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

Parameter	Value
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

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

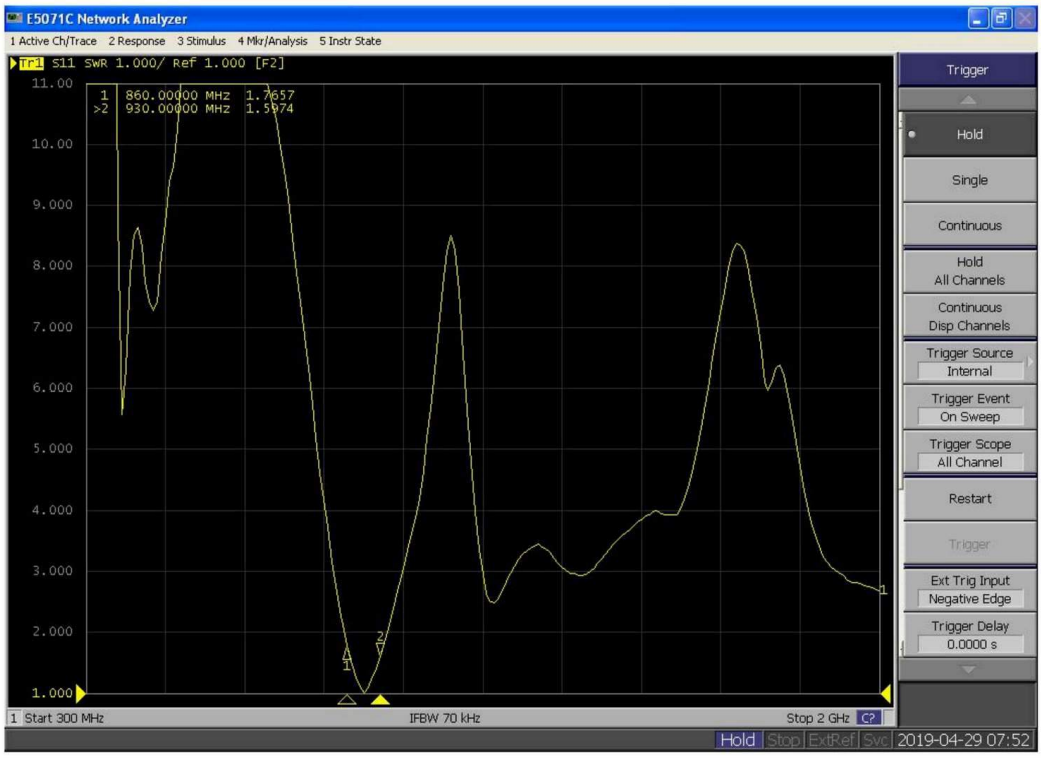

Figure 2: RAKARG13 VSWR Graph

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
895	69.2	3.1
900	70.1	2.8
905	77.5	2.9

Frequency (MHz)	Efficiency (%)	Gain (dBi)
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

