

FTLTEF129-LU

Antenna

Custom Built to Serve Your Unique Requirements

Features:

Frequency Band: 746-894 MHz; 1710-2200 MHz ; 3300-4200 MHz

Type: LTE antenna

Dimensions: 81.25 X 19.82 X 0.405 mm

Field Theory Part Number: FTLTEF129-LU

RoHs and REACH compliant

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Version: 1.0

Date: 2/3/2026

Performance & Specifications

Parameters	Results										
Frequency (GHz)	0.745	0.787	0.821	0.898	1.714	1.884	1.994	2.156	3.303	3.601	3.898
Efficiency (%)	54.6	61.9	61.2	38.4	56.0	79.9	86.3	76.1	70.6	61.0	58.8
Peak Gain (dBi)	-0.26	0.29	0.31	-1.49	3.74	5.49	5.92	4.22	3.33	3.48	3.94
VSWR	<3.0	<3.0	<3.0	<3.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
General Specifications											
Antenna Type			Nominal Impedance				Power Handling		Polarization		
LTE			50 Ω				10W		Linear		
Mechanical Specifications											
Dimensions (L x W x H)							Material				
81.25 X 19.82 X 0.405 mm							FPC with MHF1LK PLUG				

Efficiency Pattern

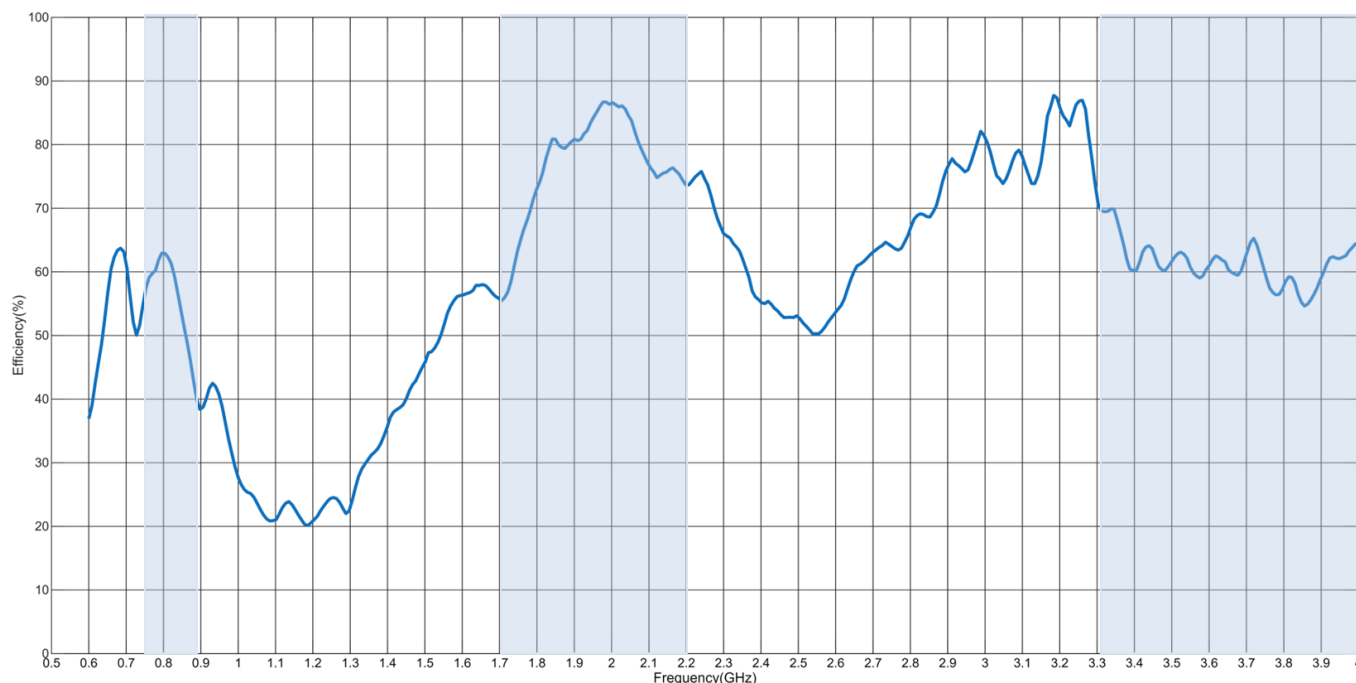


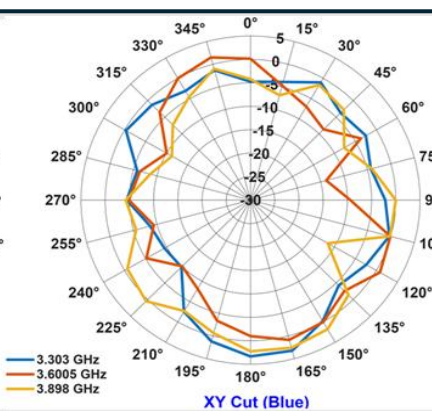
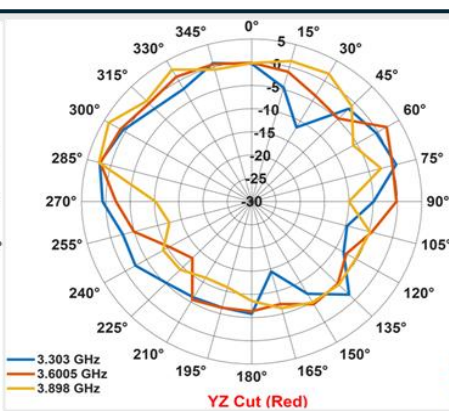
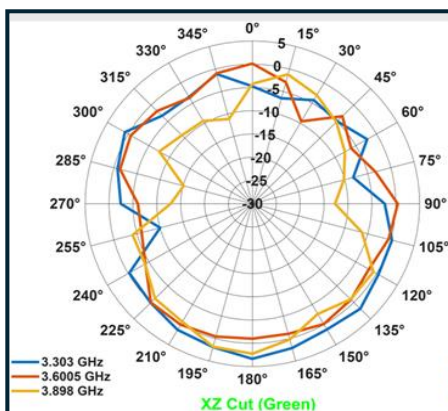
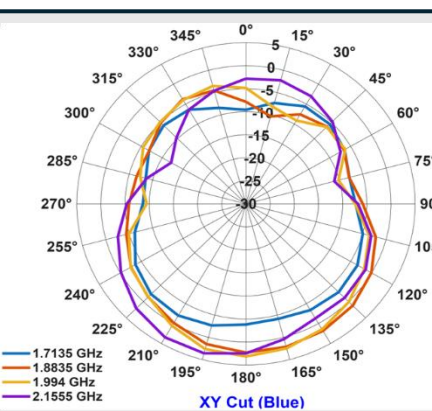
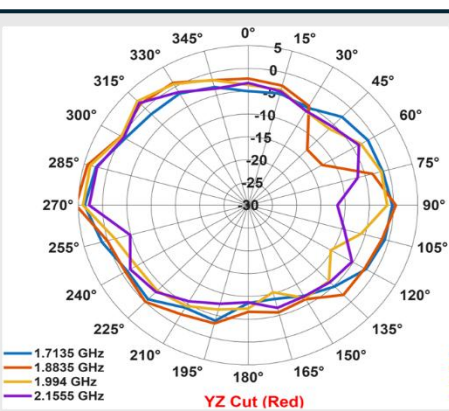
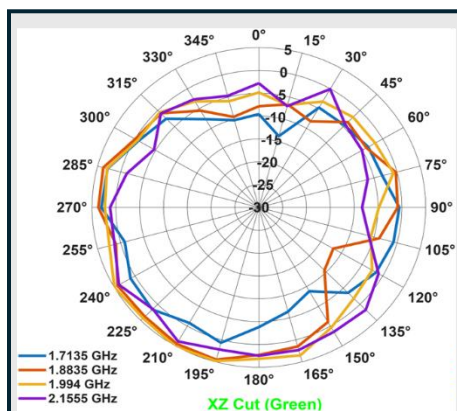
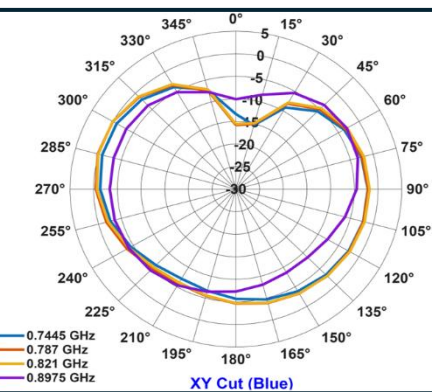
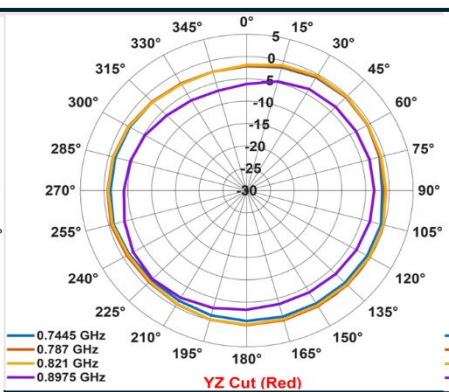
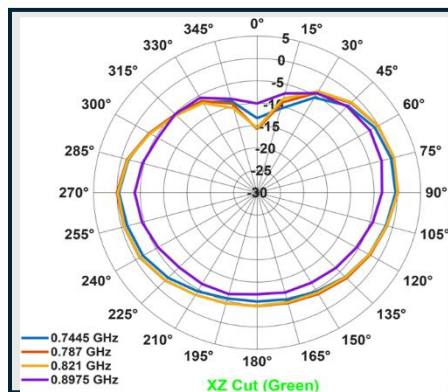
Fig 1. Typical Performance Efficiency

