860-930 MHz 3dBi Fiberglass Antenna Datasheet

Overview

Features

- Frequency Range: 860 ~ 930 MHz
- One antenna to suit both 868 MHz and 915 MHz bands
- Max Gain: 3 dBi
- High efficiency
- Vertically polarized monopole
- Omnidirectional
- Outdoor use

Figure 1: RAKARG12 Overview

Specifications

Parameter	Value
Model	RAKARG12
Frequency Range	860 ~ 930 MHz
Gain	2.6 ~ 3.1 dBi
VSWR	⩽2.5
Efficiency	60%
Radiation	360°
Impedance	50 Ω
Polarization	Vertical
Radome Body	Fiberglass
Connector	N-Type Male
Dimensions	Φ 25 x L 360 ±10 mm
Operation Temp	-20 C ~ +65° C
Storage Temp	-30 C ~ +75° C

VSWR and Return Loss

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Frequency (MHz)	VSWR	Return loss (dB)
860	1.7657	-11.20
870	1.4305	-15.04
896	1.2643	-18.78
910	1.4393	-15.04
920	1.6967	-11.91
930	1.5974	-12.73

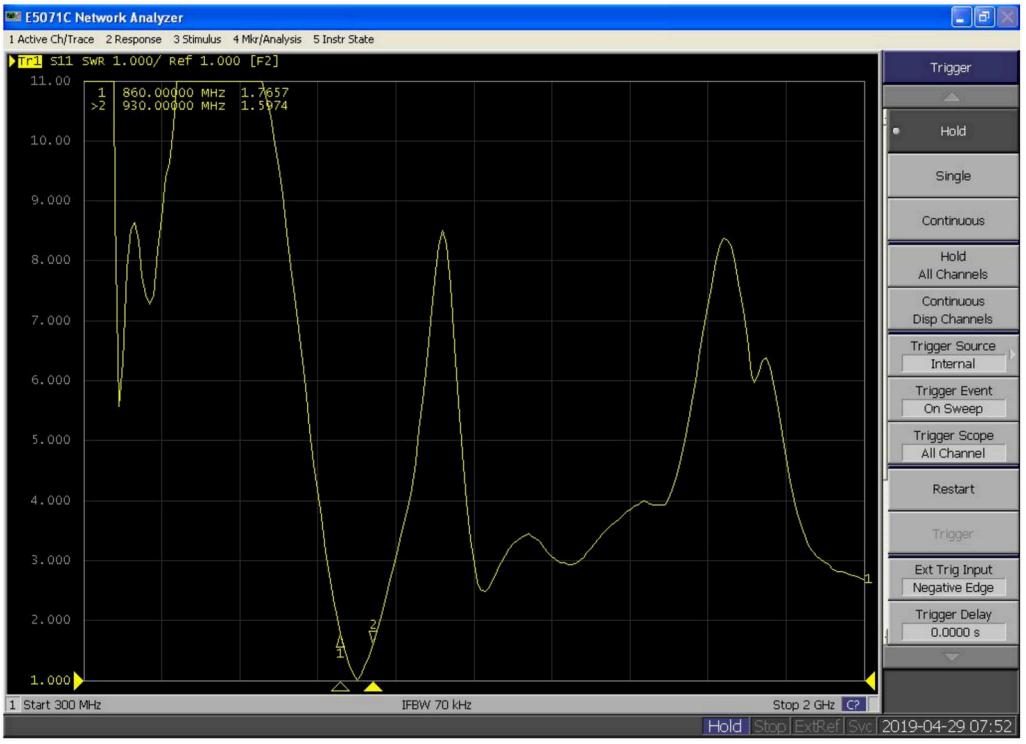

Figure 2: RAKARG13 VSWR Graph

Peak Gain & Efficiency

Frequency (MHz)	Efficiency (%)	Gain (dBi)
860	56.1	2.6
865	59.2	2.8
870	60.6	2.8
875	66.4	2.9
880	63.8	2.9
885	65.2	3.0
890	66.7	3.0

Frequency (MHz)	Efficiency (%)	Gain (dBi)
895	69.2	3.1
900	70.1	2.8
905	77.5	2.9
910	70.4	2.9
915	69.6	2.9
920	66.0	2.7
925	64.9	2.8
930	60.4	2.7

