LoRa Small Stick Antenna

FEATURES & BENEFITS

- Mini LoRa Antenna

APPLICATIONS

- IoT Devices
- Smart Cities
- Smart Agriculture
- Consumer Tracking
- Smart Metering
- Smart Agriculture

ORDER INFORMATION

Product Name	LoRa Small Stick Antenna
Part Number	M02-0400750R0A
Dimensions	Ø10 x 108 mm
Weight	6.5 g
Color	Black
Mounting	RP-SMA MALE Connector

REFERENCE GUIDE

Technical Features (MHz)	860-930
Radiation Pattern	Omnidirectional
Polarization	Linear
Input Impedance	50 Ω
Operating Temperature	-40ºC to +85ºC
Storage Temperature	-40ºC to +85ºC
Relative Humidity	10 to 70%
Material Substance Compliance	RoHS Compliant
Dimensions (L x W x H)	Ø10 x 108 mm

MyAntenna RF Technology Co., Ltd
ADD:No.RM 410, Country Garden Phoenix Wisdom Valley, No. 50 Tiezai Road, Baoan District, Shenzhen, P.R.China.
TEL：+86-0755-86503881 FAX：+86-0755-27801677 E-mail：nfc@imyantenna.com

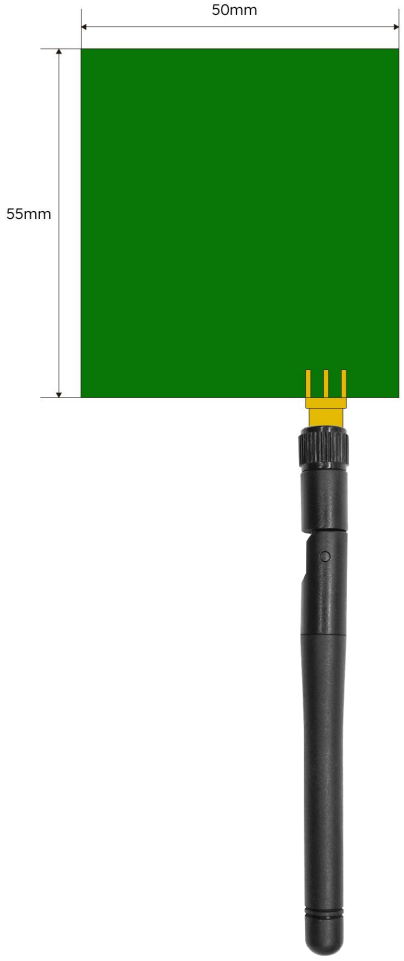
ELECTRICAL PERFORMANCE

- Tested condition

Standalone Antenna Test

Antenna Test with 60 mm Coaxial

Antenna Test on 55×50 mm PCB



Antenna Test on 45×20 mm PCB

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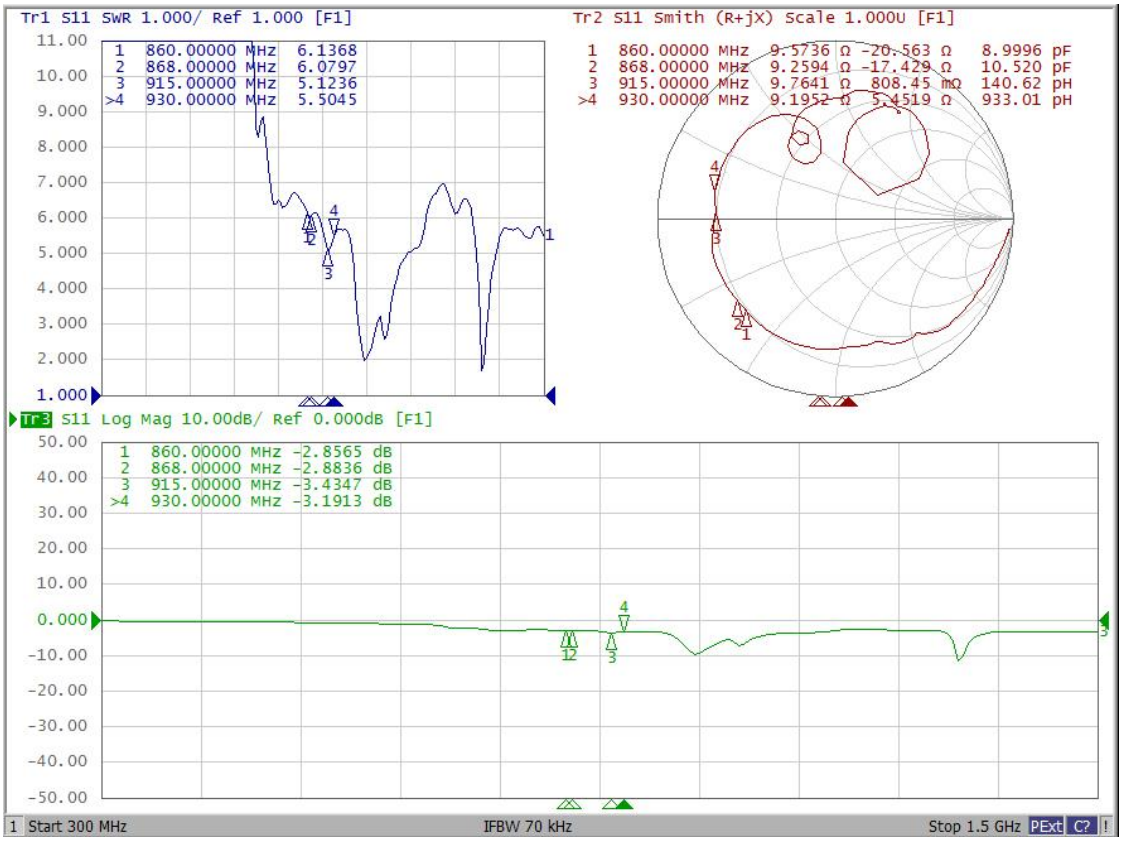
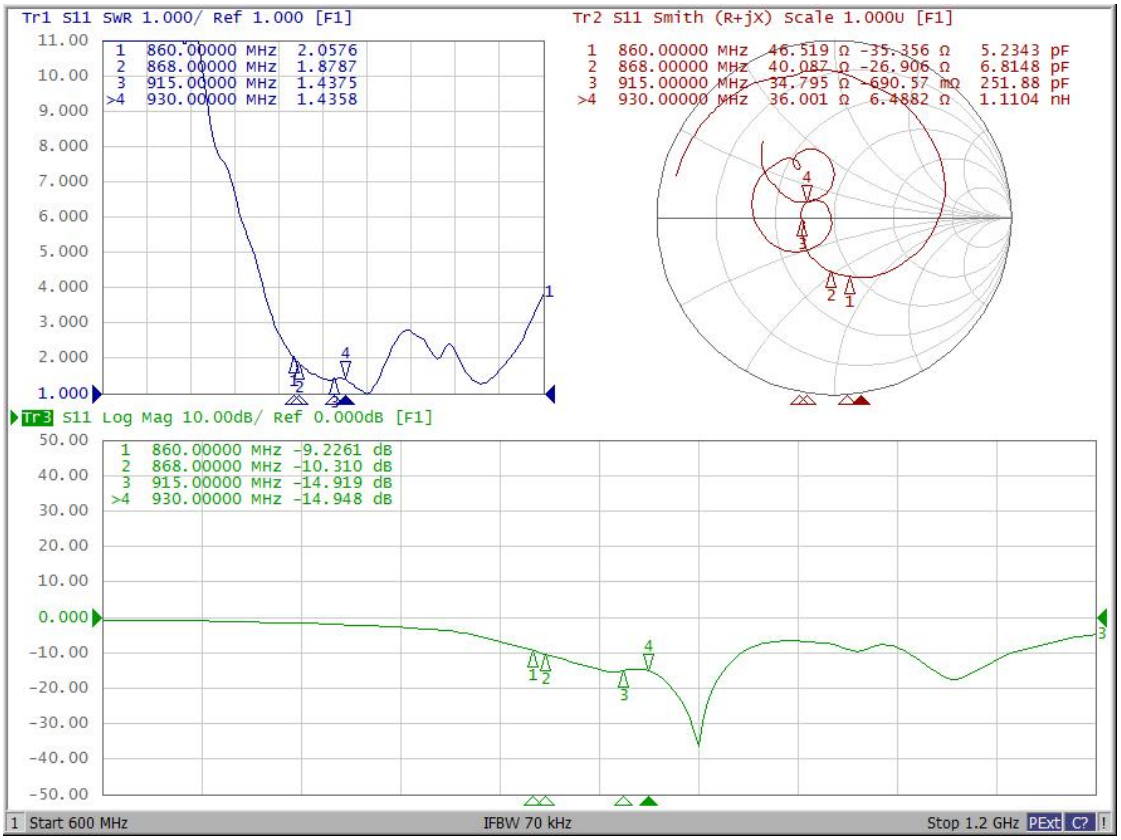
ELECTRICAL DATA

