TAOGLAS®



Datasheet

Gooseneck Series

Part No:
GSK.868.A.1E1

Description

Gooseneck Series ISM 868MHz Terminal Mount Antenna with Waterproof SMA M Connector

Features:

Gooseneck Series Antenna
Covering: ISM 868MHz
IP68 Waterproof Capability
Rugged Flexible Gooseneck Structure
Standard Dipole Structure Design
Dims: Ø18.05 x 370.0 mm
Connector: SMA(M)
RoHS & Reach Compliant

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1. Introduction



The Taoglas GSK.868.A.1E1 brings rugged mechanical design and high-efficiency RF performance together in a flexible 868 MHz gooseneck antenna engineered for demanding field environments. Its integrated semi-rigid gooseneck allows the antenna to be quickly repositioned and held at the required orientation, helping maintain effective antenna positioning and polarisation where equipment orientation can change during deployment.

Based on a proven dipole architecture, the GSK.868.A.1E1 delivers 92% efficiency with a highly omnidirectional radiation pattern, providing consistent azimuth coverage across its 862–874 MHz operating range. The antenna supports 868 MHz ISM applications including LoRaWAN®, Sigfox® and other sub-GHz wireless systems.

The carbon-steel gooseneck combines flexibility with mechanical durability and also provides natural strain relief, helping reduce impact forces transferred to the RF connector and radio equipment. Tested to withstand over 1,000 bending cycles and a 1.5 m drop, and offering IP68 protection and up to 50 W input power, the GSK.868.A.1E1 is built for repeated deployment in challenging operational environments. The standard SMA(M) interface enables straightforward integration with radio and communication equipment..

Typical Applications:

- Manpack, MOLLE-mounted and dismounted communication systems
- Unmanned Ground Vehicles (UGVs) and robotic platforms
- Field command and control systems
- Government and public safety communications
- Industrial IoT and remote monitoring
- Smart infrastructure and utility networks

For integration support, testing services, or additional technical assistance, please contact your regional Taoglas customer support team.