Radiation Patterns

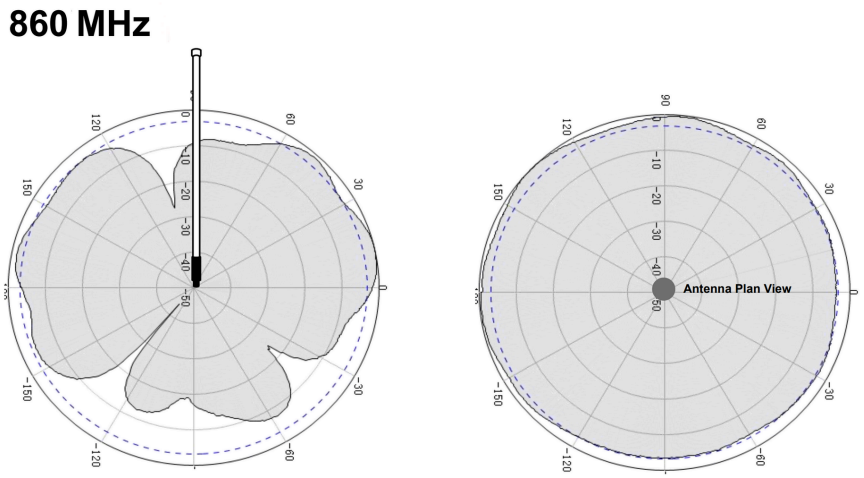

Figure 3: RAKARG12 Radiation Pattern for 860 MHz

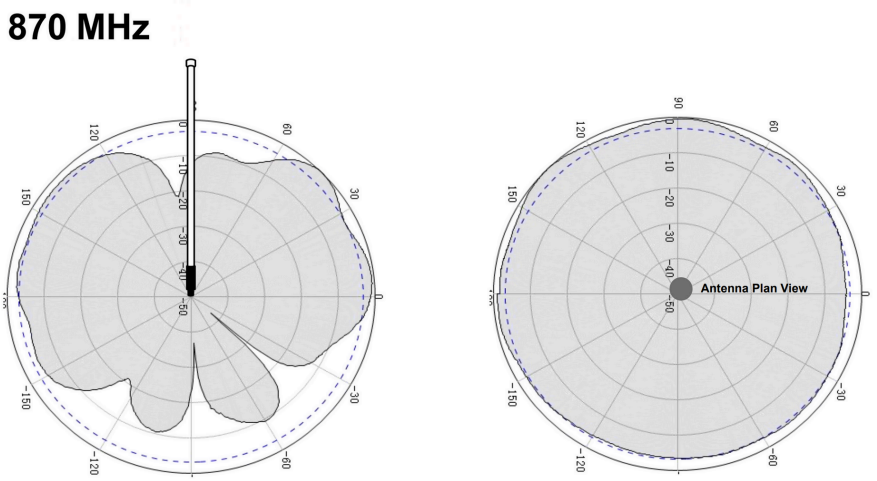

Figure 4: RAKARG12 Radiation Pattern for 870 MHz

880 MHz

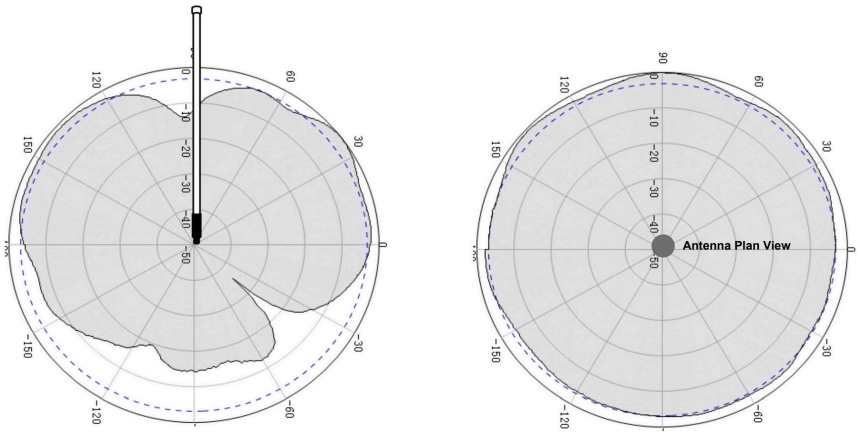

Figure 5: RAKARG12 Radiation Pattern for 880 MHz

890 MHz

