

RF
NEXUS

Product Datasheet

NEX15-EXT-TR-001

Key Features

- LoRa
- Sigfox/Z-Wave/ISM
- 865/870 MHz
- Terminal Mount
- Ground Dependent
- Dimensions
Ø 8 × 49 mm



www.nexus-rf.com

1- Introduction

The NEX15-EXT-TR-001 is a high-performance terminal mount antenna designed specifically for the ISM band, covering frequencies in the 865/870 MHz and 902/930 MHz ranges. It is optimized for modern LPWA technologies, such as LoRa, ensuring reliable connectivity in a variety of applications. The antenna features a straight SMA male connector, making it easy to attach externally to devices, providing a plug-and-play solution that is ready for deployment right out of the box.

Constructed with a durable and rugged TPEE housing, the NEX15-EXT-TR-001 is built to withstand harsh environments, making it suitable for even the most challenging use cases. Its robust design ensures long-lasting performance, whether used in industrial, commercial, or outdoor applications. This antenna offers a straightforward and efficient way to enhance wireless performance with minimal installation effort, making it a versatile choice for a wide range of IoT and LPWA deployments.

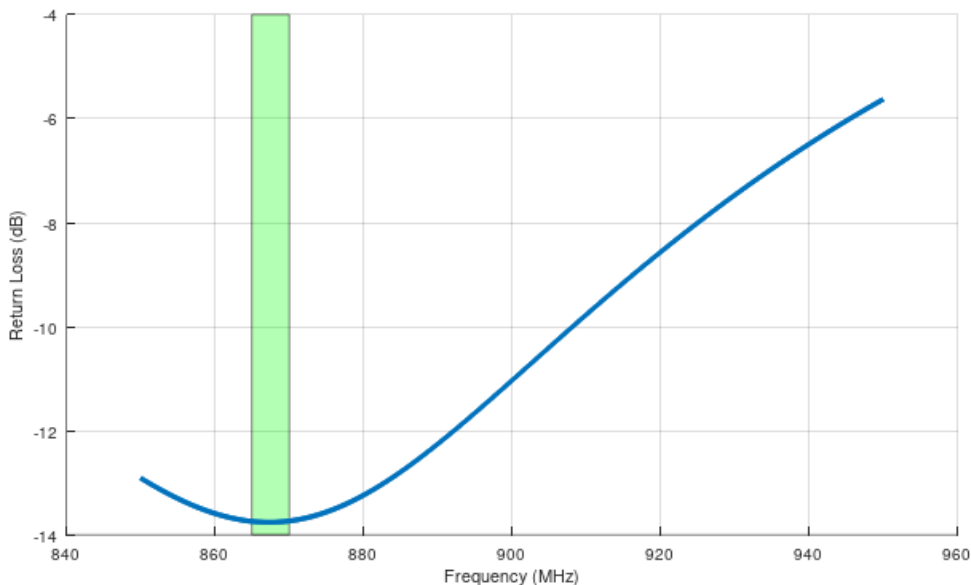
2- Specifications

Mechanical	
Height	49mm
Diameter	Ø8 mm
Connector	SMA(M)
Casing	ABS(UV)
Weight	6g
Temperature Range	-40°C to 85°C
Electrical	
Frequency (MHz)	865/870
Return Loss on Ground (dB)	-13
VSWR on Ground	1.5:1
Efficiency on Ground	%75
Peak Gain on Ground (dBi)	2
Impedance	50Ω
Polarization	Linear
Pattern	Omni Directional

