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TAOGLAS®



Datasheet

Part No:
FG.26.A

Description

Super Compact 7dBi 2.4GHz Directional Panel Antenna

300mm of RG-58 Pigtail with N Type Male Connector

Features:

Super Compact, High-Gain Panel Antenna
2.4GHz Coverage
7dBi Peak Gain
Multiple Mounting Options
IP65 Rated Enclosure
Cable: 300mm of RG-58
Connector: N-Type (Male)
Dimensions: 122 x 122 x 47mm
RoHS & Reach Compliant

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Ireland & USA ISO 9001:2015 Certified
Taiwan ISO 9001:2015 Certified
IATF16949

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1. Introduction



The Taoglas **FG.2x Series** of compact 2.4GHz Panel antennas are specially designed to provide directional wireless communication. The panel design combines a sleek, low-profile design with high-performance, delivering superior performance characteristics. Focused on high-performance signal transmission and reception, they are perfect for applications requiring long range, faster data rates and more resilient connections. The FG.26 offers a peak gain of up to 7dBi and the FG.27 reaches up to 12dBi, both with great efficiency of over 60%.

Typical Applications Include:

- Point to Point and Point to Multipoint Wireless Networks
- In-building and Backhaul Networks
- Long Range Wi-Fi® Coverage for Smart City Applications
- Wireless Surveillance Systems
- Wi-Fi® Hotspot Expansion, e.g. Factories and Dockyards

The IP65 waterproof rated antenna enclosure is made from UV resistant ABS making it ideal for use in challenging environments and wide temperature ranges. It is supplied with a mounting bracket that allows for positional tilt and swivel to optimise the directionality of the antenna. The FG Series is supplied with RG-58 cable and N-Type connectors as standard, both of which can be fully customised to suit your requirements pending MOQ.

For further information or samples, please contact your regional Taoglas customer support team.

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2. Specification

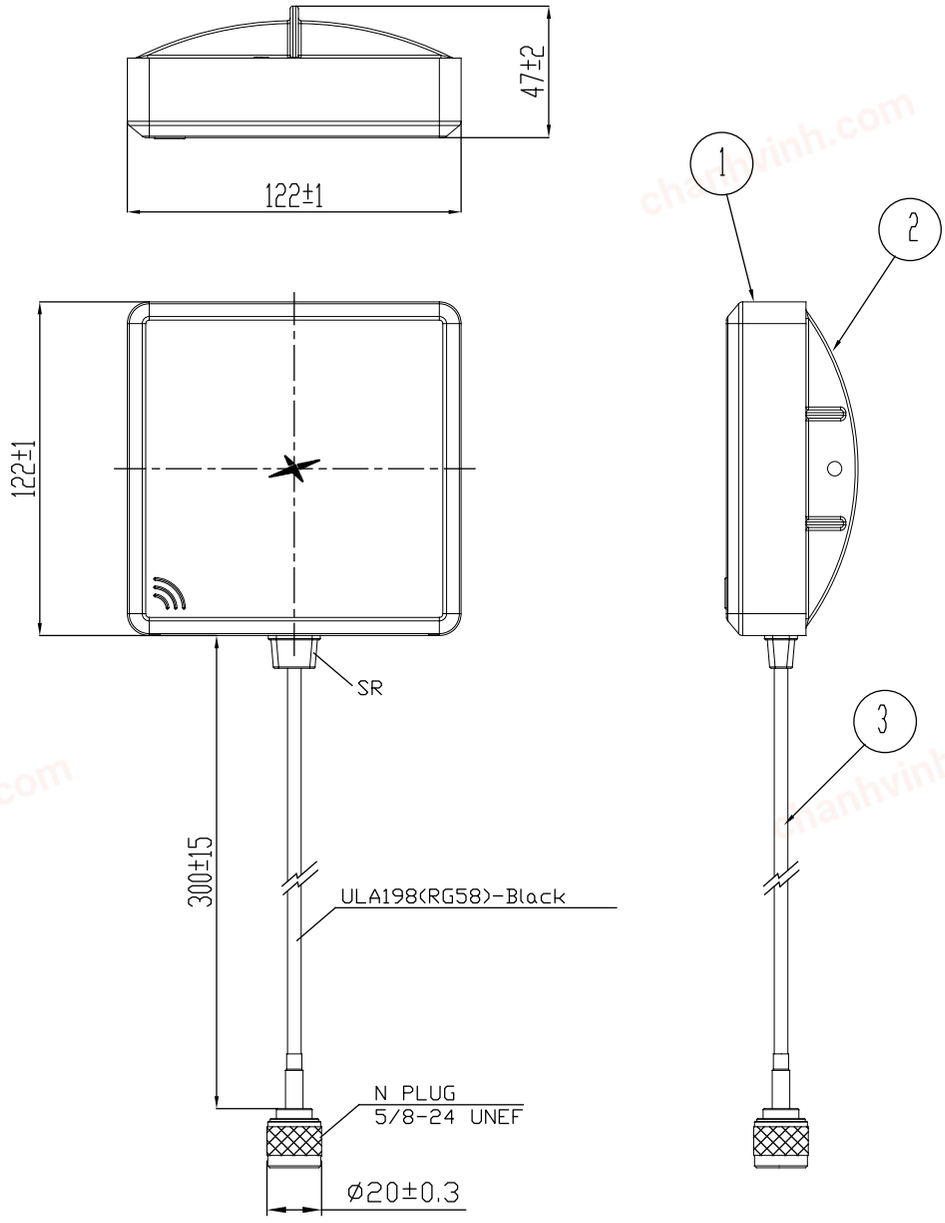
Wi-Fi/BT/ISM Electrical											
Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	HPBW (ᵭegrees)	FtB Ratio (dB)	SLL (dB)	Impedance	Polarization	Radiation Pattern	Max. input power
Wi-Fi 2.4GHz	2400-2500	62.9	-2.01	7.05	> 65 (H & V)	15 max.	14 max.	50 Ω	Linear	Directional	10W

