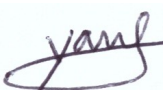


Specifications of Quadrifilar Wideband Ant.

MESSRS. (주)아이디로

ITEM : Quadrifilar Wideband Antenna
PART NAME : MQWA70F55SP919-A
MODEL NAME :
FEATURES : UHF RFID Reader Circular Polarization Antenna
Low Weight, Compact Size
Provide highly stabilized performance
DATE :
QUANTITY :

SUPPLIER : MAC technologies Inc.		
DRAWN	CHECKED	APPROVED
		

 **mac technologies**

615, Cheongju Techno S Tower, 530, Jikji-daero,

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

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

Halogen-Free

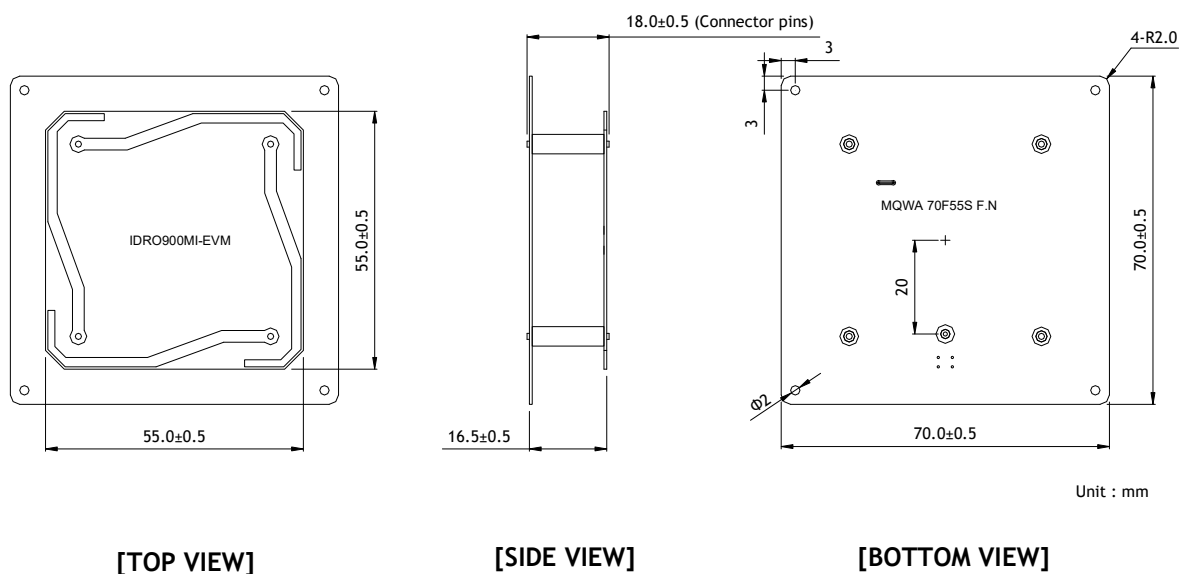
Title	RFID Quadrifilar Wideband Ant. Sample Specification.
Document Number	MACQM730-05-20088
Date	October 13, 2020

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	0.3 typ.	typ.	dBi	
		3.3 typ.	typ.	dBic	
3	Polarization	RHCP			
4	Beam Width	130 typ.	typ.	Deg.	
5	Band Width	340 typ.	typ.	MHz	
6	VSWR	2.0 : 1 max.	max.	Ratio	
7	Impedance	50		Ohm	

