DONGGUAN HUANGJIE COMMUNICATION TECHNOLOGY CO., LTD.

SPECFICATION FOR APPROVAL

CUSTOMER	
CUS. CODE	
CUS. MODEL	
HJ-Tech CODE	3C0225A04-013
PRO. NAME	RF CABLE ASSEMBLY
SPECIFICATION DESCRIPTION	AssernblyFemale-Male Pin, Thread Length 10.00mm; P2 End Crimpedwith MHF-1 Plug; Exposed Cable Length L=80mm
DATE	2026/8/27

SUPPLIER		
PREPARER	CHECKER	APPROVER
S.He	XIU HE	LFY

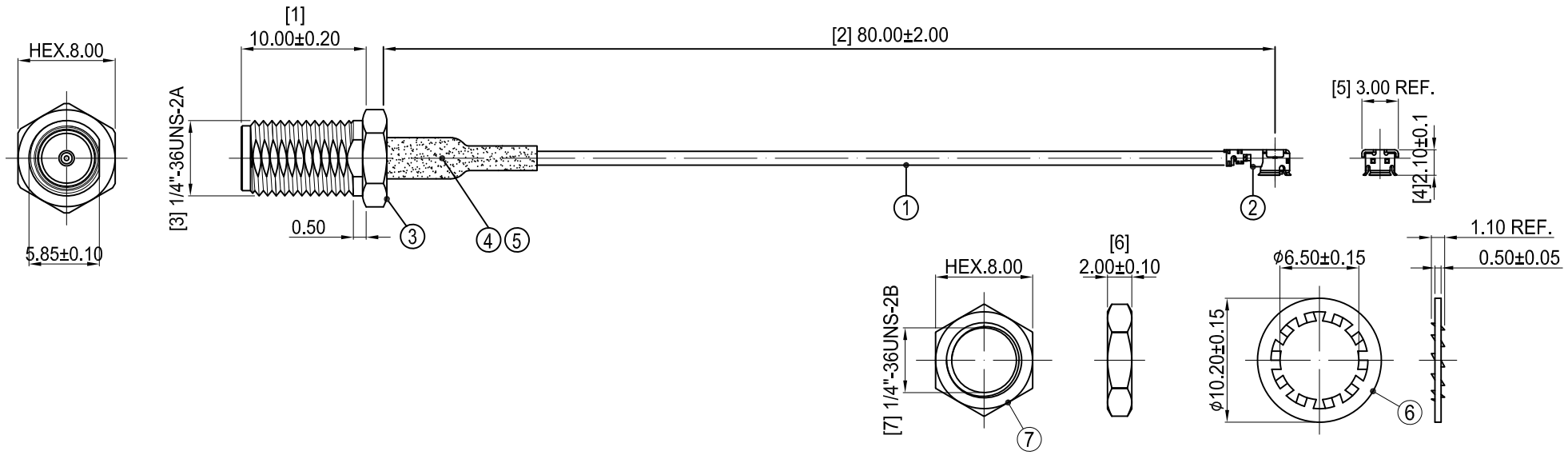
CUSTOMER		
TRANSCTOR	CHECKER	APPROVER

DONGGUAN HUANGJIE COMMUNICATION TECHNOLOGY CO.,LTD.
Address: Daqiandi Industrial Zone, Quantang, Liaobu Town, Dongguan City, Guangdong Province, China
Tel:86-769-83328111 Fax:86-769-83327688
email:info@iphone-line.com
website:www.iphone-line.com

CONTENTS

S/N	SYNOPSIS	PAGE
1	COVER	1
2	CONTENTS	2
3	PRODUCT DRAWING	3
4	PRODUCT SPECIFICATION	4~5
5	PACKAGE DRAWING	6
6	ANTENNA ELECTRICAL CHARACTERISTIC TEST REPORT	7

REV.	RELEASE AND CHANGE SUMMARY	DATE
A1	SMA thread length changed from 11.4 to 10.00	2018.10.16
A2	Consolidate connector part numbers	2018.11.17
A3	Modify heat□shrink tube and rear ferrule; change SMA circumferential welding to crimping	2020.09.01
A4	P1 braid dimension changed from 2.5 to 2.0	2022.04.22
B	Update dimension control markers	2025.09.11



