



# TAOGLAS®



# Datasheet

**Part No:**

Black - FW.79.M6.F

White - FW.79.M6.F.W

**Description**

700-900MHz Flexible Whip Antenna with M6 Female Connector

**Features:**

Flexible Whip Antenna  
Covering: 700-900MHz  
IP67 Waterproof Rated Enclosure  
Dims: Ø14 x 65.8mm  
Connector: M6 Female  
RoHS & Reach Compliant

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## 1. Introduction



The FW.79 is a compact, flexible whip antenna designed for reliable performance within the 700–900MHz frequency band. Engineered with an M6 female connector, this antenna is ideal for mission-critical applications requiring durable and secure RF connectivity in demanding environments.

Its robust POM housing and wide operating temperature range ensure consistent performance across various industrial and commercial use cases. With optimized return loss and VSWR characteristics, the FW.79 offers an efficient solution for devices requiring compact form factor antennas without compromising RF performance.

### Typical Applications:

- Private Mobile Radio (PMR) systems
- Land Mobile Radio (LMR) equipment
- Emergency services communications (police, fire, ambulance)
- Military and defense communication gear
- Transportation and logistics communication systems

The FW.79 connector can be customized subject to NRE, for further information please contact your regional Taoglas customer support team

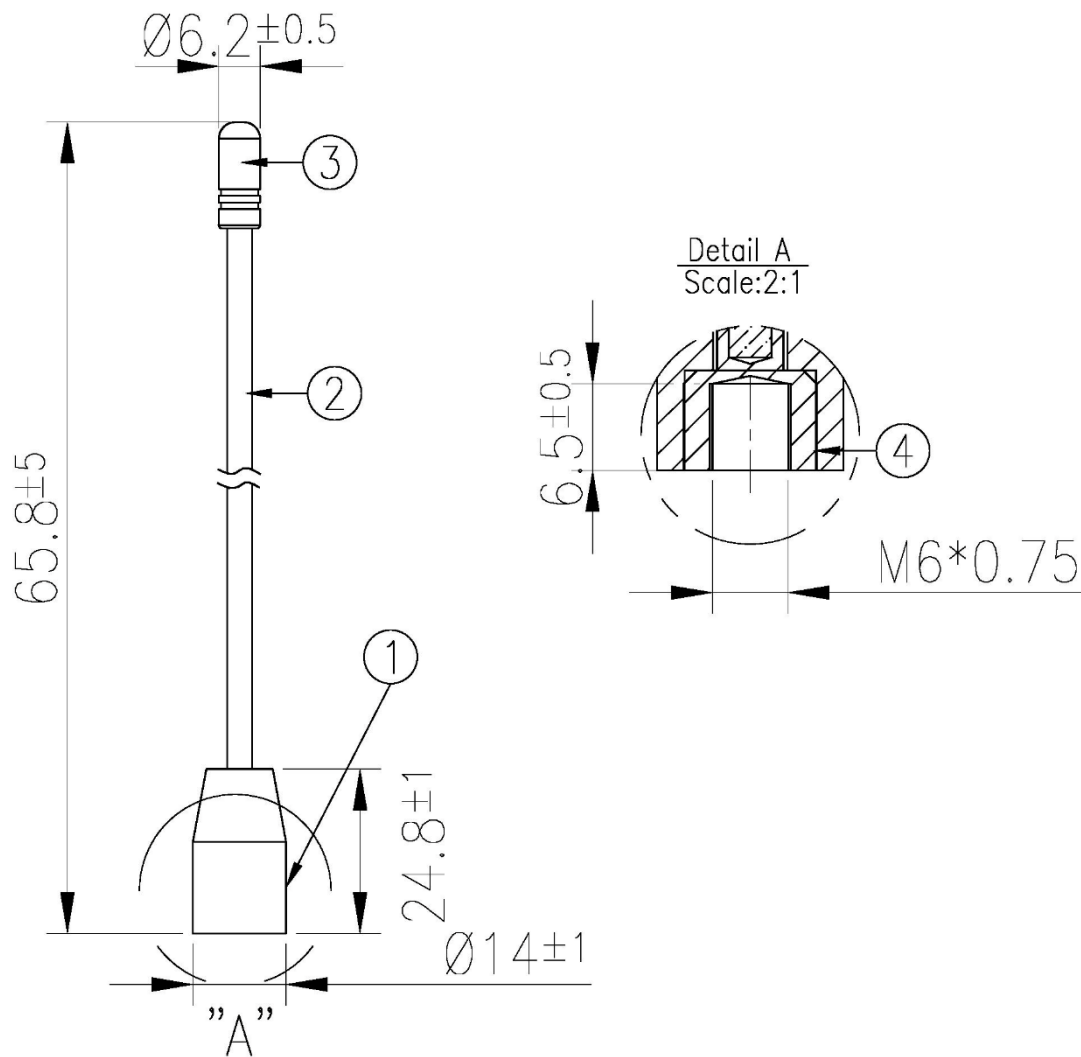
## 2. Specification

Electrical								
Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	Impedance	Polarization	Radiation Pattern	Max. input power
High-UHF	700-900	40.6	-3.91	1.72	50 $\Omega$	Linear	Omni directional	10W

Mechanical	
Dimensions	$\varnothing 14 \times 65.8\text{mm}$
Weight	10.57 g
Material	POM
Connector	M6 Female

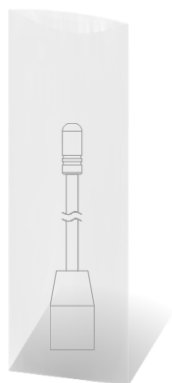
Environmental	
Waterproof Rating	IP67
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C
Relative Humidity	Non-condensing 65°C 95% RH

### 3. Mechanical Drawing



	Name	Material	Finish	QTY
1	Housing	POM	White	1
2	Whip	Steel+PE Jacket	White	1
3	Cap	POM	White	1
4	M6 Connector	Brass	Ni Plated	1

## 4. Packaging



- ✓ 1 PCS / PE bag
- ✓ PE bag (mm): 50x220 (Ref.)
- ✓ Weight (g): 11.1 ±3%

weight without packaging (g): 10.6 ±3%



- ✓ 50 PCS / Big PE bag
- ✓ Big PE bag (mm): 270x390 (Ref.)
- ✓ Weight (kg): 1.12 ±3%
- ✓ SPQ Label



- ✓ 600 PCS / Carton
- ✓ Carton(mm): 360x310x160
- ✓ Weight (kg): 7.17 ±3%
- ✓ Carton Label