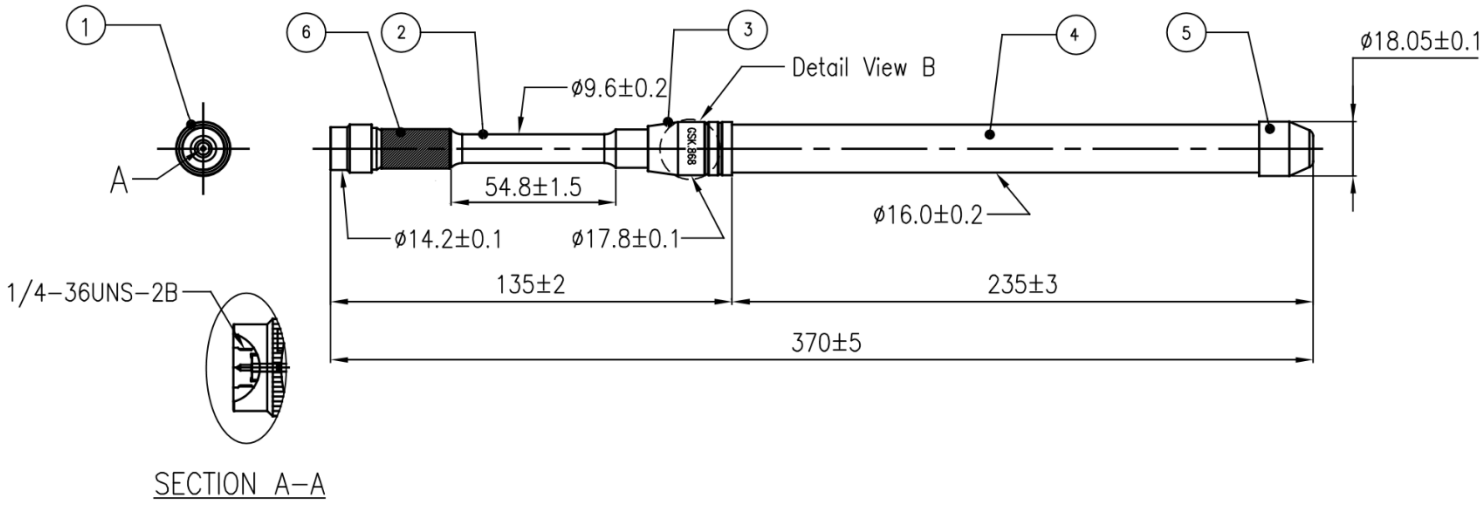
2. Specification

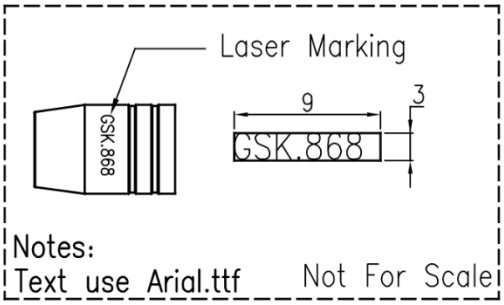
Electrical								
Band	**Frequency (MHz)**	**Efficiency (%)**	**Average Gain (dB)**	**Peak Gain (dBi)**	**Impedance**	**Polarization**	**Radiation Pattern**	**Max. input power**
ISM (868MHz)	862-874	92.2	-0.35	1.77	50 Ω	Linear	Omni directional	50W

Mechanical	
Dimensions	Ø18.05 mm x 370.0 mm
Weight	126g
Material	Enclosure: FRP Gooseneck: Carbon steel Other: Brass/ Silicon
Connector	SMA(M)
Repetitive Bending Cycle	1500

Environmental	
Waterproof Rating	IP68 w/o mating
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C
Relative Humidity	Non-condensing 65°C 95% RH

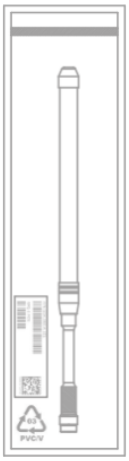
3. Mechanical Drawing





	Name	Material	Finish	QTY
1	SMA Male	Bras C3604	Black chrom	1
2	Gooseneck Tube	Carbon Steel	Ni Plated	1
3	Screw cap	Bras C3604	Black chrom	1
4	Tube	FRP	Black	1
5	Head	Bras C3604	Black chrom	1
6	Heat Shrink Tube	Silicone Rubber	Black	1