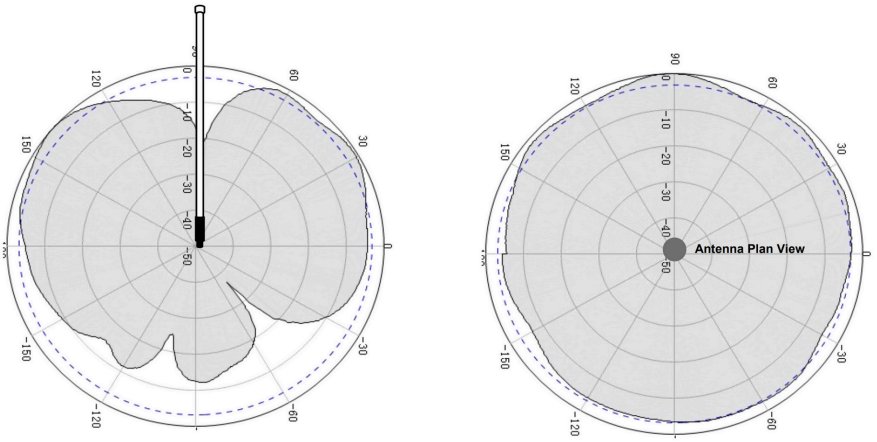

Figure 6: RAKARG12 Radiation Pattern for 890 MHz

900 MHz

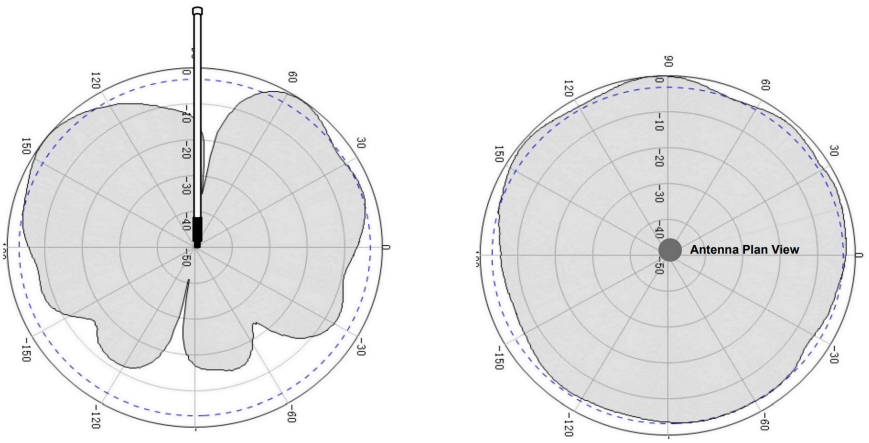

Figure 7: RAKARG12 Radiation Pattern for 900 MHz

910 MHz

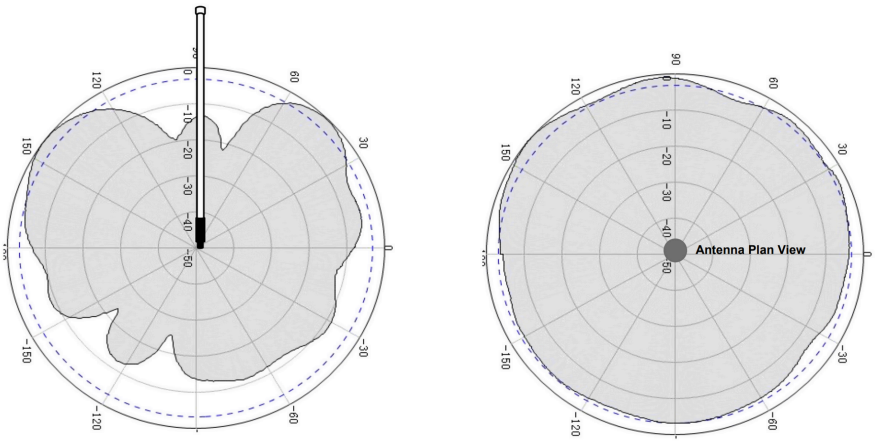

Figure 8: RAKARG12 Radiation Pattern for 910 MHz

920 MHz

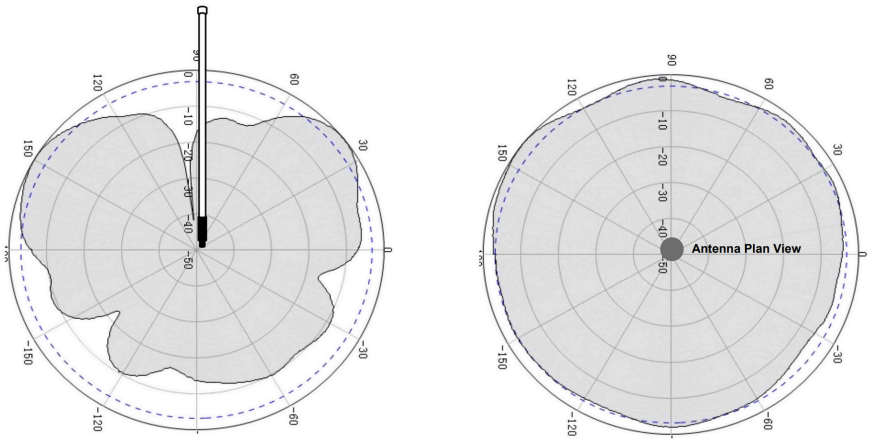