Return Loss(Standalone Antenna Test)



Return Loss(Antenna Test with 60 mm Coaxial)



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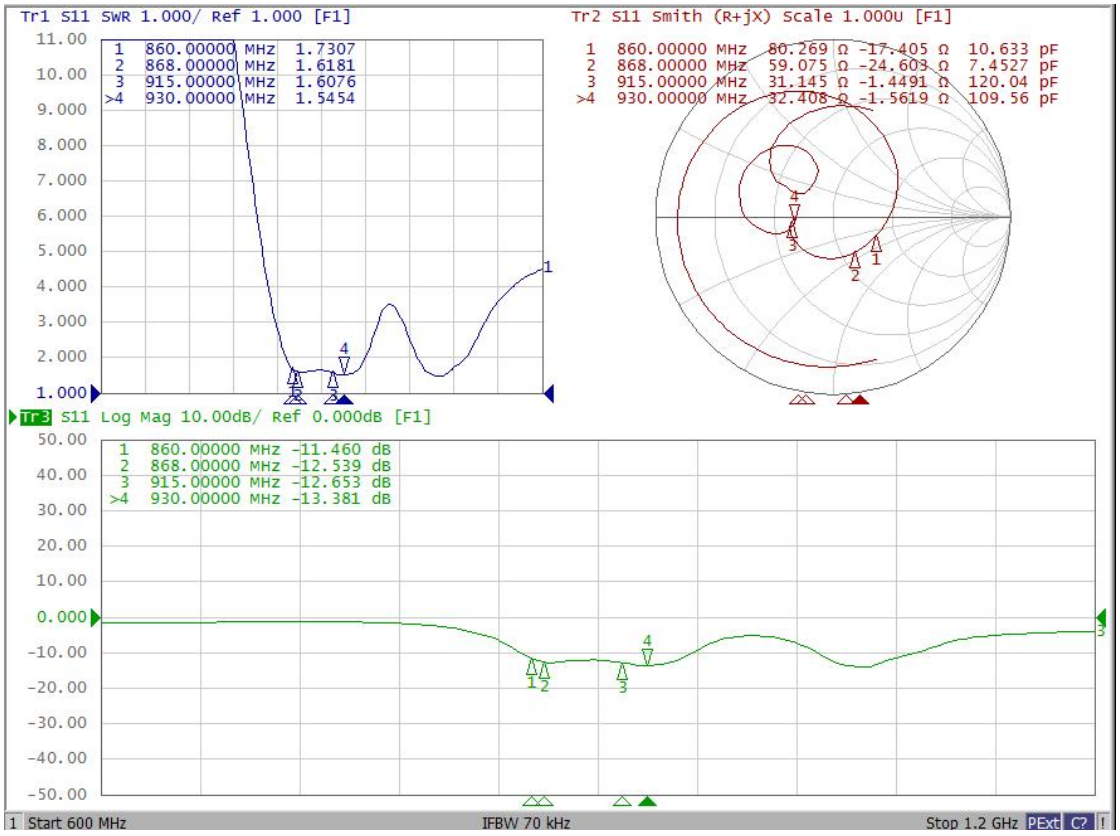
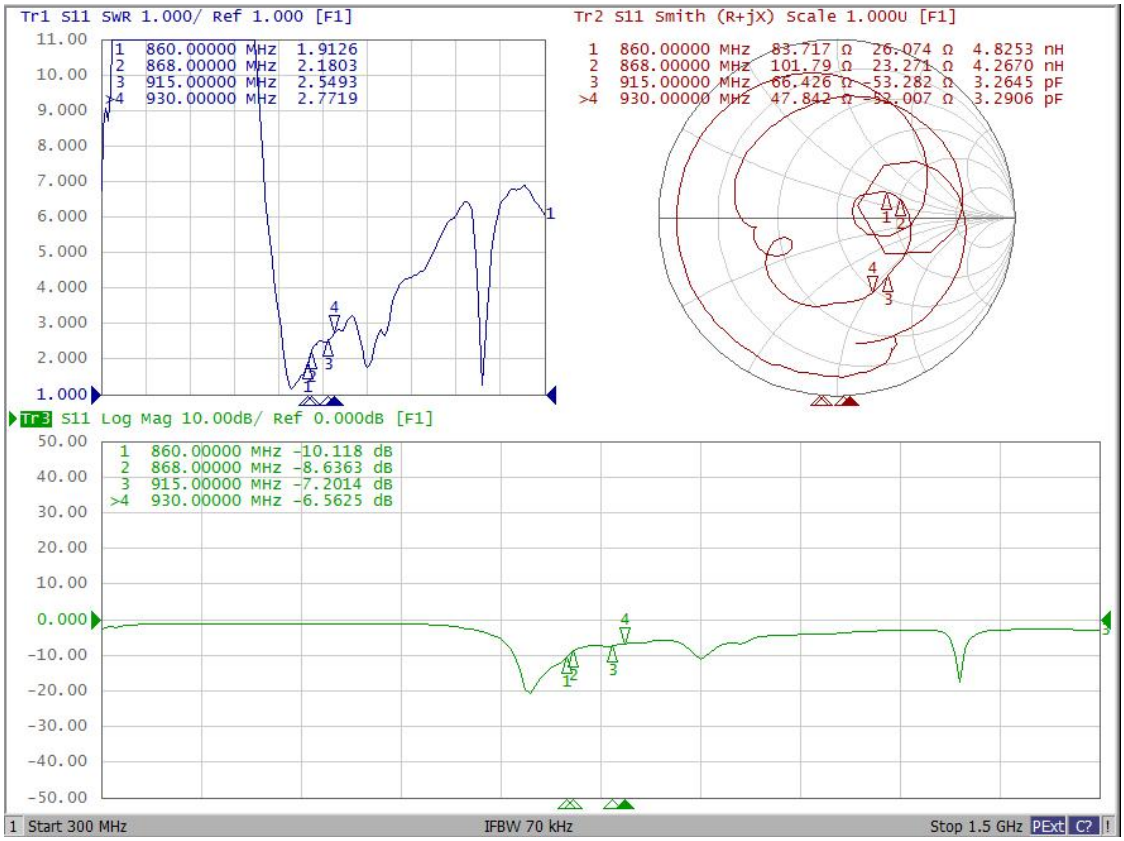
Return Loss(Antenna Test on 55×50 mm PCB)



Return Loss(Antenna Test on 45×40 mm PCB)