Mechanical	
Dimensions	122 x 122 x 47mm
Material	ABS PA-777B+UV
Connector	N Type (M)
Cable	300mm of RG-58

Environmental	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C
Waterproof	IP65
Relative Humidity	Non-condensing 65°C 95% RH

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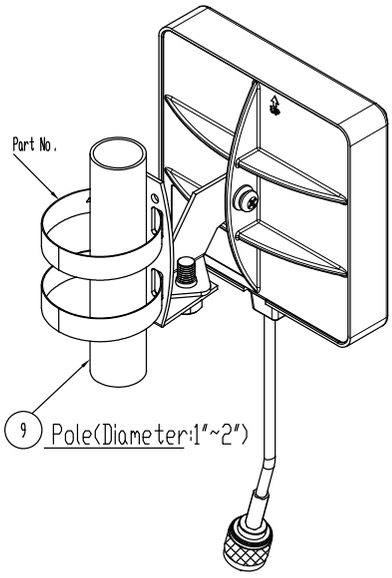
3. Mechanical Drawing



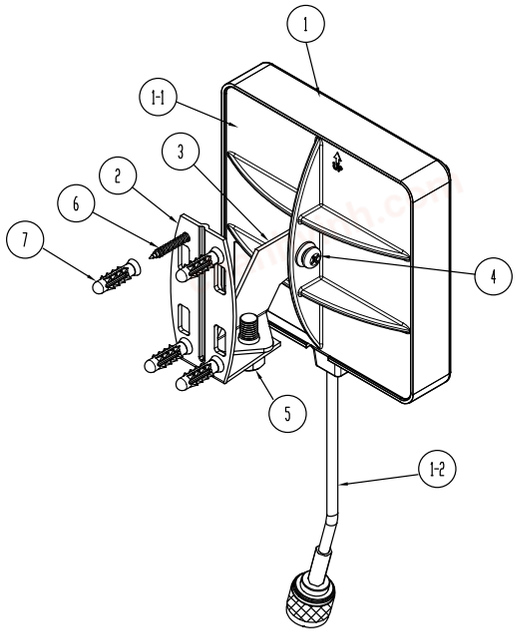
	Name	Material	Finish	QTY
1	Front Cover	ABS PA-777B+UV	Black	1
2	Rear Cover	ABS PA-777B+UV	Black	1
3	Cable ASSY (RP-SMA Plug+SR 300mm	ULA198(RG58)Black Cable	Black	1

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4. Installation Guide



POLE MOUNT



WALL MOUNT

5		M8-12.9x20mm(screw) M8-Ø12.2x1.5mm(s/w) M8-Ø12.5x1.5mm(w)	1set
4		M5-Ø10*111.5MM	1pc
3		26(w)x5(t)mm	1pc
2		80x40x40mm	1pc
8		2-1/2"(40~63mm) 12.7(w)x0.6(t)mm	2pcs
7		Ø8x25mm	4pcs
6		TH5/32"-16*3/4" (Ø9x19mm)	4pcs
ITEM	Graphics	Size(LxWxH)	Q'TY

8	Hose Clamp 2-1/2"(40~63mm)	SUS304	2
6	Anchor	PP	4
	TH5/32"-16*3/4"TP-A screw	SUS302	4
5	M8 S/W	SUS304	2
	M8 W	SUS304	1
	XH M8-12.90*20mm screw	SUS304	4
4	BH M5 (S/W+W) Screw	SUS302HQ	4
3	Mounting Adaptor	SUS304	4
2	L Type Mounting	SUS430	1
1-3	Antenna Body-Cable Ass'y(N Plug)	ULA198(RG58)Black	1
1-2	Antenna Body-Rear Cover	ABS PA-777B+UV	1
1	Antenna Body-Front Cover	ABS PA-777B+UV	1
ITEM	DESCRIPTION	MATERIAL	Q'TY