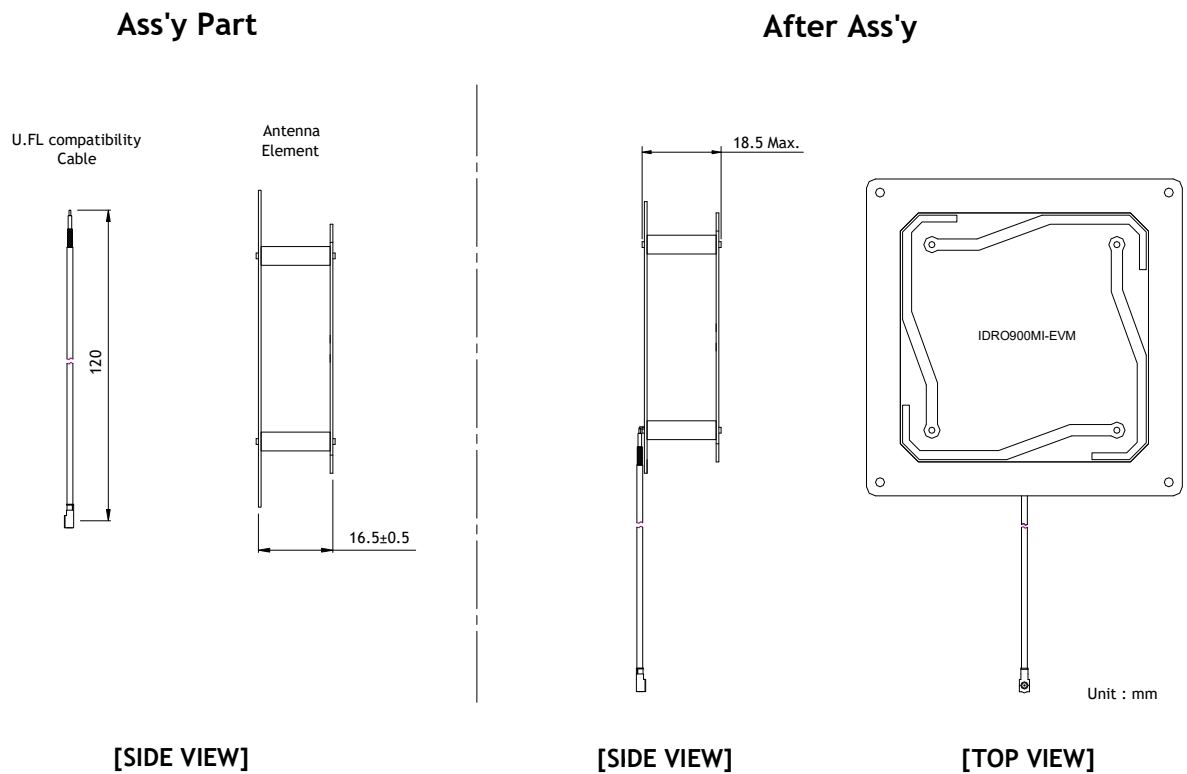
2. Mechanical Dimensions. (unit : mm)

2-1. Antenna Element

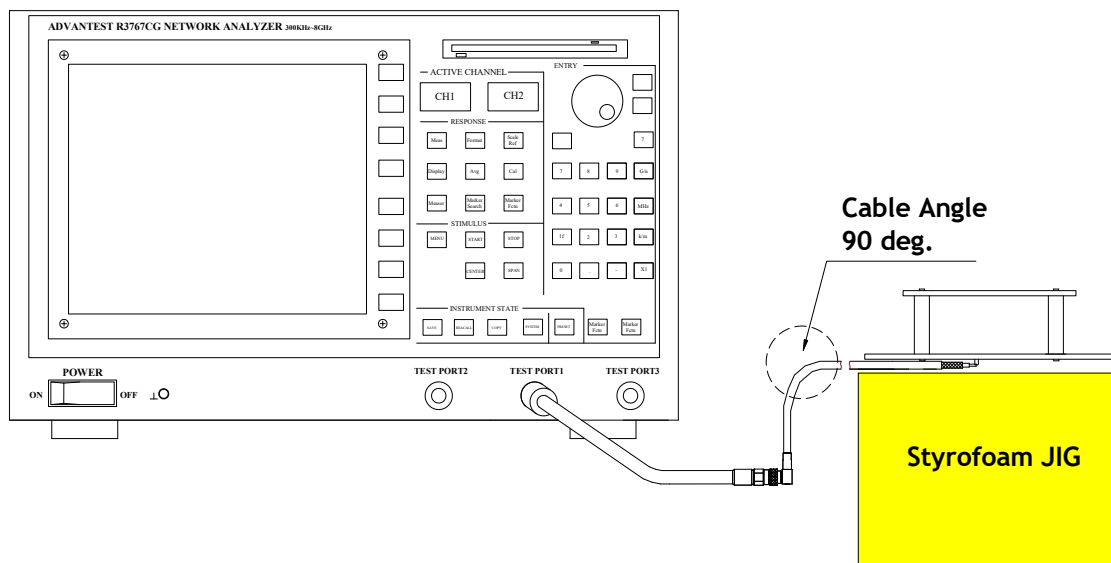


Title	RFID Quadrifilar Wideband Ant. Sample Specification.
Document Number	MACQM730-05-20088
Date	October 13, 2020