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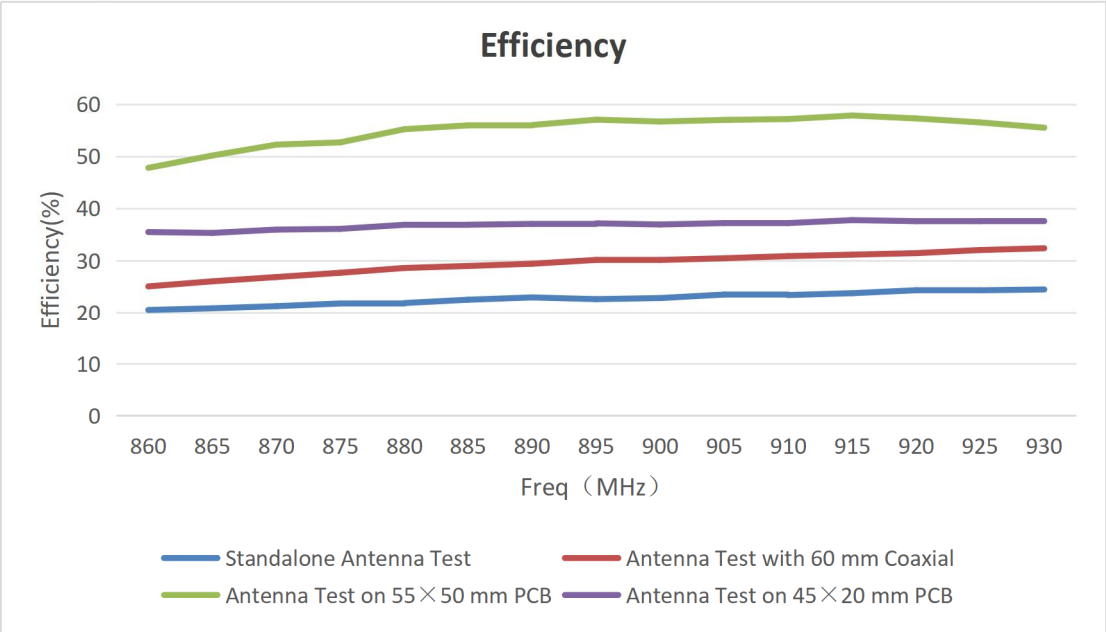
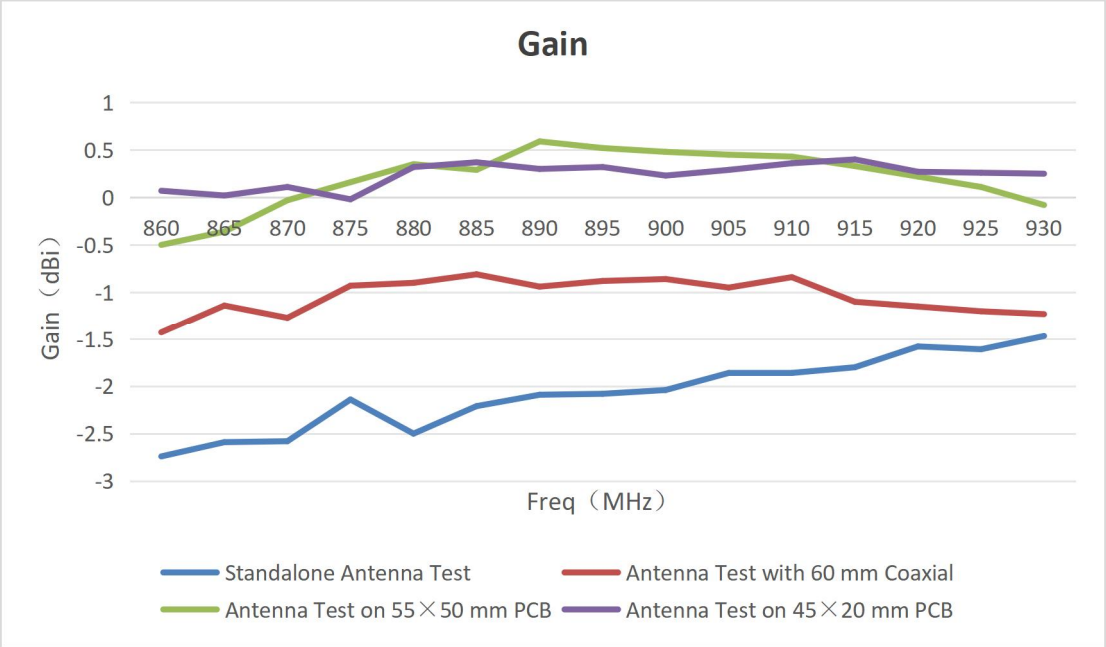
Efficiency（%）



Peak Gain（dBi）



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Standalone Antenna Test		
Freq （MHz）	Gain （dBi）	Efficiency(%)
860	-2.74	20.51
865	-2.59	20.83
870	-2.58	21.24
875	-2.14	21.76
880	-2.5	21.84
885	-2.21	22.48
890	-2.09	22.92
895	-2.08	22.59
900	-2.04	22.8
905	-1.86	23.47
910	-1.86	23.37
915	-1.8	23.73
920	-1.58	24.3
925	-1.61	24.29
930	-1.47	24.45

Antenna Test with 60 mm Coaxial		
Freq （MHz）	Gain （dBi）	Efficiency(%)
860	-1.43	25.04
865	-1.14	26.01
870	-1.27	26.83
875	-0.93	27.65
880	-0.9	28.57
885	-0.81	28.96
890	-0.94	29.39
895	-0.88	30.12
900	-0.86	30.11
905	-0.95	30.44
910	-0.84	30.85
915	-1.1	31.13
920	-1.15	31.42
925	-1.2	32.02
930	-1.23	32.36

Antenna Test on 55×50 mm PCB		
Freq （MHz）	Gain （dBi）	Efficiency(%)
860	-0.5	47.79
865	-0.36	50.16
870	-0.03	52.25
875	0.16	52.68
880	0.35	55.21
885	0.29	55.95
890	0.59	56.02
895	0.52	57.04
900	0.48	56.68
905	0.45	56.99
910	0.43	57.16
915	0.33	57.84
920	0.22	57.28
925	0.11	56.51
930	-0.08	55.5

Antenna Test on 45×20 mm PCB		
Freq （MHz）	Gain （dBi）	Efficiency(%)
860	0.07	35.47
865	0.02	35.3
870	0.11	35.94
875	-0.02	36.08
880	0.32	36.86
885	0.37	36.88
890	0.3	37.03
895	0.32	37.14
900	0.23	36.92
905	0.29	37.19
910	0.36	37.19
915	0.4	37.76
920	0.27	37.56
925	0.26	37.57
930	0.25	37.54

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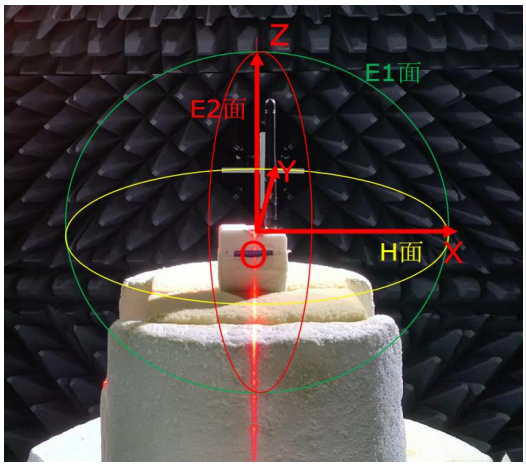
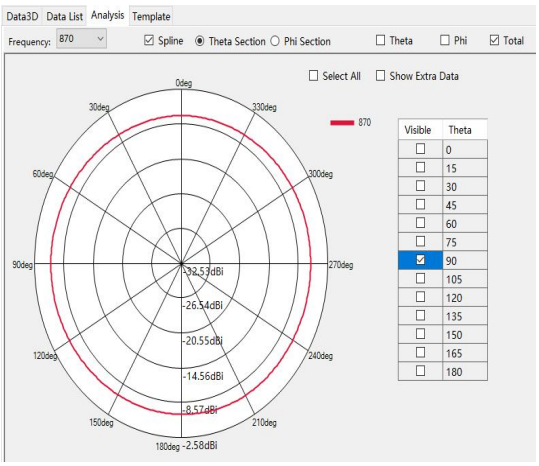
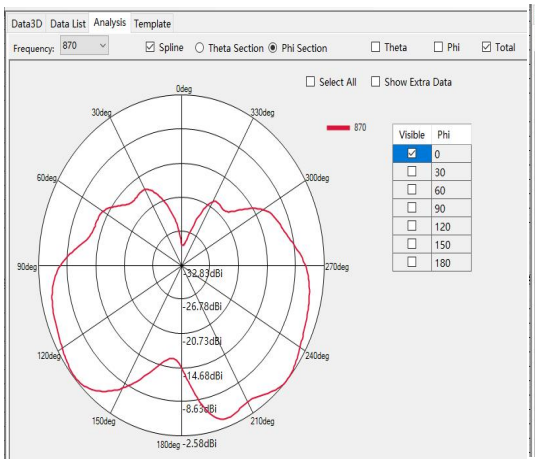
RADIATION PATTERNS

