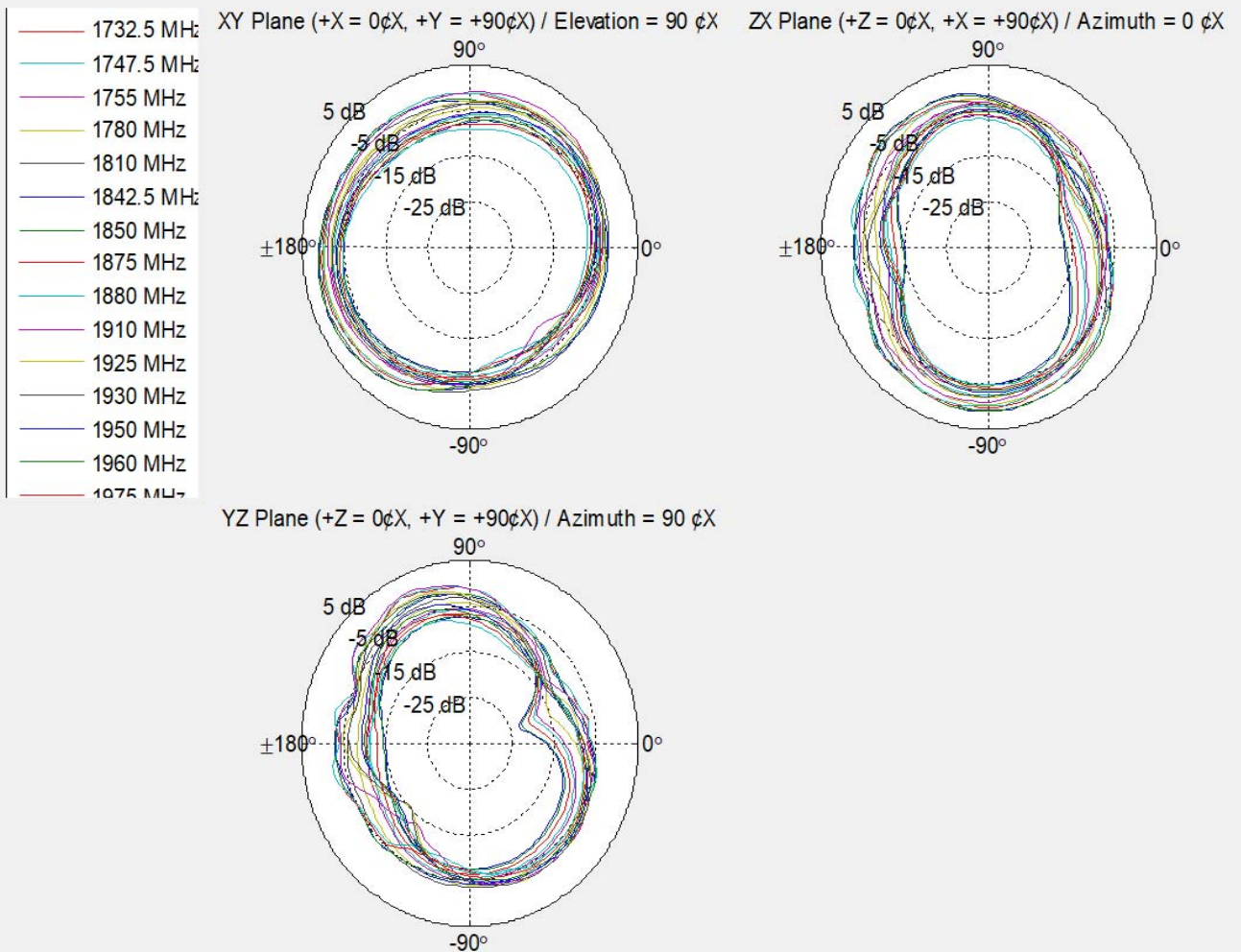


YZ Plane (+Z = 0°ϕX, +Y = +90°ϕX) / Azimuth = 90°ϕX



Radiation Pattern

H1 Band = 1700 - 2000 MHz % H1 BAND

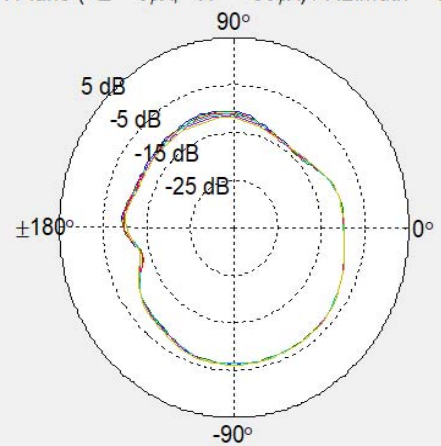
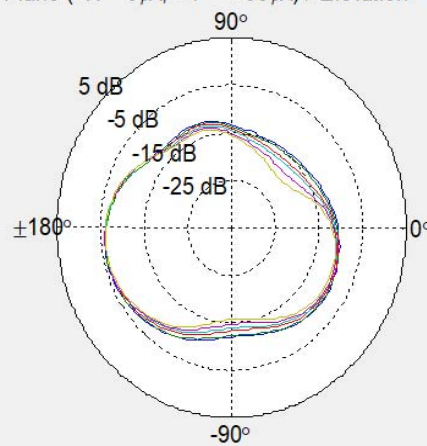