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5. Packaging

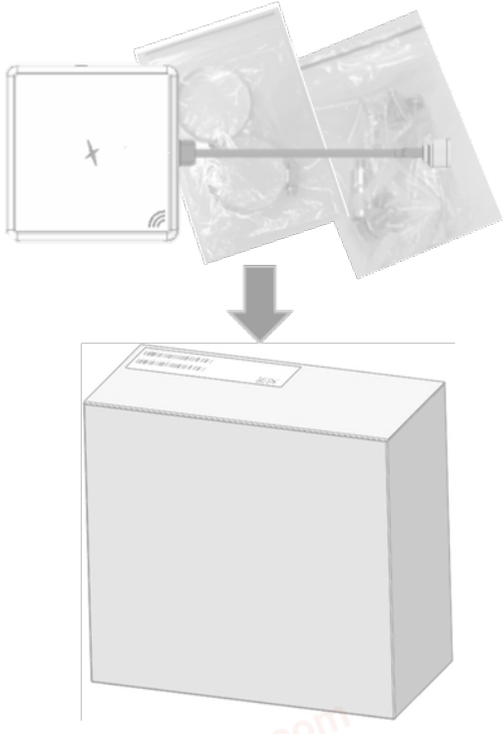
1 Pcs per PE bag



1 pcs per zipper bag



1pcs per box
Box dimensions: 180 x 70 x 145mm
Weight: 0.44Kg



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20pcs per carton
Carton dimensions: 380 x 376 x 320mm
Weight: 9.7Kg