No.	PART NUMBER	PART NAME & DESCRIPTION	Q'TY	REMARKS
7	2LC15S-302	Nut, SMA type, HEX 8.00×T2.00, Copper Gold-plated	1	---
6	2LC15S-201	Washer, SMA 10-tooth, OD10.2×ID6.5×T0.5, Copper Gold-plated	1	---
5	2TA025BK1-006	Heat-shrink tube Ø2.5×L6.0mm, Halogen-free Flame Retardant, Type 125H2 Standard, Black	1	---
4	2LC15SM350-7	SMA Gold-plated Rear Ferrule, for OD1.13 cable	1	---
3	2LC15SM350-1	MHF-1 Plug for OD1.13 Cable	1	---
2	2LM10P113210		1	---
1	2C5M11312BK1	Micro□Fine Coaxial Cable, OD1.13, Double Tin Wire, Black	1	Cut per cable cutting drawing

Technical Requirements

1. Assembly Requirement: Crimp connection between the tail ferrule of SMA female-male pin and the coaxial cable braid.
2. Orientation Requirement The thread cross- section of SMA female-male pin shall align with the hexagon edge the terminalorientation and SMA cross-section direction shall conform to the drawing.
3. Electrical Characteristics: Characteristic impedance: 50Ω; Operating frequency range: DC-6 GHz; VSWR: Max. 1.5.
4. Open-Short and High-Voltage Test: 100% tested by cable comprehensive testerTest conditions: Open-short judgment threshold: 2k; Maximum DC continuity resistance: 2.0002; Withstand voltage: AC300V, 0.01s, 0.50mA.
5. Pull-out Force Test: MHF terminal to coaxial cable 1.3 kgf; SMA tail ferrule to coaxial cable >2.0kgf.
6. Dimension Inspection: [F] = FAI First Article Inspection; [] = Key In-process Inspection; [O] = Outgoing Inspection; [Cpk,[SPC] = Statistical control items.
7. Visual Inspection: 100% visual inspection. No scratches, damage or contamination; no oxidation on metal components. Referto SIP for details.
8. Packaging Specification: 25 PCS per bundle, 2 bundles per bag, i.e. 50 PCS per bag.
9. Environmental Requirement The product and all its constituent materials shall comply with RoHS requirements

GENERAL TOLERANCE:
UNLESS OTHERWISE SPECIFIED

LINEAR:
0.5 < L ≤ 6 ± 0.05
6 < L ≤ 30 ± 0.10
30 < L ≤ 120 ± 0.20

ANGULAR:
0 < L ≤ 10 ± 1°30'
10 < L ≤ 50 ± 1°00'
50 < L ≤ 120 ± 0°30'

FILE TYPE: Product Drawing
DRA./DATE: *DENGJUN.TAN/18.04.08*
CHE./DATE: ***
APP./DATE: ***
FILE FORM: HJ-QR-E-03 22.09.01

Dongguan HUANGJIE Communication Technology Co., Ltd.
东莞市皇捷通讯科技有限公司

TITLE: RF Cable Assembly
A Female□Male Pin, Thread Length 10.00 mm; P2 End Crimped with MHF□1 Plug; Exposed Cable Length L=80 mm

CODE: 3C0225A04-013

SIZE:	UNIT:	PRO.:	SCALE:	PAGE:
A4	mm	3rd	1:1	1/1

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO HUANGJIE AND SHOULDN'T BE USED WITHOUT WRITTEN PERMISSION.

0 10 20

RF CABLE ASSEMBLY

1 SCOPE

1.1 CONTENTS

This Product Specification covers the mechanical, electrical and environmental performances specification for RF CABLE ASSEMBLY.

1.2 QUALIFICATION

When tests are performed the specification shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

2 APPLICABLE DOCUMENTS AND FORMS

The associated product documents and forms constitute a part of this specification to the extent specified herein. Unless otherwise indicated, the latest edition of the document applies. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of the specification and the reference documents, this specification shall take precedence.

3 TEST AND ACCEPTANCE REQUIREMENTS

3.1 GENERAL

3.1.1 Dimensional Characteristics

Part construction shall conform to the dimensions, shape, and detail attributes specified on the latest revision of the applicable part drawing(s).