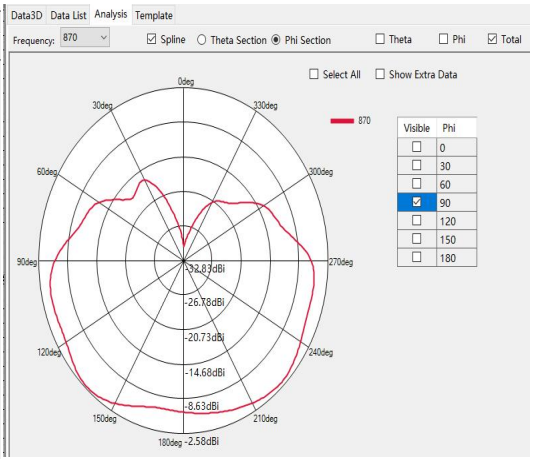
Standalone Antenna Test



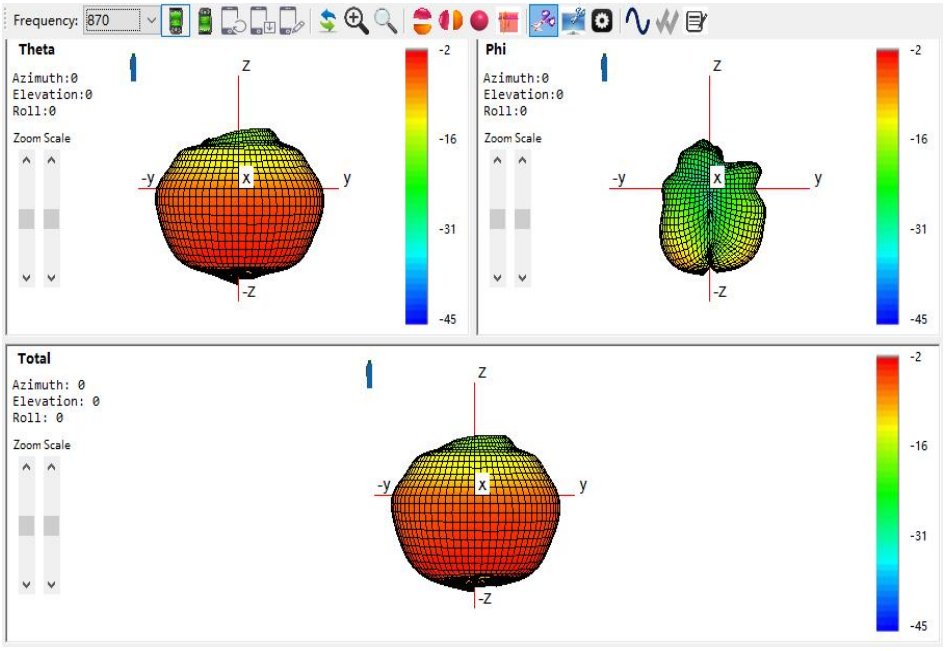


The Antenna in MyAntenna's Anechoic Chamber H at 870MHz





E1 at 870MHz E2 at 870MHz



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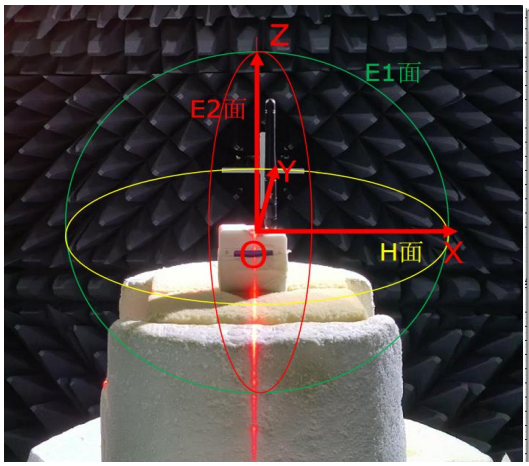
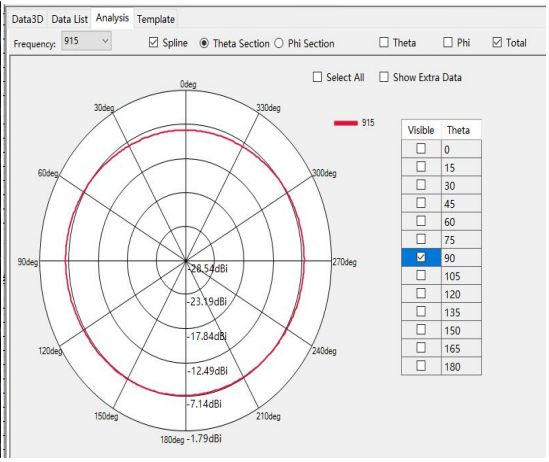
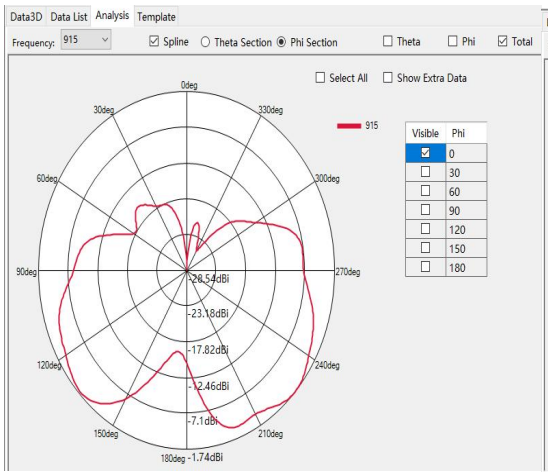


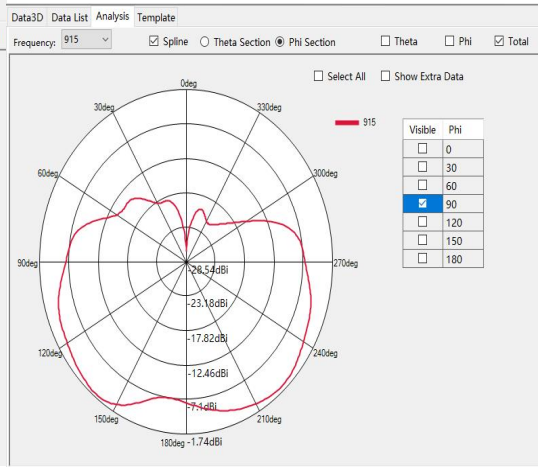
The Antenna in MyAntenna's Anechoic Chamber