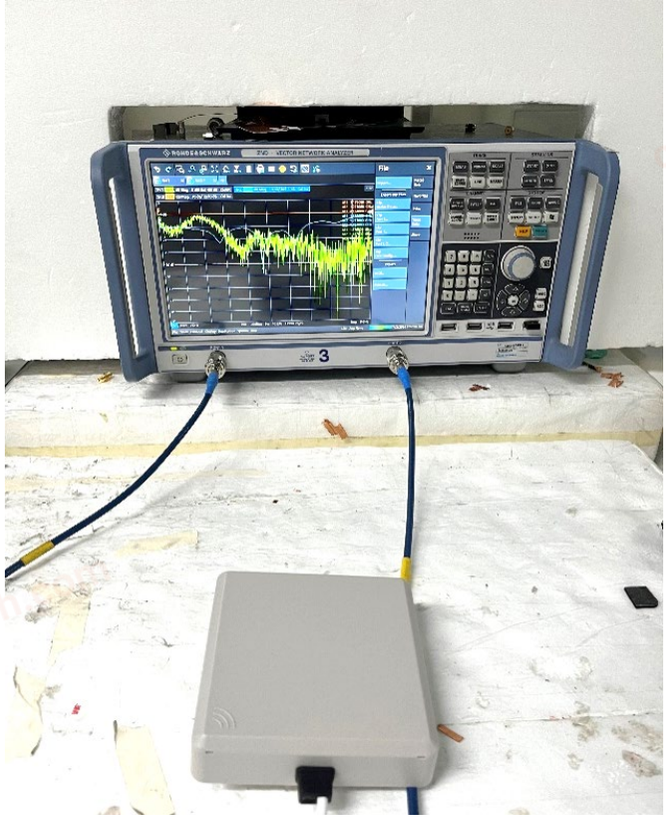


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6. Antenna Characteristics

6.1 Test Setup

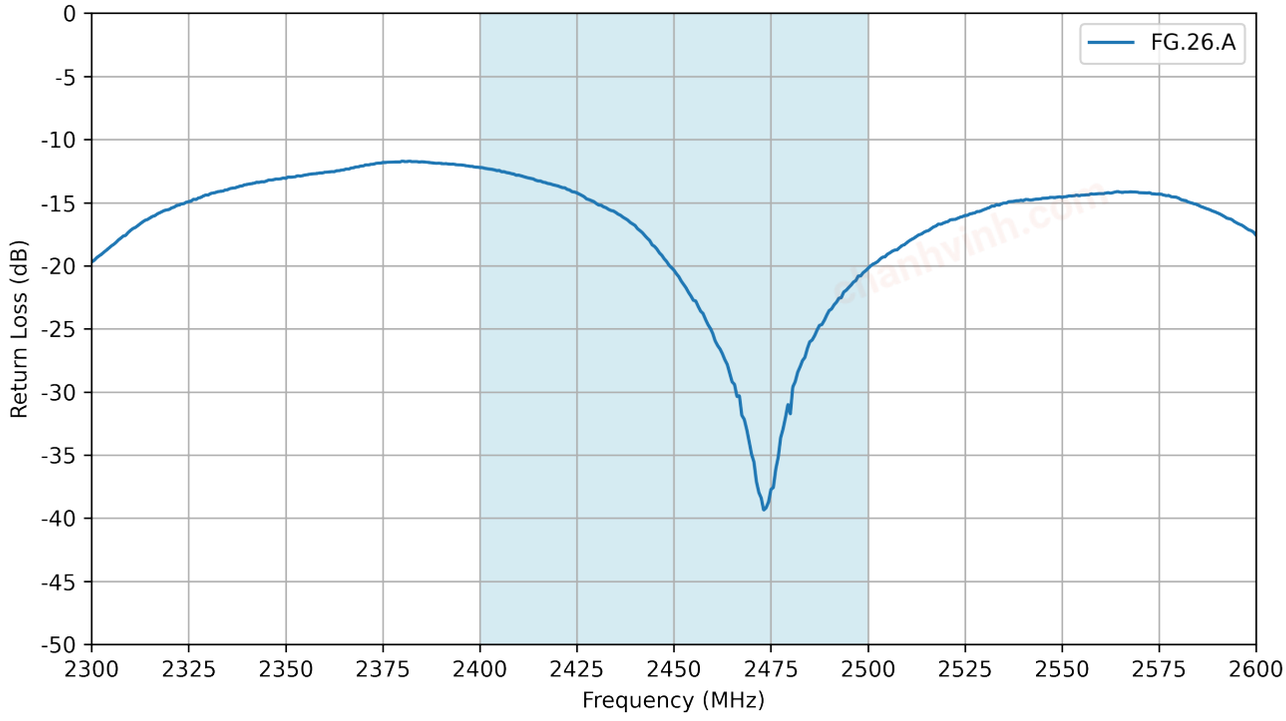




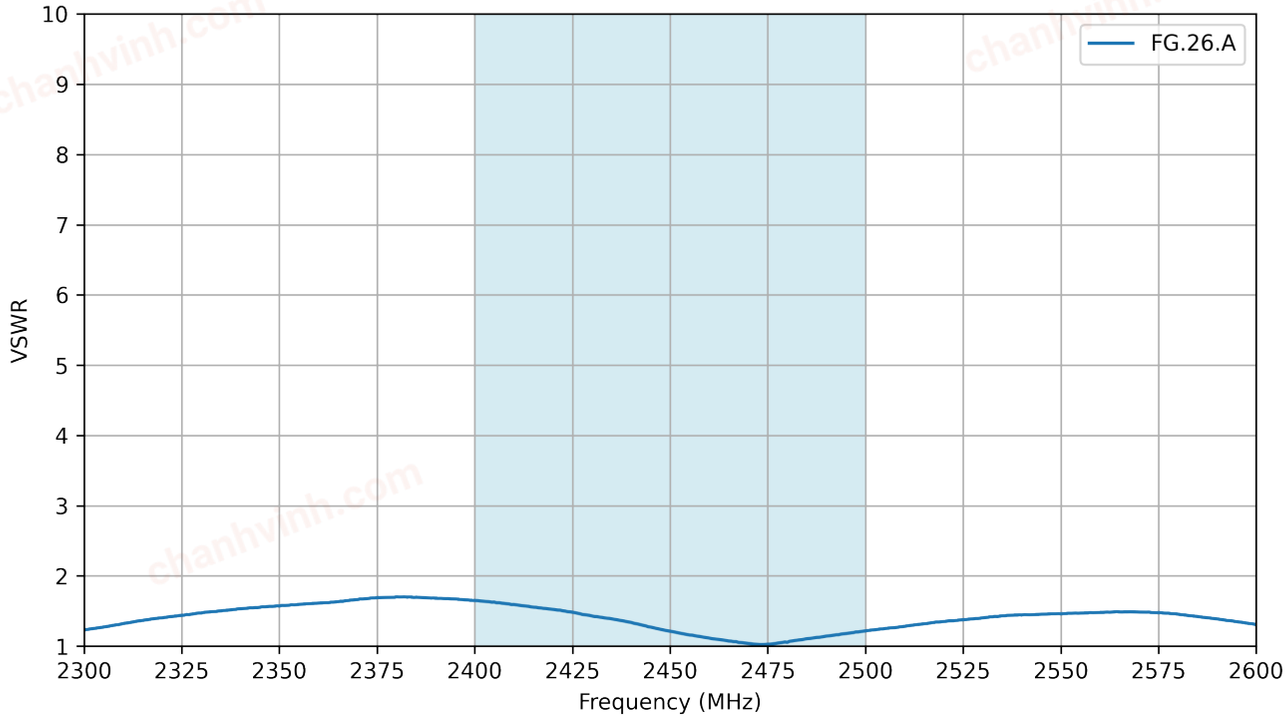