3.1.2 Material Characteristics

All material used in each test sample shall conform to the material specifications shown on the latest revision of the applicable part drawing(s).

3.2 RATING

Frequency Range	Nominal Impedance	VSWR	WITHSTAND VOLTAGE	Operating Temperature
DC~6GHz	50Ω	2.0MAX.	200V AC/1 minute	-40℃ ~ +125℃

3.3 TEST CONDITION

Unless otherwise specified, all tests and measurements shall be performed under the following conditions.

Temperature	Atmospheric Pressure	Relative Humidity
+15℃ ~ +35℃	866hPa ~ 1066hPa	45% ~ 75%

3.4 Electrical Performance

No.	Items	Test Condition	Specifications
		GENERAL	
1	Contact Resistance	Solder the receptacle connector to the test board and mate the plug connector together, then measure the contact resistance as shown in figure 1 by the four terminal method. Open circuit voltage: 20mV MAX Circuit current: 10mA MAX	Inner contact: Initial: 20mΩ MAX After: 25mΩ MAX Ground contact: Initial: 20mΩ MAX After: 25mΩ MAX
2	Insulation Resistance	Mate the plug and receptacle connector Together,and then, apply DC 200 V Voltage between the inner contact and the ground contact in accordance with EIA 364-21F	Initial: 500 MΩ MIN After: 100 MΩ MIN
3	Dielectric Withstanding Voltage	Mate the plug and receptacle connector together, and then apply AC 200 V between the inner contact and the ground contact in accordance with EIA 364-20F	No flashover, No sparkover, No excess leakage, No breakdown
4	V.S.W.R	Measure V.S.W.R with a network analyzer from 0 to 6GHz(Install in plastic housing and test)	2.0MAX.
		MECHANICAL	
5	Un-mating Force	Solder the receptacle to the test board and mate the plug into it. Test the withdrawal force with an insertion-extraction force tester at a rate of 25 ± 3 mm/min	1.Initial:4N MIN 2.After 30 Cycle:2N MIN

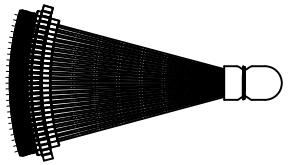
6	Durability	Solder the receptacle onto the test board, interlock the male and female connectors using a mating tester for 30 cycles, and then test the parameters.	Appearance: No AbnormalityContact Resistance: Shall meet 3.4.1/2/3/4
7	Cable retention	1 It is considered qualified if a 1.30 kg weight is lifted vertically from the table along the central axis of the cable at a speed of approximately 25 ± 3 mm/min.	No detachment or looseness at the crimp joint between the wire and the connector. Shall meet 3.4.1/2/3/4
ENVIRONMENTAL			
8	Humidity	Apply the following environment to themating connector in accordance with EIA364-31 Method III Test Condition B Temperature:25~65℃ Humidity : 90~95% R.H Duration: 96 hours	Appearance: No damage Contact Resistance: Shall meet 3.4.1 Insulation Resistance: Shall meet 3.4.2 Dielectric Withstanding Voltage: Shall meet 3.4.3
9	High Tempera-ture Test	Apply the following environment to themating connector Temperature : 90±2℃ Duration : 96 hours	Appearance: No damage Contact Resistance: Shall meet 3.4.1 Insulation Resistance: Shall meet 3.4.2 Dielectric Withstanding Voltage: Shall meet 3.4.3
10	Thermal Shock	Perform the following test conditions on mated connectors in accordance with Test Method III, Condition B of EIA-364-32: Temperature: -55°C to 85°C Transfer time: 5 min max. Number of cycles: 5	Appearance: No damage Contact Resistance: Shall meet 3.4.1 Insulation Resistance: Shall meet 3.4.2 Dielectric Withstanding Voltage: Shall meet 3.4.3
11	Salt Spray	EIA 364-26 Test Condition A Apply the following environment to the mating connector Temperature : 35±2℃ Relative Humidity : 90~98%R.H Salt water density: 5±1% Duration : 24 hours	Appearance: No damage Contact Resistance: Shall meet 3.4.1

