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HT-TECH CORPORATION

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Certificate of Acknowledgment

Customer : 茂傑

Product : 5G External Antenna Black Plastic Housing 1.13 Black Cable L=75mm IPEX 1

Model :

Part Number : NF2-2Z0083-RS

Written By :

Issued Date : 2026/01/08

CUSTOMER

ENGINEER R&D DEPT	QUALITY DEPT	APPROVED

Free Walk

WRITTEN BY	ENGINEER R&D DEPT	APPROVED
shali.Chen	Bing.Yang	zhiyang.Tan

address:
221 No. 179, Section 1, Datong Road, Xizhi District, New Taipei City

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File Change History

Model							
Index	Change Type	Change Type	Change Date	Description of Changes	Revision	Version	Remarks

Number:QR-NF-001
Version： A1

Index

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Specification Sheet

Main teclmlcal specification	
Frequency Range（MHz）	5150-5850
Impedance	50
Peak Gain(dBi)	5±1
VSWR	≦2.0
Polarization	Linear，polarization
Average efficiency (%)	84%
Connector Type	IPXE 1
Physica Properties	
Cable	black
Packaging	PE bag
Storage Temp	-40℃~+70℃
Operating Temp	-10℃~+60℃

Test Equipment & Conditions

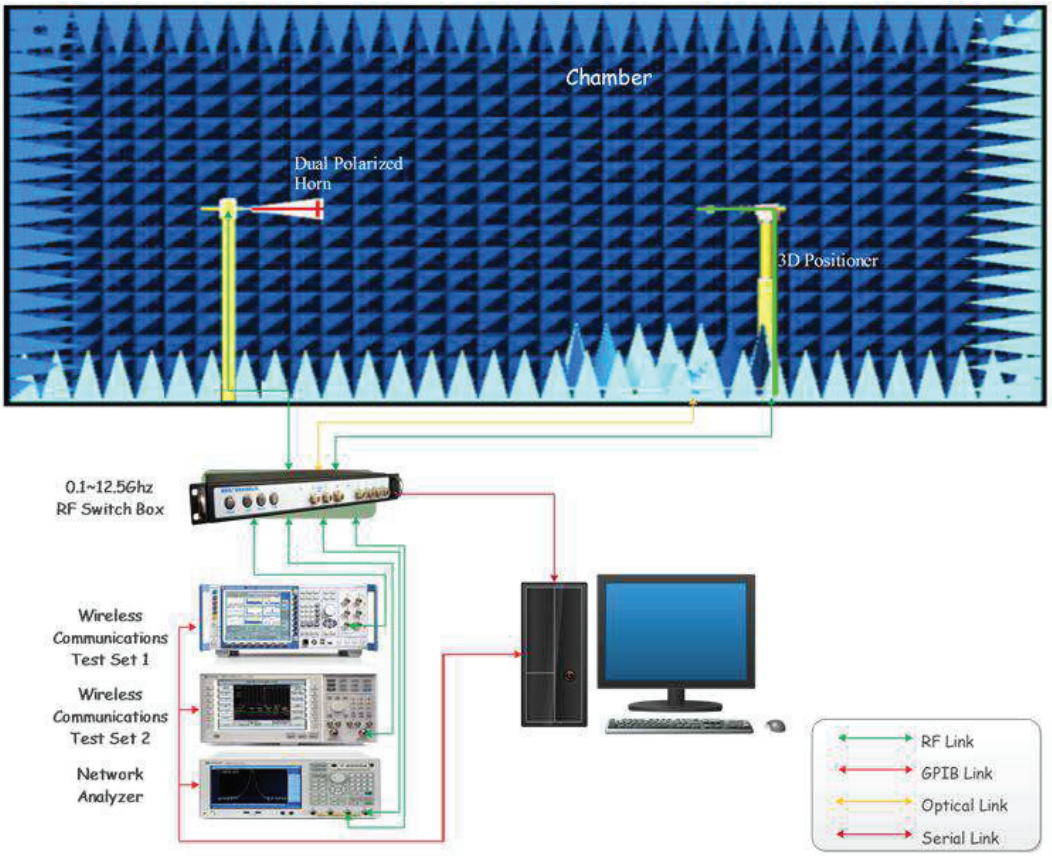
1. Network Analyzers :

