



LED A

IP65 External Antenna | 5G NR

SZW-N-6M24

Key Features

- Black TPEE rod/whip housing, durable and weather resistant
- Compact form factor (~51.6mm length, ~10.3mm diameter)
- RoHS 2.0 compliant

1 Introduction

SZW-N-6M24: ISM 868MHz Antenna This is a black rod-style external antenna built with a durable TPEE cover, terminated with a gold-plated SMA Male connector for reliable, low-loss signal transfer. Its compact size (~51.6mm length, ~10.3mm diameter) makes it easy to integrate into a wide range of enclosures, and it is RoHS 2.0 compliant. It is well suited for sub-GHz IoT and M2M applications operating in the EU 868MHz ISM band, including smart metering, building and home automation, wireless alarm and security systems, and asset tracking or telemetry devices.

Features

- ◆ Black TPEE rod/whip housing, durable and weather resistant
- ◆ Compact form factor (~51.6mm length, ~10.3mm diameter)
- ◆ RoHS 2.0 compliant

Applications

- ◆ Sub-GHz IoT and M2M devices (LoRa, Sigfox, proprietary 868MHz protocols common in EU)
- ◆ Smart metering (gas, water, electricity)
- ◆ Home and building automation
- ◆ Asset tracking and telematics systems
- ◆ Wireless alarm and security systems
- ◆ Asset tracking and telemetry devices operating in the EU 868MHz ISM band

2 Mechanical Specifications

Part Number	SZW-N-6M24
Dimensions (mm)	25.0 x 25.0 x 6.8
Connector	SMA (Male)
Antenna Type	Terminal Antenna

3 Environmental

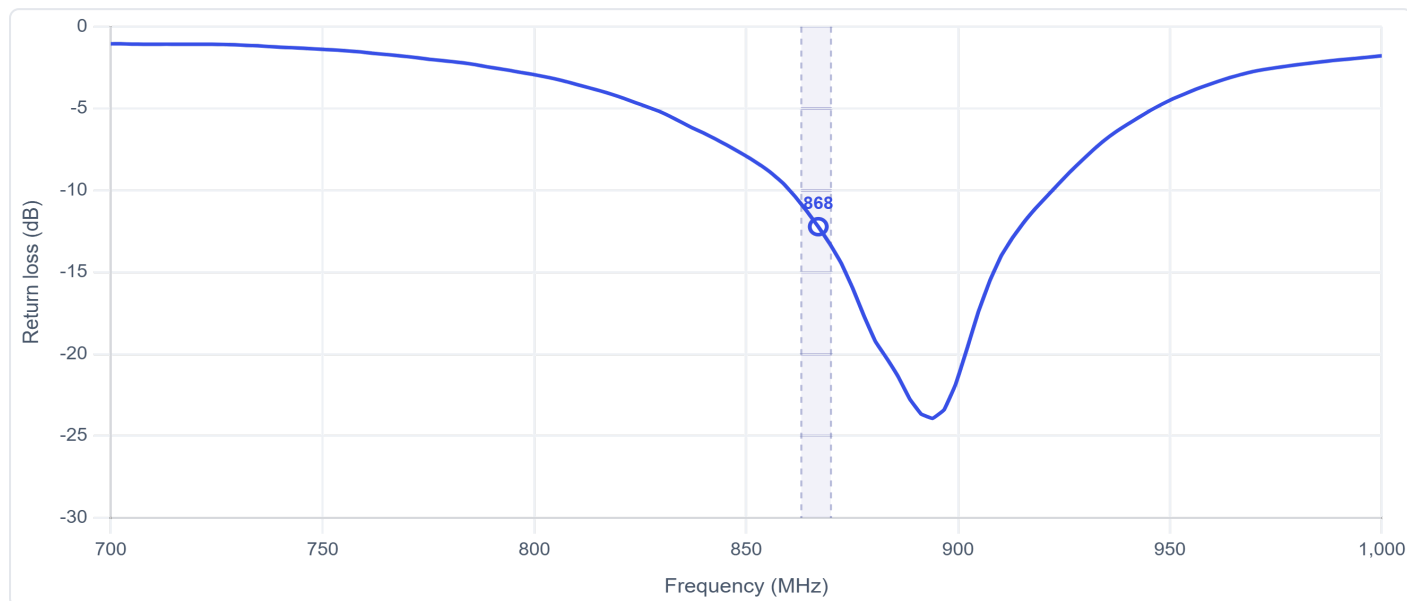
Operational Temperature	-40 to +85 C
Storage Temperature	-40 to +85 C
RoHS and REACH compliant	Yes
IP Rating	IP65

