

Specifications of Quadrifilar Wideband Ant.

MESSRS. (주)알에프엔솔

ITEM : Quadrifilar Wideband Antenna
PART NAME : MQWA60F55SM919-A
MODEL NAME :
FEATURES : UHF RFID Reader Circular Polarization Antenna
Low Weight, Compact Size
Provide highly stabilized performance
DATE : July 4, 2025
QUANTITY : 2 pcs

SUPPLIER : MAC technologies Inc.		
DRAWN	CHECKED	APPROVED
		

mac technologies

615, 530, Jikji-daero,

Heungdeok-gu, Cheongju-si, Chungbuk, KOREA, 28578

Tel : +82 43 275 2485 Fax : +82 43 275 2487

Halogen-Free

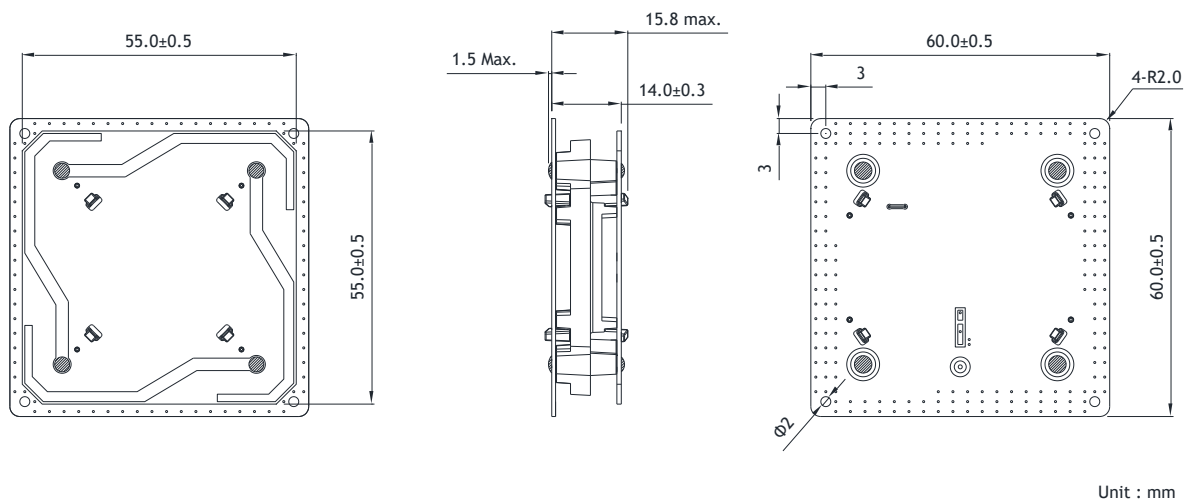
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1. Electrical Specifications.

NO.	Parameter	Spec.		Unit	Remark
		Cable Ass'y	Set Ass'y		
1	Center Frequency	919.0 $\pm$ 3		MHz	
2	Peak Gain	0.2 typ.	typ.	dBiL	
		3.0 typ.	typ.	dBiC	
3	Polarization	RHCP			
4	Beam Width	100 typ.	typ.	Deg.	@ -3 dB B.W
5	Band Width	200 typ.	typ.	MHz	@ -10 dB R.L
6	VSWR	2.0 : 1 max.	max.		
7	Impedance	50		Ohm	