4. Packaging



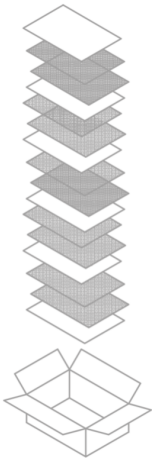
☑ 1 PCS / PVC Bag

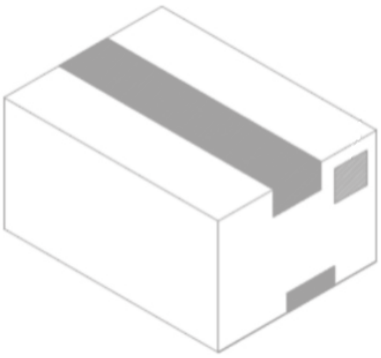
☑ PE bag (mm): 440x45

☑ Weight (g): 135 ±3%

weight without packaging (g): 126 ±3%

☑ SPQ Label





☑ 50 PCS / Carton

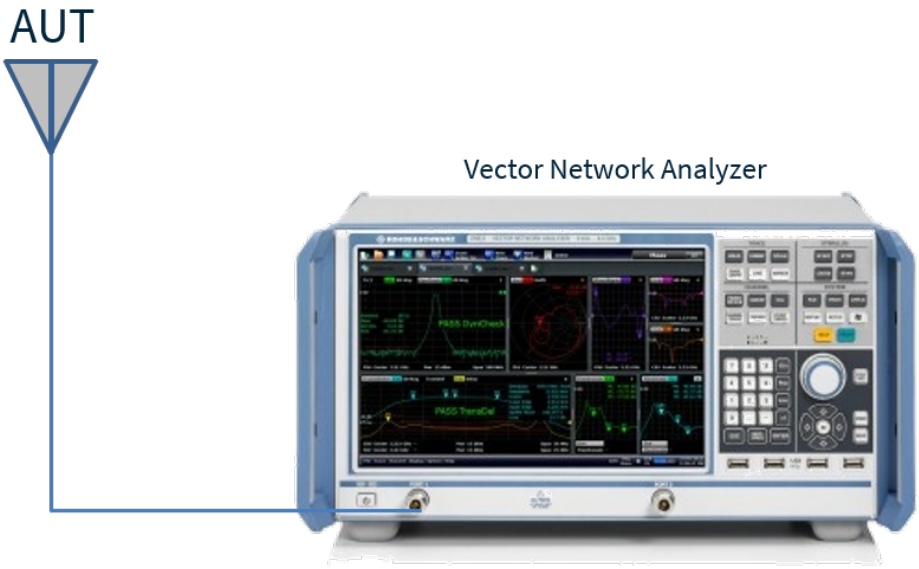
☑ Carton (mm): 710x210x160

☑ Weight (Kg): 7.63 ±3%

☑ Carton Label