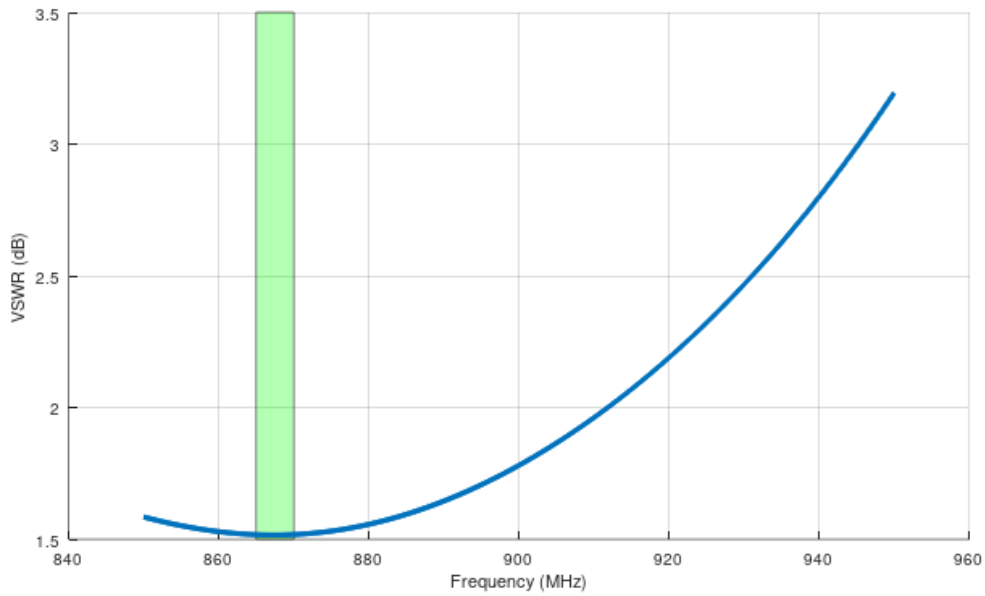
3- Antenna Parameters

The reflection performance of the NEX15-EXT-TR-001 antenna was assessed using metal ground plane where diameter is 30cm. Free Space graphics are shows that antenna parameter with 3m coaxial cable.