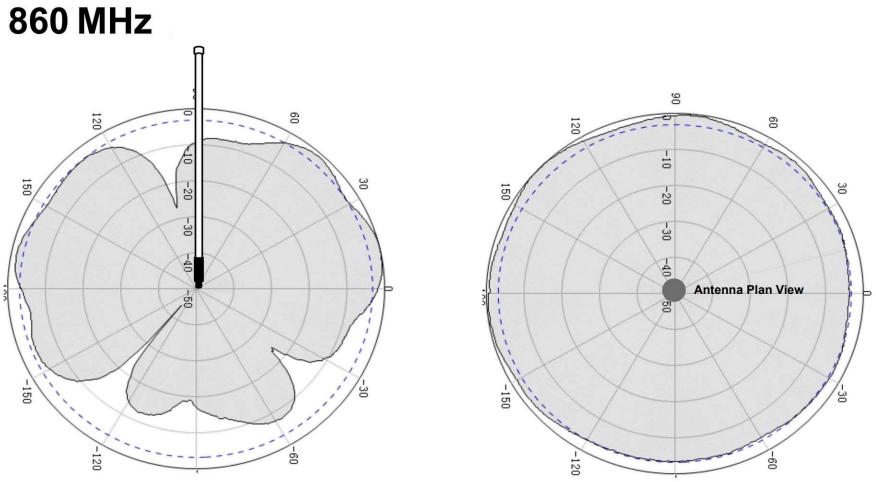

Figure 3: RAKARG12 Radiation Pattern for 860 MHz

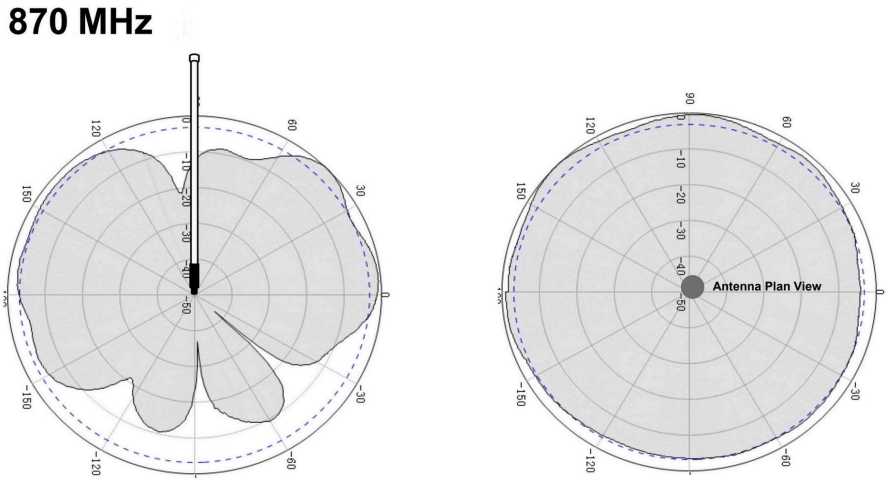

Figure 4: RAKARG12 Radiation Pattern for 870 MHz

880 MHz

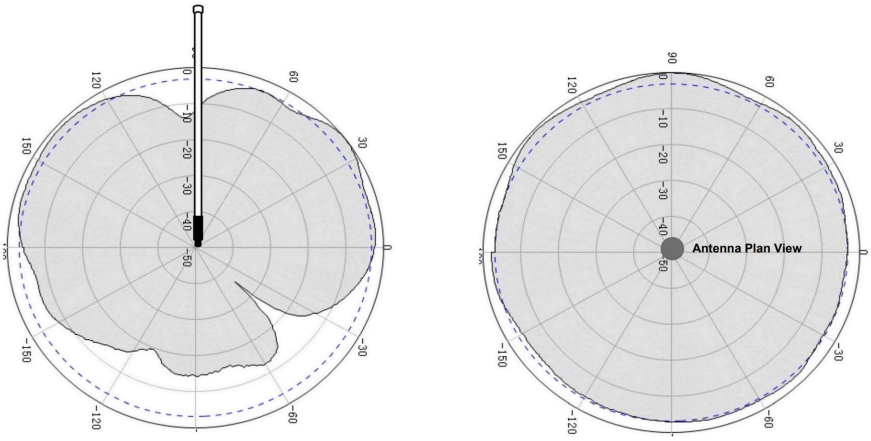

Figure 5: RAKARG12 Radiation Pattern for 880 MHz

890 MHz

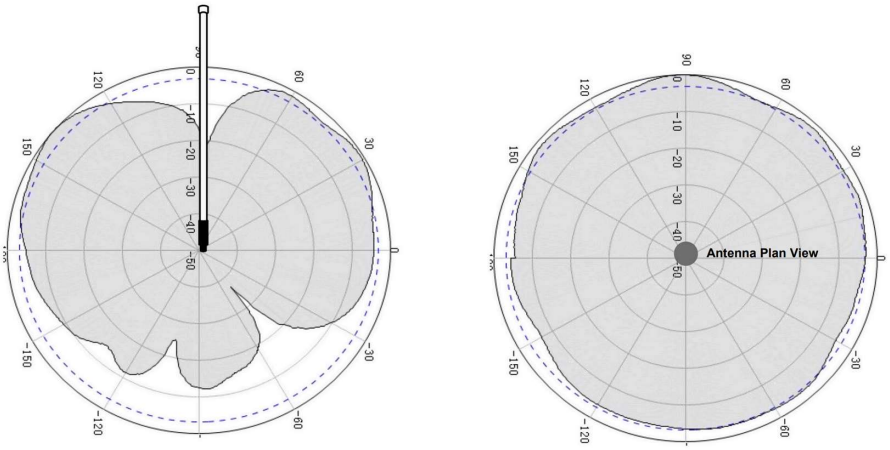