1D Gain Radiation Patterns

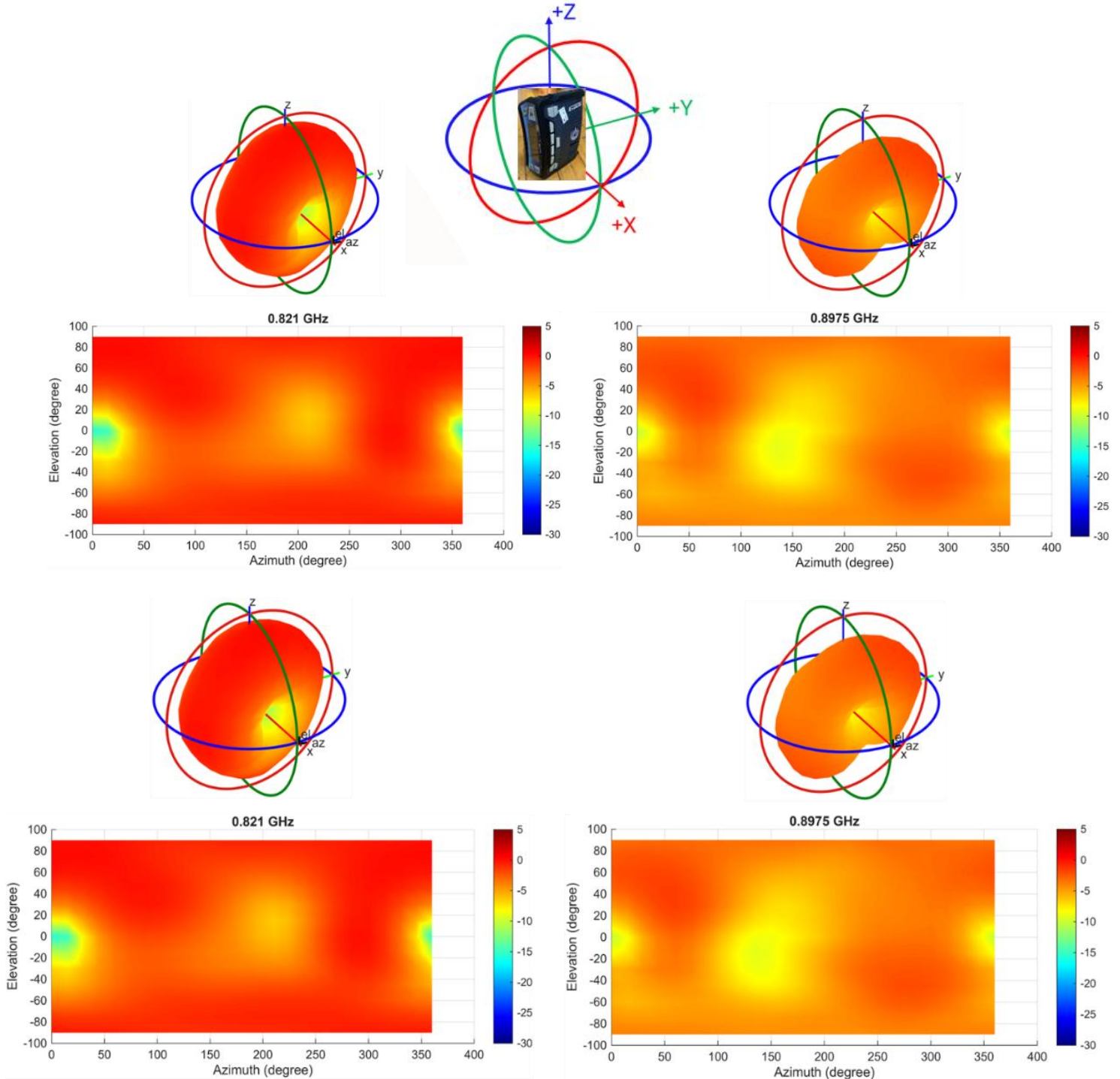
XZ Plane

YZ Cut

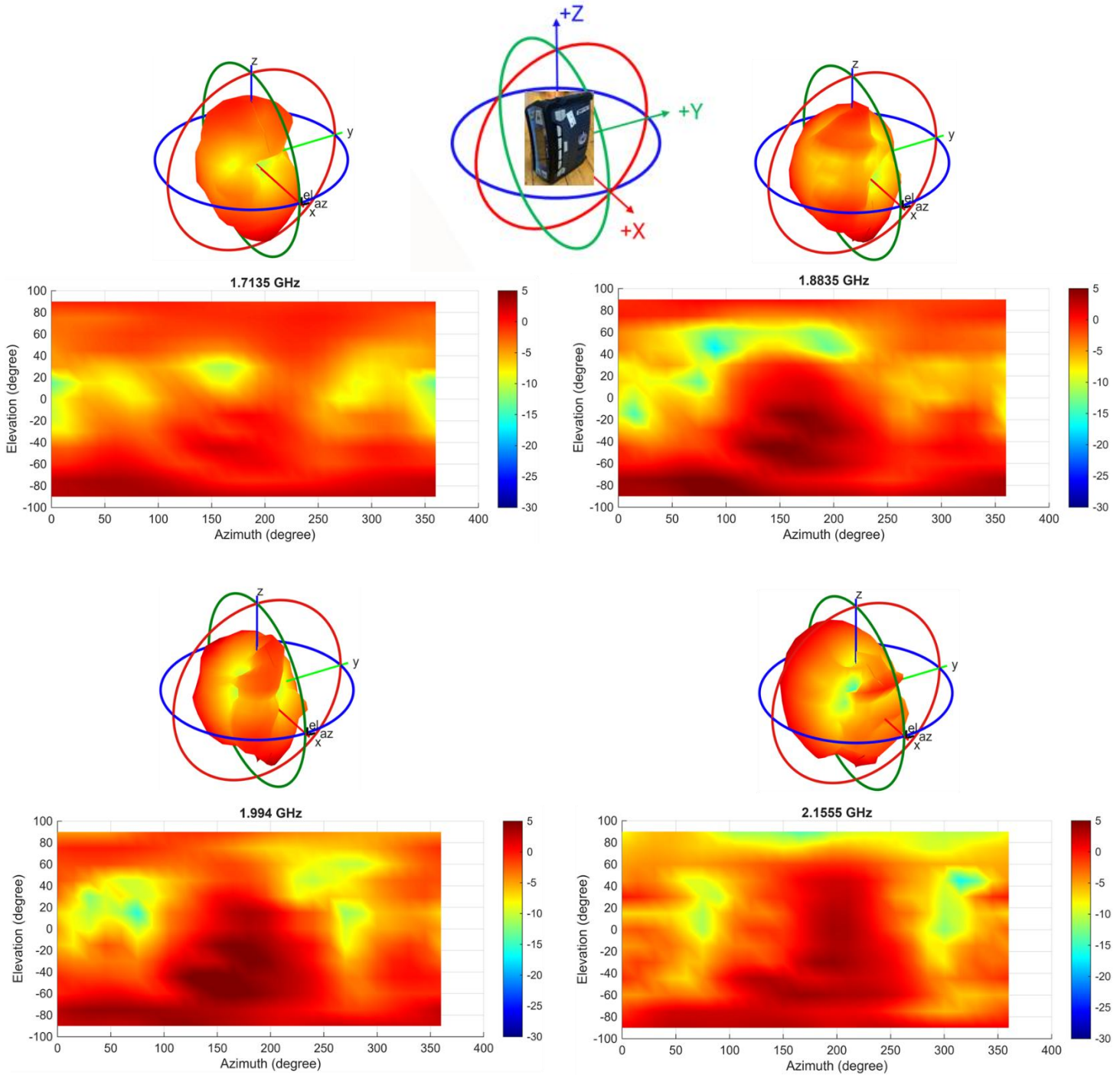
XY Cut



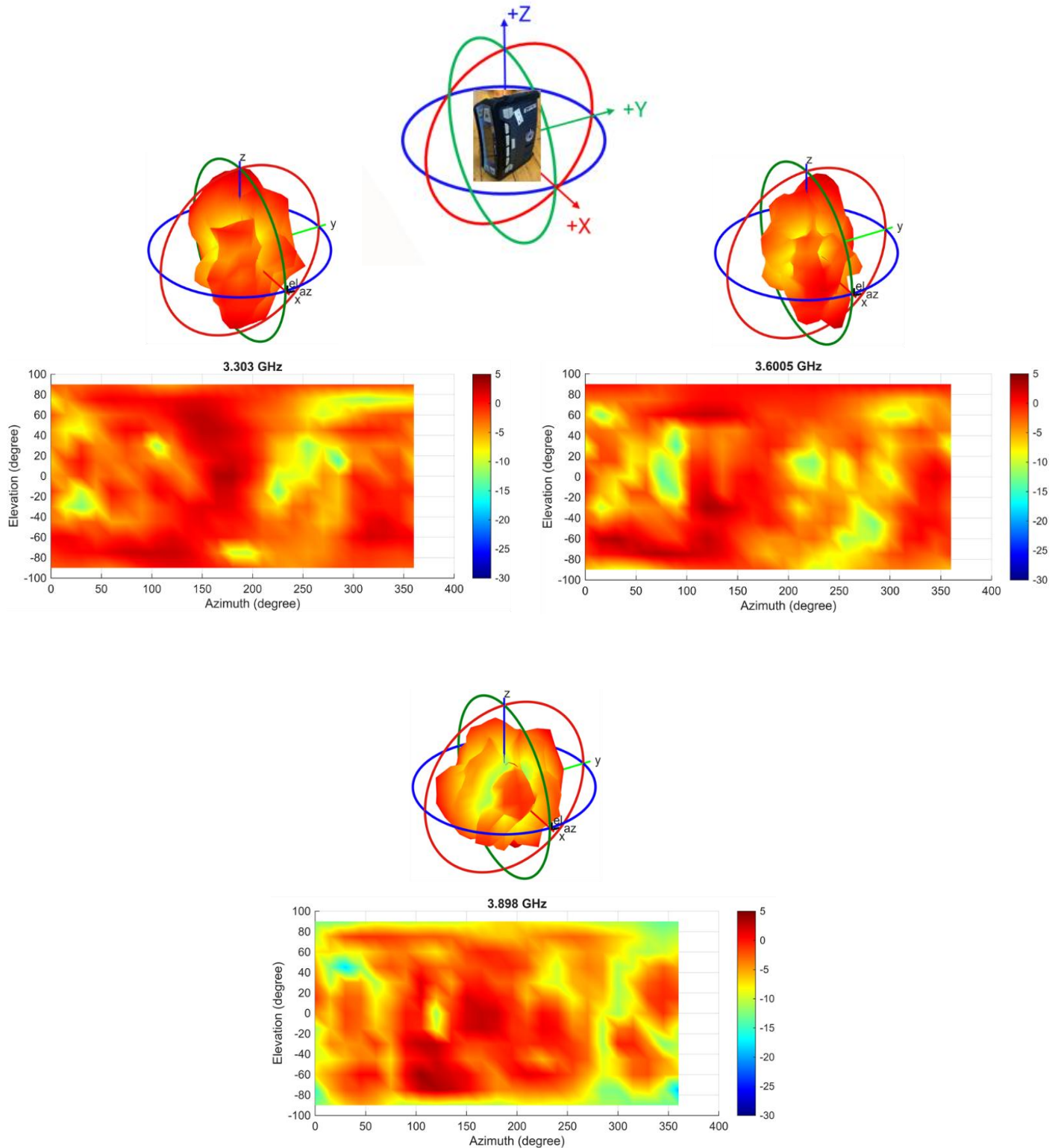
2D & 3D Gain Radiation Patterns



2D & 3D Gain Radiation Patterns



2D & 3D Gain Radiation Patterns



Test Conditions

Results were collected from a passive antenna measurement within a 5-meter fully anechoic antenna chamber equipped with a