2. Mechanical Dimensions. (unit : mm)

2-1. Antenna Element



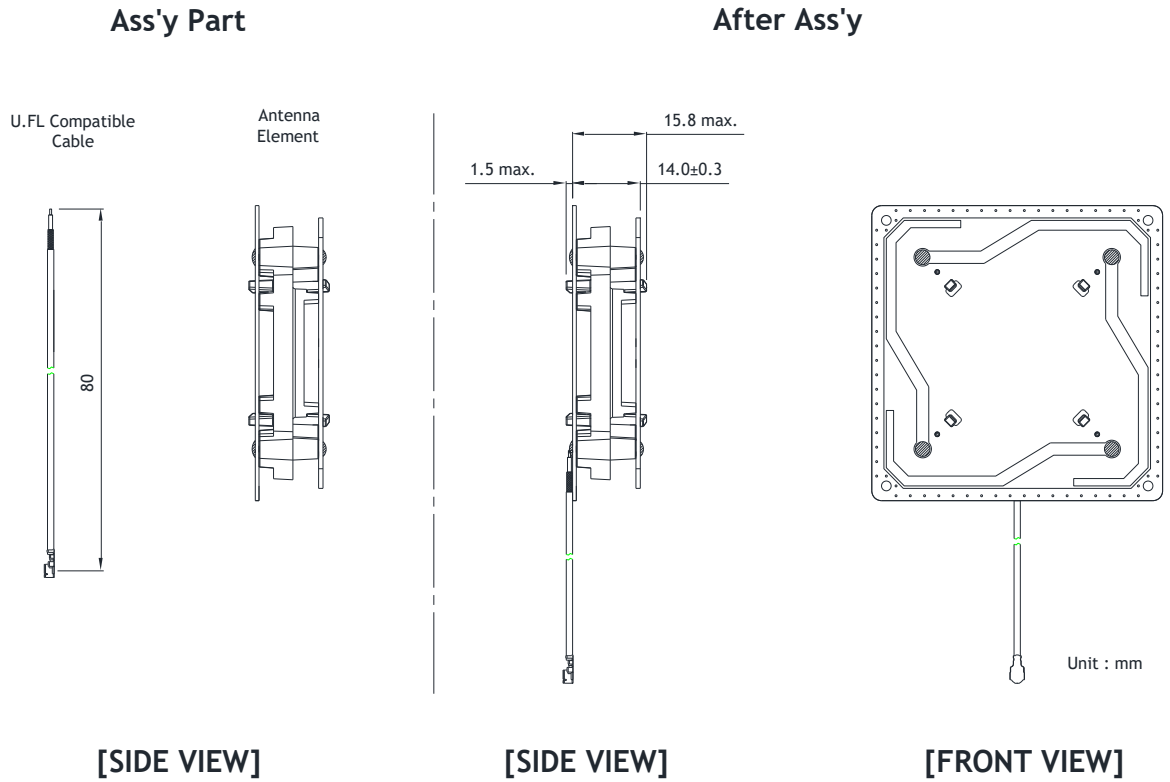
[FRONT VIEW]

[SIDE VIEW]

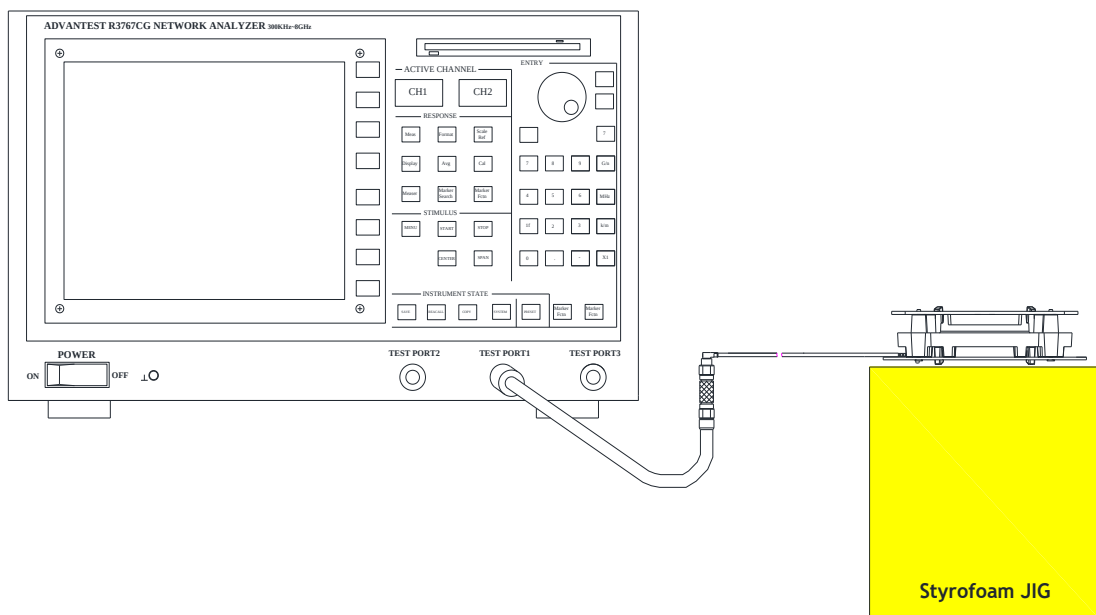
[BACK VIEW]

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2-2. Cable Ass'y (The color of cable outer sheath can be changed.)



