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HOW TSEN INTL. ELECTRONICS METAL CO., LTD.
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SPECIFICATION FOR APPROVAL

Parts Name : Antenna

Type No : C-1081

Rev. : B

Customer P/N :

Date : 2017 ,04.05

CUSTOMER APPROVAL & COMMENT

FULL NAME	POSITION	SIGNATURE	COMPANY STAMP	COMMENT
		DATE :		
RECOGNIZED		ENGINEERING		QC CHECK

HOW TSEN Intl. ELECTRONICS METAL CO., LTD.

ANTENNA SPECIFICATIONS FOR APPROVAL

1. General Description

- 1.1 Type No : C-1081
- 1.2 Customer P/N :

2. Description & Application

- 2.1 This antenna assembly is designed for use in portable ◦
- 2.2 Communications equipment over a temperature range of -20°C to +85°C in an indoor / outdoor environment ◦

3. Structure

Dimensions and material are be in conformity with the requirement of an approved drawing number ◦

4. Surface Appearance

Surface condition should not have scratch , pin hole , blistering ◦ (If necessary take sample for consideration)

5. Environmental Characteristics

- 5.1 Operating temperature range : -20°C to +85°C ◦
- 5.2 Storage Temperature range : -20°C to +85°C ◦
- 5.3 Humidity range : 10 % RH to 80 % RH ◦

6. Electrical Characteristics

- 6.1 Testing Equipment : Network Analyzer
- 6.2 Frequency Range : 430~470 MHz
- 6.3 Return Loss : ≤ -10 dB
- 6.4 V.S.W.R : ≤ 2.0
- 6.5 Connector : SMA Plug
- 6.6 Impedance : 50Ω
- 6.7 Polarization : Lineal Polarization
- 6.8 Radiation Pattern : Omni-directional
- 6.9 Admitted Power : 10 Watt

7. Mechanical Capability

- 7.1 Qualification testing, all product shall be able to withstand the following testing ◦
- 7.2 Physical dimensions identified within this specification ◦
- 7.3 Pull Test : Tube has the capability of load 3 kgf-cm in a vertical position within 30 seconds ◦
- 7.4 Torque Test : 3 kgf-cm no damage happened ◦
- 7.5 Testing Conditions

7.5.1 Precondition at -20°C for 1 hour then expose to +85°C taking final measurements for 120 hours °

7.5.2 90%~95% relative humidity for 120 hours , finally allow to dry at room ambient for 4 hour °

8. Inspection Standard

8.1 : For Dimension to use the special inspection level of S-4 , AQL 1.0 °

8.2 : For Appearance to use MIL-STD-105DII AQL1.0 °

8.3 : For Mechanical Capability : Per lot Sampling, n=5 , Ac 0 , Re 1 °

8.4 : For Environmental test : Per lot Sampling n=3 , Ac 0 , Re 1 °

9. Packing Style

According to the specified packing method °

10. Others

Any changes in this specification should be agreed by both parties °

Antenna

Type No. : C-1081

For : 430~470 MHz

Electrical Specification

Testing Equipment	Network Analyzer
Frequency Range	430~470 MHz
Return Loss	≤ -10 dB
V.S.W.R	≤ 2.0
Gain	2dBi
Connector	SMA Plug
Impedance	50 Ω
Polarization	Lineal Polarization
Radiation Pattern	Omni-directional
Admitted Power	10 Watt



Mechanical c Characteristics

Pull Test	3 kgf-cm
Torque Test	3 kgf-cm
Weight	2.6 g
Overall length	110.0 mm



HOW TSEN Intl. Electronics Metal Co., Ltd. <http://www.howtsen.com.tw>

HOW SANE industries Co., Ltd

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TEST REPORT

1.Model : C-1081

2.Quantity : 3 Pcs

3.Date Of Testing : April.05,2017

4.Testing Item : Pull Test

5.Testing Equipment : B-016 (Push-Pull Scale Fb30K)

6.Testing Conditions : Antenna Must Withstand a (3 Kgf-Cm)

Tensile Load Applied To Over Mold For 10 Second °

No Part Of The Antenna May Be Pulled Out Of The

Assembly Or From The Housing °



7.Testing Result :

Sample	1	2	3	4	5	6	7	8	9	10
OK or NG	OK	OK	OK	-	-	-	-	-	-	-

Approved :

Tester :

HOW TSEN INTL. ELECTRONICS METAL CO.,LTD.

