



FIELD**THEORY**[®]

CUSTOM **ANTENNA** DESIGN & **RF** SOLUTIONS

AGILITY ROBOTICS
DIGIT

05-13-2024

Purpose of Report: RF passive measurement of FT 900MHz and WiFi 6e Antenna

www.fieldtheoryinc.com

Testing Conditions

Field Theory Setup

Test Conducted	Passive antenna measurements on 900 MHz and WiFi 6e antenna
Equipment Used	5-meter anechoic antenna chamber equipped with a dual-pol quad-ridge horn receiver antenna and an EL-AZ positioner with laser positioner
Notes on DUT	<u>Antenna was tested with Digit Head</u>

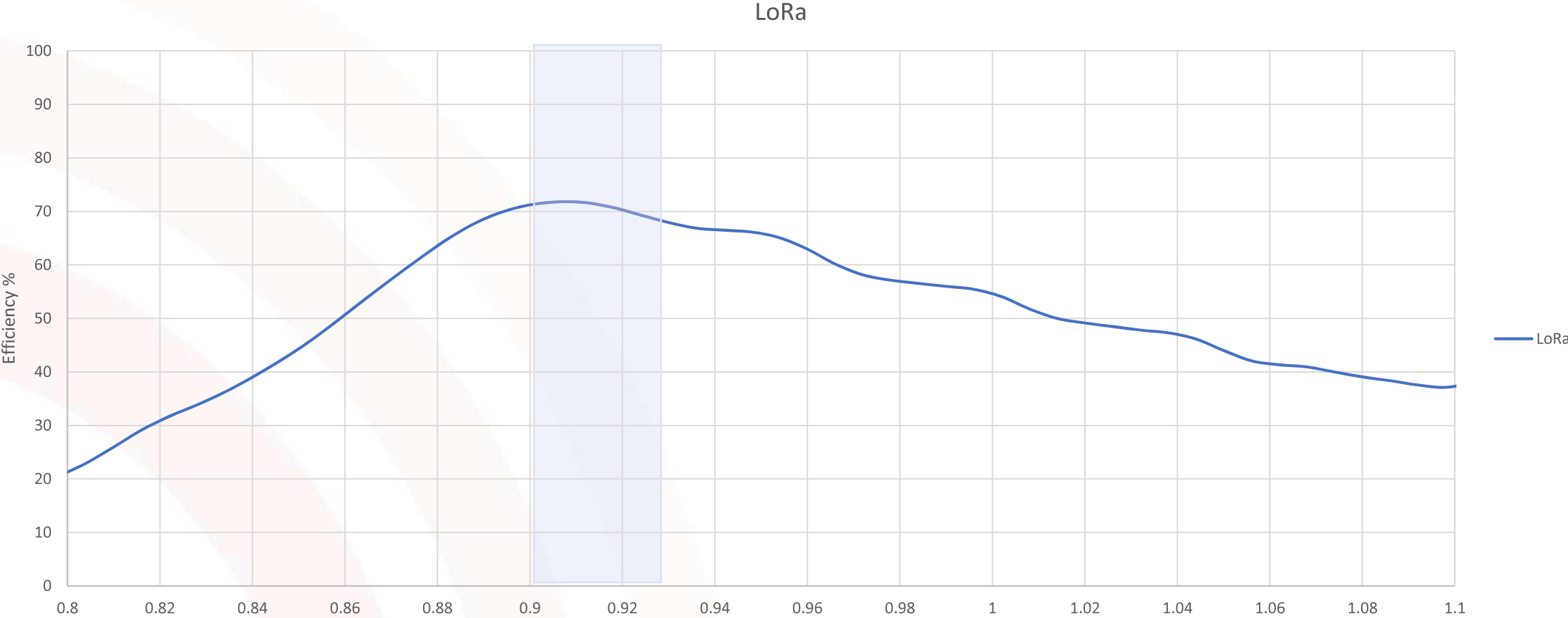
Equipment	Manufacturer	Model No.	Serial No.	last Cal.	Due Date
Network Analyzer	Anritsu	MS46122B	2135304	8/25/2023	8/24/2025
Quad-Ridge Horn Antenna	ETS-Lindgreen	3164-10	217936	8/25/2023	8/24/2025
3 Meter Anechoic Chamber	Braden Shielding Systems	NA	F70331	NA	NA
RF Cable	ENS Microwave	S160-160-MKS-MKS	3042020	8/25/2023	8/24/2025
RF Cable	ENS Microwave	S160-120-MKS-MKS	12042018	8/25/2023	8/24/2025
RF Cable	ENS Microwave	EMC1-K1K1-72	1GVT4 19002201	8/25/2023	8/24/2025
RF Cable	ENS Microwave	EMC1-K1K1-72	1GVT4 19002202	8/25/2023	8/24/2025
RF Cable	ENS Microwave	EMC1-K1K1-216	1GVT4 19002202 001	8/25/2023	8/24/2025
RF Cable	ENS Microwave	EMC1-K1K1-216	1GVT4 19002202 002	8/25/2023	8/24/2025
DUT Positioner	DE LCC	D6025	NA	NA	NA
RF Switch	Mini-Circuits	RC-1SPDT-A18	1810010005	8/25/2023	8/24/2025