VNA Setup

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6.2 Return Loss

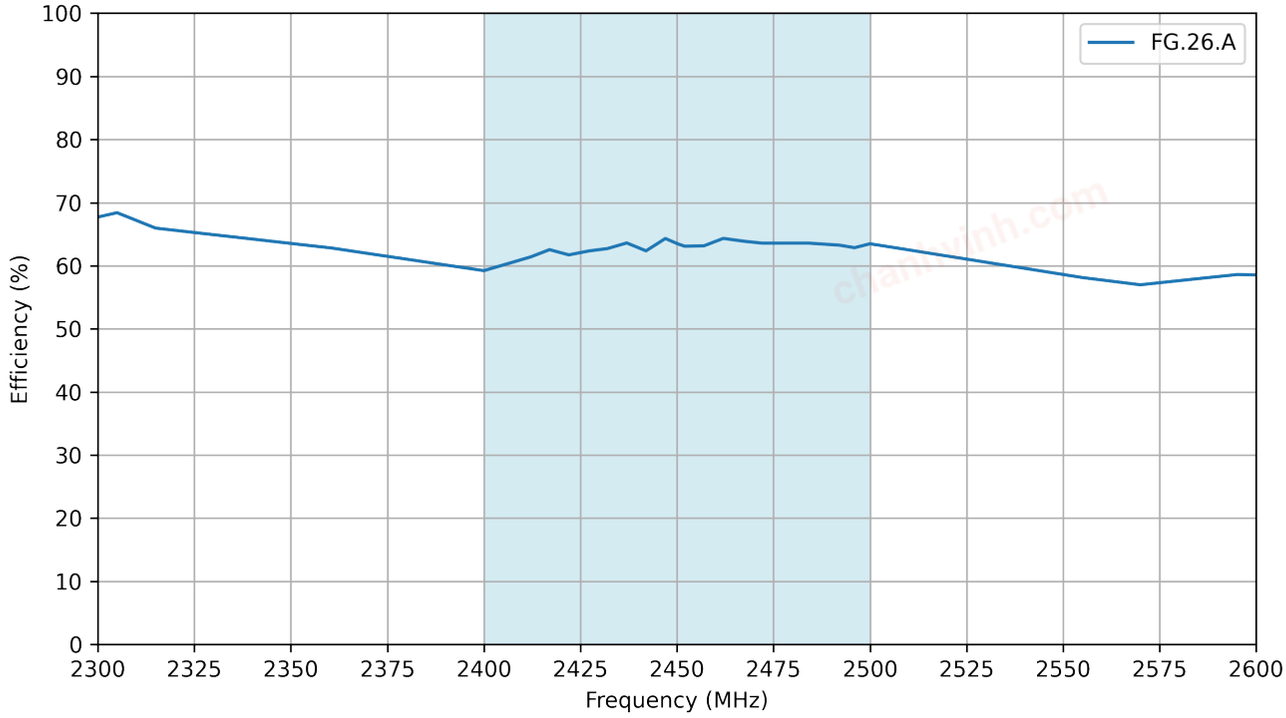


6.3 VSWR

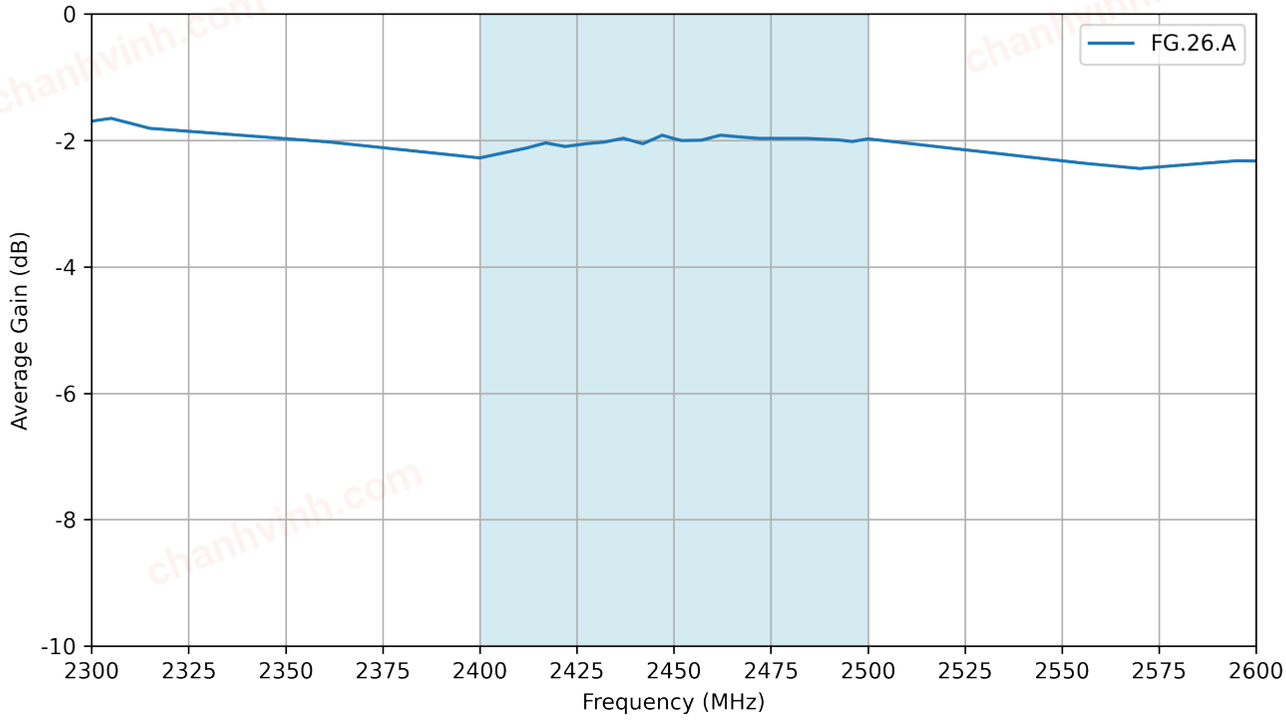