TEST REPORT

- 1.Model : C-1081
- 2.Quantity : 3 Pcs
- 3.Date Of Testing : April.05,2017
- 4.Testing Item : Torque Test
- 5.Testing Equipment : B-001 (Mechanical Torque Meter 2-TM30)
- 6.Testing Conditions : (3 Kgf-Cm) No Damage Happened °



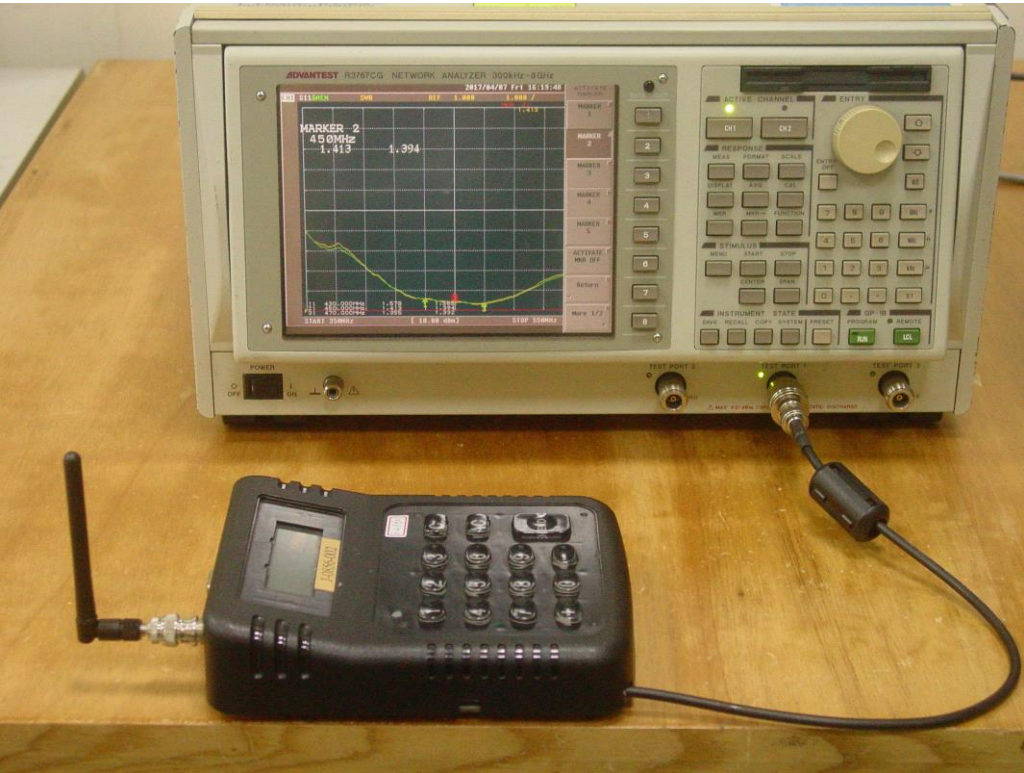
7.Testing Result :