FULLY ANECHOIC 3 METER
ANTENNA CHAMBER

900 MHz Antenna

Passive Efficiency

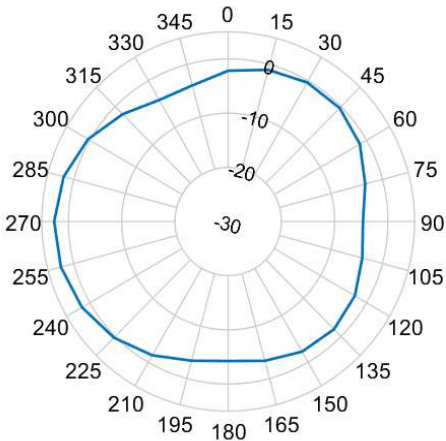
900 MHz Antenna



	900 MHz Antenna
Frequency (MHz)	915
Efficiency %	71 %
Peak Gain (dBi)	2.6 dBi

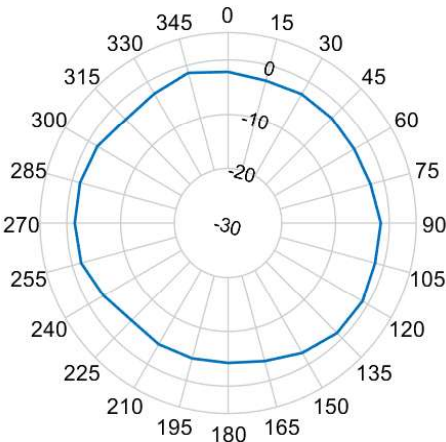
1D Radiation Patterns

900 MHz Antenna

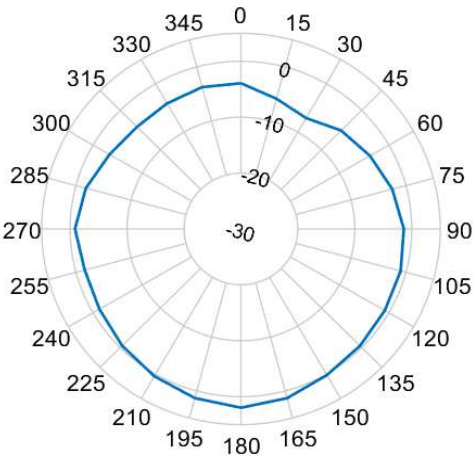


BLUE

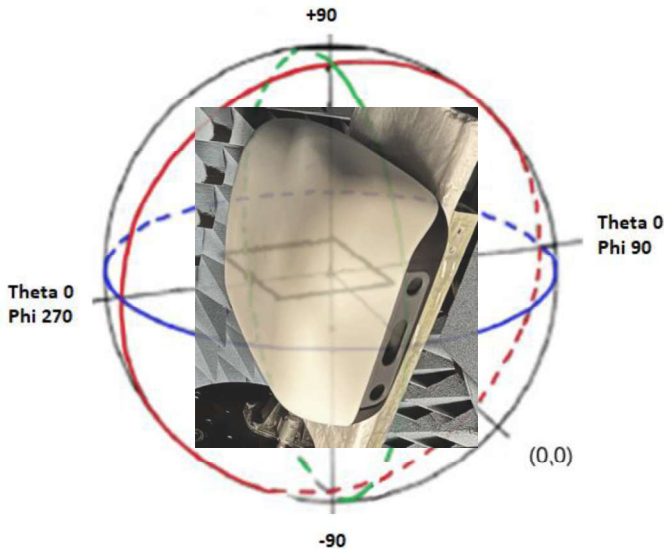
915 MHz



GREEN



RED



Heat Map & 3D Spherical

900 MHz Antenna