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6.4 Efficiency

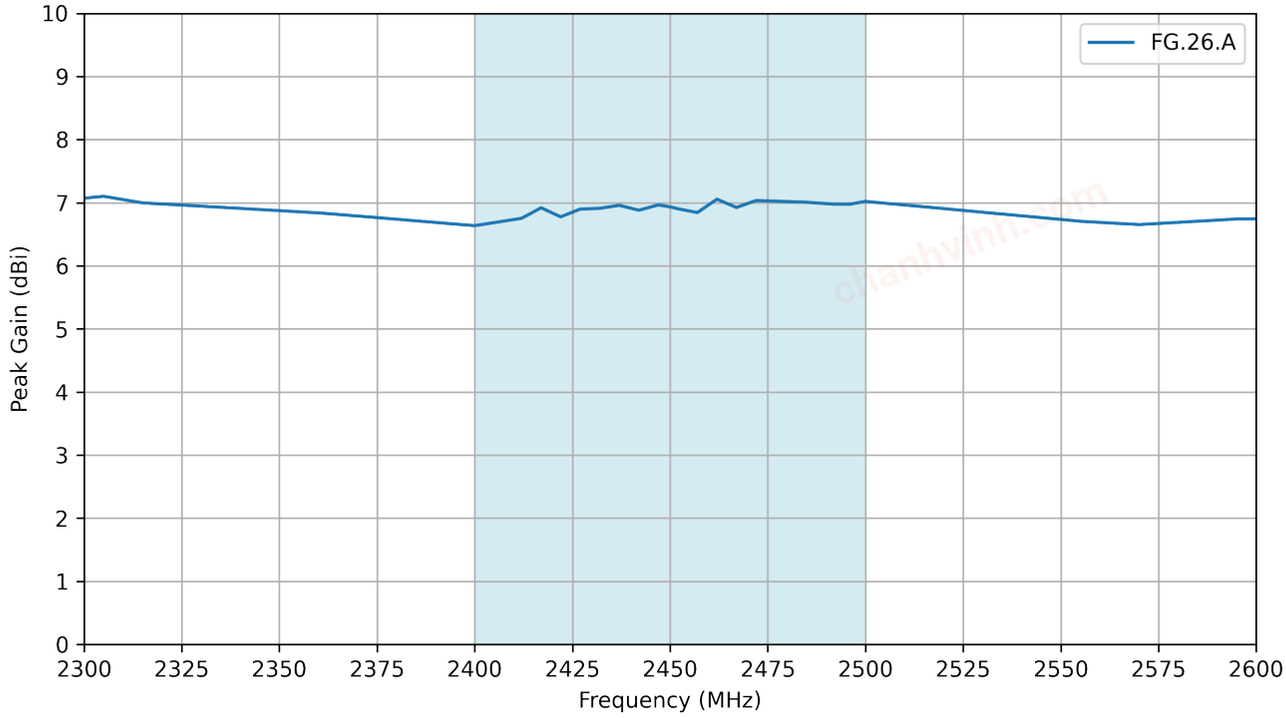


6.5 Average Gain



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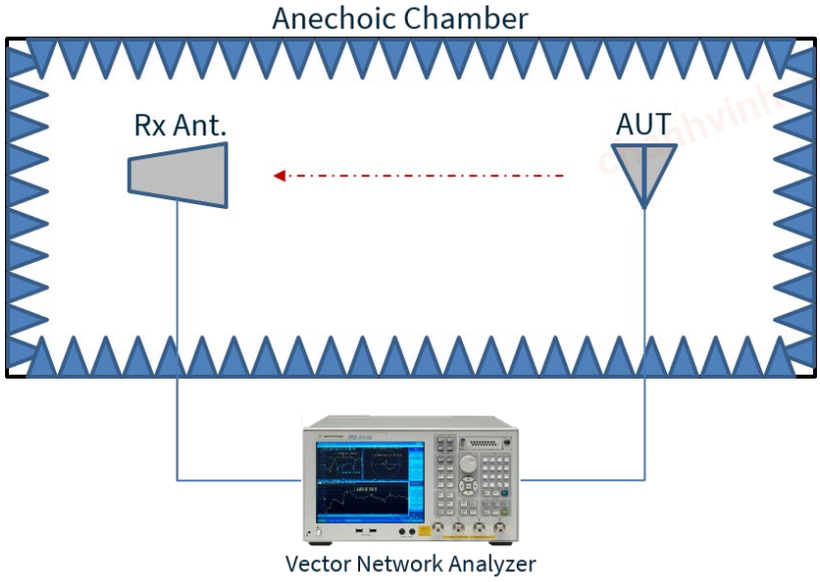
6.6 Peak Gain

