

承 認 書

APPROVAL SHEET

CUSTOMER: MAP ELECTRONICS CO., LTD

CUSTOMER MODEL NO.: MEGWX-2102RSXX-920

DESCRIPTION: Waterproof Replacement Antenna

REV.: 00

DATE: 2015/6/29

| | |
|-------------------|--|
| Customer Approval | |
|-------------------|--|

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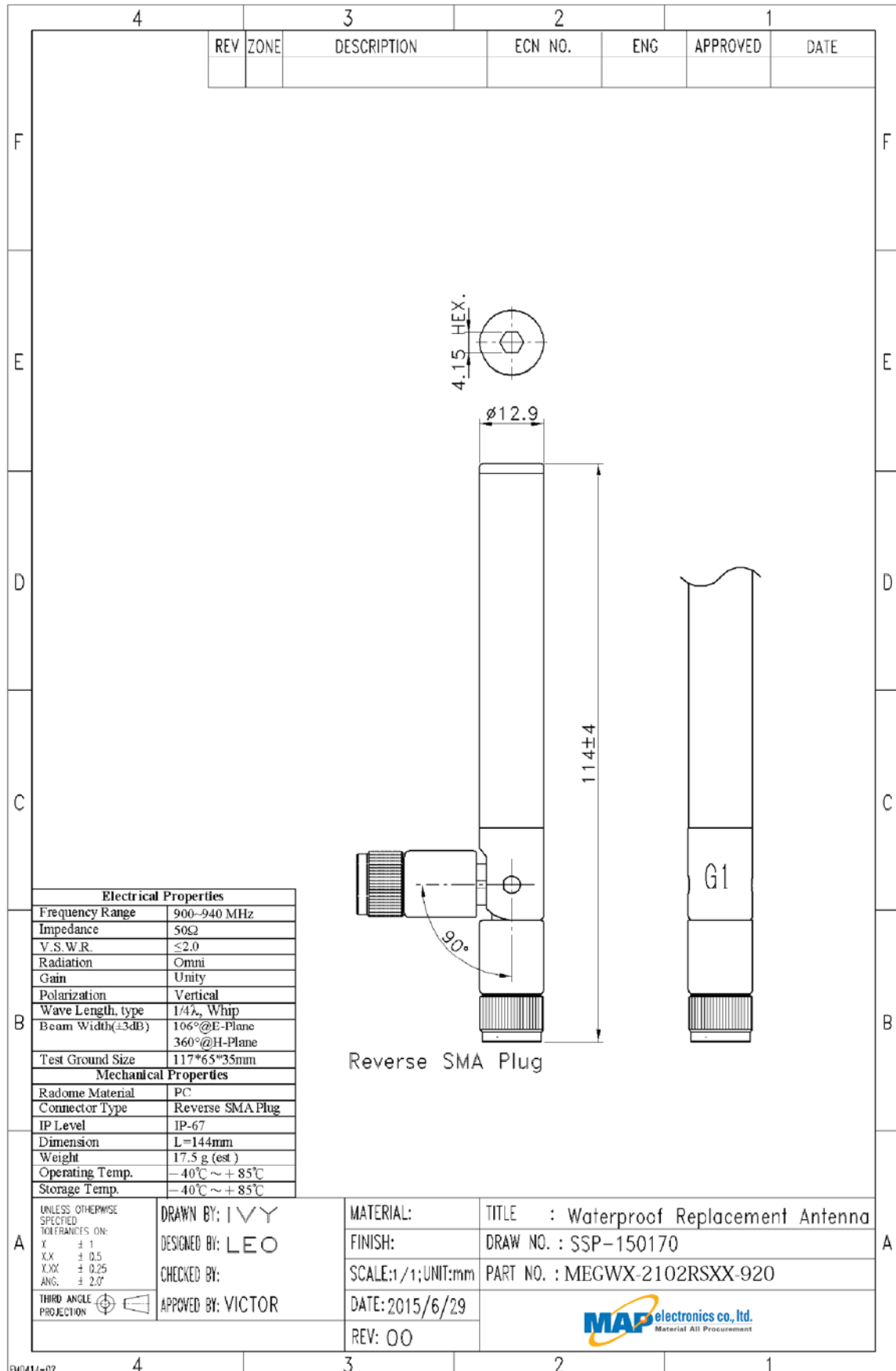
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Modification History:

| Rev. | Date | Content |
|-------------|-------------|----------------|
| 00 | 2015/6/29 | |