Agilent 5071C

2. Communications Test Set:

Rohde & Schwarz CWM500

3. 3D Chamber Test System



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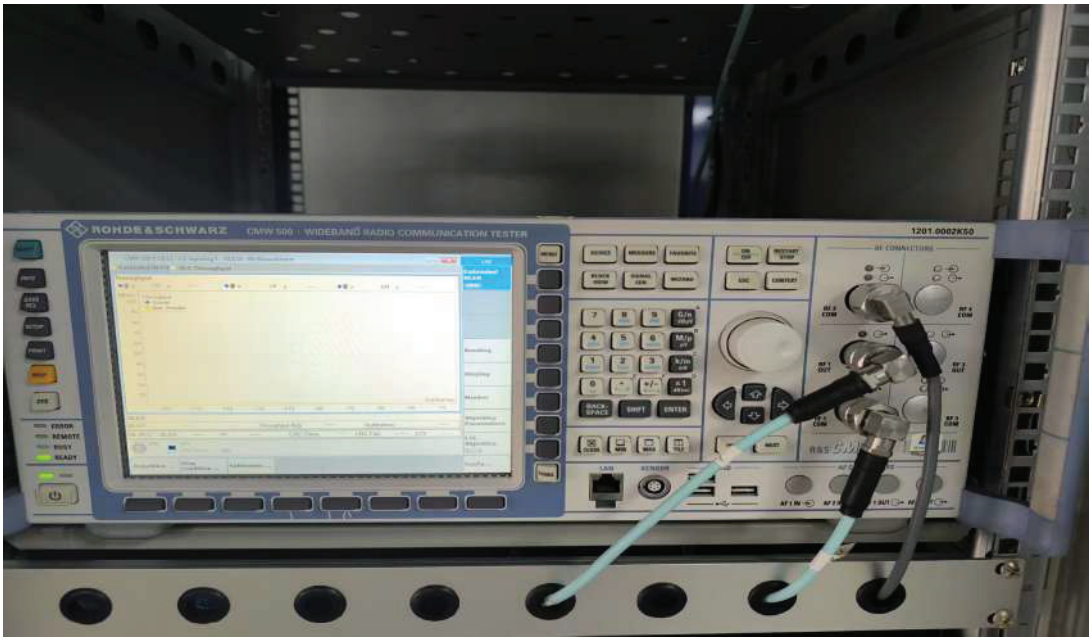
Laboratory

CMW500



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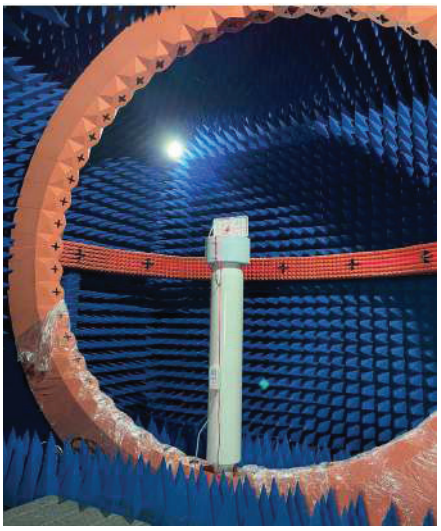
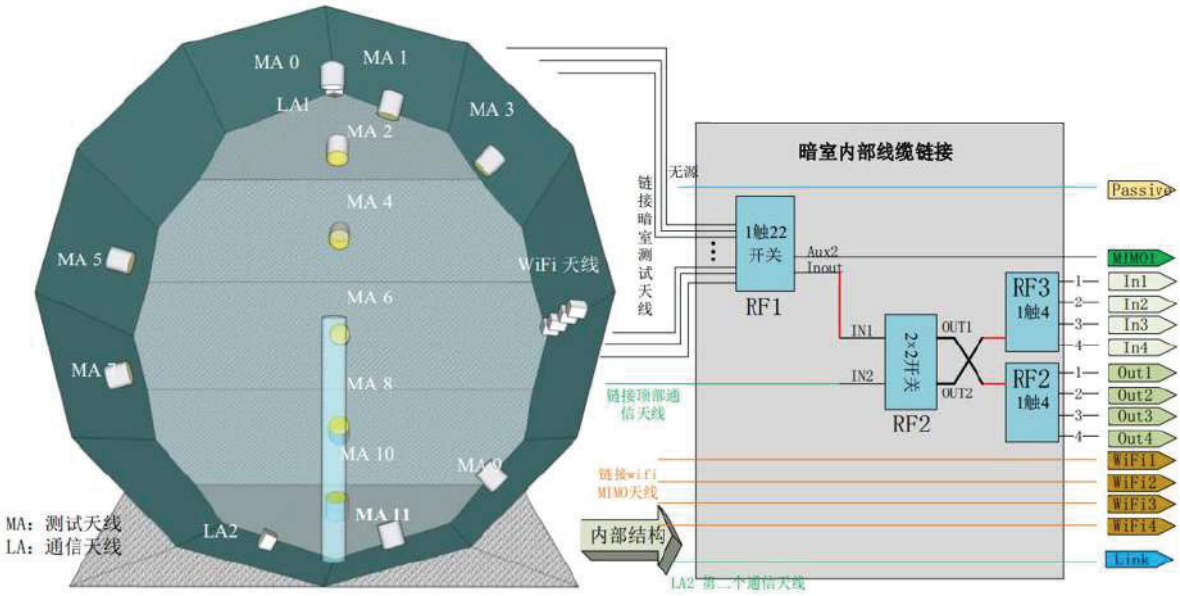
Test the darkroom