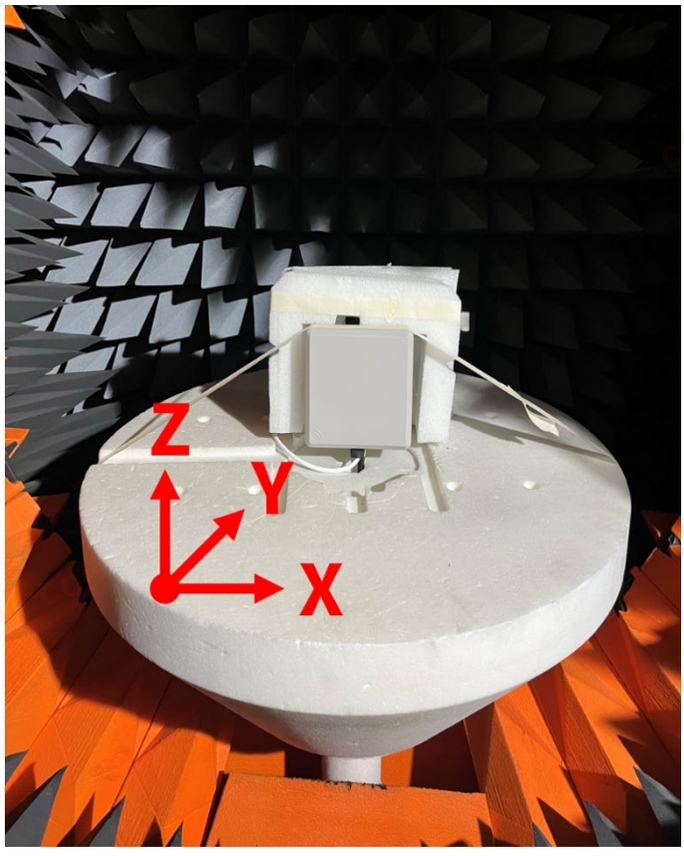


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7. Radiation Patterns

7.1 Test Setup

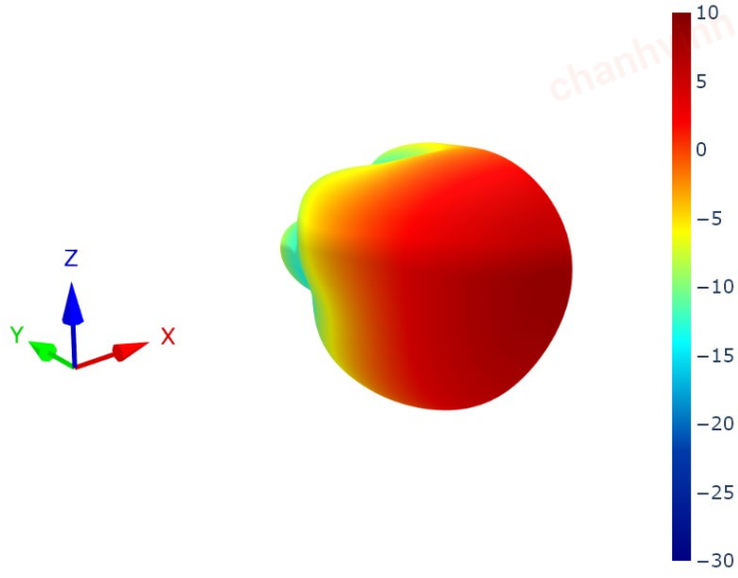


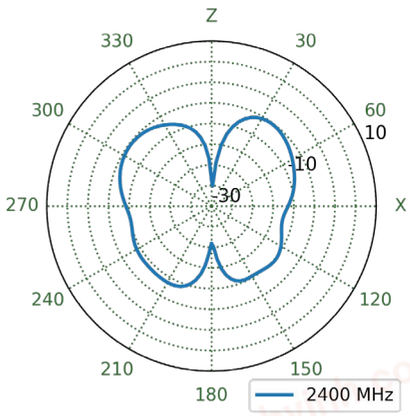
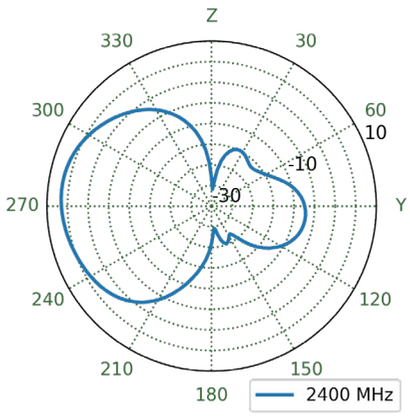
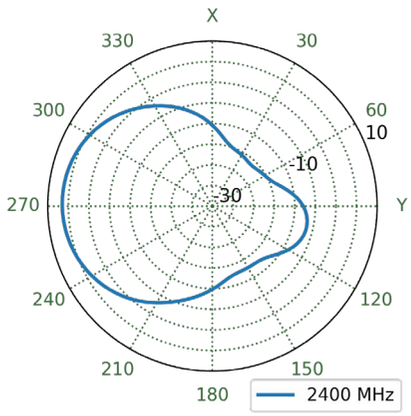


VNA Setup

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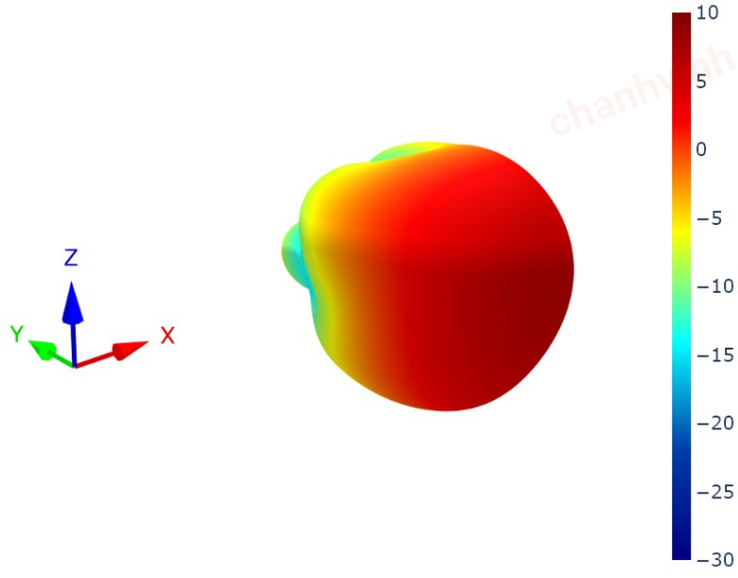
7.2 Patterns at 2400 MHz