5. Antenna Characteristics

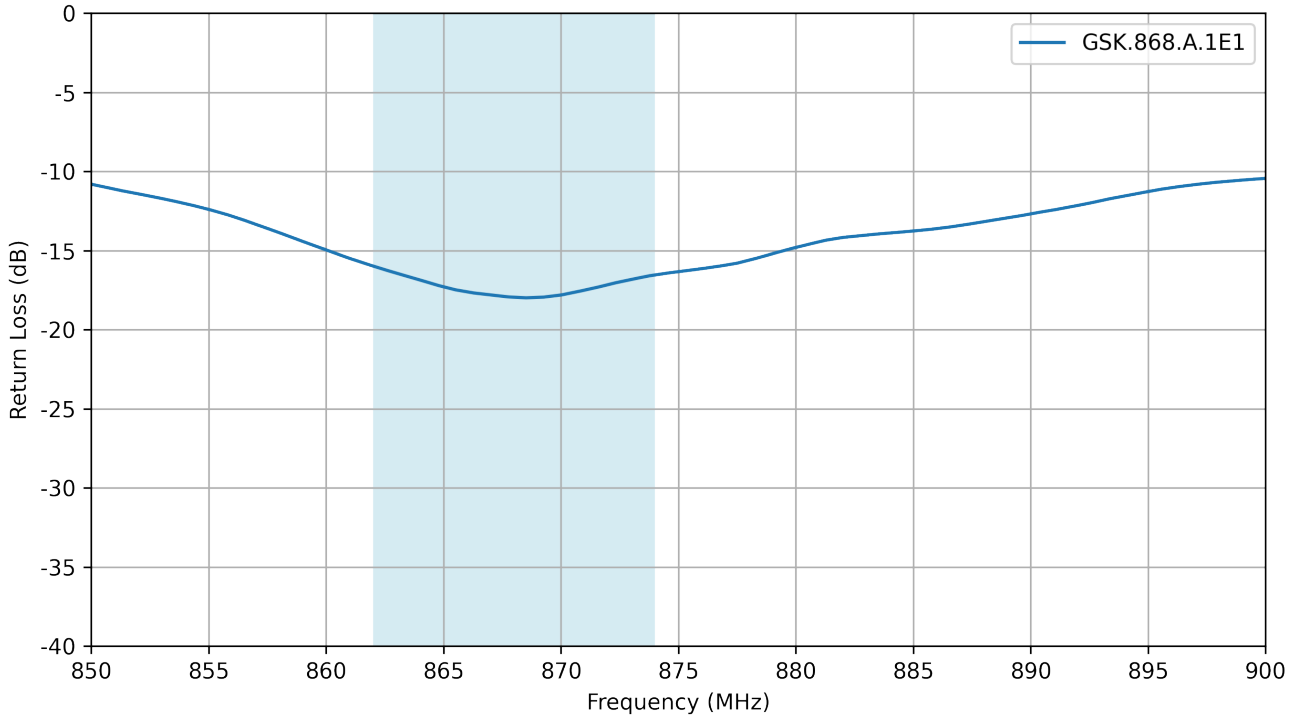
5.1 Test Setup



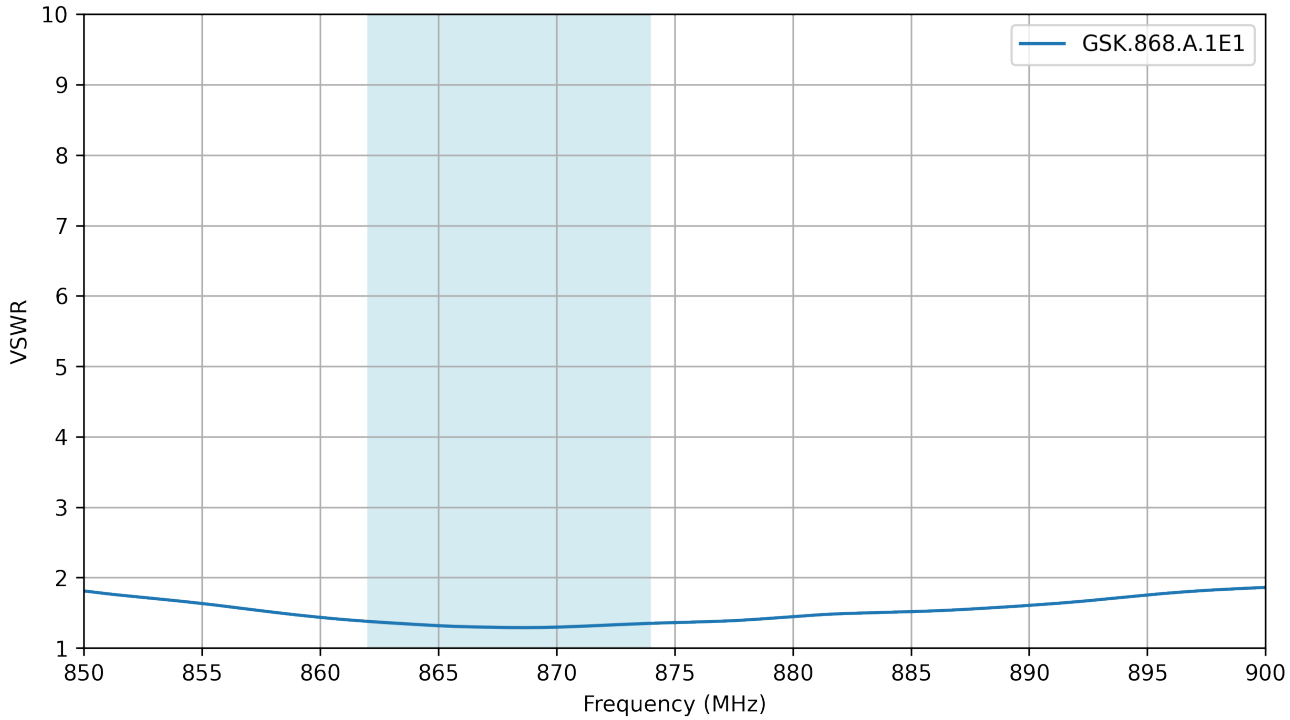


VNA Test Set-up

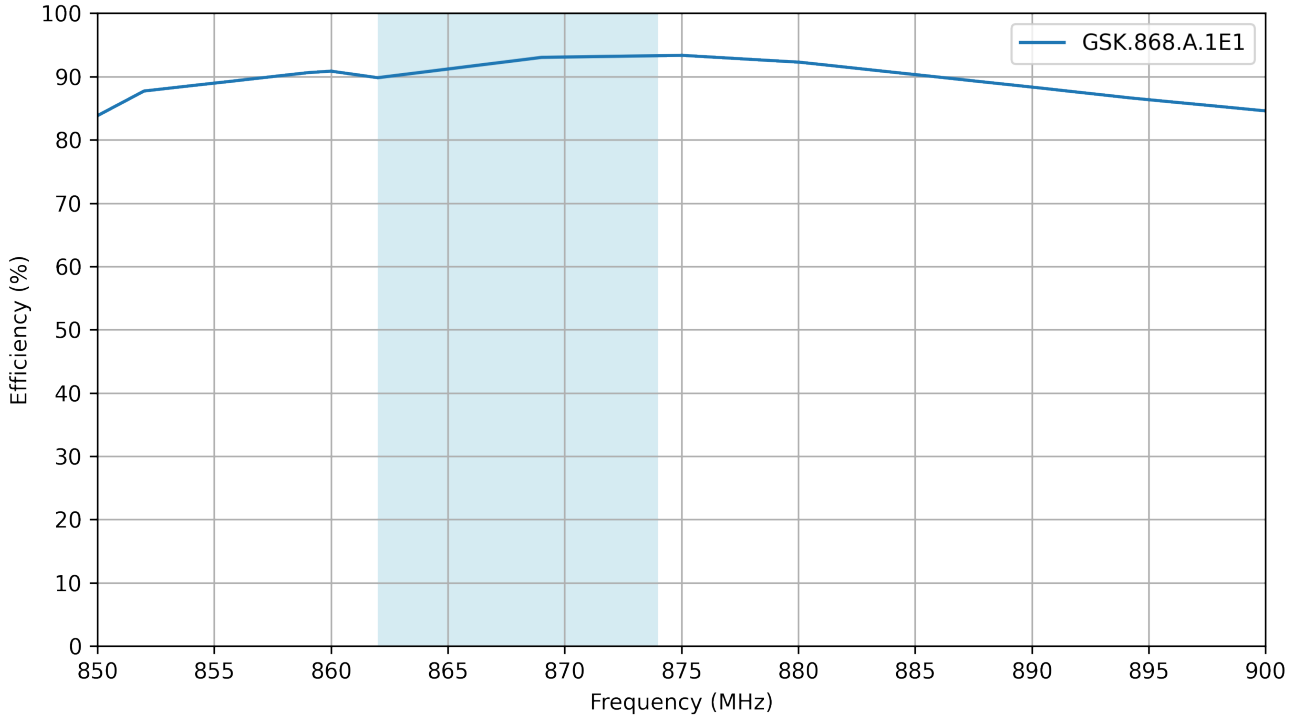