Figure 6: RAKARG12 Radiation Pattern for 890 MHz

900 MHz

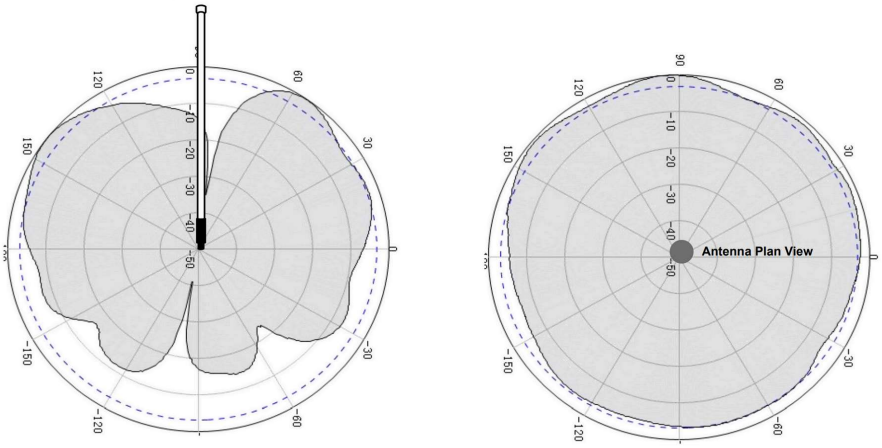

Figure 7: RAKARG12 Radiation Pattern for 900 MHz

910 MHz

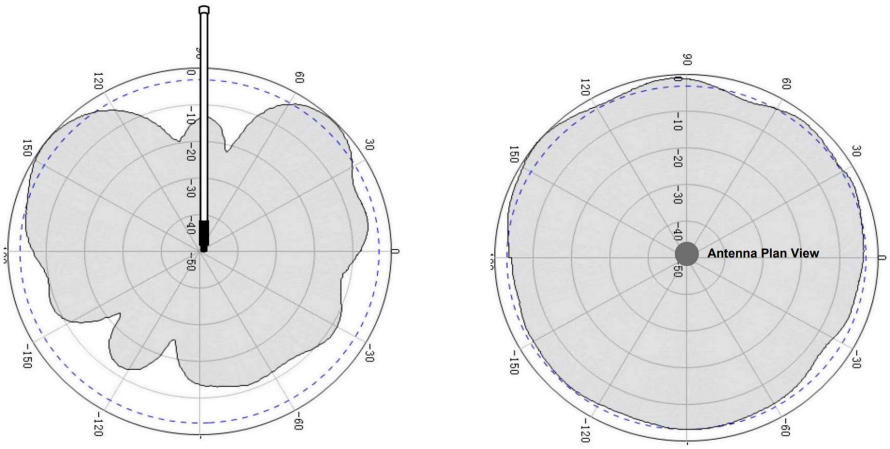

Figure 8: RAKARG12 Radiation Pattern for 910 MHz

920 MHz

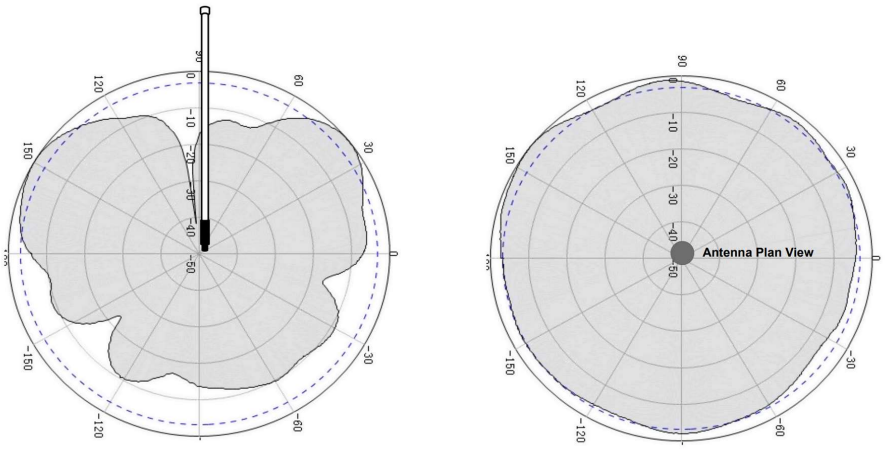