Sample	1	2	3	4	5	6	7	8	9	10
OK or NG	OK	OK	OK	-	-	-	-	-	-	-

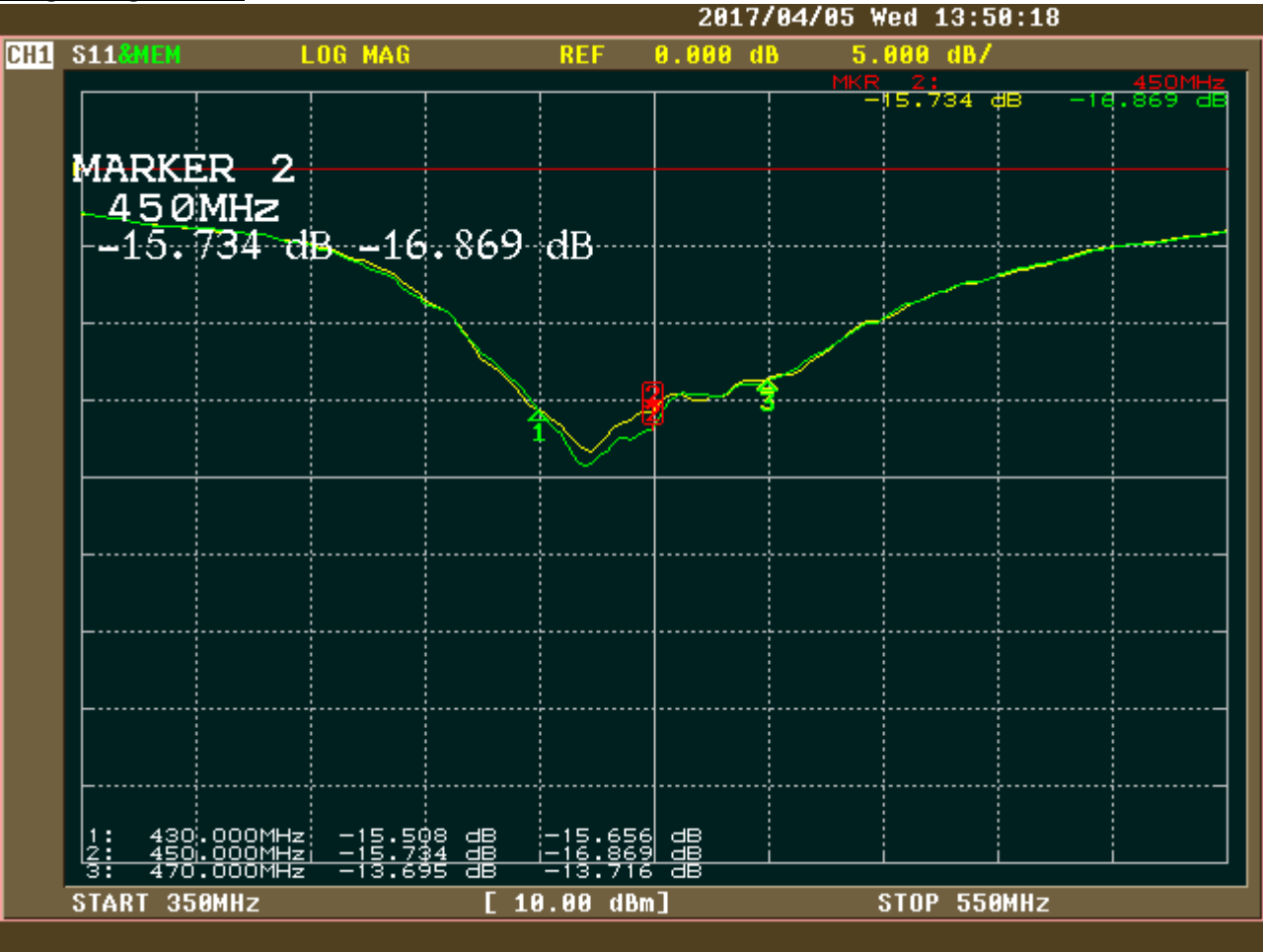
Approved :

Tester :