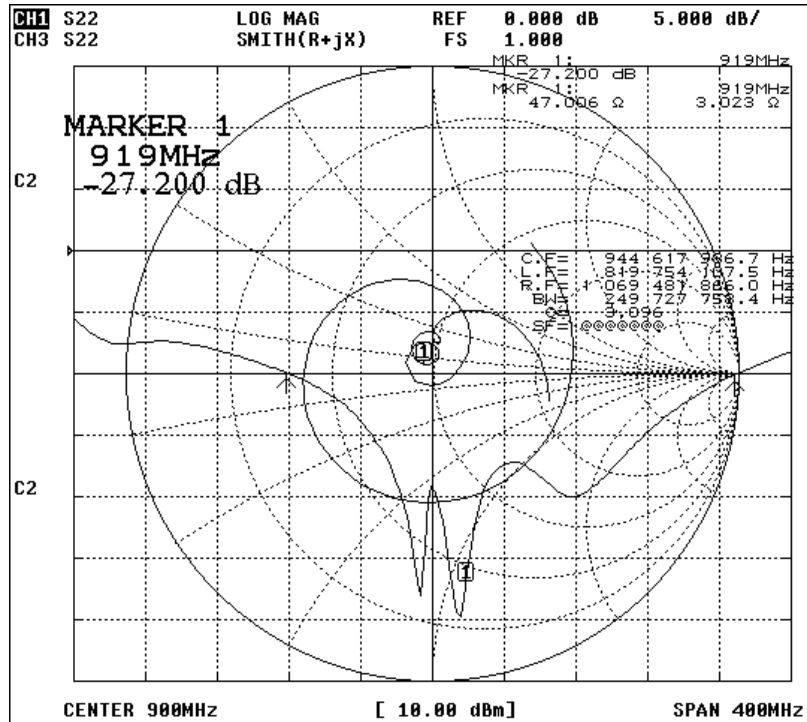
3. Test Fixture.



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4. S11 Measurement Data.