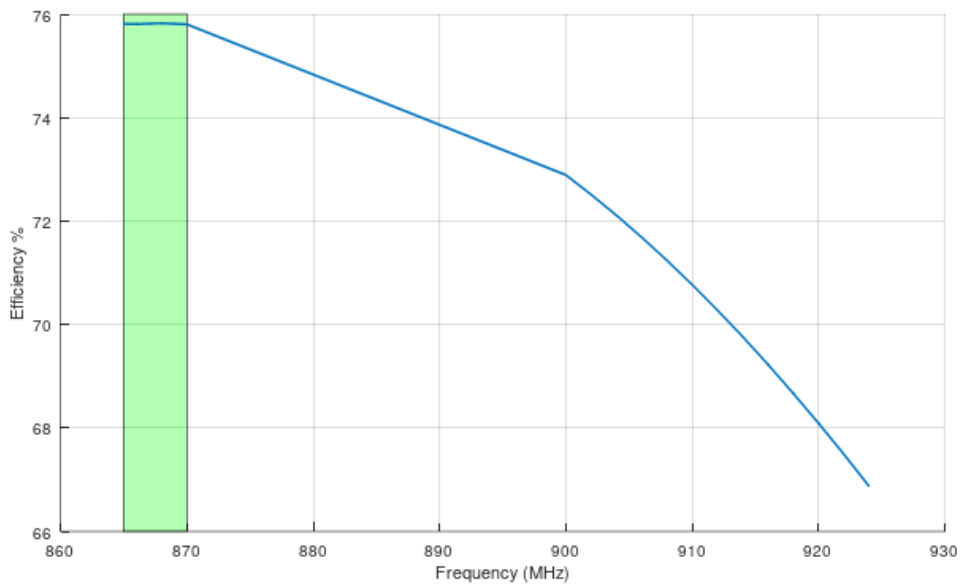
3.1- Return Loss



3.2- VSWR

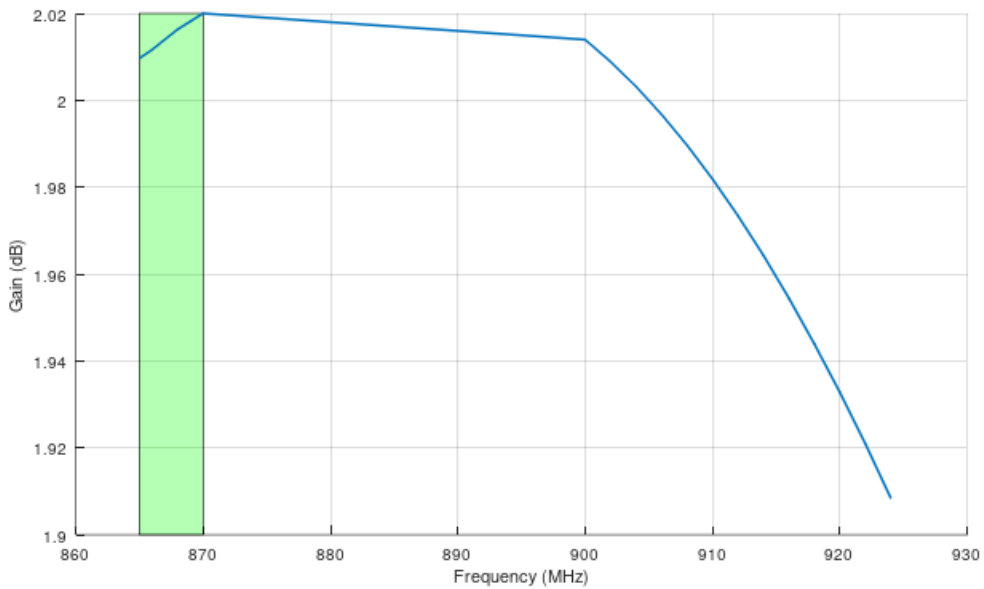


3.3- Efficiency

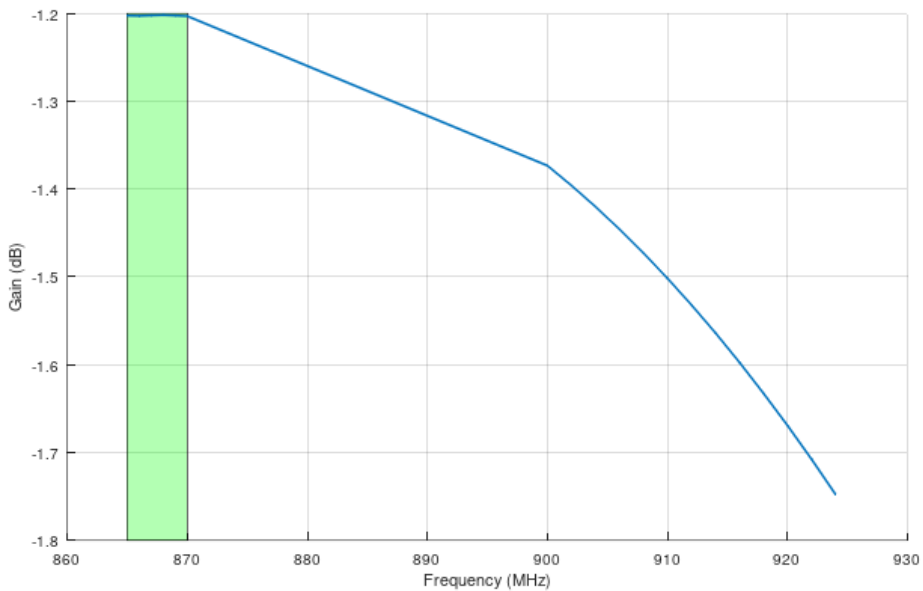


4- Radiator Patterns

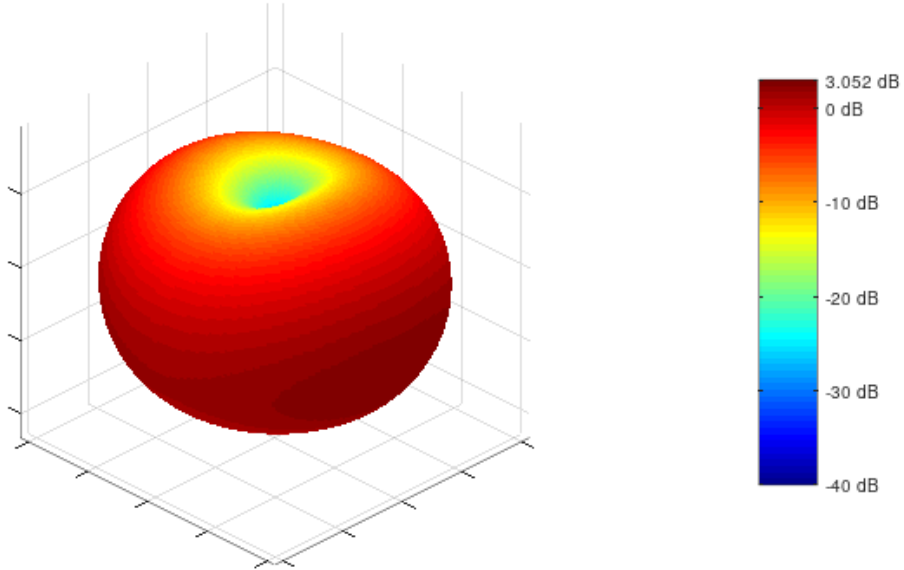
4.1- Peak Gain



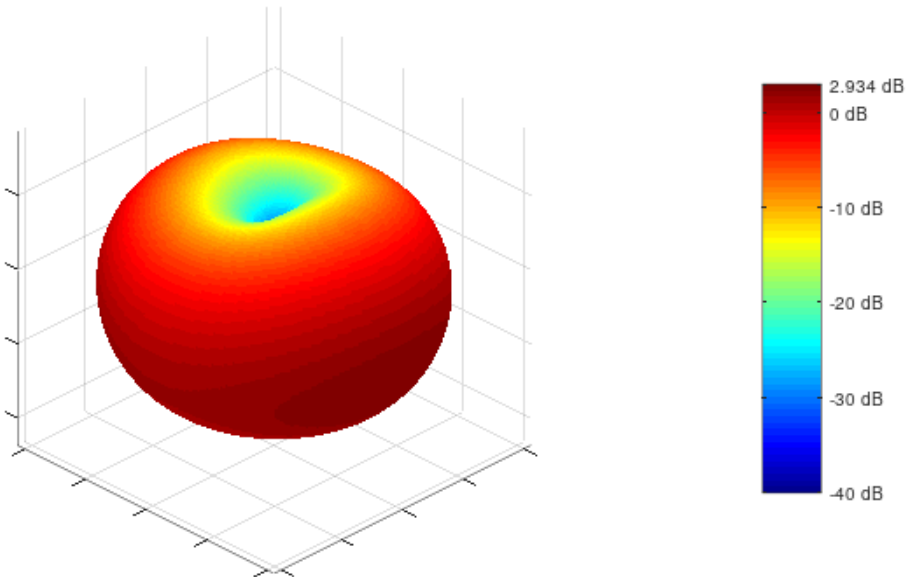
4.2- Average Gain



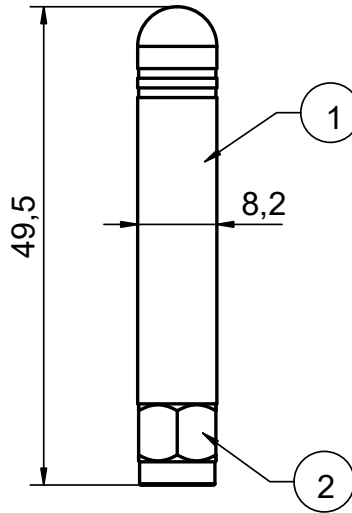
4.3- 868 MHz




4.4- 915 MHz

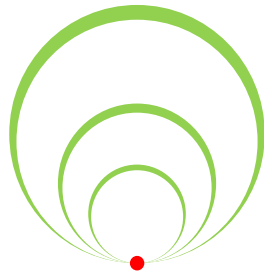


5- Technical Drawing



1	ABS-UV
2	SMA-M

Author: Talha Çalış	Legal owner: RF NEXUS Corp.	Scale: M 2:1	Sheet of 1
Appr.: Talha Çalış		Toler. #: /-	Size: A4
TITLE: Terminal Mount Antenna		Part materia: PM	Part number: PN
		Drawing no.: 1	
		Date: 04.08.2024	Revision: REV A
 Document type: Mechanical assembly drawing		(R) DO NOT DUPLICATE THIS DRAWING TO THIRD PARTIES WITHOUT OWNER'S PERMISSION !	



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