

FTGPSF003-LU

Antenna

Custom Built to Serve Your Unique Requirements

Features:

Frequency Band: 2.400 – 2.483 GHz

Type: Bluetooth Antenna

Dimensions: 43.6 X 7.30 X 0.405 mm

Field Theory Part Number: FTGPSF003-LU

RoHs and REACH compliant

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Version: 1.0

Date: 2/3/2026

Performance & Specifications

Parameters	Results			
Frequency (GHz)	2.400	2.430	2.460	2.483
Efficiency (%)	17.4	24.2	30.0	29.5
Peak Gain (dBi)	0.17	1.41	2.06	1.36
VSWR	<3.0	<3.0	<3.0	<3.0
General Specifications				
Antenna Type		Nominal Impedance	Power Handling	
BLE		50 Ω	10W	
Mechanical Specifications				
Dimensions (L x W x H)			Material	
7.30 X 43.60 X 0.405 mm			FPC with MHF1LK PLUG	

Efficiency Pattern

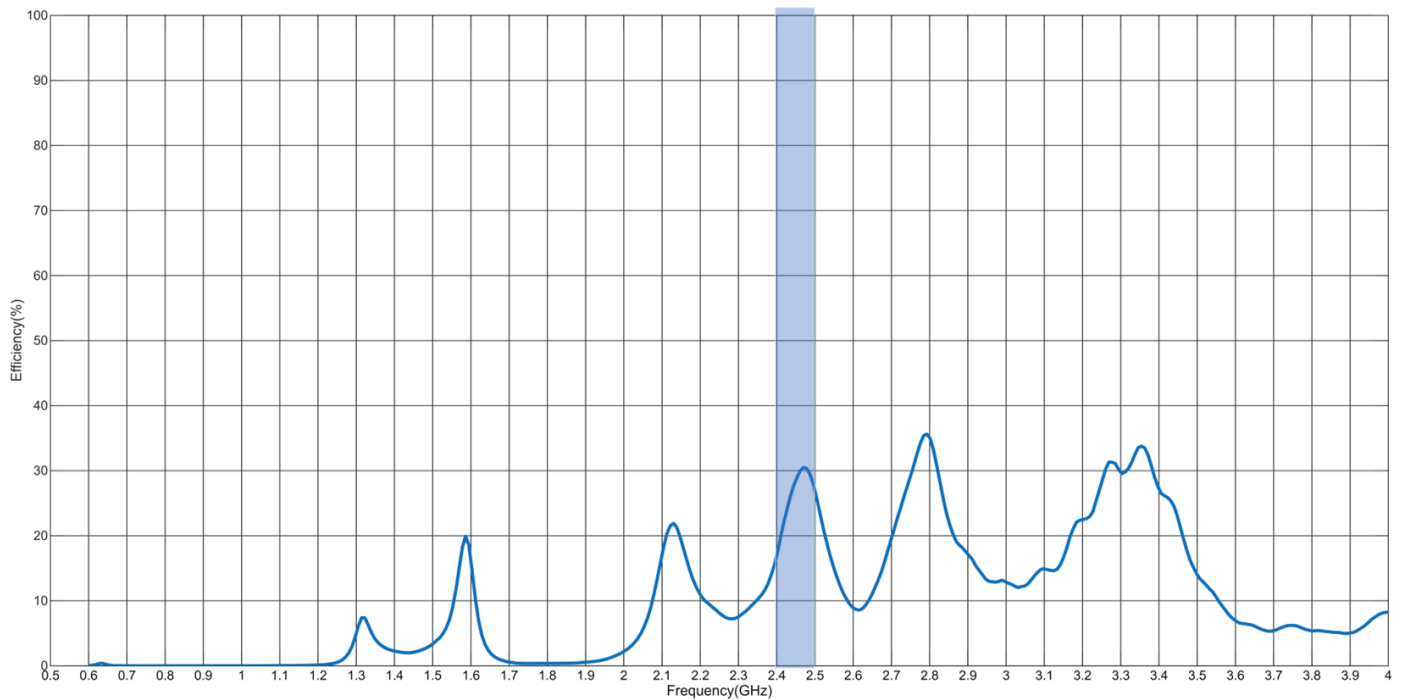


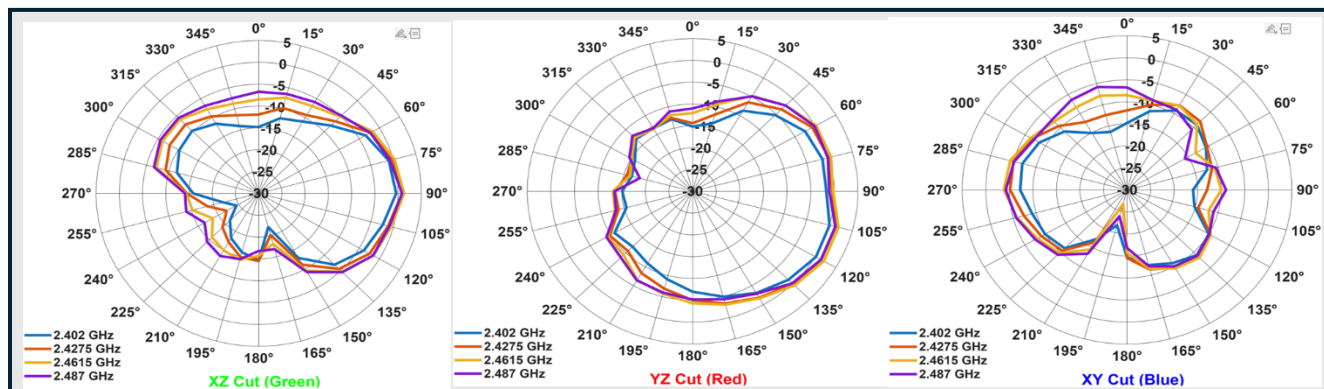
Fig 1. Typical Performance Efficiency

1D Gain Radiation Patterns

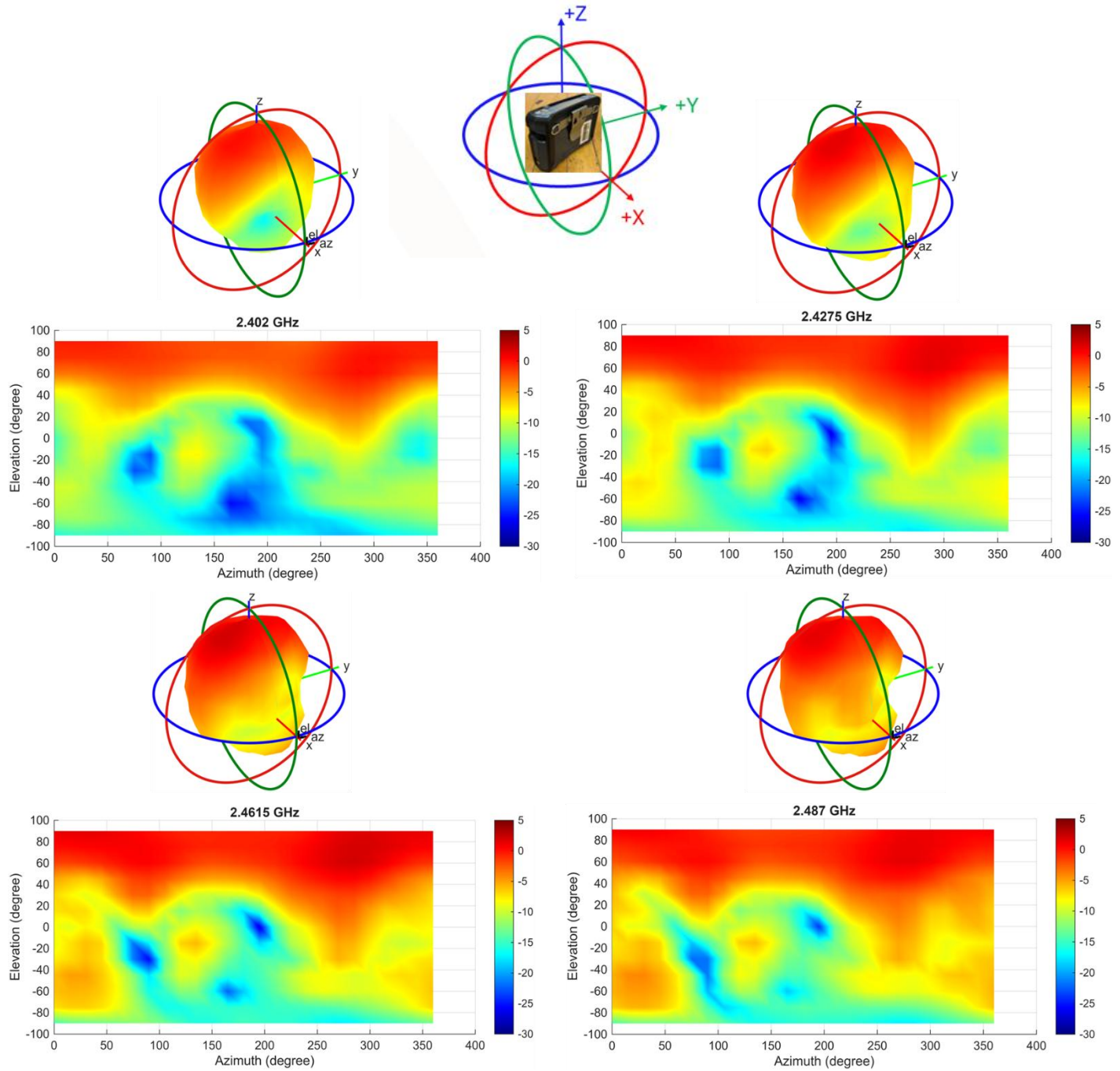
XZ Plane

YZ Cut

XY Cut



2D & 3D Gain Radiation Patterns



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