## 5. Antenna Characteristics

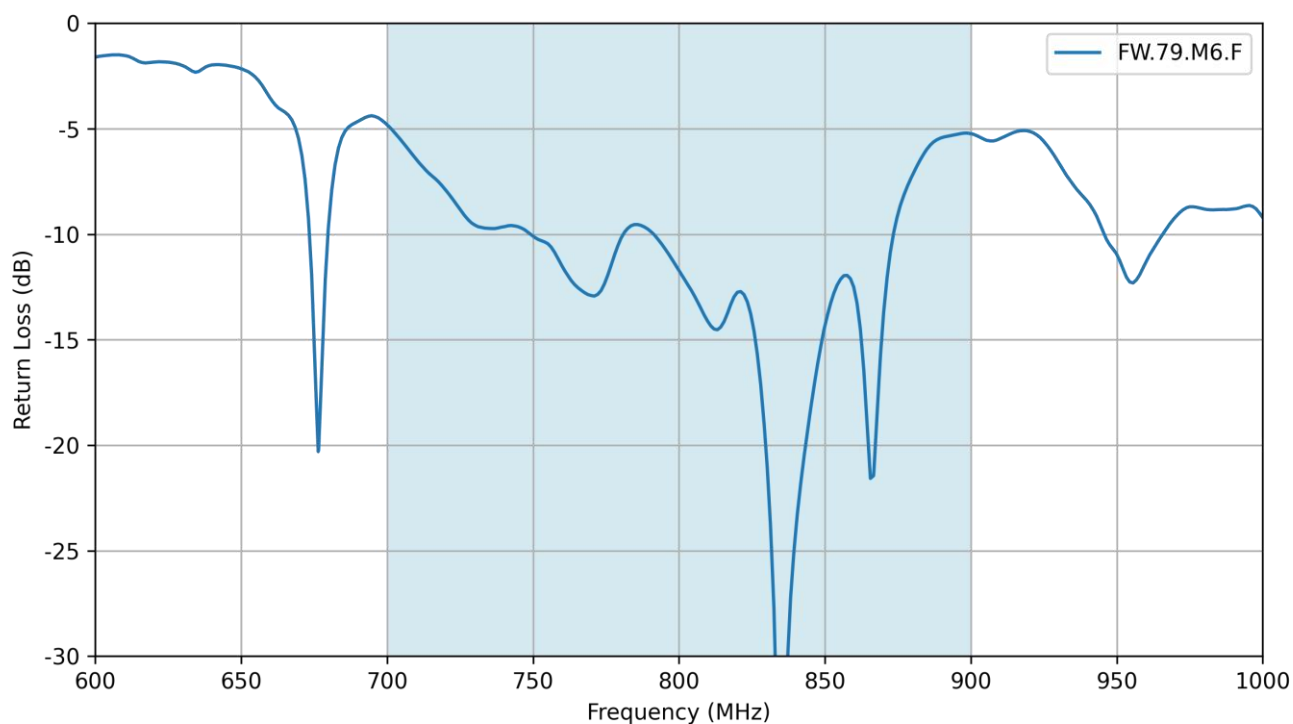
### 5.1 Test Setup



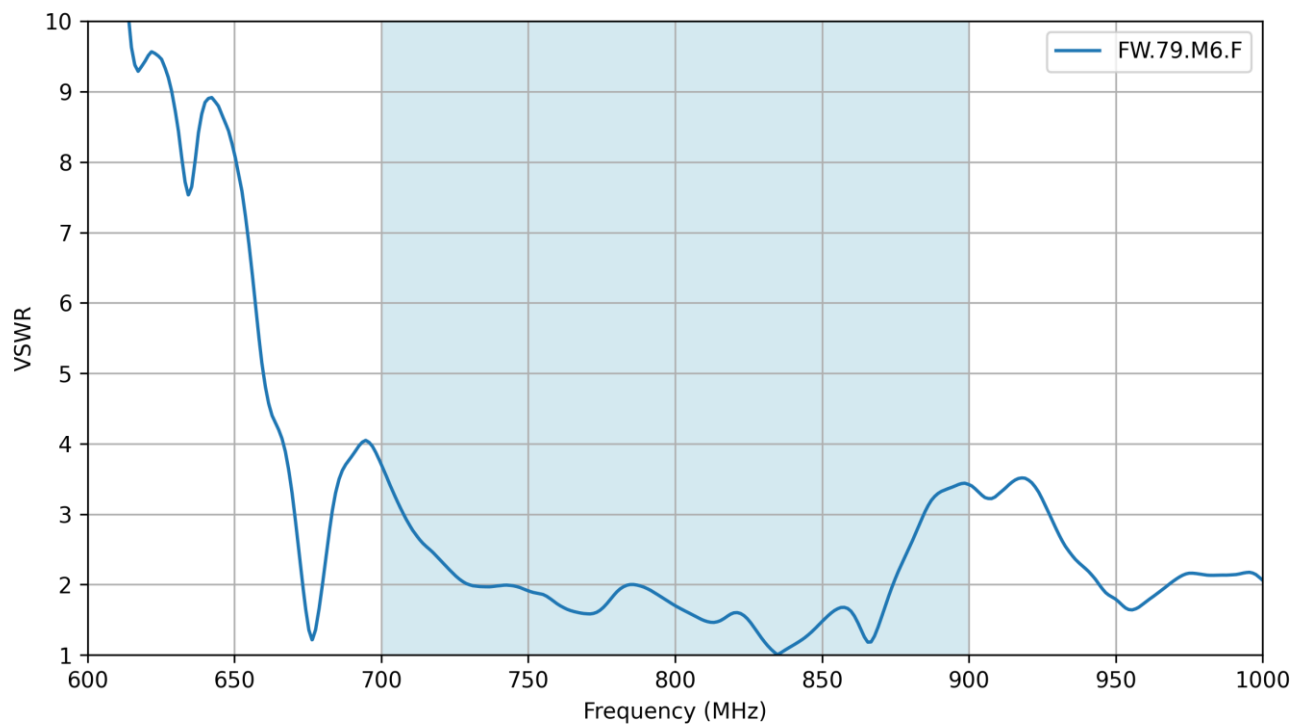
Vector Network Analyzer



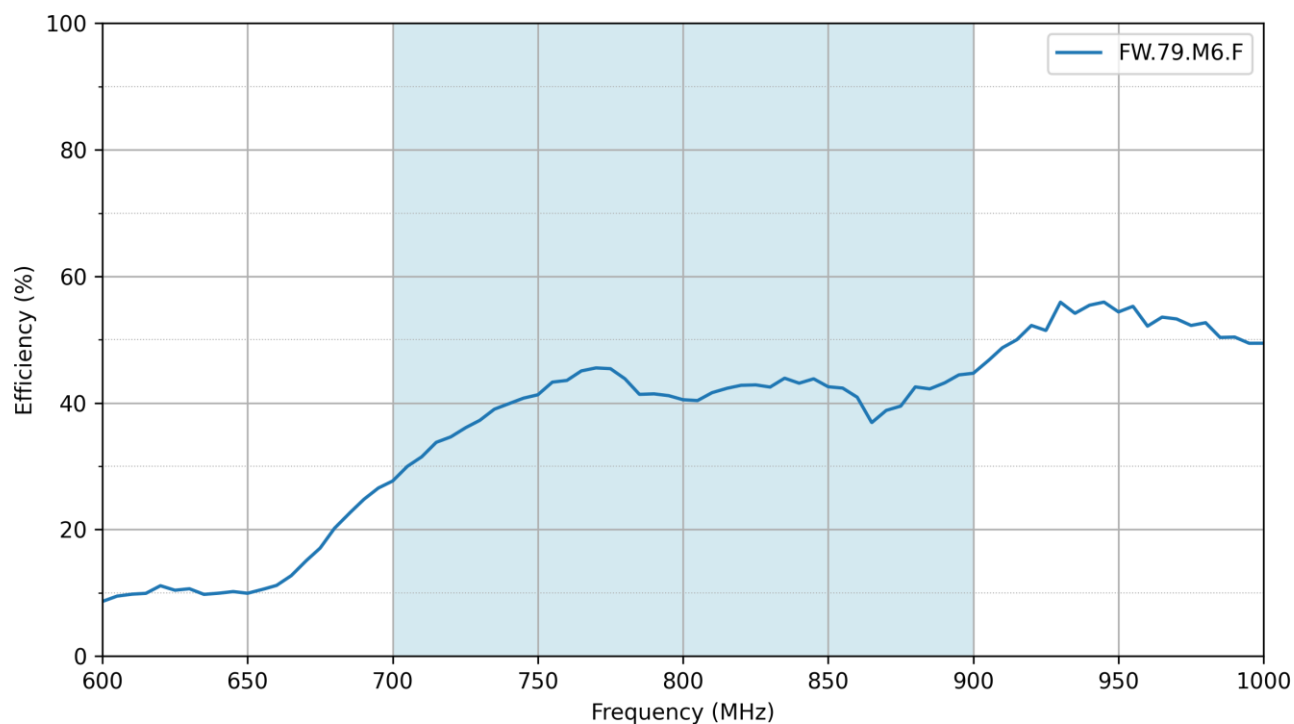