Radiation Pattern

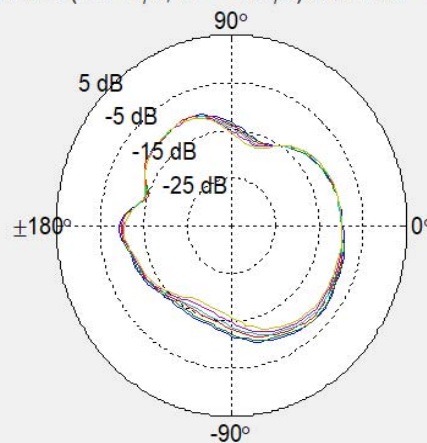
H2 Band = 2000 - 2200 MHz % H2 BAND

XY Plane (+X = 0°ϕX, +Y = +90°ϕX) / Elevation = 90°ϕX    ZX Plane (+Z = 0°ϕX, +X = +90°ϕX) / Azimuth = 0°ϕX

- 2110 MHz
- 2115 MHz
- 2132.5 MHz
- 2140 MHz
- 2155 MHz
- 2170 MHz



YZ Plane (+Z = 0°ϕX, +Y = +90°ϕX) / Azimuth = 90°ϕX



## Gain Table

Frequency (MHz)	3D			V+H Avg. Gain			V+H Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	ZX-plane	XY-plane	YZ-plane	ZX-plane
699.00	7.13	-11.47	-7.49	-13.56	-11.01	-11.24	-10.96	-7.50	-8.03
707.50	8.07	-10.93	-6.71	-13.17	-10.51	-10.79	-10.55	-6.74	-7.32
716.00	8.73	-10.59	-6.25	-12.95	-10.21	-10.45	-10.02	-6.25	-6.83
729.00	9.80	-10.09	-5.67	-12.60	-9.71	-10.17	-9.49	-5.70	-6.16
737.50	11.31	-9.47	-4.90	-11.98	-9.11	-9.66	-8.69	-5.05	-5.39
746.00	12.74	-8.95	-4.26	-11.39	-8.56	-9.18	-7.97	-4.49	-4.69
751.00	15.53	-8.09	-2.91	-10.39	-7.36	-8.73	-6.91	-2.91	-3.77
756.00	16.11	-7.93	-2.69	-10.14	-7.20	-8.55	-6.69	-2.69	-3.59
777.00	20.46	-6.89	-1.62	-8.74	-6.25	-7.24	-5.77	-1.62	-2.50
782.00	21.51	-6.67	-1.43	-8.43	-6.08	-6.95	-5.54	-1.44	-2.32
787.00	22.31	-6.52	-1.34	-8.18	-5.96	-6.72	-5.41	-1.37	-2.21
796.00	18.46	-7.34	-2.70	-9.04	-6.73	-7.70	-6.36	-3.31	-2.84
806.00	18.11	-7.42	-3.03	-8.90	-6.79	-7.80	-6.21	-3.53	-3.15
816.00	18.09	-7.43	-3.25	-8.74	-6.77	-7.82	-6.06	-3.69	-3.39
824.00	17.77	-7.50	-3.44	-8.69	-6.80	-7.90	-6.00	-3.72	-3.64
836.50	18.69	-7.28	-3.30	-8.42	-6.54	-7.64	-5.57	-3.62	-3.75
837.00	18.72	-7.28	-3.31	-8.41	-6.53	-7.63	-5.56	-3.62	-3.76
847.00	17.72	-7.52	-3.71	-8.54	-6.67	-7.90	-5.74	-3.80	-4.38
849.00	17.32	-7.61	-3.81	-8.65	-6.76	-7.98	-5.82	-3.91	-4.51
857.00	16.73	-7.77	-3.95	-8.80	-6.87	-8.09	-5.92	-3.97	-4.86
869.00	16.13	-7.92	-3.86	-9.10	-6.98	-8.14	-6.23	-4.06	-5.12
881.50	16.01	-7.95	-3.87	-9.20	-6.97	-8.02	-6.30	-4.15	-5.17
885.00	16.00	-7.96	-3.88	-9.20	-6.96	-8.03	-6.22	-4.15	-5.11
894.00	16.39	-7.85	-3.71	-9.21	-6.81	-7.89	-6.22	-3.95	-4.78
897.50	16.61	-7.80	-3.47	-9.20	-6.73	-7.80	-6.33	-3.74	-4.67
910.00	17.36	-7.61	-3.37	-9.07	-6.53	-7.49	-6.15	-3.74	-4.24
930.00	19.39	-7.12	-3.19	-8.67	-6.06	-6.89	-5.74	-3.49	-3.60
942.50	20.75	-6.83	-3.07	-8.37	-5.87	-6.44	-5.32	-3.33	-3.37
955.00	21.87	-6.60	-2.99	-8.16	-5.68	-6.13	-5.01	-3.29	-3.05

