

MQMA 7910

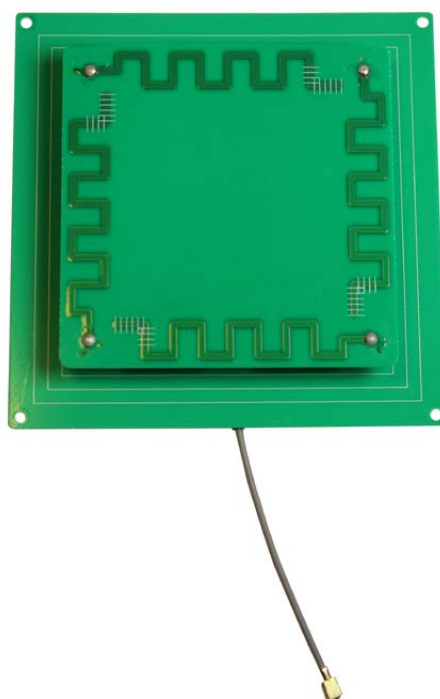
Quadrifilar Antenna



MQMA 7910 866MHz

UHF RFID quadrifilar antenna

Specification



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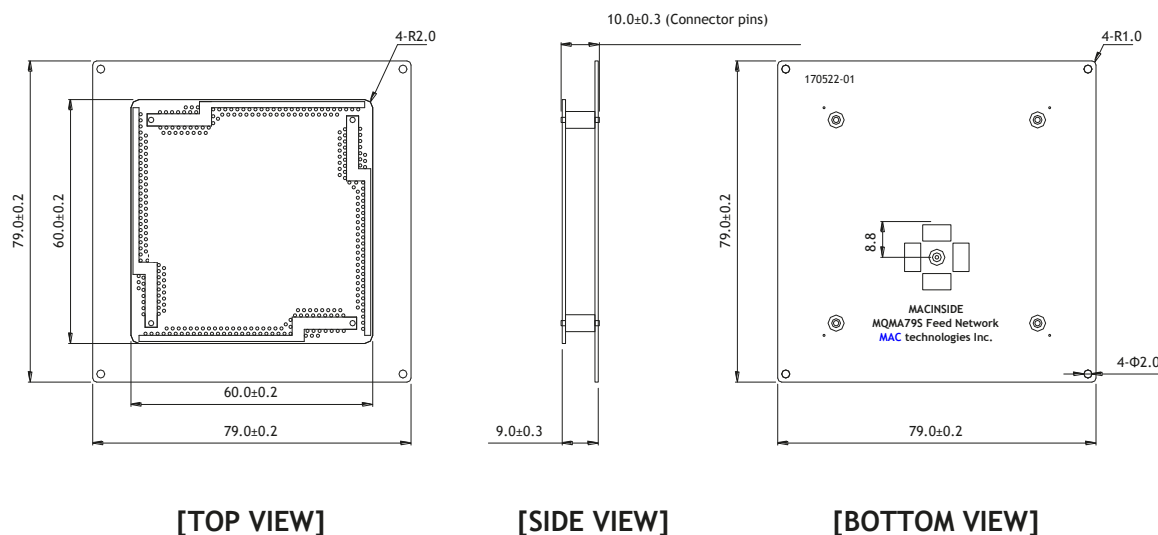
Quadrifilar Antenna

Electrical Specifications

| NO. | Parameter | Spec. | | Unit | Remark |
|-----|------------------|--------------|-----------|-------|--------------|
| | | Cable Ass'y | Set Ass'y | | |
| 1 | Center Frequency | 867.0 ± 3 | | MHz | |
| 2 | Band Width | 15 typ. | typ. | MHz | @ -10 dB R.L |
| 3 | VSWR | 2.0 : 1 max. | max. | Ratio | |
| 4 | Impedance | 50 | | Ohms | |
| 5 | Peak Gain | 0.5 typ. | typ. | dBiL | @ 867.0 MHz |
| 6 | Polarization | RHCP | | | |
| 7 | Beam Width | 110 typ. | typ. | Deg. | |

Mechanical dimensions (unit: mm)

Antenna element

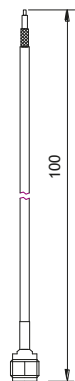


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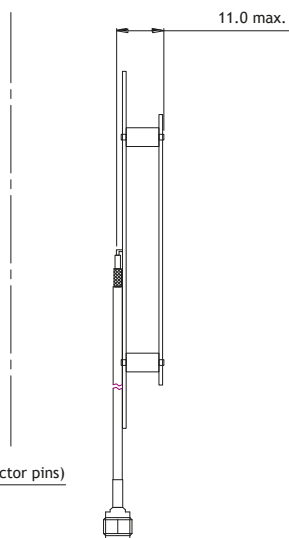
Cable Ass'y