4 Electrical / RF Specifications

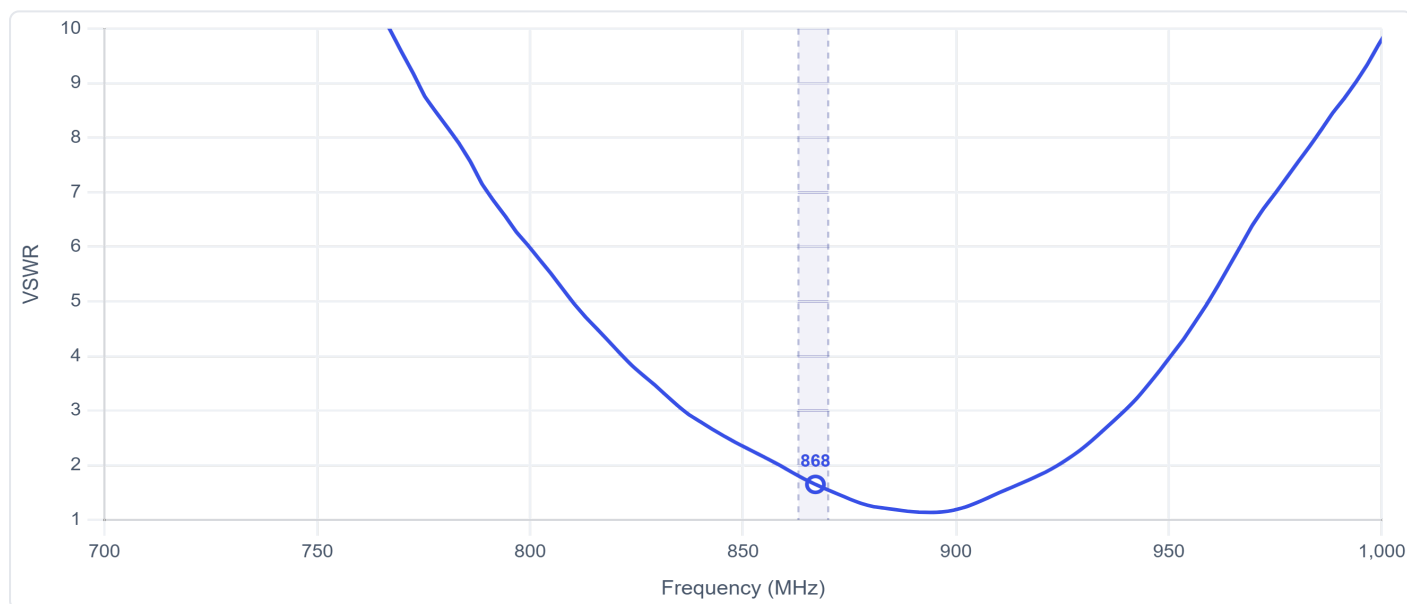
Band	ISM 868 MHz / LoRa
Frequency Range (MHz)	863-870
Average Efficiency (%)	71
Peak Gain (dBi)	1.4
VSWR (worst case)	<1.8:1
Impedance	50 ohm