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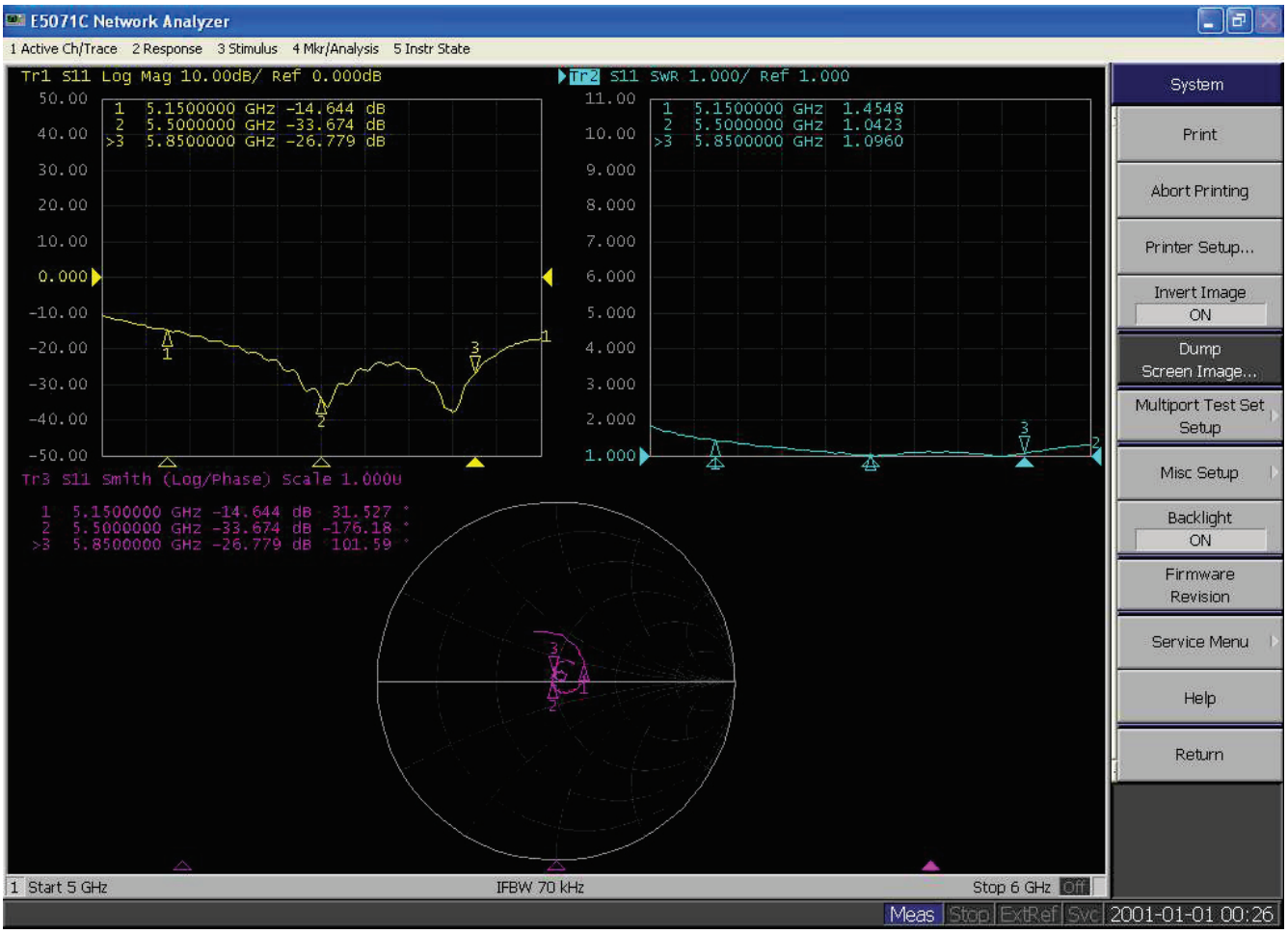
5.8G S Parameter