dual-pol quad-ridged horn receiver antenna and an EL-AZ positioner with laser positioner.

Test Conducted	Passive
DUT SN/PN	Prototype

Formula & Calculations

Gain:
$$G_{AUT} = \frac{[S_{21}]^2}{[G_{REF}]} \left(\frac{\lambda}{4\pi d} \right)^{-2}$$

Efficiency:
$$\varepsilon = \frac{\pi}{2NM} \sum_N \sum_M \frac{S_{21}^2(\theta_M, \phi_N)}{P_L G_T} \cos(\phi_N)$$

Test Equipment Calibration Status

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Network Analyzer	Anritsu	MS46122B	2135304	2/25/2025	2/26/2026
Quad-Ridge Horn Antenna	ETS-Lindgreen	3164-10	217936	2/25/2025	2/26/2026
5 Meter Anechoic Chamber	Braden Shielding Systems	NA	F70331	NA	NA
RF Cable	ENS Microwave	S160-160-MKS-MKS	3042020	2/25/2025	2/26/2026
RF Cable	ENS Microwave	S160-120-MKS-MKS	12042018	2/25/2025	2/26/2026
RF Cable	ENS Microwave	EMC1-K1K1-72	1GVT4 19002201	2/25/2025	2/26/2026
RF Cable	ENS Microwave	EMC1-K1K1-72	1GVT4 19002202	2/25/2025	2/26/2026
RF Cable	ENS Microwave	EMC1-K1K1-216	1GVT4 19002202 001	2/25/2025	2/26/2026
RF Cable	ENS Microwave	EMC1-K1K1-216	1GVT4 19002202 002	2/25/2025	2/26/2026
DUT Positioner	DE LCC	D6025	NA	NA	NA
RF Switch	Mini-Circuits	RC-1SPDT-A18	1810010005	2/25/2025	2/26/2026

Legal Notices

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Mechanical Drawing