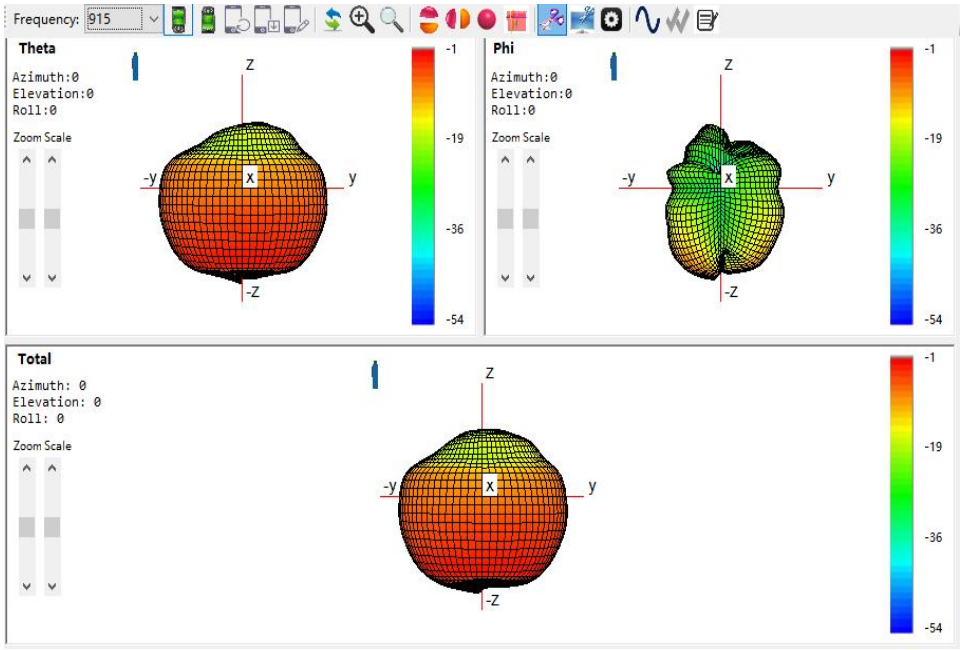
H at 915MHz



E1 at 915MHz



E2 at 915MHz



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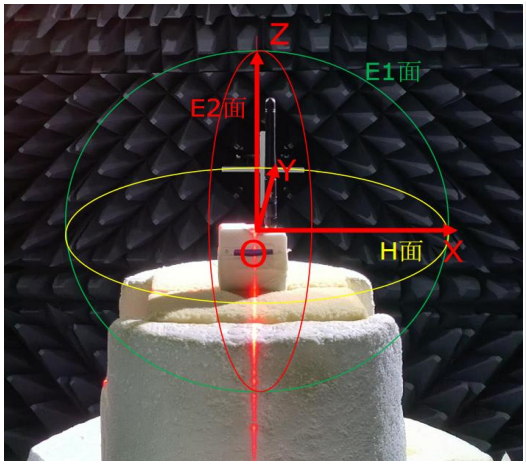
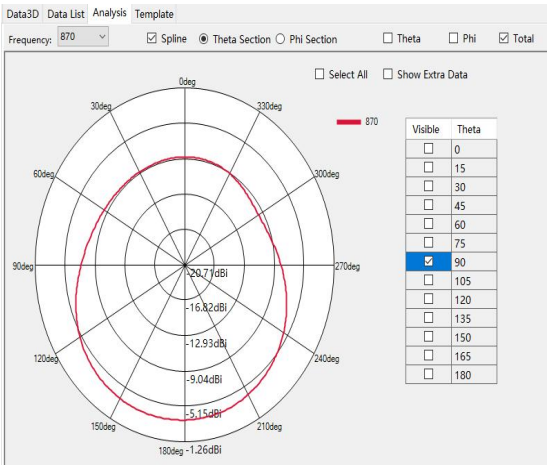
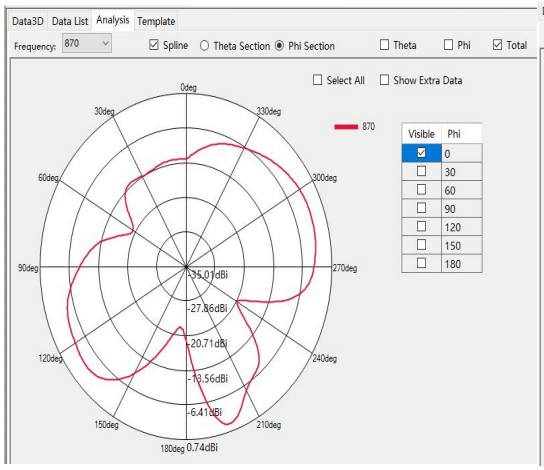
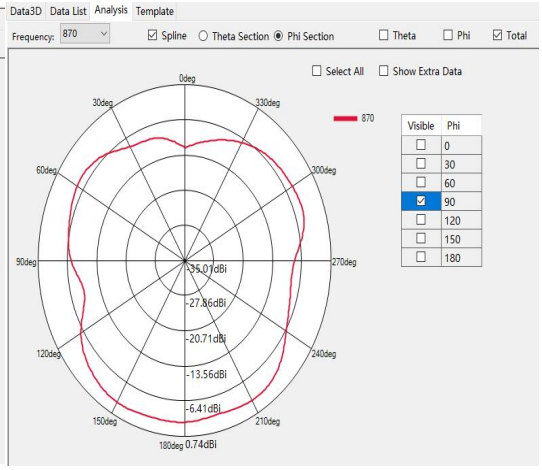
Antenna Test with 60 mm Coaxial



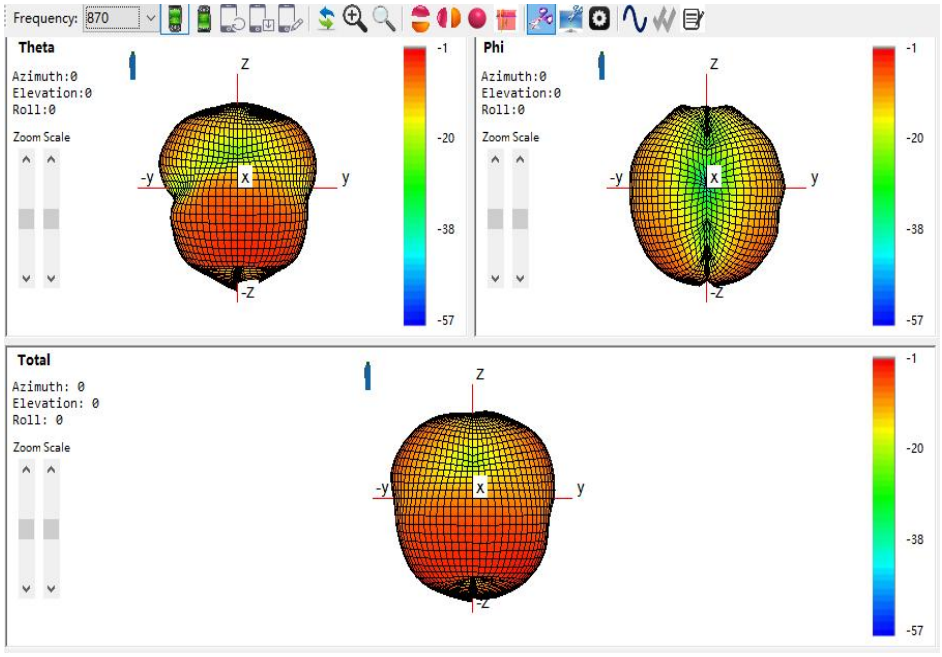


The Antenna in MyAntenna's Anechoic Chamber H at 870MHz





E1 at 870MHz E2 at 870MHz



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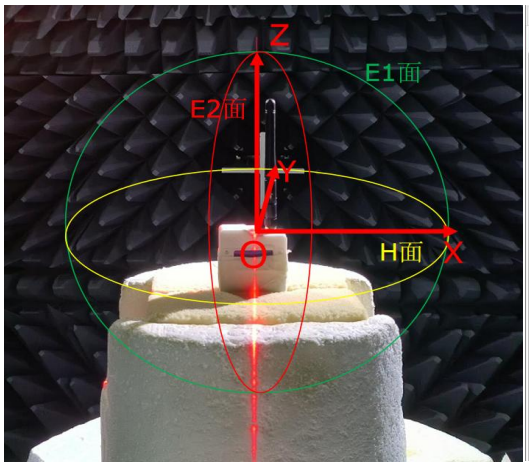
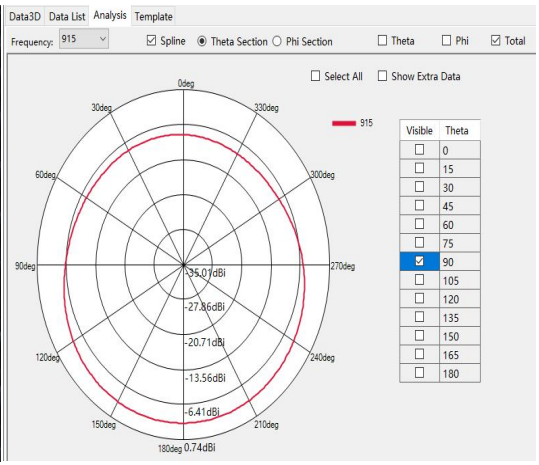
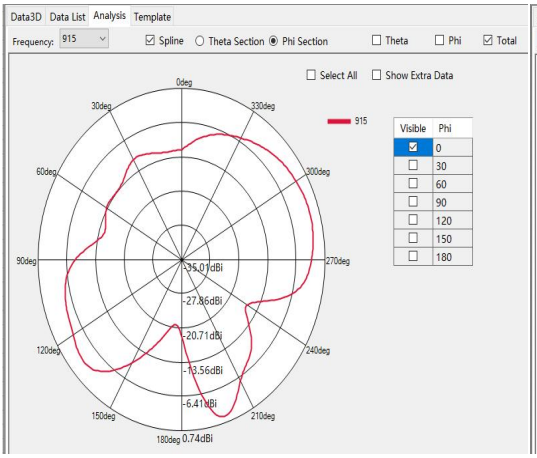
Antenna Test with 60 mm Coaxial



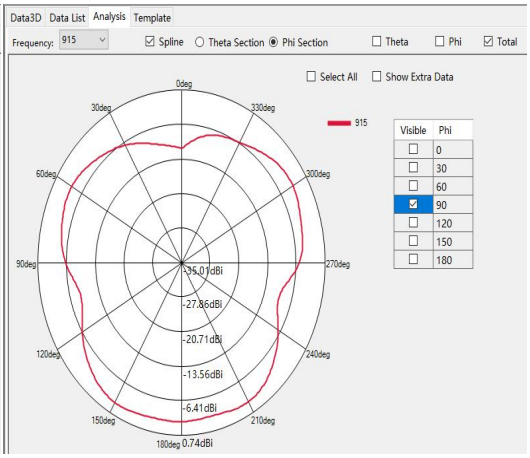
The Antenna in MyAntenna's Anechoic Chamber