## 5.2 Return Loss



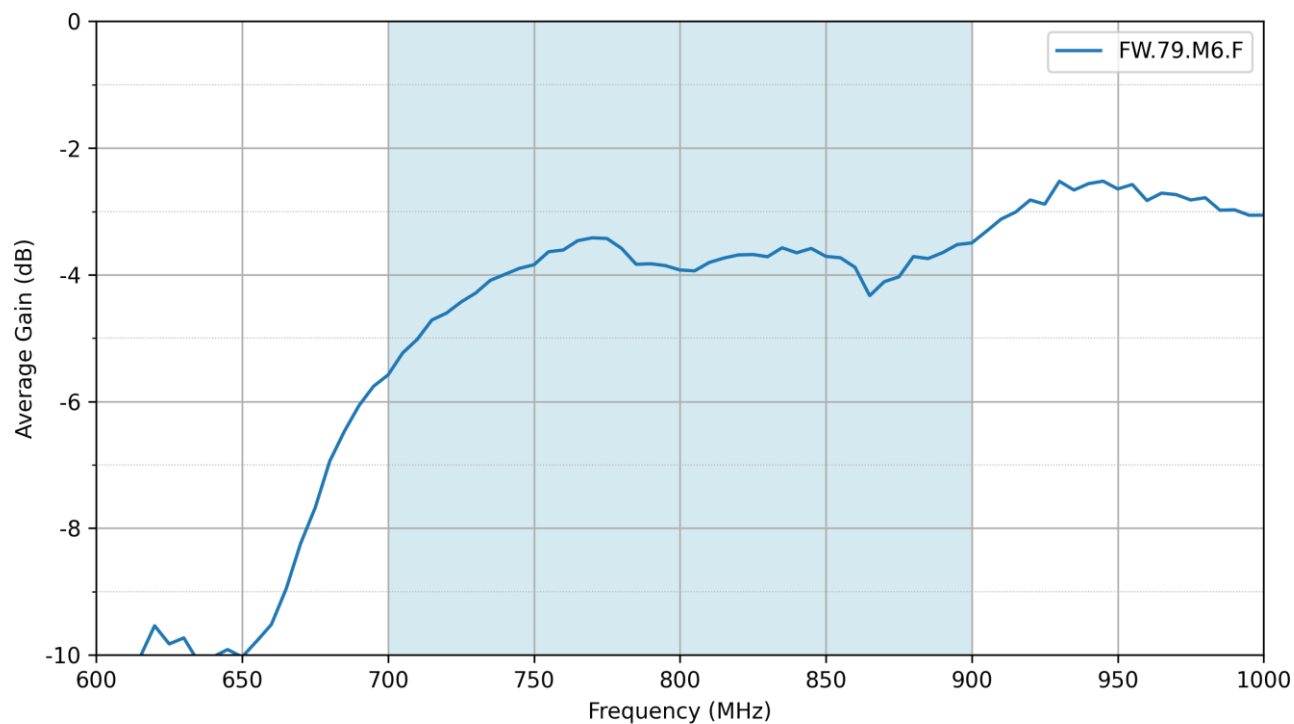
## 5.3 VSWR



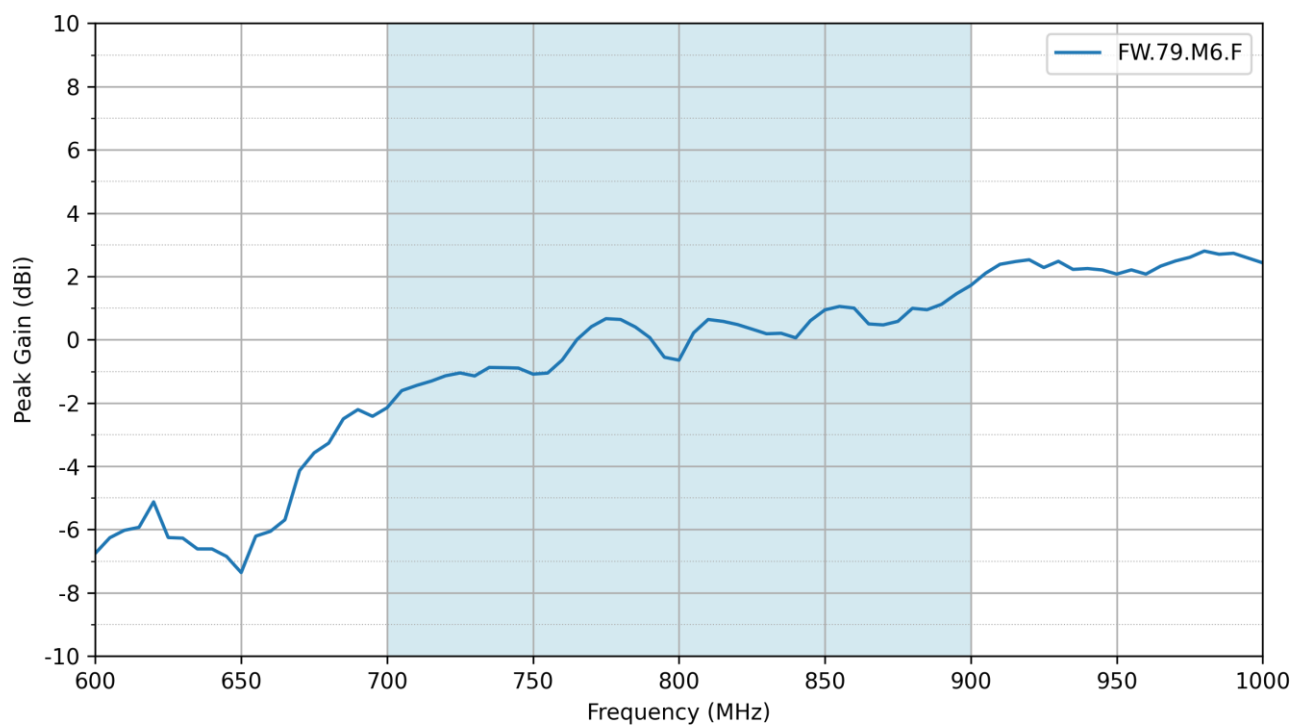
## 5.4 Efficiency



## 5.5 Average Gain

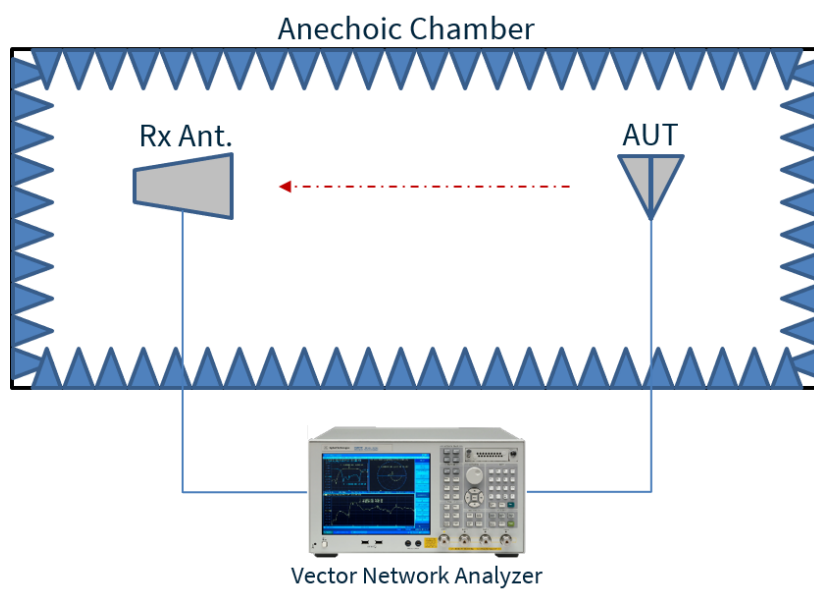