5.2 Return Loss



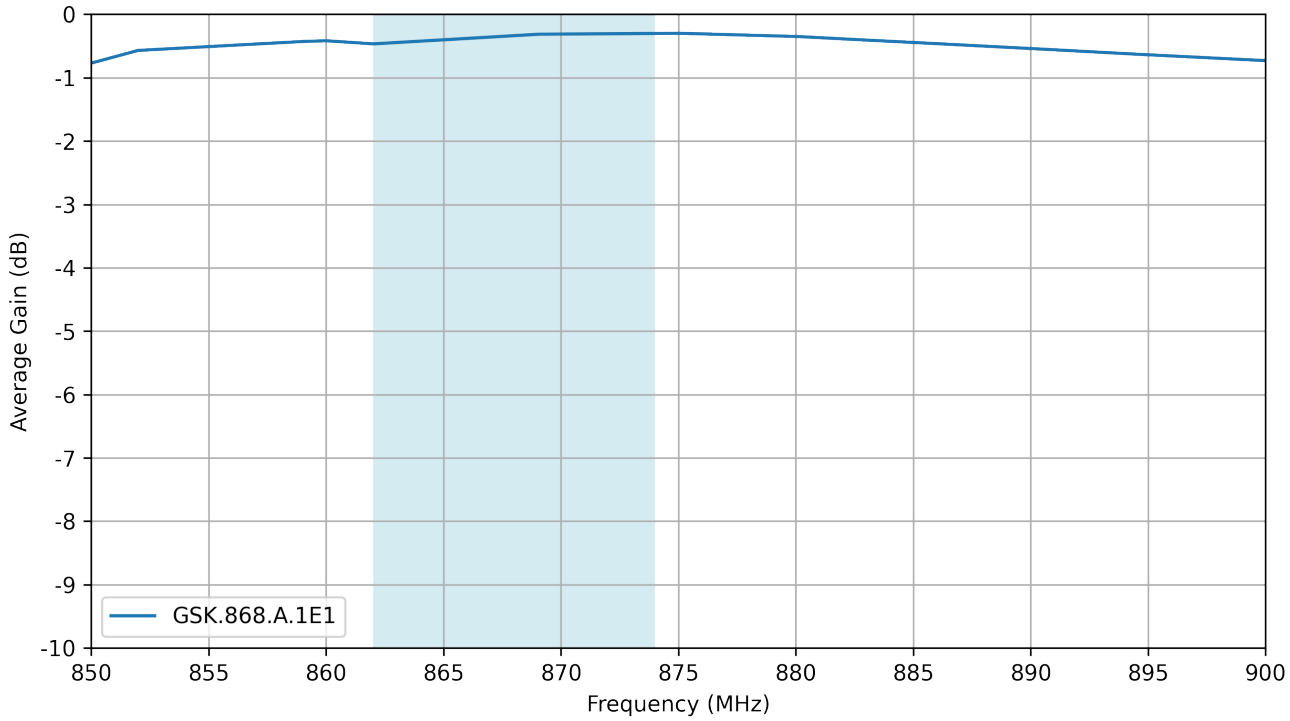
5.3 VSWR



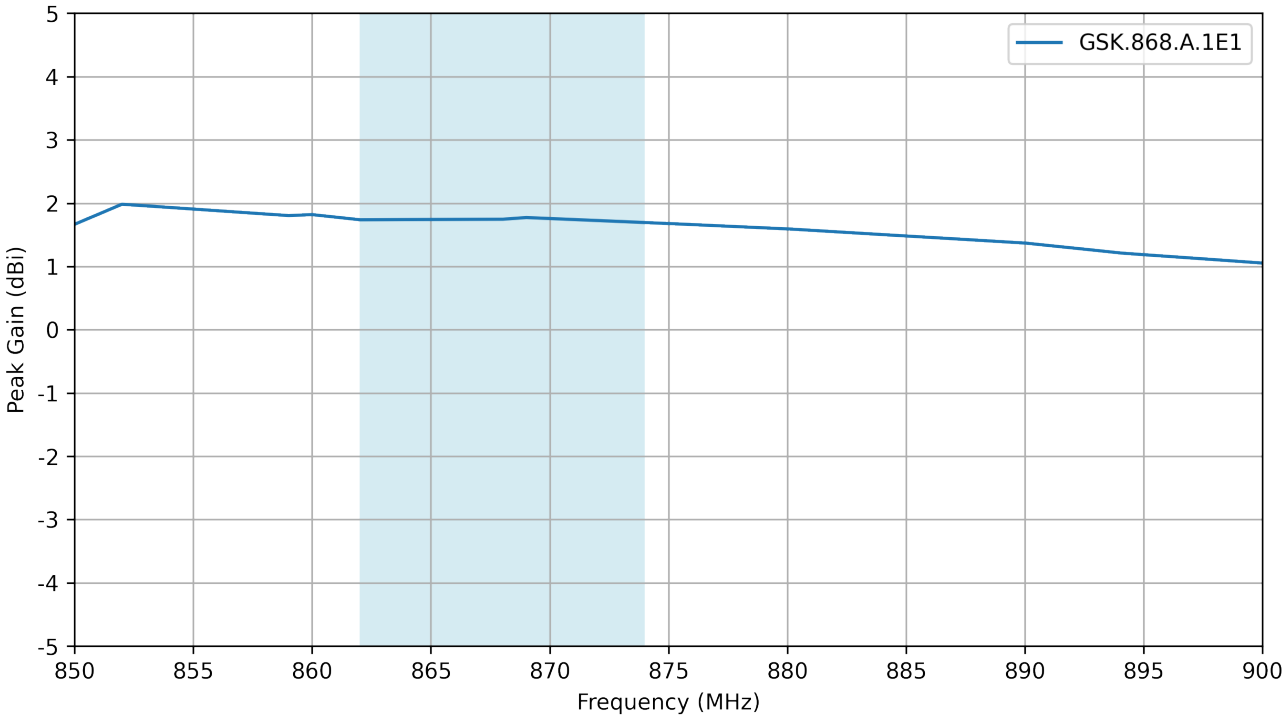
5.4 Efficiency



5.5 Average Gain

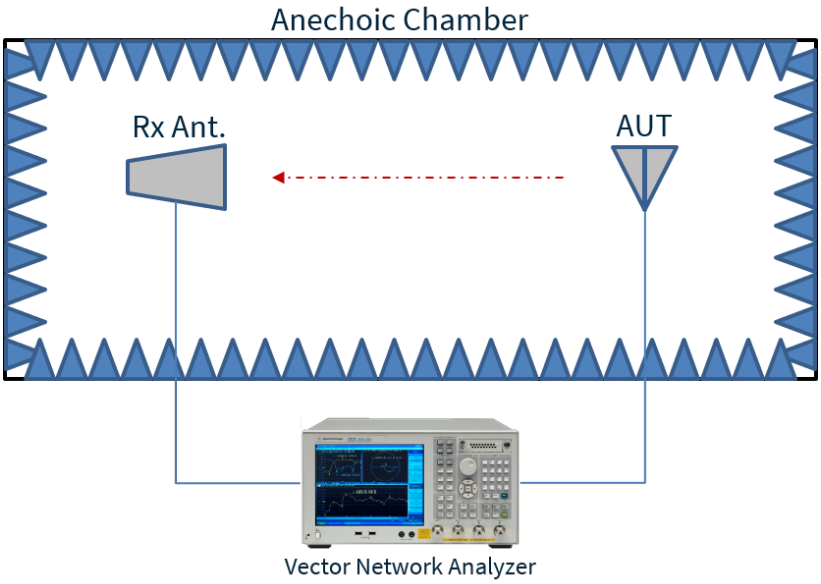