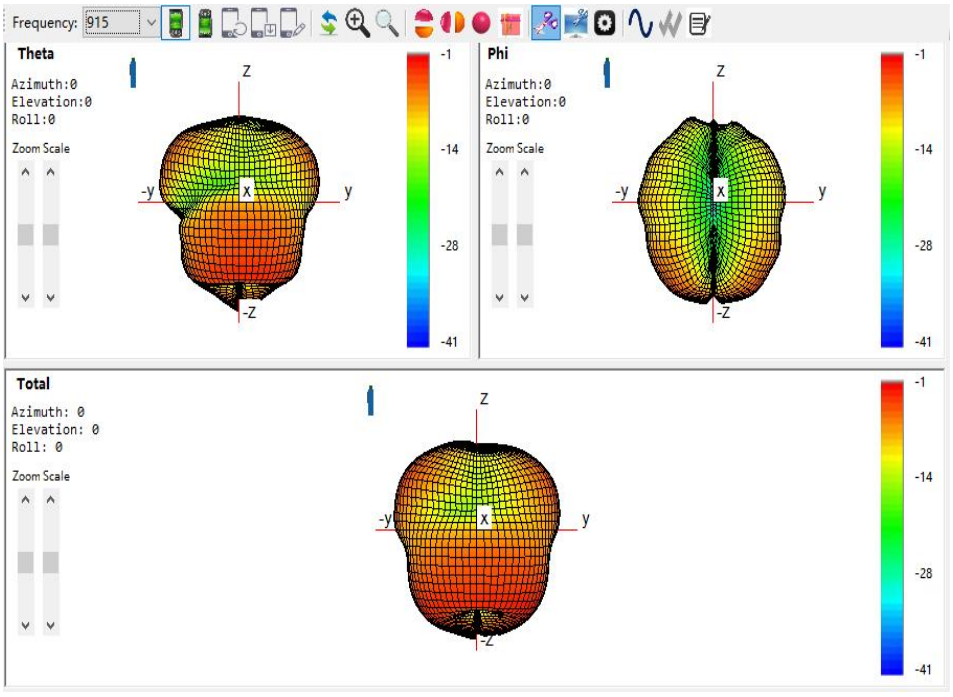
H at 915MHz



E1 at 915MHz



E2 at 915MHz



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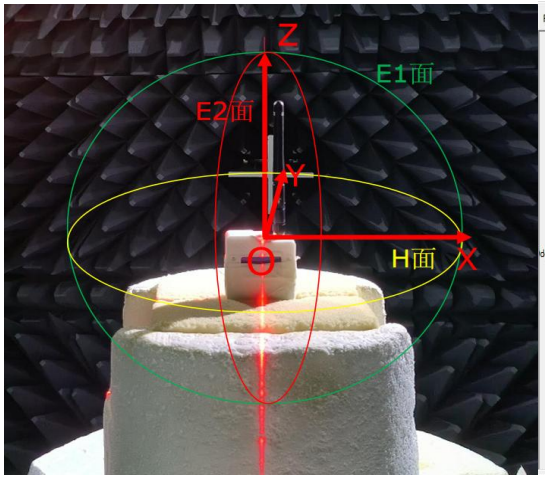
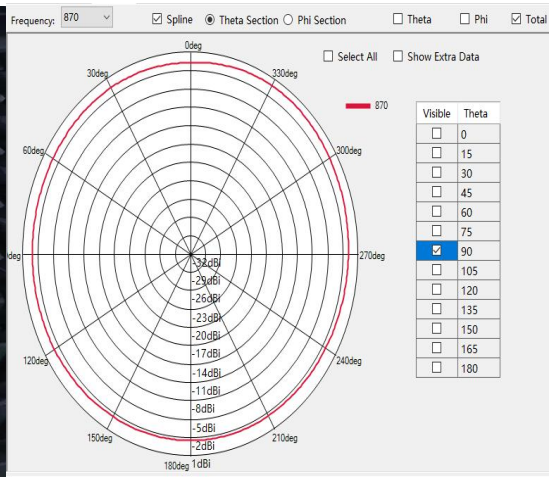
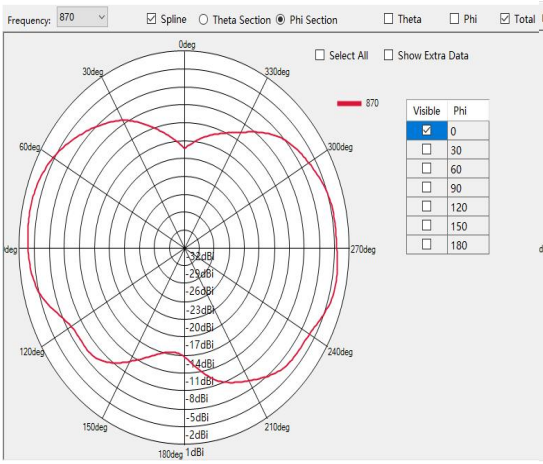
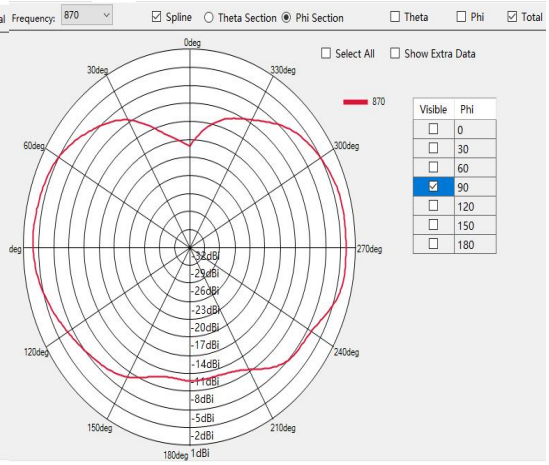
Antenna Test on 55×50 mm PCB



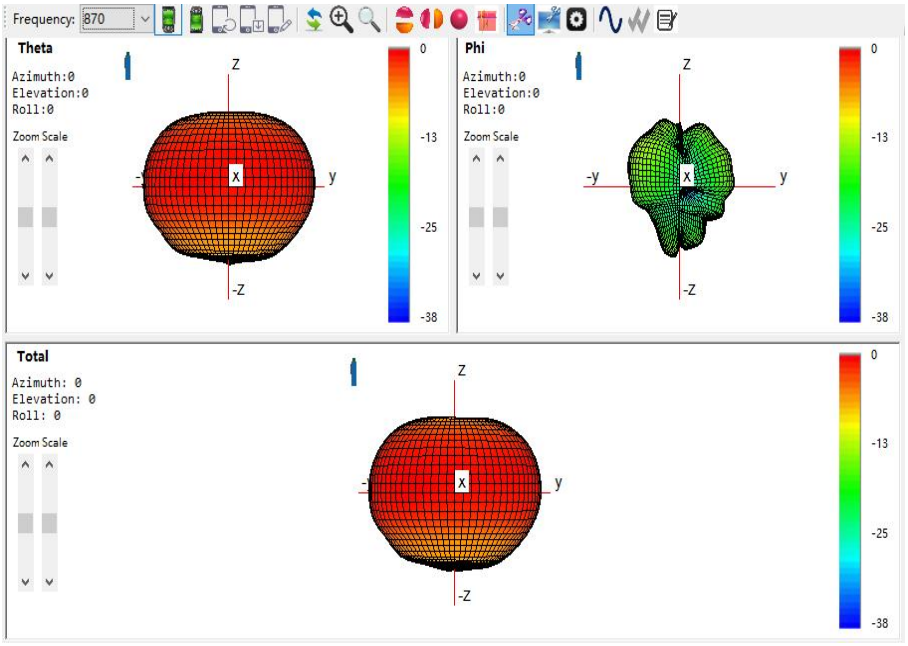


The Antenna in MyAntenna's Anechoic Chamber H at 870MHz





E1 at 870MHz E2 at 870MHz



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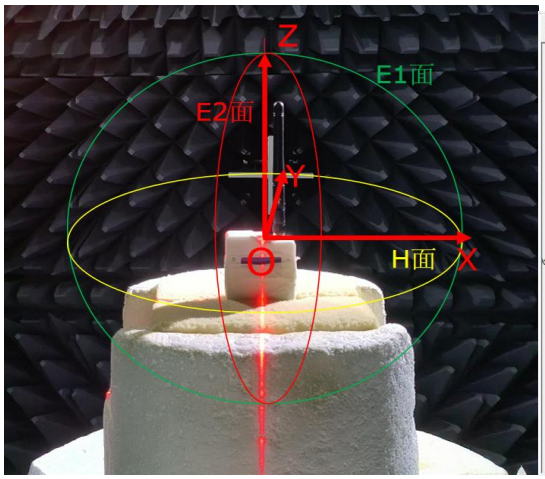
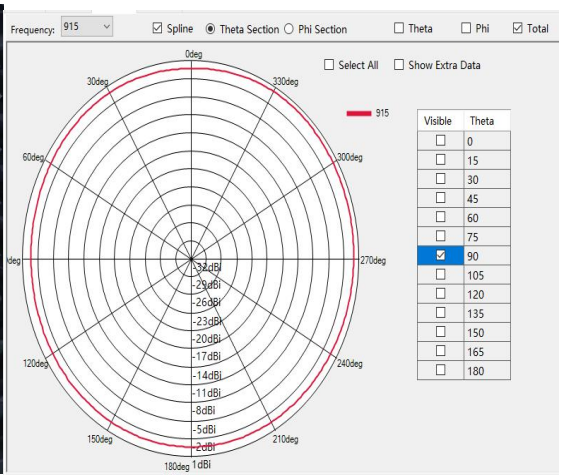
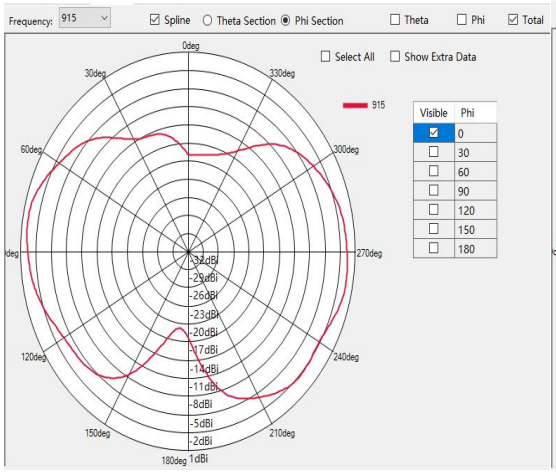