3 RF Characteristics

Return Loss — S11

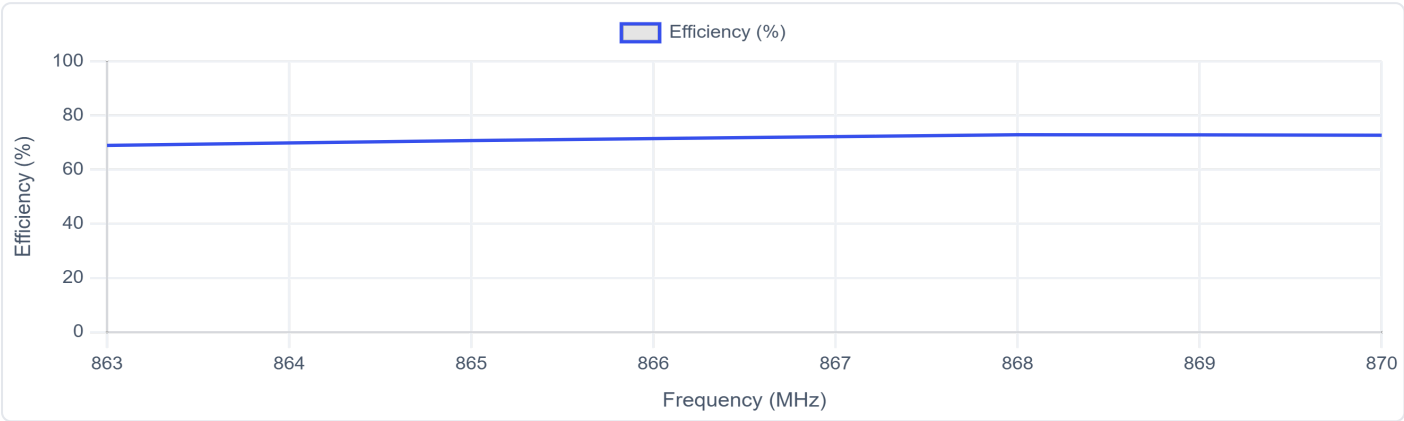


VSWR

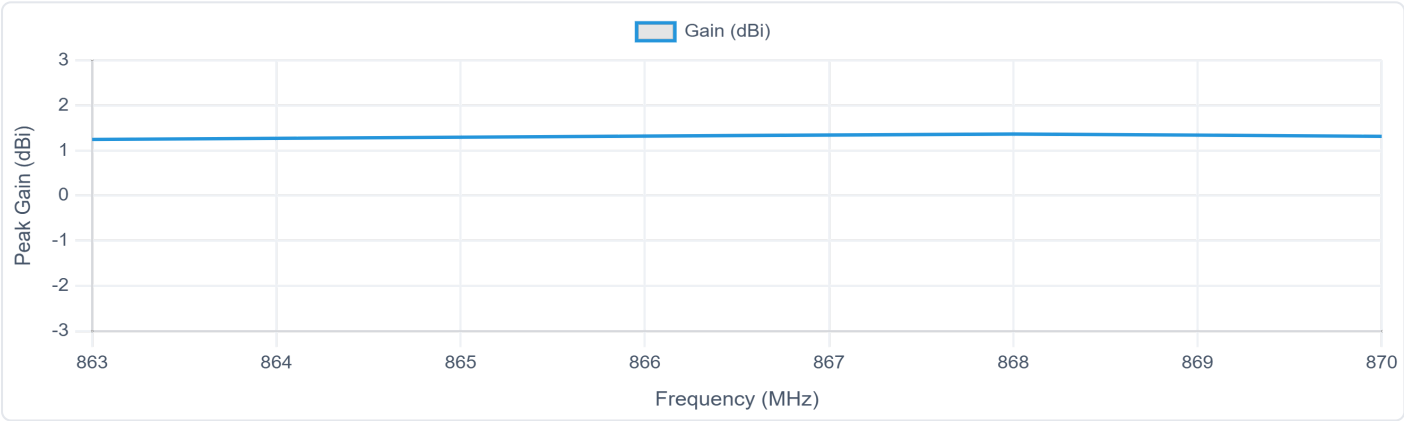


4 Chamber Performance

Efficiency



Peak Gain

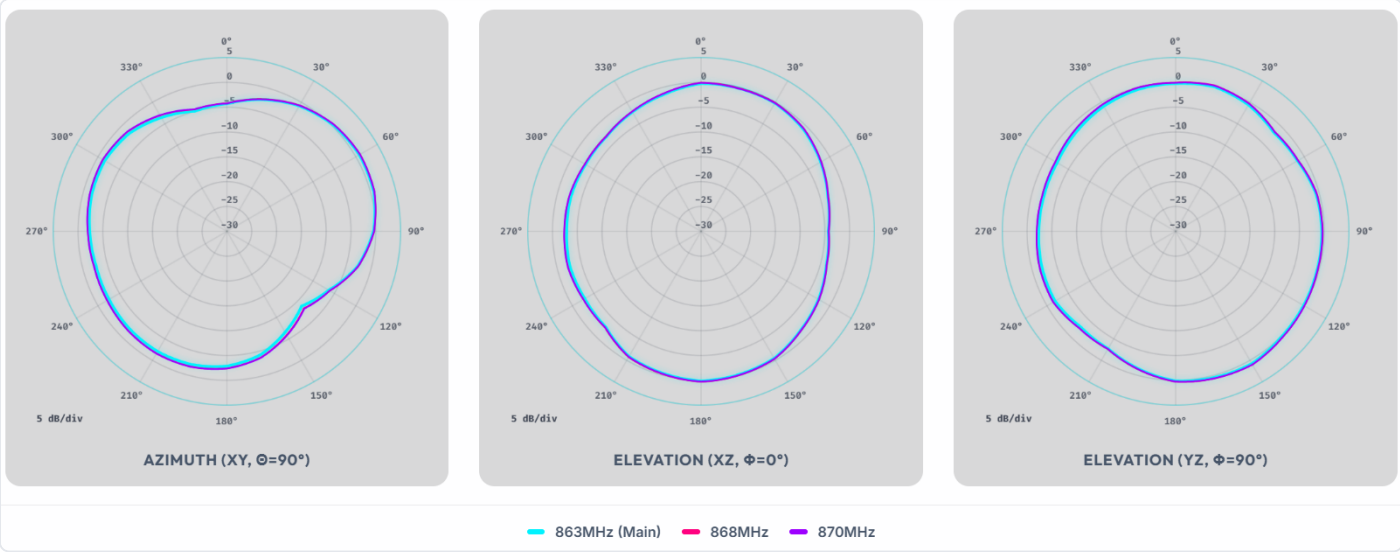


Average Gain



5 2D Polar Plots

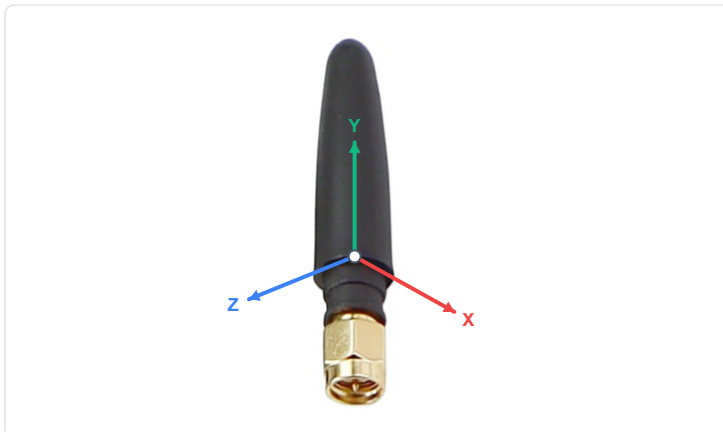