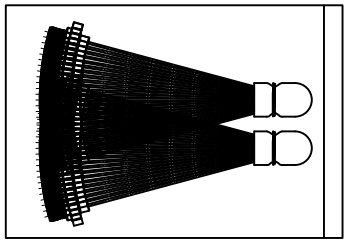
3.5 CHANGE LOG

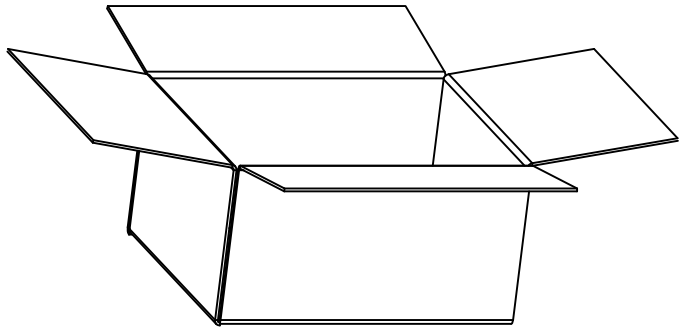
Revision	Release and Change Summary	Date	Tabulator	Checker	Approver
A		2026.08.11	S.He	XIU HE	LFY

REV.	RELEASE AND CHANGE SUMMARY	DATE
A	FIRST ISSUE	2023.10.20
B	ADD DUST CAPS	2023.12.20
C	UPDATE DIMENSION CONTROL MARKS	2026.03.13









PACKAGING SPECIFICATIONS：

1. 25 PCS/BUNDLE: USE PEARL COTTON AND RUBBER BANDS TO WRAP AND SECURE THE TERMINALS.
2. 2 BUNDLES/PACK: PLACE INTO A PE BAG AND SEAL IT.
3. EACH PE BAG CONTAINING 50 PCS MUST BE AFFIXED WITH A MATERIAL LABEL.
4. PARTITION BOARD: 2 PCS/CARTON. PLACE ONE PAPER PARTITION AT THE BOTTOM OF THE CARTON BEFORE LOADING,AND PLACE ANOTHER PAPER PARTITION BEFORE SEALING THE CARTON.
5. 2000 PCS/CARTON: CARTON DIMENSIONS: 360*360*145. THE CARTON SIZE SHALL BE SELECTED BASED ON THE ACTUAL DIMENSIONS AND QUANTITY OF THE MATERIALS.
6. APPLY "H-TYPE" SEALING TAPE ON BOTH THE TOP AND BOTTOM OF THE CARTON.
7. IF THE MATERIALS ARE INSUFFICIENT TO FULLY FILL THE CARTON, USE FILLER MATERIALS TO PACK THE EMPTY SPACE.
8. MATERIAL CARDS AND MONTH LABELS SHALL BE APPLIED IN STRICT ACCORDANCE WITH THE CUSTOMER'S SPECIFICATION SHEET.

GENERAL TOLERANCE:
UNLESS OTHERWISE SPECIFIED

LINEAR:	
0.5 < L ≤ 6	±0.05
6 < L ≤ 30	±0.10
30 < L ≤ 120	±0.20

ANGULAR:	
0 < L ≤ 10	±1°30'
10 < L ≤ 50	±1°00'
50 < L ≤ 120	±0°30'

ISS. /DATE: PRODUCT DRAWING
APP./DATE: *S.He 23.10.20*
CHE./DATE:
DRA./DATE:
FILE FORM: HJ-QE-E-03 22.11.01

HJ-Tech *RF Connectivity*
DongGuan HuangJie Communication Technology Co.; Ltd
东莞市皇捷通讯科技有限公司

TITLE: RF CABLE ASSEMBLY
A Female - Male Pin, Thr ead Length 10.00 mm; P2 End Cr imped with MHF - 1 Plug; Exposed Cable Length L=80 mm