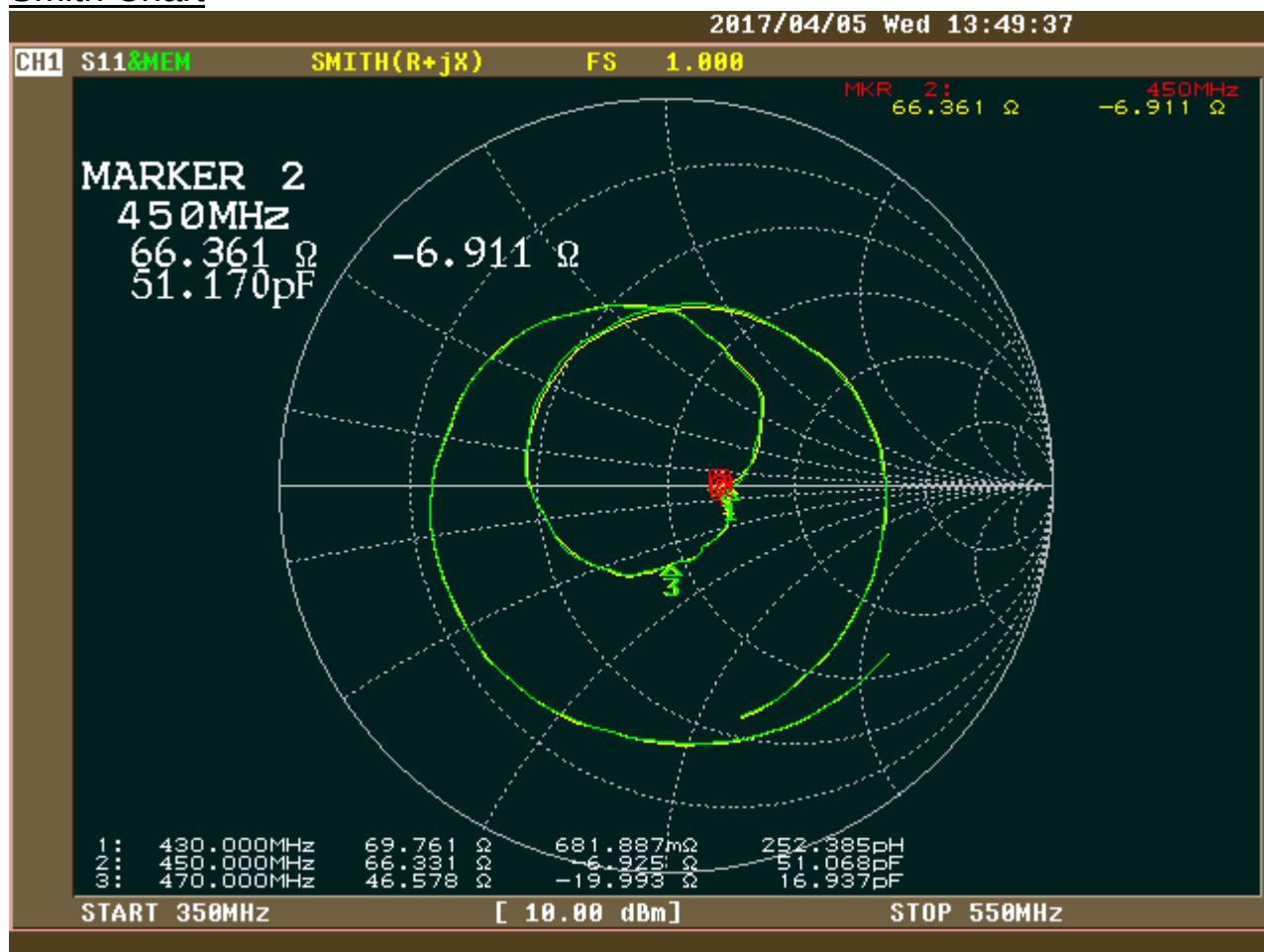
Testing Equipment



Log Magnitude



Smith Chart



V.S.W.R