Ass'y Part

RG174 SMA(M)
Cable



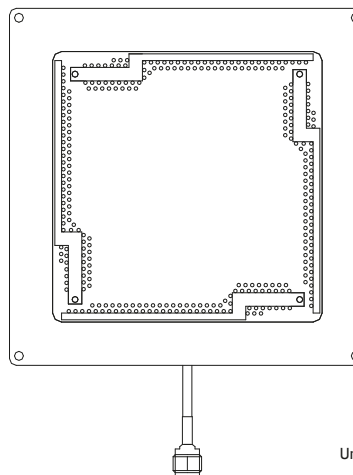
Antenna
Element



[SIDE VIEW]

[SIDE VIEW]

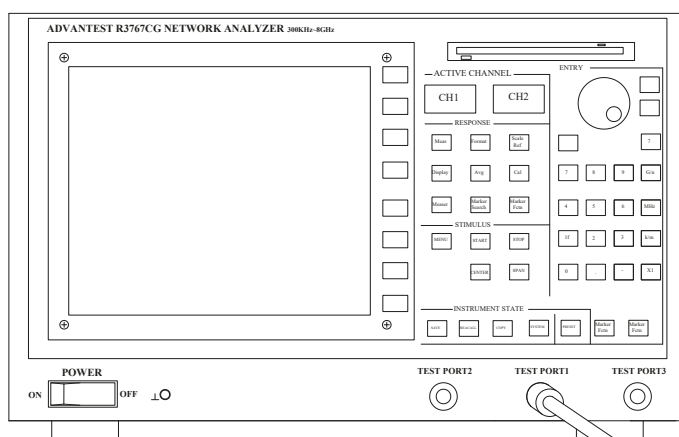
After Ass'y



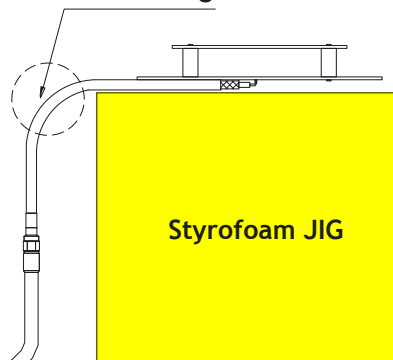
Unit : mm

[FRONT VIEW]

Test Fixture



Cable Angle
90 deg.