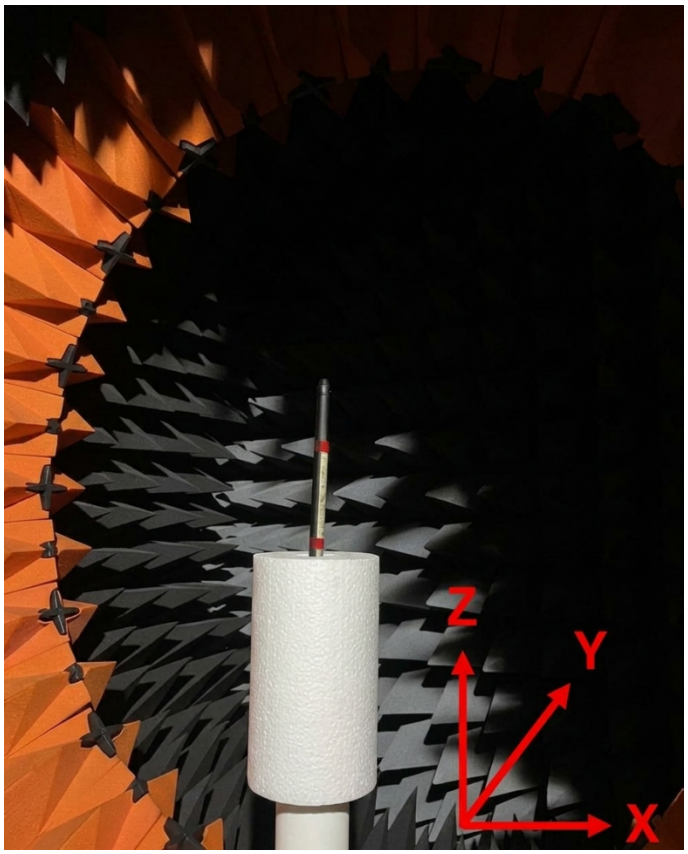
5.6 Peak Gain


GSK.868.A.1E1
Peak Gain (dBi)
Frequency (MHz)
5
4
3
2
1
0
-1
-2
-3
-4
-5
850
855
860
865
870
875
880
885
890
895
900