Figure 9: RAKARG12 Radiation Pattern for 920 MHz

930 MHz

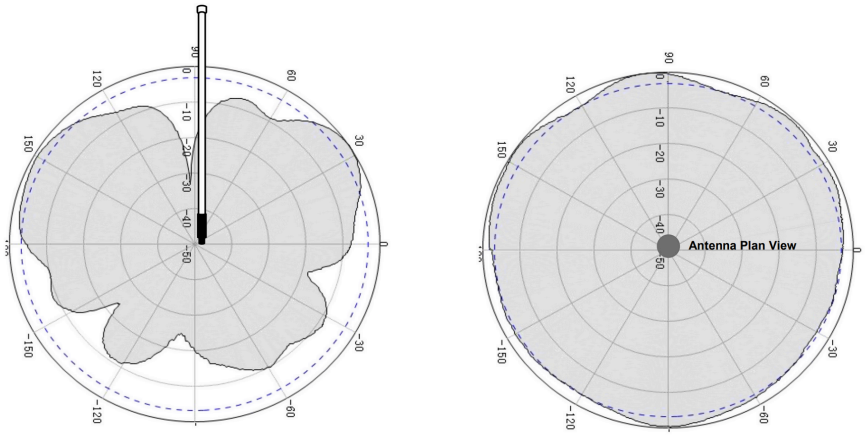

Figure 10: RAKARG12 Radiation Pattern for 930 MHz

Mechanical Characteristics

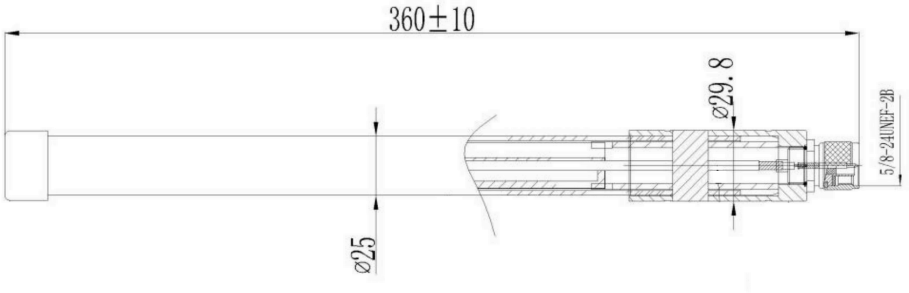

Figure 11: RAKARG12 Mechanical Characteristics

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