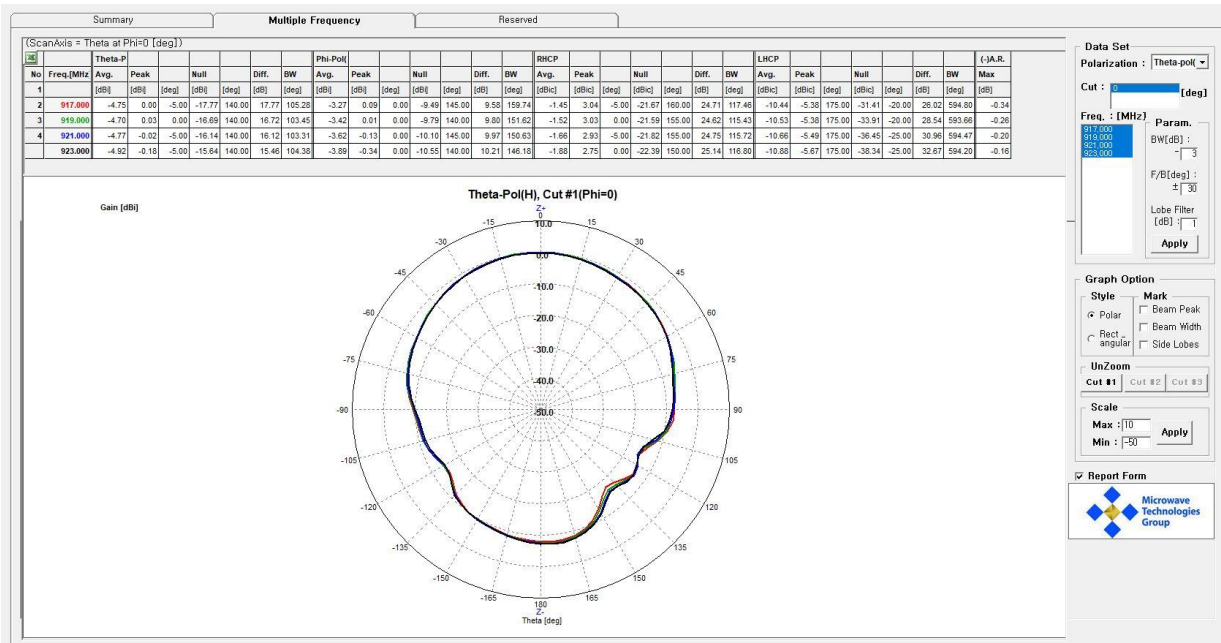
4-1. Cable Ass'y



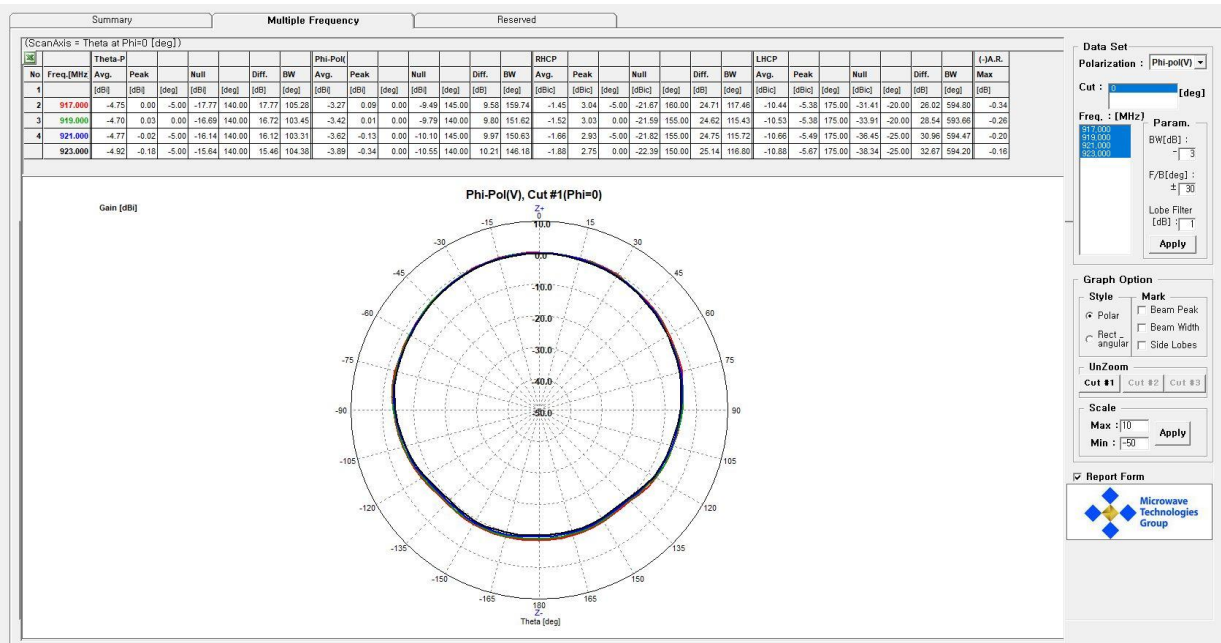
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5. Radiation Patterns.

5-1. H-pol. (Frequency 917.0, 919.0, 921.0, 923.0 MHz)



5-2. V-pol. (Frequency 917.0, 919.0, 921.0, 923.0 MHz)