1. Specification

1.1 Drawing



1. Specification

1.1 Drawing

| Electrical Properties | |
|------------------------------|------------------------------|
| Frequency Range | 900~940 MHz |
| Impedance | 50Ω |
| V.S.W.R. | ≤2.0 |
| Radiation | Omni |
| Gain | Unity |
| Polarization | Vertical |
| Wave Length, type | 1/4λ, Whip |
| Beam Width(±3dB) | 106°@E-Plane 360°@H-Plane |
| Test Ground Size | 117*65*35mm |
| Mechanical Properties | |
| Radome Material | PC |
| Connector Type | Reverse SMA Plug |
| IP Level | IP-67 |
| Dimension | L=144mm |
| Weight | 17.5 g (est) |
| Operating Temp. | -40°C ~ +85°C |
| Storage Temp. | -40°C ~ +85°C |

1.2 Connector

SMA

| | | |
|-----------------------|------------------------------------|---|
| Specification Data | 1) Impedance | 50 ohm |
| | 2) Frequency Range | 0~6GHz |
| | 3) V.S.W.R. | ≤ 1.5 |
| | 4) Working Voltage | ≤ 250 Vrms |
| | 5) Dielectric Withstanding | ≤ 670 Vrms |
| | 6) Voltage Insulation Resistance | ≥ 2000 Mega ohm |
| | 7) Contact Resistance | Center contact: 3.0 Milliohms (Max.) Outer contact: 2.0 Milliohms (Max.) |
| | 8) Recommended coupling nut torque | 4.0~8.8 in. lbs (0.45~0.99Nm) |
| | 9) Coupling nut retention force | ≥ 50 lbs (222N) |
| | 10) Contact captivation force | ≥ 5 lbs (22.2N) |
| | 11) Durability (mating) | ≥ 500 cycles |

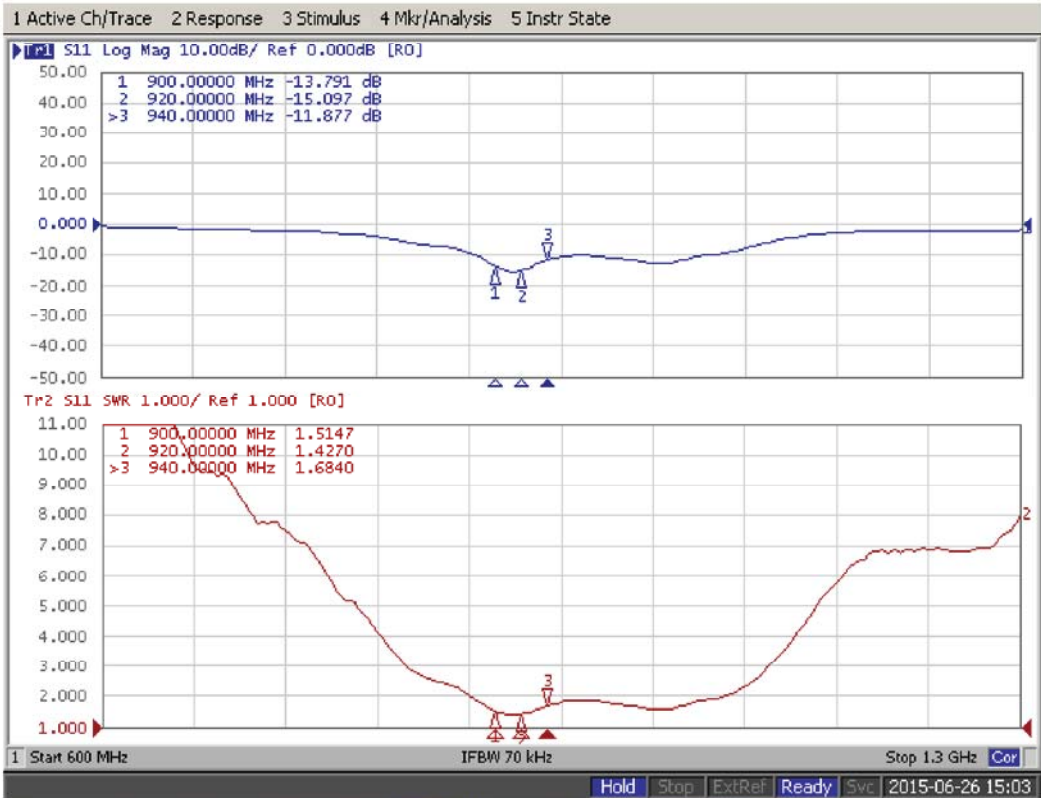
| | | |
|-----------------------|--------------------------|---|
| Environmental Data | 1) Operating Temperature | $-65^{\circ}\text{C} \sim +165^{\circ}\text{C}$ |
| | 2) Thermal Shock | MIL-STD-202,Method 107, Condition B |
| | 3) Corrosion | MIL-STD-202,Method 101, Condition B |
| | 4) Shock | MIL-STD-202,Method 213, Condition I |
| | 5) Vibration | MIL-STD-202,Method 204, Condition C |
| | 6) Moisture Resistance | MIL-STD-202,Method 106 |

