

FTLTE127 LTE, WiFi/BLE Antenna

Custom Built to Serve Your Unique Requirements

Features:

Type: Inverted-F Antenna (LDS)

Frequency Range:

890-900 MHz, 1680-2600 MHz

Carrier Dimensions¹:

39.46 x 30.30 x 7.97 mm

Suggested Applications:

- LTE/Cellular; WiFi/BLE

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PN: FTLTEL127

Status: Released **Date:** 04/07/2025

1: LDS antenna is printed on carrier

Performance & Specifications

Antenna Performance				
Parameters	Results			
Frequency (GHz)	0.710	1.746	1.900	2.440
Efficiency (%)	21.45	17.28	33.65	71.60
Peak Gain (dBi)	-3.83	-1.59	1.00	3.68
VSWR	< 2.00			

General Specifications			
Antenna Type	Nominal Impedance	Power Handling	Polarization
LTE; WiFi/BLE	50 Ω	10 W	Linear

Mechanical Specifications	
Carrier ¹ Dimensions (L x W x H)	Material
39.46 x 30.30 x 7.97 mm	LDS Conductive Plating on Plastic

1: LDS antenna is printed on carrier

Efficiency

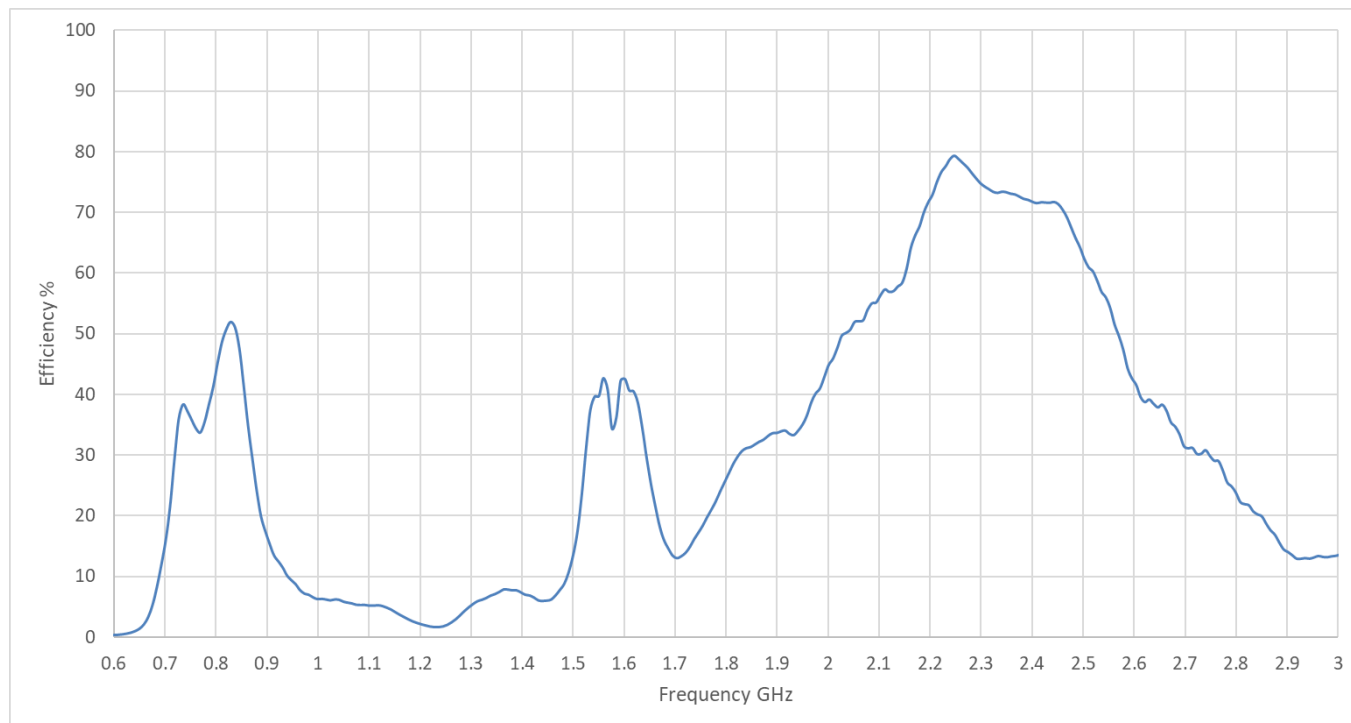


Fig 2. Typical Performance Efficiency

1D Gain Radiation Patterns

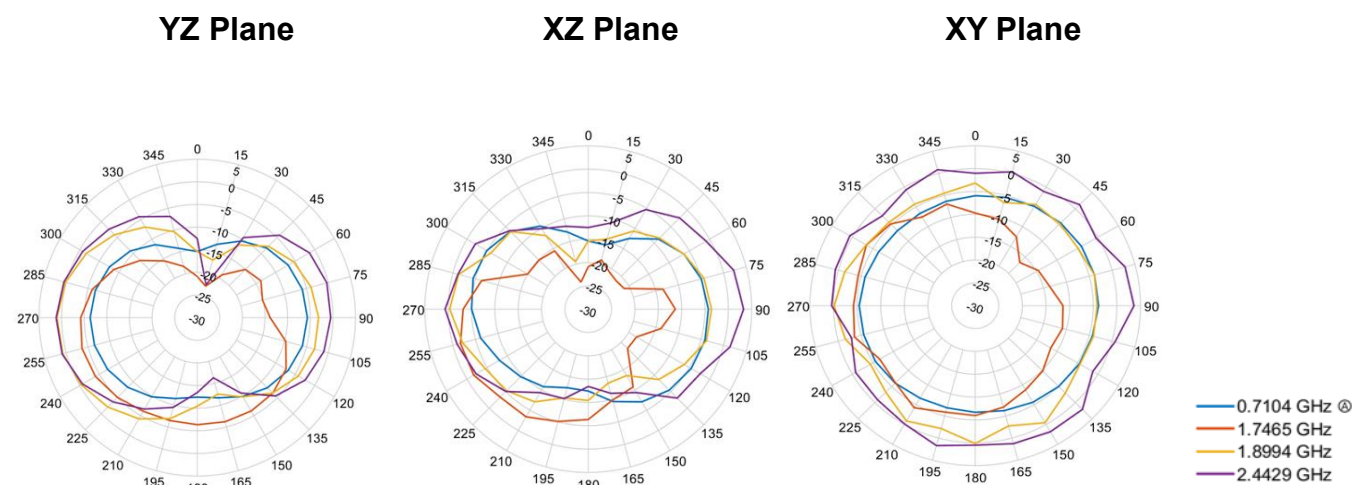


Fig. 3-5: 1D Gain Radiation Patterns

2D & 3D Gain Radiation Patterns

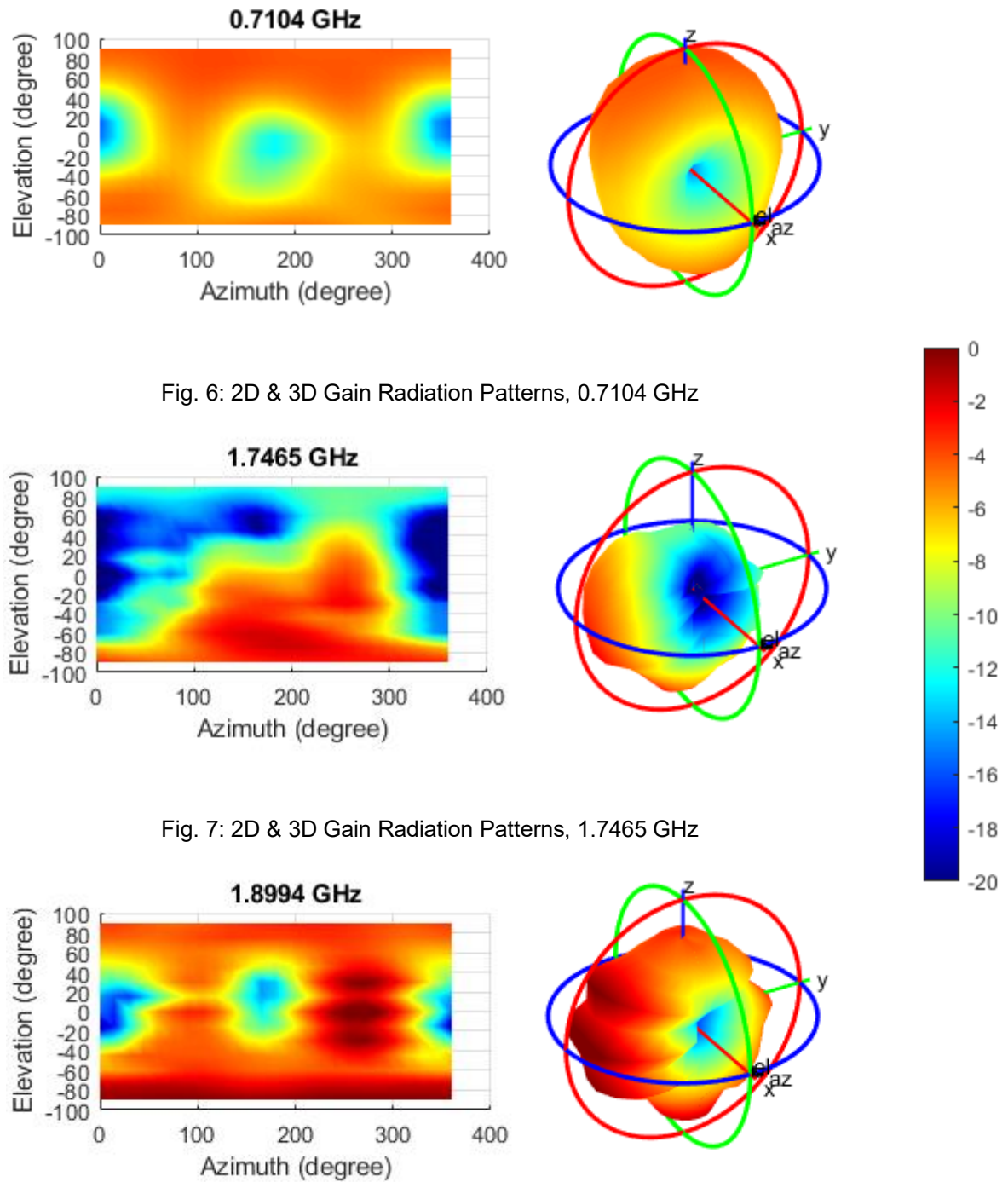


Fig. 6: 2D & 3D Gain Radiation Patterns, 0.7104 GHz

Fig. 7: 2D & 3D Gain Radiation Patterns, 1.7465 GHz

Fig. 8: 2D & 3D Gain Radiation Patterns, 1.8994 GHz

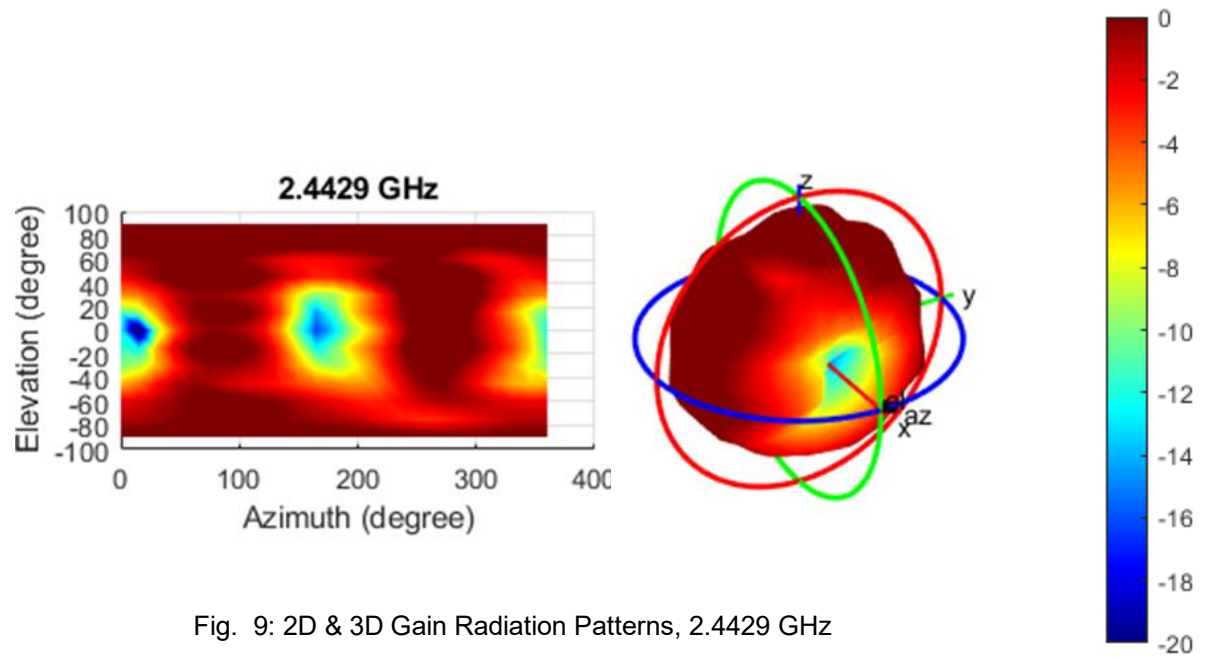


Fig. 9: 2D & 3D Gain Radiation Patterns, 2.4429 GHz

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	03/24/2025
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Formula & Calculations

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

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

Software Name: Antenna Measurement Studio

Test Equipment Calibration Status

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Network Analyzer	Anritsu	MS46122B	2135304	8/25/2024	8/25/2025
Quad-Ridge Horn Antenna	ETS-Lindgreen	3164-10	217936	8/25/2024	8/25/2025
5 Meter Anechoic Chamber	Braden Shielding Systems	NA	F70331	NA	NA
RF Cable	ENS Microwave	S160-160-MKS-MKS	3042020	8/25/2024	8/25/2025
RF Cable	ENS Microwave	S160-120-MKS-MKS	12042018	8/25/2024	8/25/2025
RF Cable	ENS Microwave	EMC1-K1K1-72	1GVT4 19002201	8/25/2024	8/25/2025
RF Cable	ENS Microwave	EMC1-K1K1-72	1GVT4 19002202	8/25/2024	8/25/2025
RF Cable	ENS Microwave	EMC1-K1K1-216	1GVT4 19002202 001	8/25/2024	8/25/2025
RF Cable	ENS Microwave	EMC1-K1K1-216	1GVT4 19002202 002	8/25/2024	8/25/2025
DUT Positioner	DE LCC	D6025	NA	NA	NA
RF Switch	Mini-Circuits	RC-1SPDT-A18	1810010005	8/25/2024	8/25/2025

Legal Notices

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