2-2. Cable Ass'y



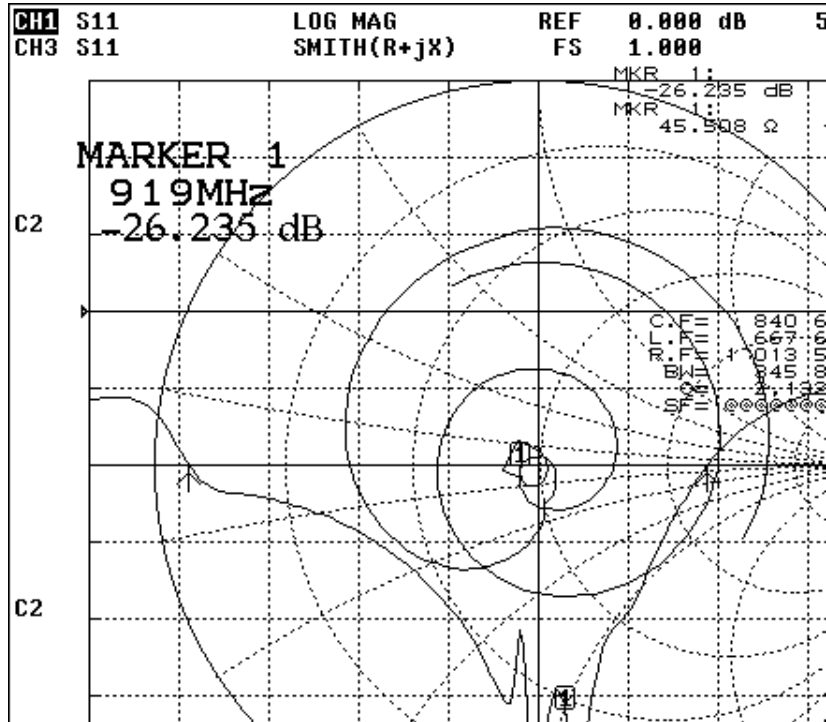
3. Test Fixture.



Title	RFID Quadrifilar Wideband Ant. Sample Specification.
Document Number	MACQM730-05-20088
Date	October 13, 2020