FREQUENCY RANGE: 863-870 MHZ



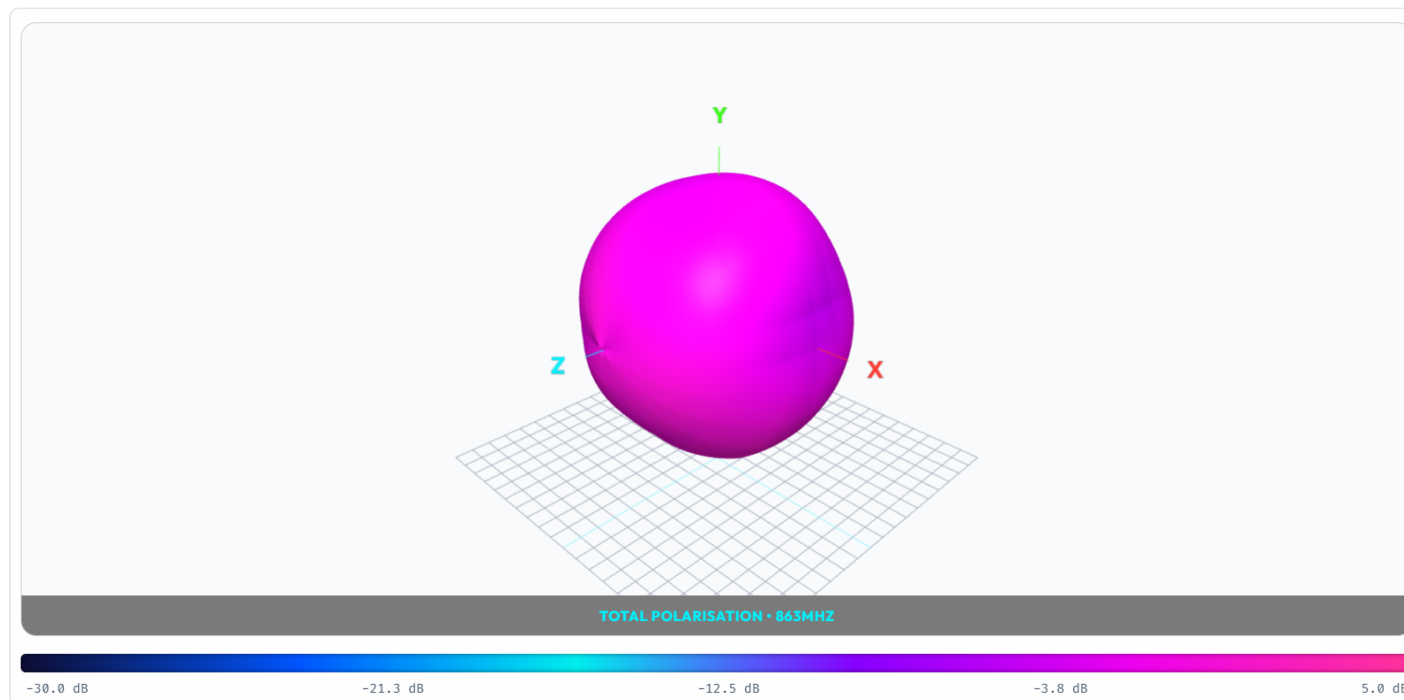
6 3D Radiation Patterns

FREQUENCY RANGE: 863-870 MHZ

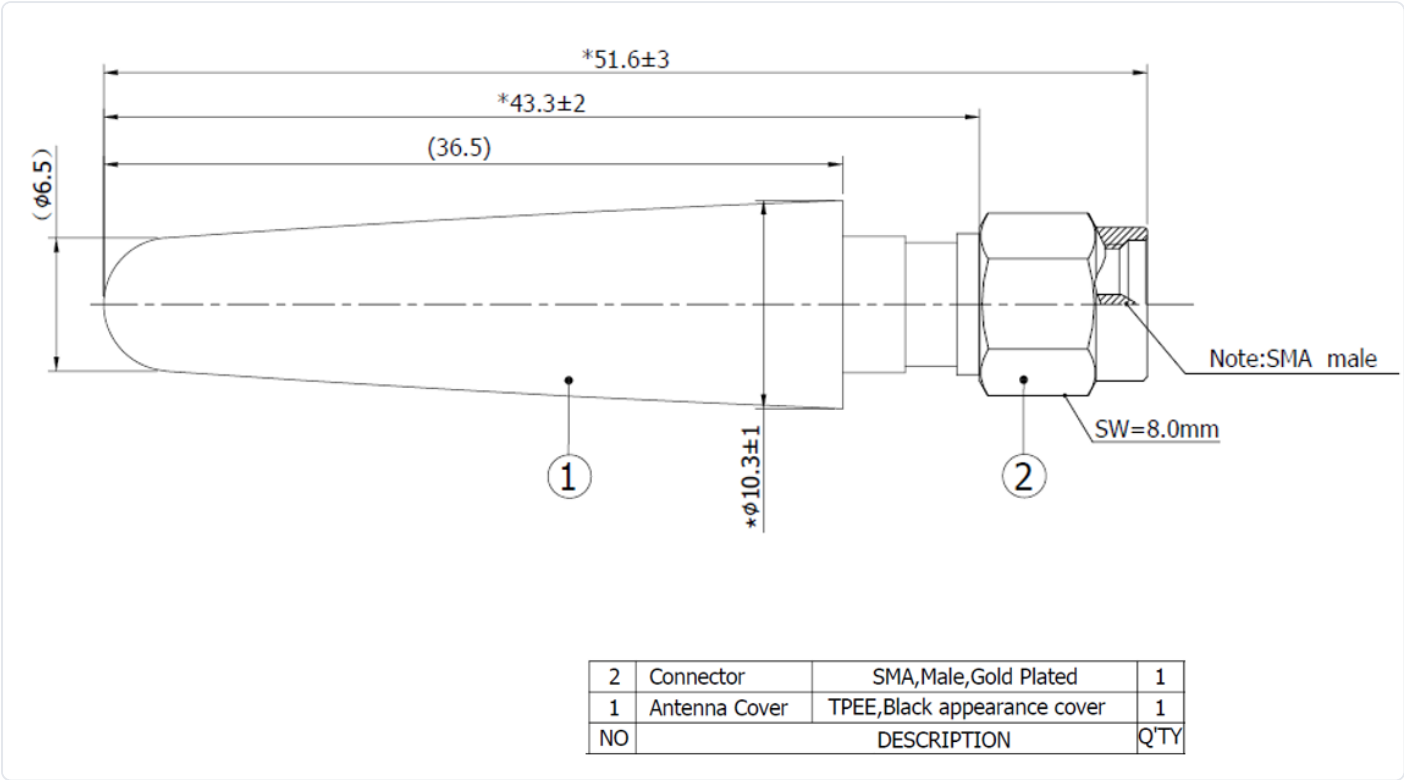
Antenna Orientation / Setup



3D Radiation Pattern Lobe



7 Mechanical Drawing



8 Packaging

1 pc antenna per PE bag (50 × 250 mm).
20 pcs per PE bag (280 × 450 mm).
500 pcs per carton (320 × 250 × 290 mm).

9 Material Regulation

The antenna has been assessed to conform to RoHS requirements. A certificate of conformance is available upon request.

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