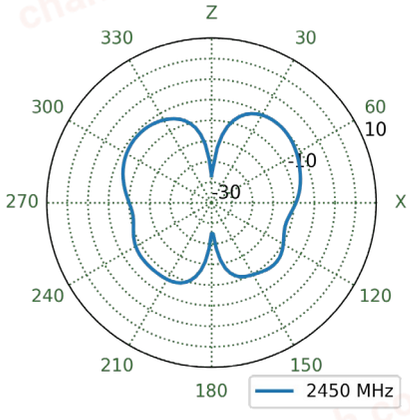
XZ Plane	YZ Plane	XY Plane
		

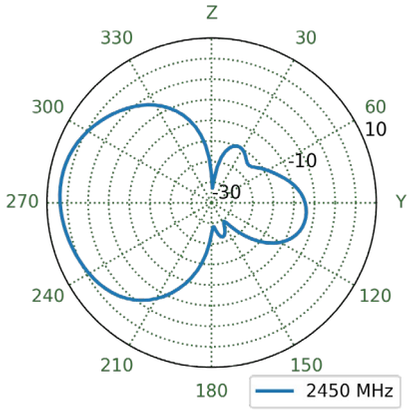
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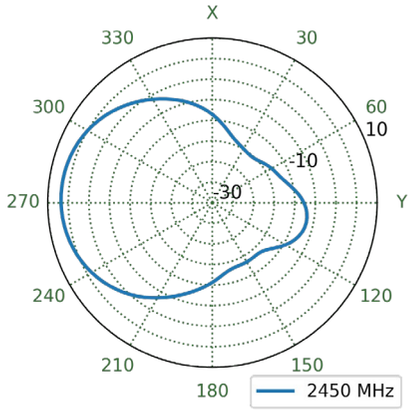
7.3 Patterns at 2450 MHz



XZ Plane	YZ Plane	XY Plane

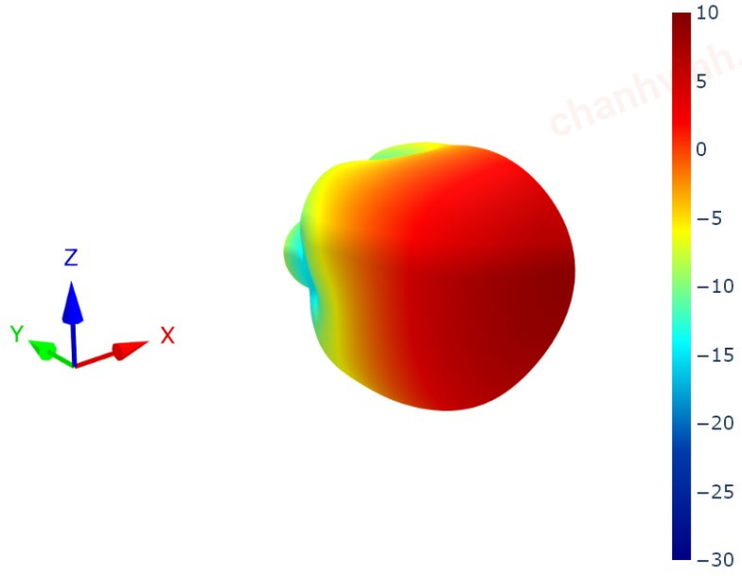




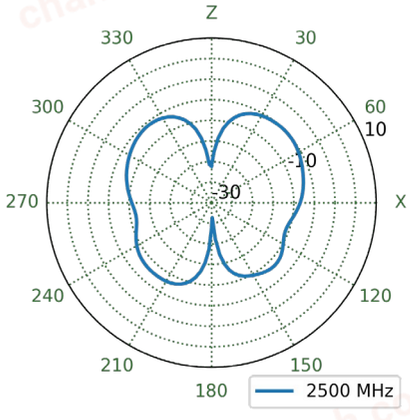


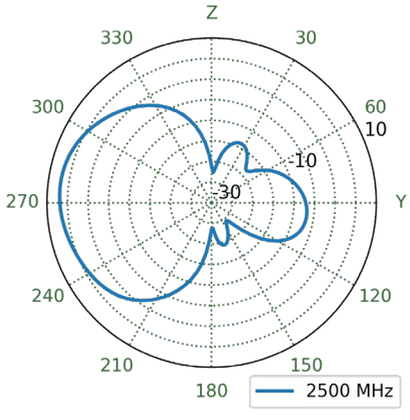
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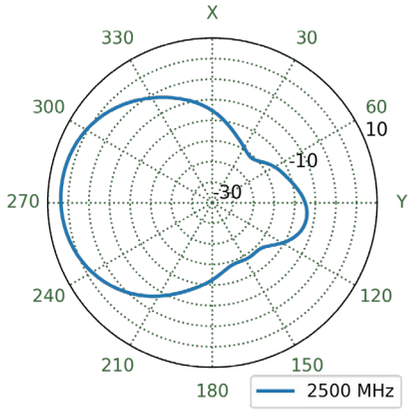
7.4 Patterns at 2500 MHz



XZ Plane	YZ Plane	XY Plane







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Changelog for the datasheet

SPE-24-8-242 – FG.26.A

Revision: A (Initial Release)	
Date:	2024-09-26
Notes:	Initial Datasheet Release
Author:	Gary West

Previous Revisions

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