4. S11 Measurement Data.

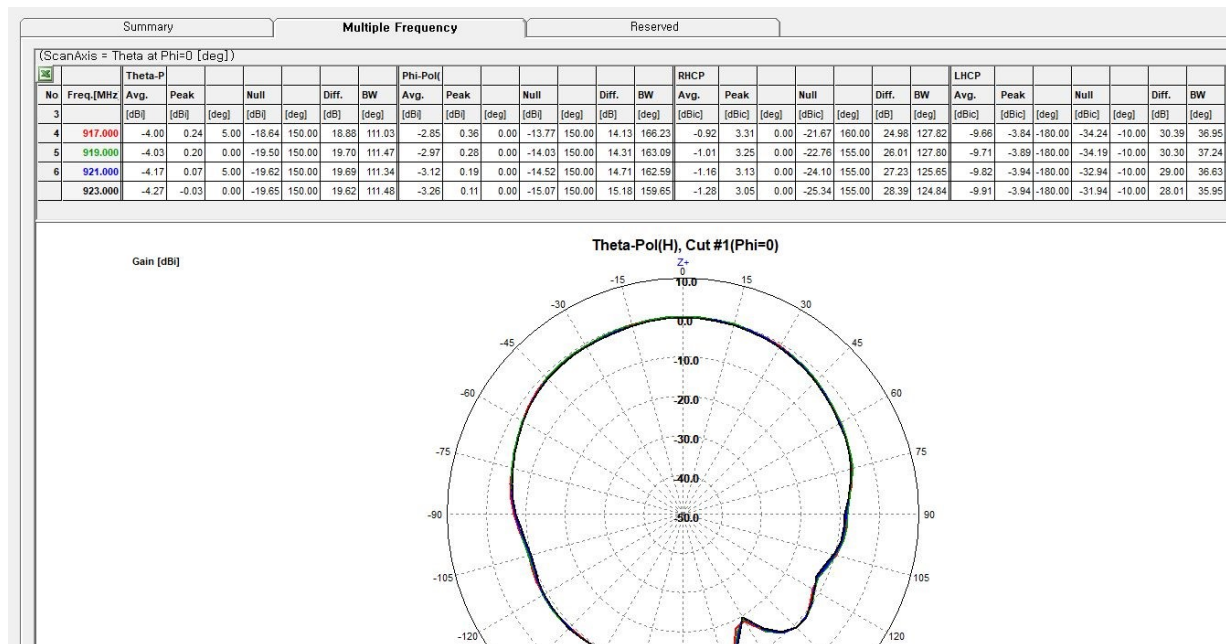
4-1. Cable Ass'y



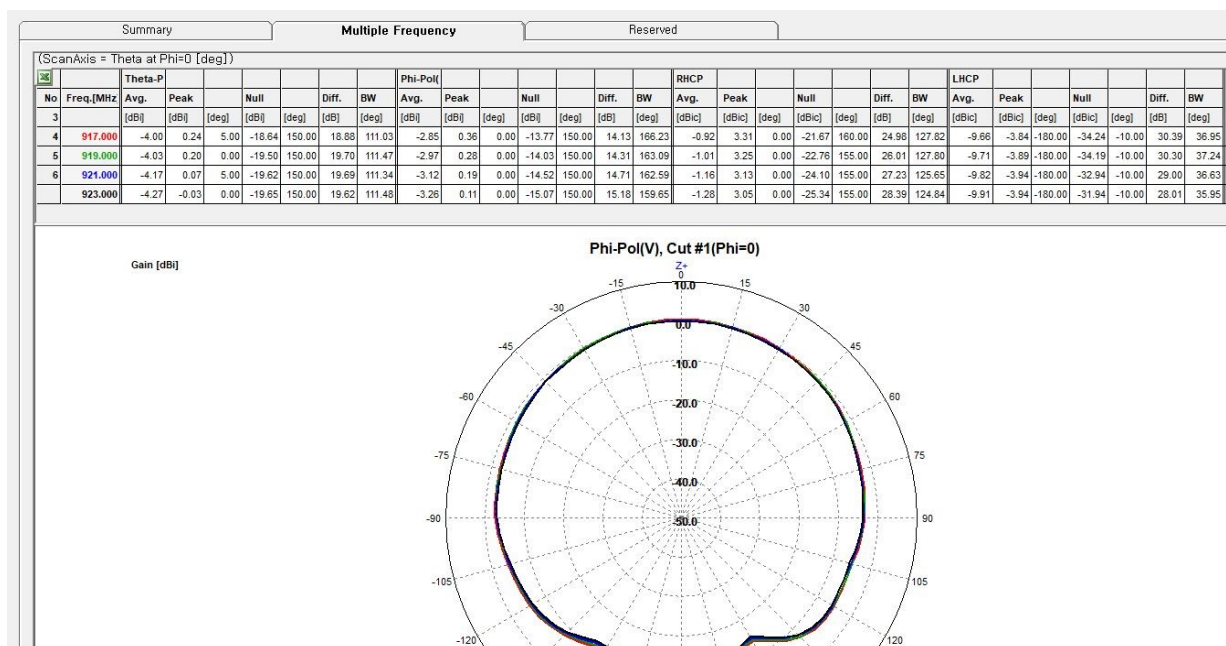
Title	RFID Quadrifilar Wideband Ant. Sample Specification.
Document Number	MACQM730-05-20088
Date	October 13, 2020

5. Radiation Patterns. (Test date : October 13, 2020)

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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Date	October 13, 2020

5-3. Gain Test Data

Source Antenna Polarization	Frequency			
	917.0 MHz	919.0 MHz	921.0 MHz	923.0 MHz
H-pol. (dBi)	0.24	0.20	0.07	-0.03
V-pol. (dBi)	0.36	0.28	0.19	0.11
RHCP (dBic)	3.31	3.25	3.13	3.05

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Document Number	MACQM730-05-20088
Date	October 13, 2020

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

NO	Equipments	Maker	Model No.	S/N	Calibration Date	Specification	Note
1	Anechoic Chamber	MTG	Mobile Chamber	-	N/A	4.0 m X 2.5 m X 2.5 m (0.4 ~ 3 GHz)	
2	Network Analyzer	Agilent	8753ES	US39173213	16/08/23	30 KHz ~ 6 GHz	
3	Dual-Polarization Horn Antenna with RF Switch	MTG	QRH-004060/ RSW-001060		-	0.4 MHz ~ 6 GHz	Source
4	Calibration Antenna	Schwarzbeck Mess - Elektronik	BBHA 9120 A	1201	10/04/30	0.7 MHz ~ 3 GHz	Reference
5	Absorber Installation	EMERSON & CUMING	SABS-003 18"			Reflectivity : -25 dB @ 0.8 GHz -30 dB @ 1.0 GHz	