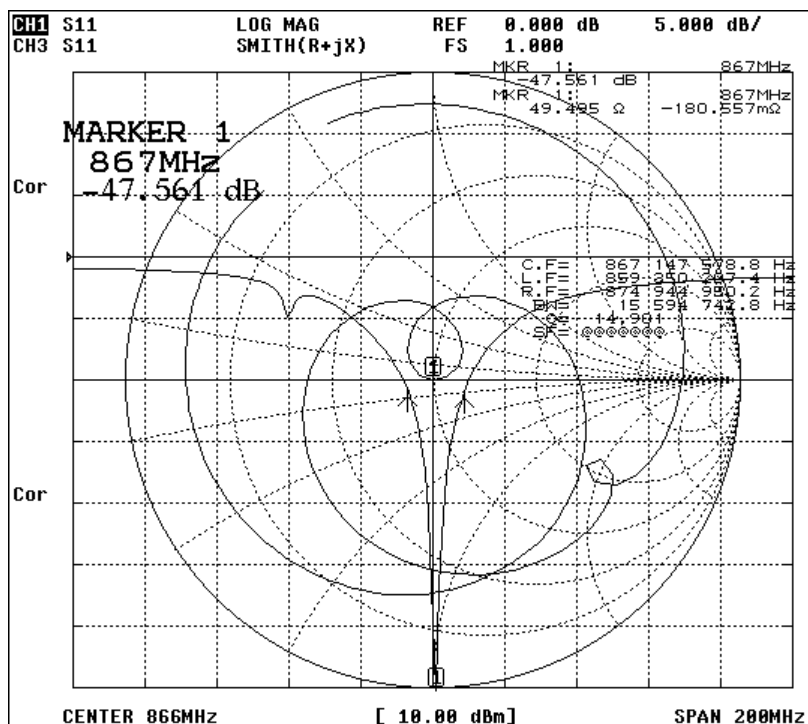


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Measurement data

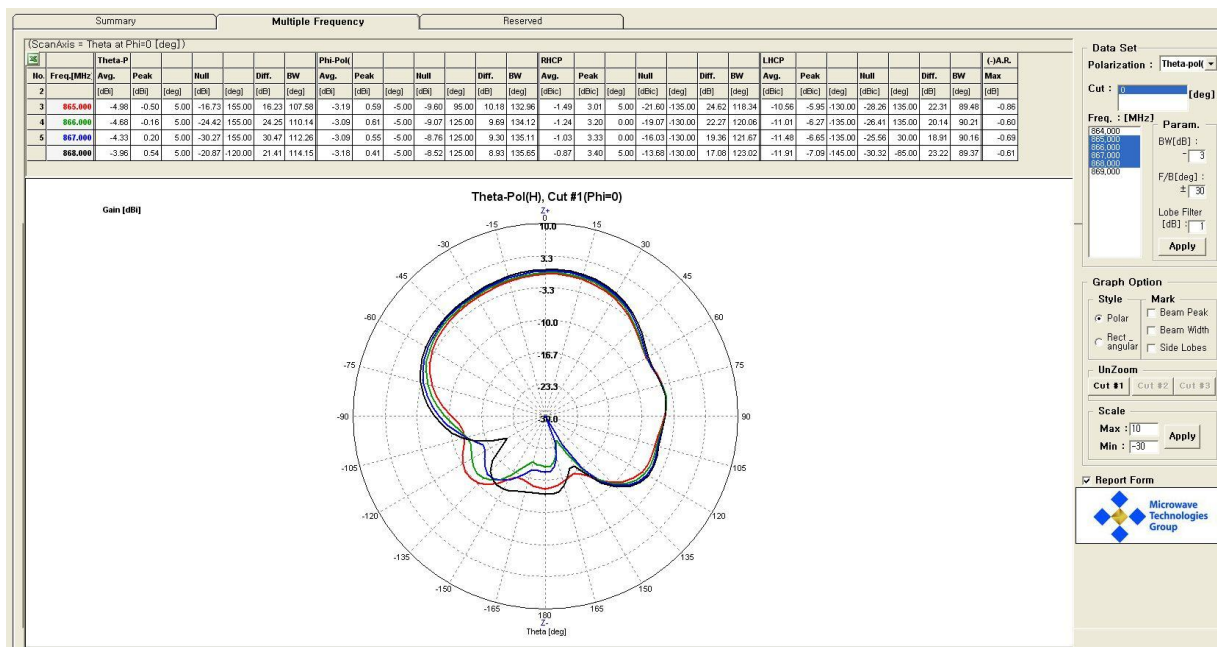
Cable Ass'y



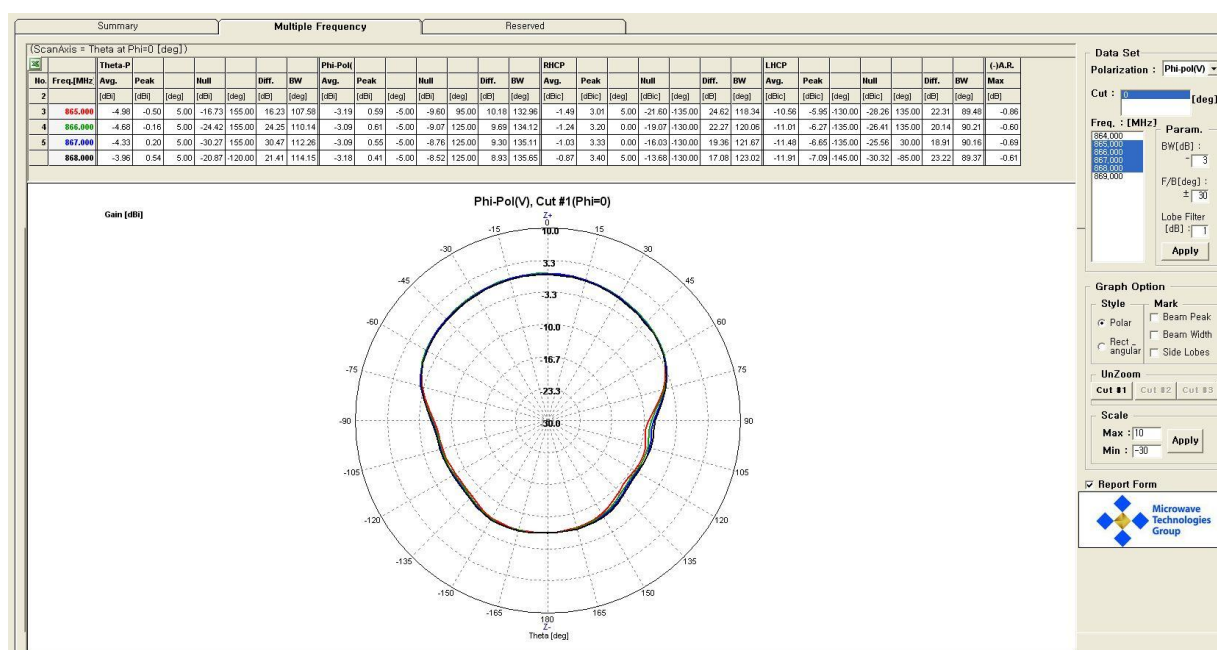
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Radiation Patterns

H-pol (Frequency 865, 868 MHz)



V-pol (Frequency 865, 868 MHz)



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Gain Test Data

| Source Antenna Polarization | Frequency | | | |
|-----------------------------|-----------|-----------|-----------|-----------|
| | 865.0 MHz | 866.0 MHz | 867.0 MHz | 868.0 MHz |
| H-pol (dBiL) | -0.50 | -0.16 | 0.20 | 0.54 |
| V-pol (dBiL) | 0.59 | 0.61 | 0.55 | 0.41 |
| RHCP (dBic) | 3.01 | 3.20 | 3.33 | 3.40 |

List of utilized test equipment

| NO | Kind of Equipment and Precision | Manufacturer | Model No. | Serial Number | 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 | |