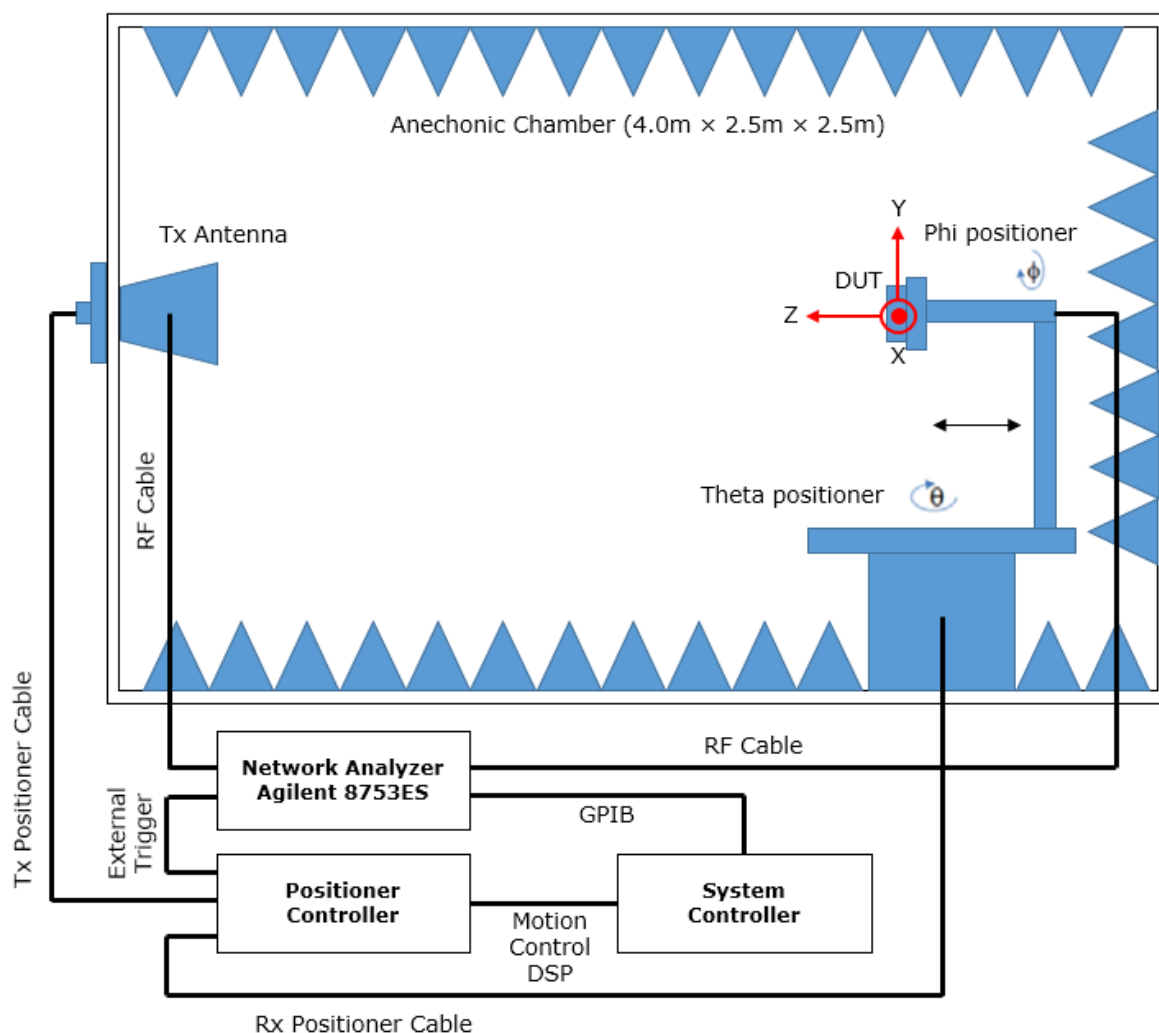


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5-3. Gain Test Data

Source Antenna Polarization	Frequency			
	917.0 MHz	919.0 MHz	921.0 MHz	923.0 MHz
H-pol. (dBiL)	0.00	0.03	-0.02	-0.18
V-pol. (dBiL)	0.09	0.01	-0.13	-0.34
RHCP (dBiC)	3.04	3.03	2.93	2.75

5-4. Gain Measurement System



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5-5. List of Equipments (MAC technologies Inc.)

NO	Equipments	Maker	Model No.	S/N	Specification	Note
1	Anechoic Chamber	MTG	Mobile Chamber	-	4.0 m X 2.5 m X 2.5 m (0.4 ~ 3 GHz)	
2	Network Analyzer	Agilent	8753ES	US39173213	30 kHz ~ 6 GHz	
3	Dual-Polarization Horn Antenna with RF Switch	MTG	QRH-004060/ RSW-001060		0.4 GHz ~ 6 GHz	Source
4	Calibration Antenna	Schwarzbeck Mess - Elektronik	BBHA 9120 A	1201	0.8 GHz ~ 5 GHz	Reference
5	Absorber Installation	EMERSON & CUMING	SABS-003 18"		Reflectivity : -25 dB @ 0.8 GHz -30 dB @ 1.0 GHz	