| | | |
|----------------------------|---------------|------------------|
| Material Specifications | Material Data | Material |
| | 1) Body | Brass |
| | 2) Contact | Brass |
| | 3) Insulator | Teflon or Delrin |

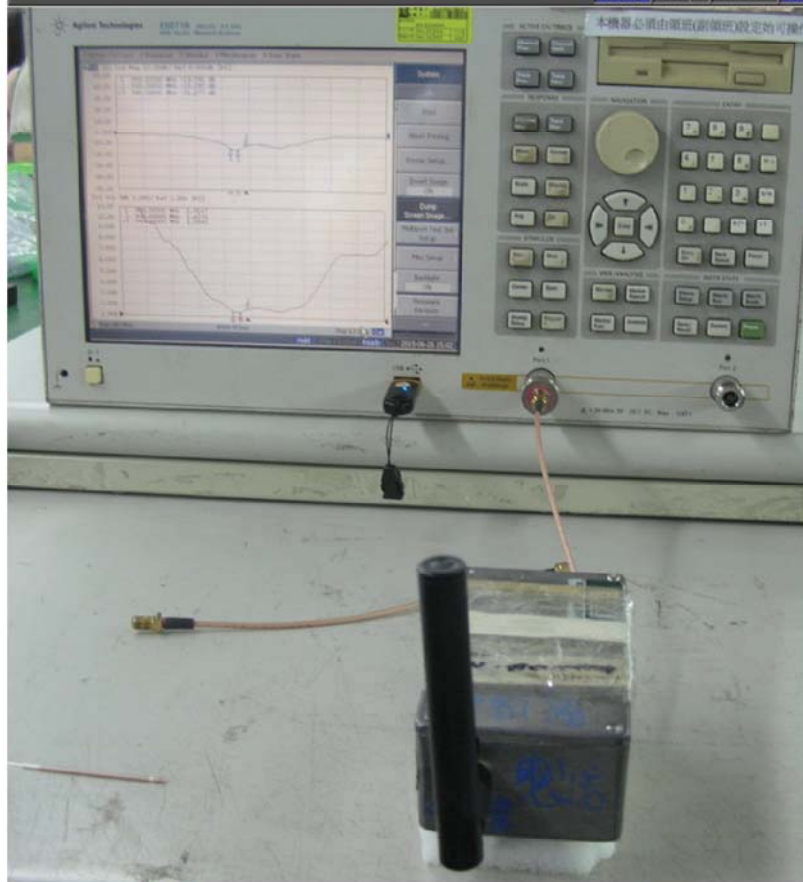
2.1 Electrical test

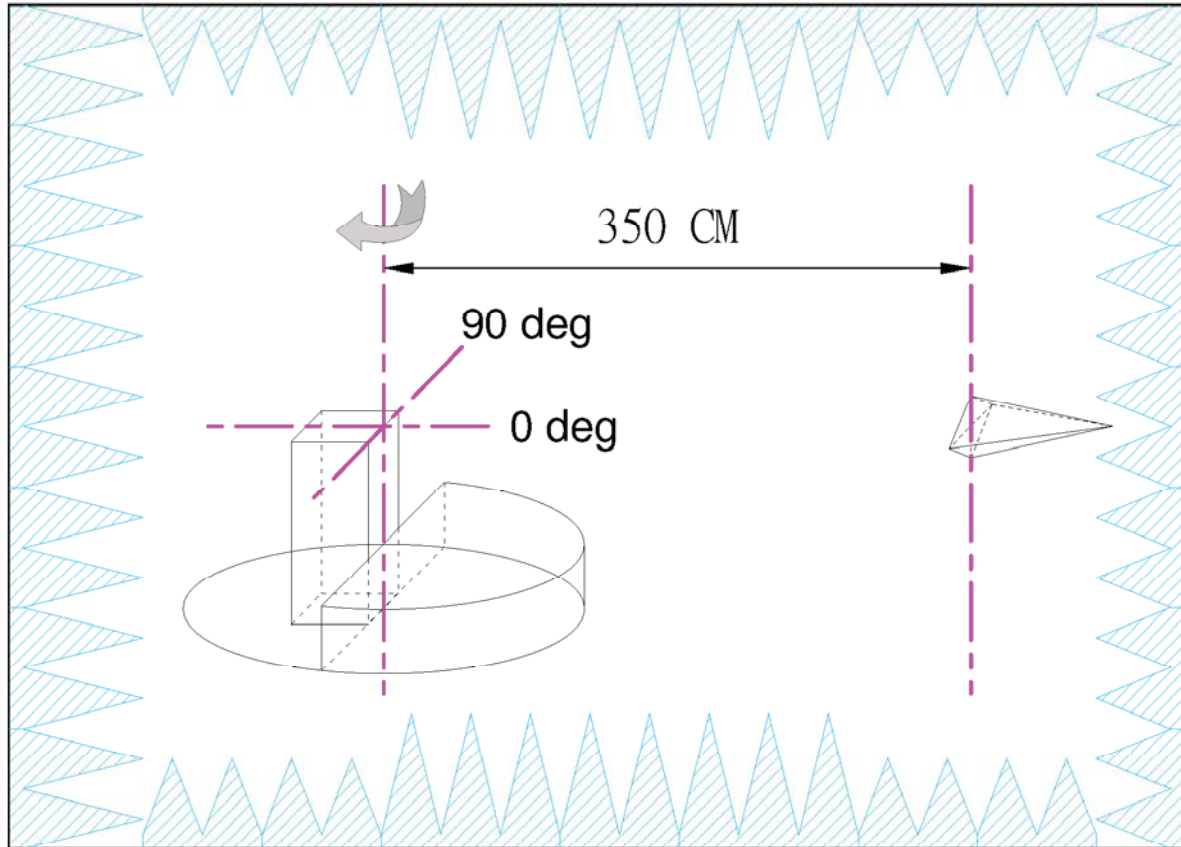