6. Radiation Patterns

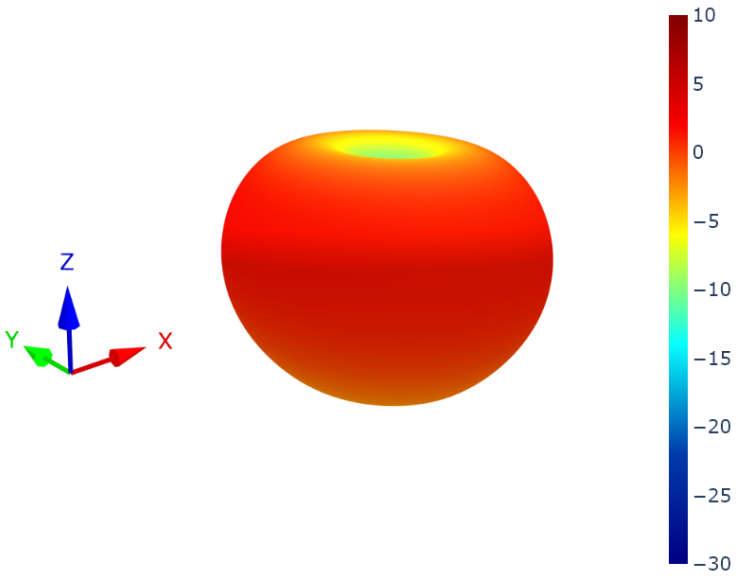
6.1 Test Setup



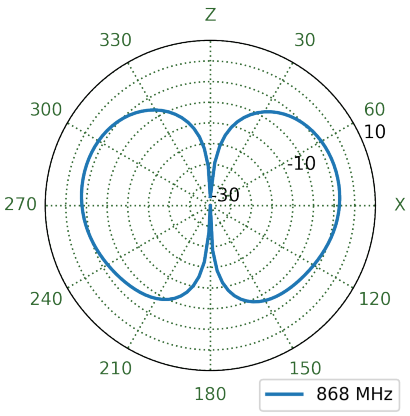


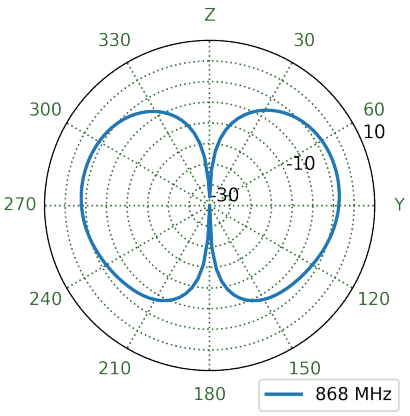
Chamber Test Set-up

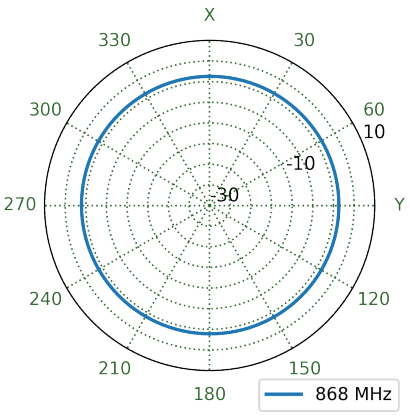
6.2 Patterns at 868 MHz



XZ Plane	YZ Plane	XY Plane







Changelog for the datasheet

SPE-26-8-215 – GSK.868.A.1E1

Revision: A (Original First Release)	
Date:	2026-09-28
Notes:	Initial Release
Author:	Gary West

Previous Revisions

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