Figure 9: RAKARG12 Radiation Pattern for 920 MHz

930 MHz

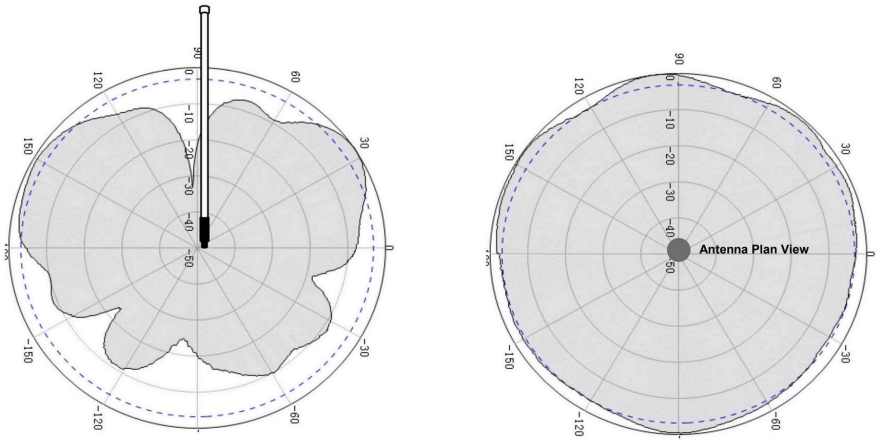

Figure 10: RAKARG12 Radiation Pattern for 930 MHz

Mechanical Characteristics

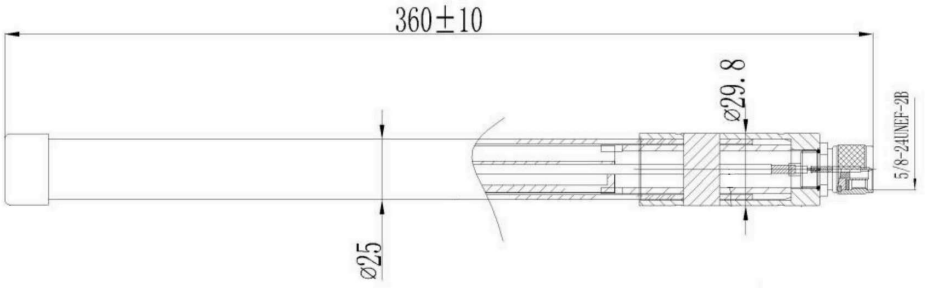

Figure 11: RAKARG12 Mechanical Characteristics

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