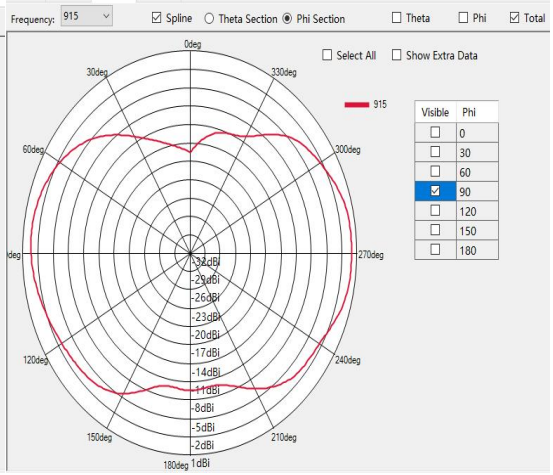
The Antenna in MyAntenna's Anechoic Chamber



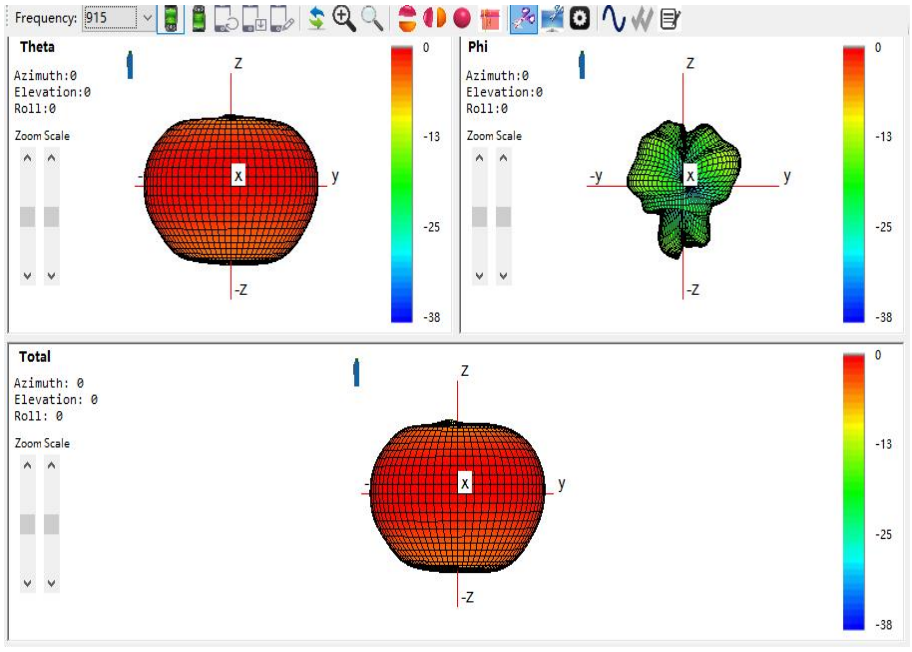
H at 915MHz



E1 at 915MHz



E2 at 915MHz



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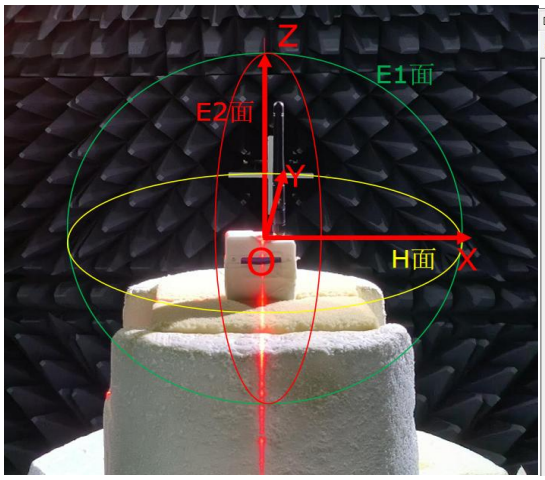
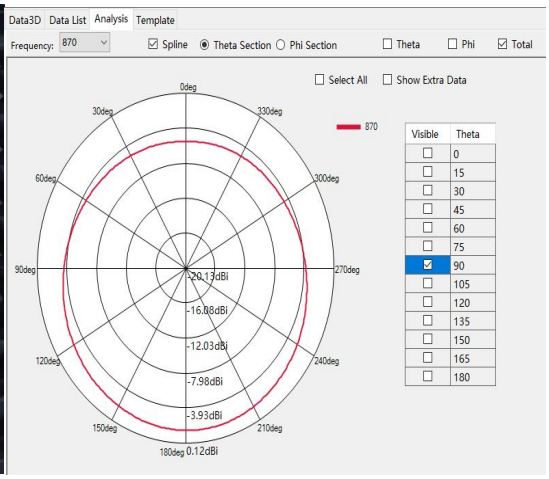
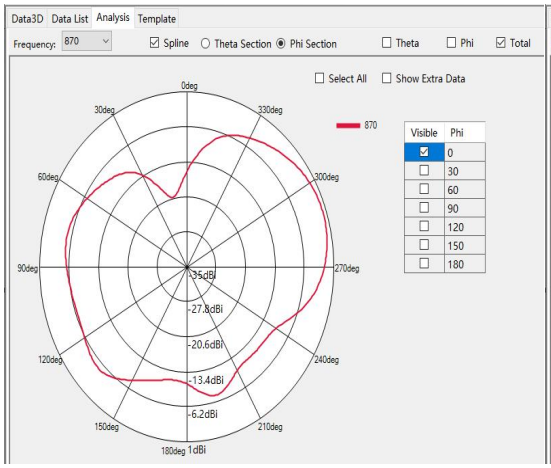
Antenna Test on 45×20 mm PCB

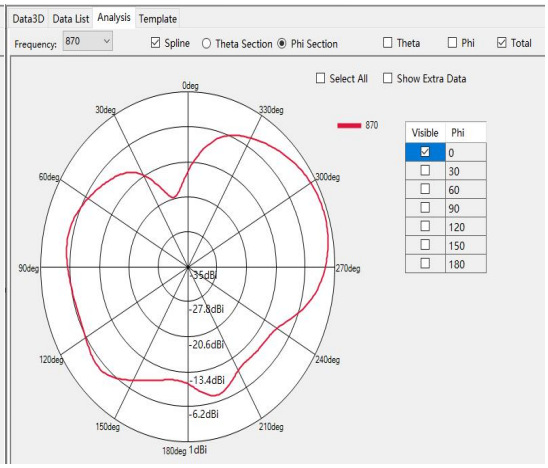




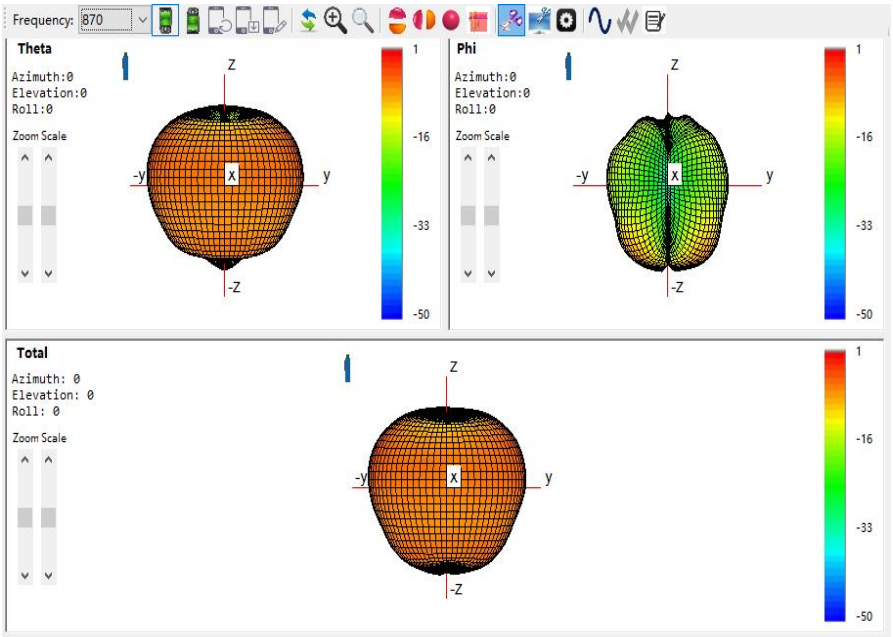
The Antenna in MyAntenna's Anechoic Chamber H at 870MHz