Return loss/V.S.W.R

Return loss



V.S.W.R.

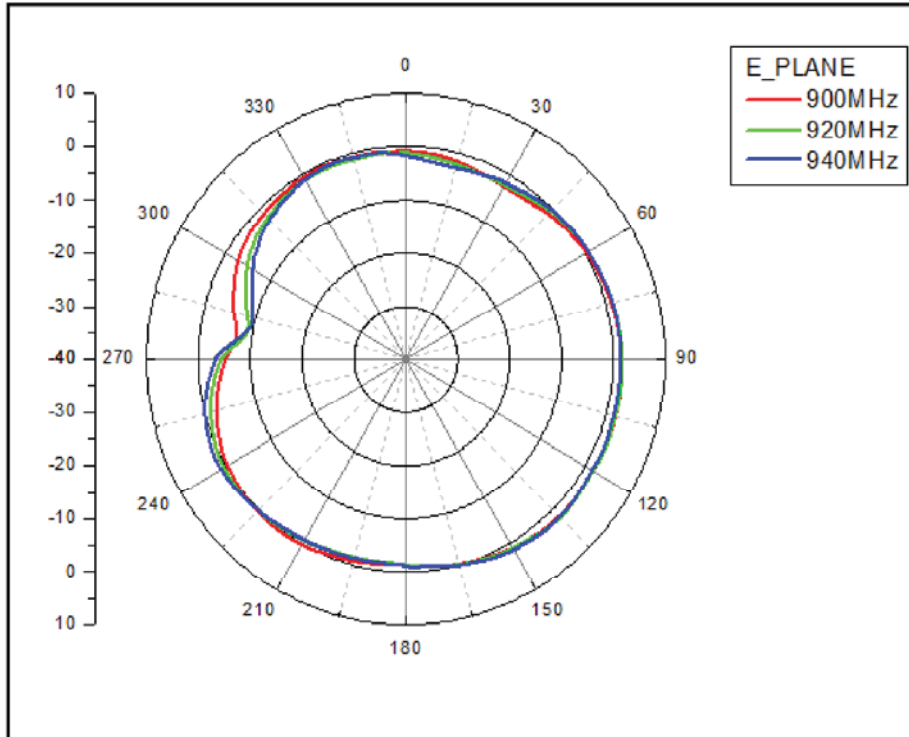




Test Equipment

- Anechoic chamber: 100MHz~6GHz 8*6*6m (※ 1m Quiet zone at 800MHz)
- Source Antenna: ETS-3164 Dual Polarized Horn
- Network Analyzer: Agilent E5071B 100kHz~8.5GHz

E-plane



H-plane