CODE: 3C0225A04-013

SIZE:	UNIT:	PRO.:	SCALE:	PAGE:
A4	mm	3RD	1:1	1/1

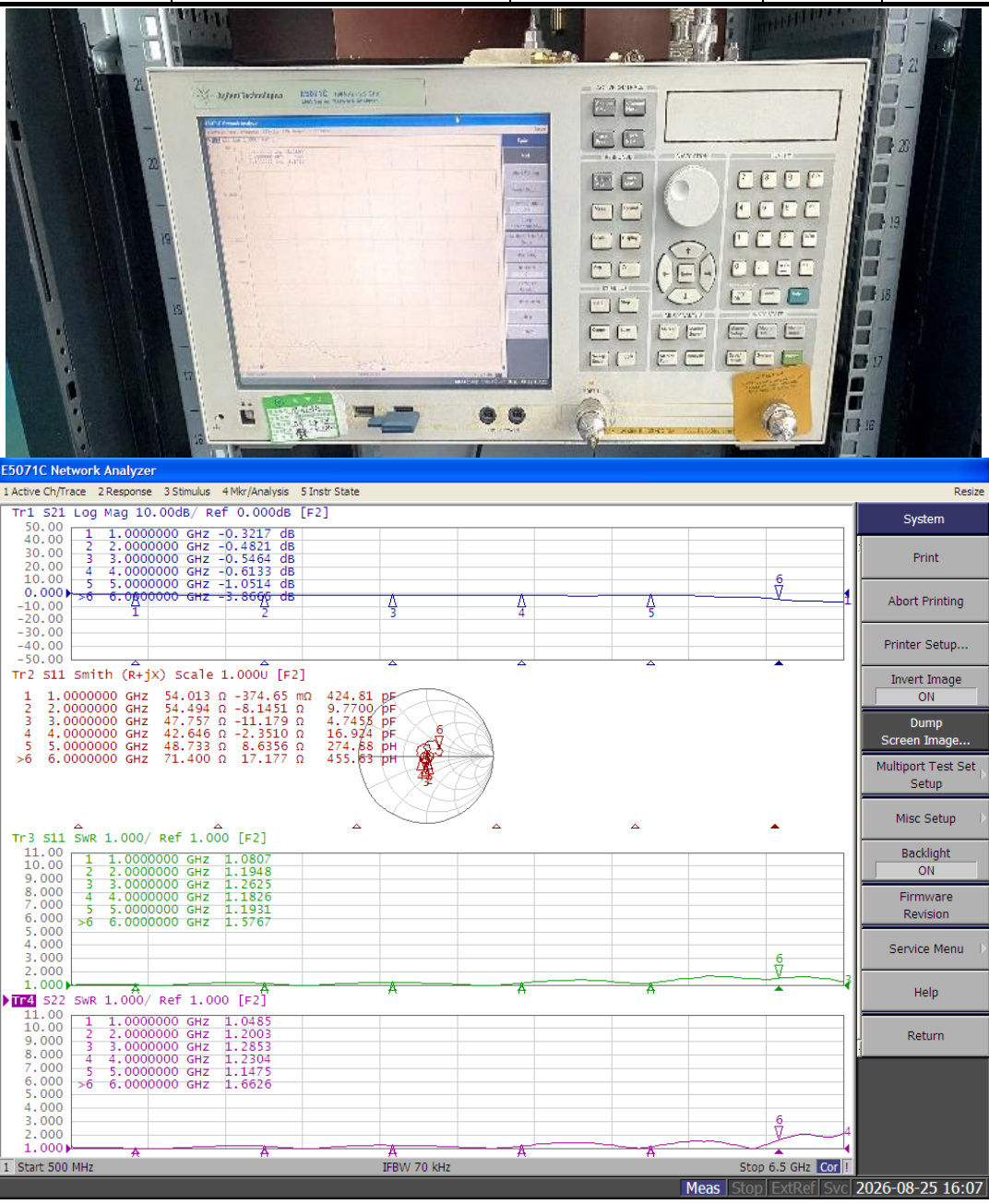
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO HJ-Tech AND SHOULDN'T BE USED WITHOUT WRITTEN PERMISSION.

0 10 20

Antenna Electrical Characteristic Test Report

DOC NO.:HJ-QR-Q-22 Rev:A0

Part Number:	3C0225A04-013	Item	Spec	Judge
Part Name:	A Female - Male Pin, Thread Length 10.00 mm; P2 End Crimped with MHF - 1 Plug; Exposed Cable Length L=80 mm	VSWR	2.0MAX.	pass
Test Equipment	Agilent E5071C	Characteristic impedance	50Ω	pass
Quantity	5pcs			
Test Date	2026/8/11			



Checker: XIU HE **Tester: S.He**