E1 at 870MHz



E2 at 870MHz



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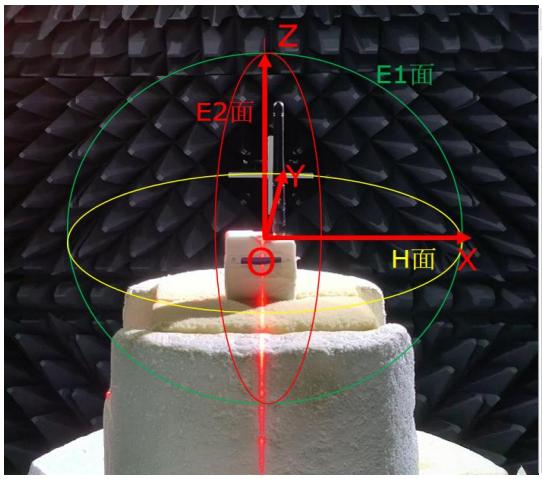
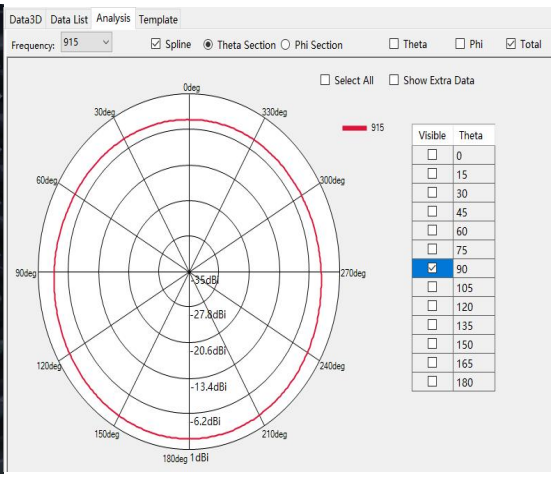
ABOOSTY 爱比速

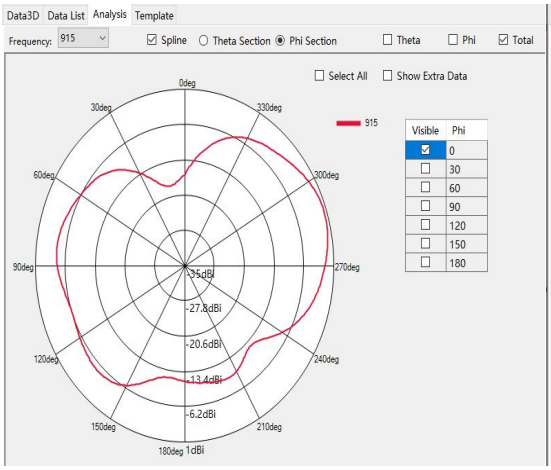
Antenna Test on 45×20 mm PCB



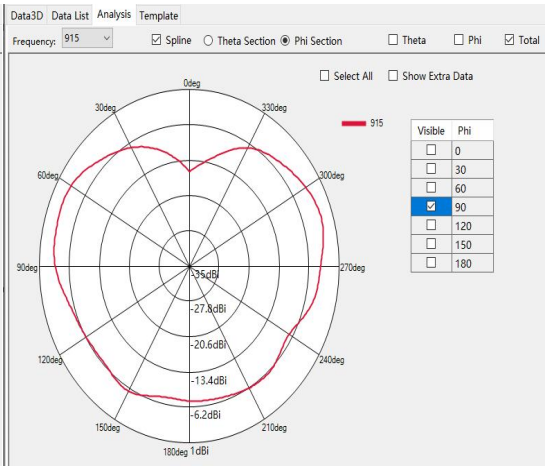
The Antenna in MyAntenna's Anechoic Chamber



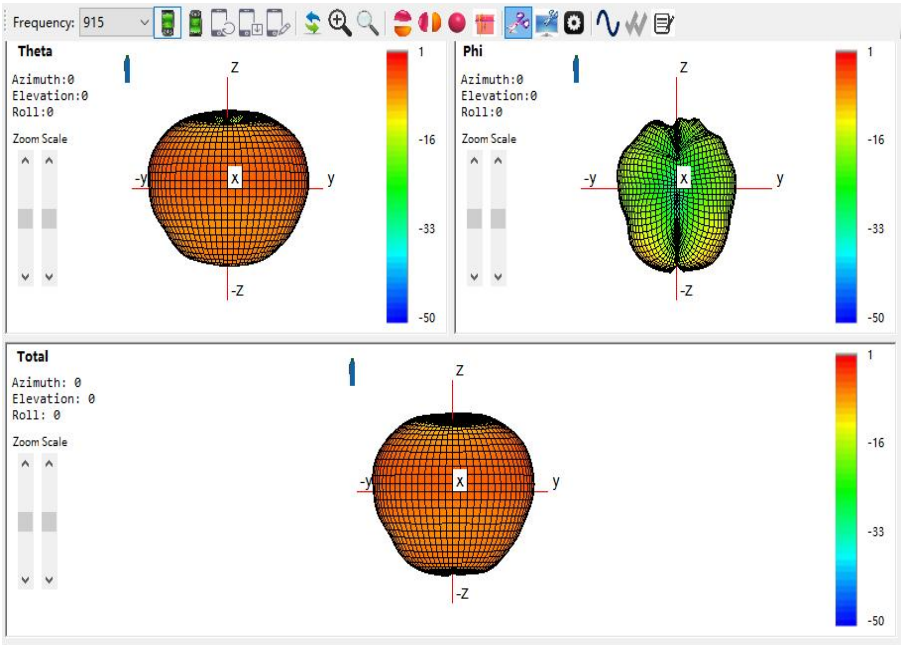
H at 915MHz



E1 at 915MHz

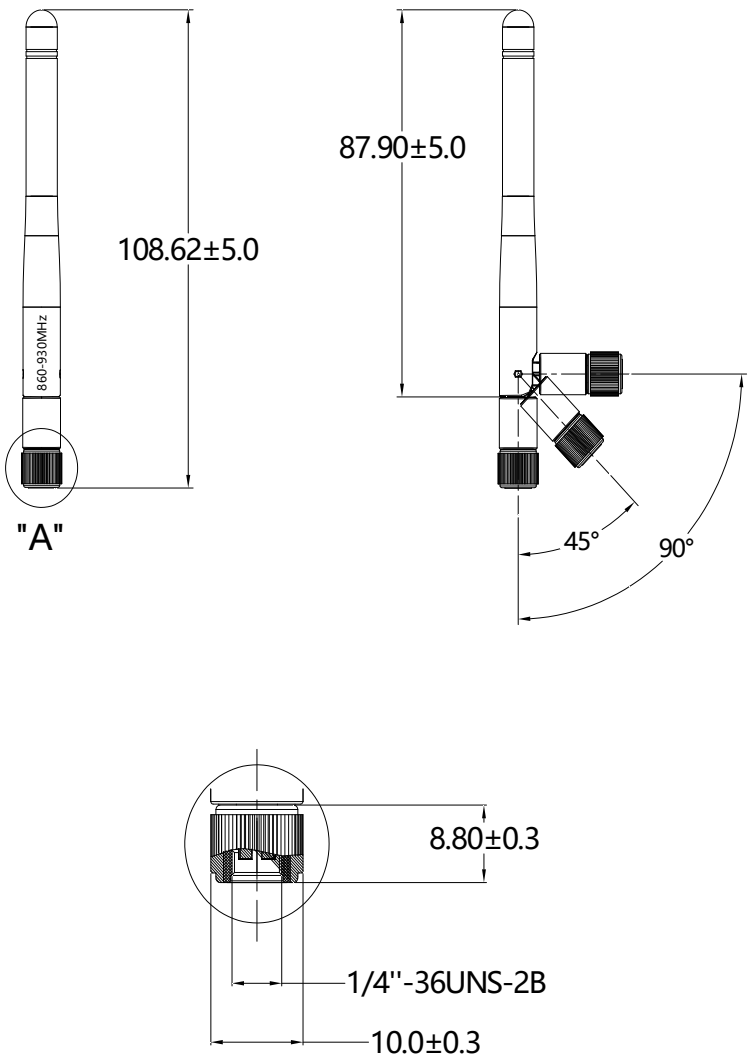


E2 at 915MHz



MyAntenna RF Technology Co., Ltd
ADD:No.RM 410, Country Garden Phoenix Wisdom Valley, No. 50 Tiezai Road, Baoan District, Shenzhen, P.R.China
TEL：+86-0755-86503881 E-mail：nfc@imyantenna.com

HOUSING CONFIGURATIONS



RP SMA-Male DETAIL A
SCALE 2:1

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TEL：+86-0755-86503881 E-mail：nfc@imyantenna.com