## 5.6 Peak Gain



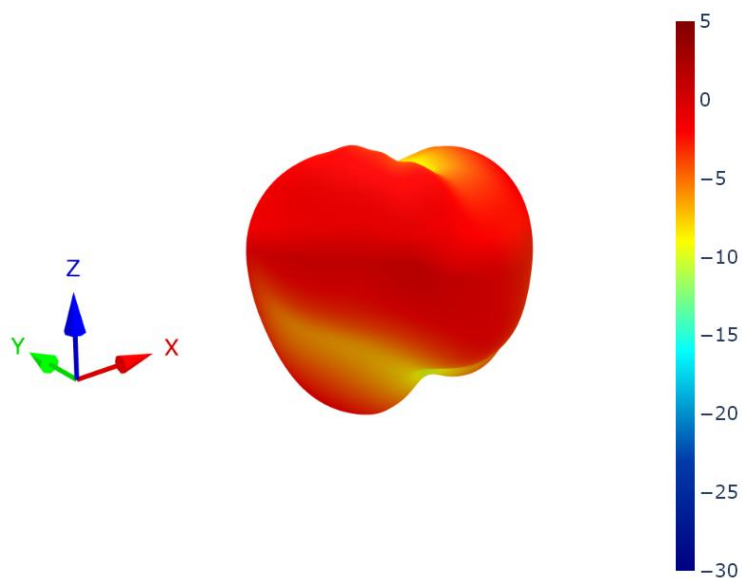
## 6. Radiation Patterns

### 6.1 Test Setup

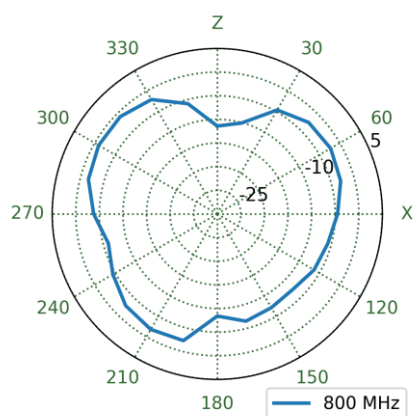


Chamber Test Set-up

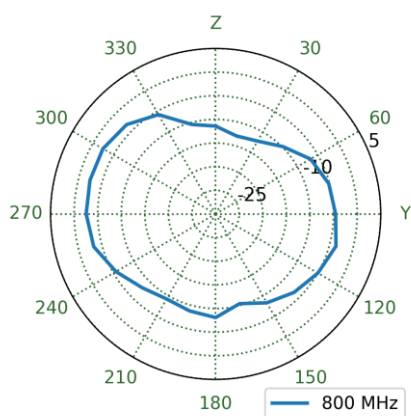
## 6.2 Patterns at 800 MHz



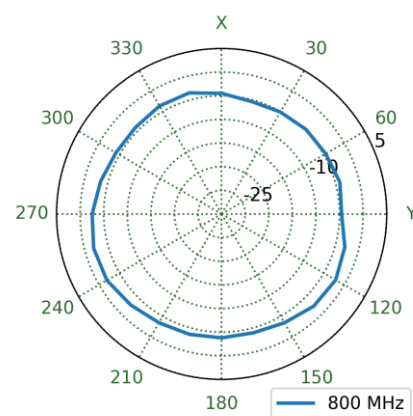
XZ Plane



YZ Plane



XY Plane



Changelog for the datasheet

SPE-25-8-323– FW.79.M6.F\_ FW.79.M6.F.W

Revision: B (Current Version)

Date: 2026-01-30

Changes: Updated packaging.

Changes Made by: Gary West

Previous Revisions

Revision: A (Original First Release)

Date: 2025-11-27

Notes: Initial Release



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