## Gain Table

Frequency (MHz)	3D			V+H Avg. Gain			V+H Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	ZX-plane	XY-plane	YZ-plane	ZX-plane
1710.00	31.17	-5.06	-1.81	-3.74	-5.35	-6.04	-2.43	-1.98	-4.15
1715.00	31.79	-4.98	-1.70	-3.69	-5.26	-5.91	-2.35	-1.85	-4.08
1732.50	35.84	-4.46	-1.04	-3.24	-4.70	-5.21	-1.82	-1.22	-3.48
1747.50	36.98	-4.32	-0.87	-3.19	-4.53	-4.95	-1.56	-1.05	-3.35
1755.00	38.34	-4.16	-0.63	-3.05	-4.35	-4.70	-1.38	-0.87	-3.15
1780.00	39.58	-4.02	-0.40	-3.12	-4.22	-4.39	-1.15	-0.70	-3.04
1810.00	36.93	-4.33	-0.66	-3.60	-4.47	-4.53	-1.21	-0.94	-3.09
1842.50	31.10	-5.07	-1.41	-4.54	-5.15	-5.14	-1.60	-1.92	-3.51
1850.00	29.84	-5.25	-1.60	-4.79	-5.30	-5.31	-1.74	-2.13	-3.64
1875.00	27.90	-5.54	-2.34	-5.14	-5.37	-5.75	-2.38	-2.69	-3.38
1880.00	26.55	-5.76	-2.54	-5.37	-5.56	-6.05	-2.80	-2.96	-3.45
1910.00	18.73	-7.27	-3.37	-6.64	-7.06	-8.07	-4.79	-3.79	-5.06
1925.00	14.73	-8.32	-4.10	-7.80	-8.22	-8.89	-6.82	-4.20	-7.01
1930.00	14.02	-8.53	-4.31	-7.87	-8.48	-8.93	-7.01	-4.42	-7.14
1950.00	12.16	-9.15	-4.76	-8.71	-9.20	-9.20	-7.40	-4.77	-7.26
1960.00	11.51	-9.39	-4.93	-9.04	-9.45	-9.30	-7.37	-4.93	-7.40
1975.00	10.88	-9.63	-5.11	-9.39	-9.69	-9.41	-7.32	-5.13	-7.60
1990.00	10.03	-9.99	-5.45	-9.85	-10.04	-9.66	-7.53	-5.47	-7.95
2110.00	8.54	-10.69	-6.81	-11.03	-10.98	-9.97	-7.74	-7.01	-8.57
2115.00	8.21	-10.85	-6.97	-11.24	-11.15	-10.13	-7.92	-7.18	-8.72
2132.50	8.14	-10.90	-7.09	-11.30	-11.29	-10.20	-7.64	-7.48	-8.81
2140.00	7.99	-10.97	-7.11	-11.28	-11.39	-10.30	-7.51	-7.65	-9.07
2155.00	7.89	-11.03	-7.13	-11.33	-11.51	-10.37	-7.40	-7.89	-9.30
2170.00	7.82	-11.07	-7.04	-11.40	-11.67	-10.47	-7.12	-8.19	-9.30

**Test Environment**

<b>Equipment Description</b>	<b>Manufacturer</b>	<b>Identification no.</b>	<b>Current calibration date</b>	<b>Next calibration date</b>
Universal Radio Communication tester	Anritsu	MT8820C	2021/10/12	2022/10/11
Network Analyzer	Agilent	E5071C	2022/01/12	2023/01/11
Sleeve Dipole	MVG	SD740	2022/01/07	2025/01/06
Dual Ridge Horn	MVG	SH800	2021/11/09	2022/11/08
Dipole antenna	ETS-Lindgren	3126-700	2020/10/13	2023/10/12
Stargate-24-L probe array	MVG	Stargate-24-L	2022/08/26	2023/08/25
Measurement software	MVG	Wave Studio v3.1.2	N/A	N/A
Wireless protocol tester	R & S	CMW 500	2022/02/09	2023/02/08



## Drawing