Test: Peng Yang

Review: zhiYung Tan

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5.8G Efficency&Gain

Frequency/Mhz	Efficiency / %	MaxGain/dBi
5150	82.72	5.48
5200	85.21	5.33
5250	84.2	5.4
5300	85.6	5.37
5350	86.1	5.49
5400	84.57	5.4
5450	85.34	5.32
5500	84.33	5.66
5550	82.95	5.45
5600	85.23	5.39
5650	83.7	5.49
5700	81.29	5.39
5750	82.09	5.43
5800	85.34	5.5
5850	85.46	5.49

Test: Peng Yang   Review: zhiYung. Tan

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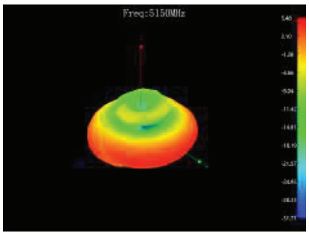
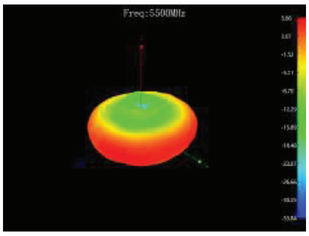
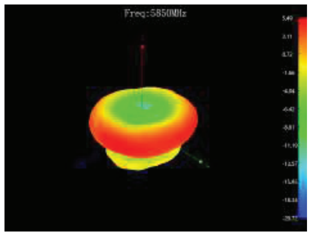
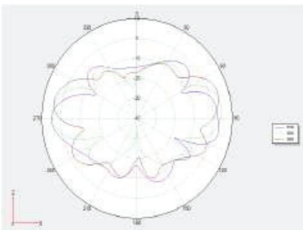
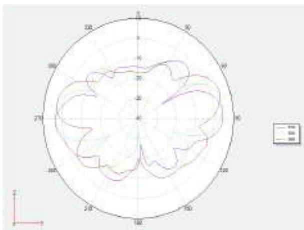
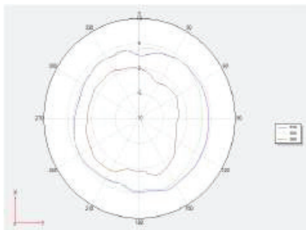
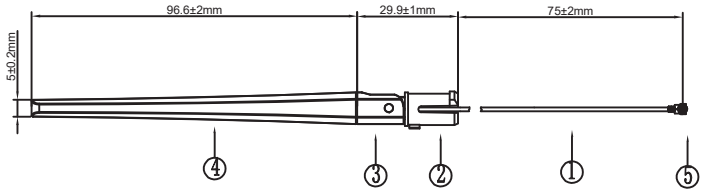
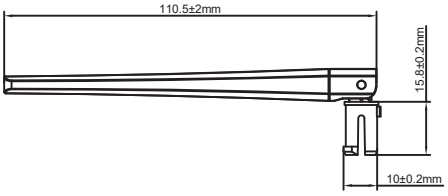
5.8G Directional map

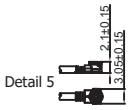
Channel(MHz) 5 1 5 0 ZX-Plane Total	Channel(MHz) 5 5 0 0 ZX-Plane Total	Channel(MHz) 5 8 5 0 ZX-Plane Total
		
Phi 02D	Phi 90 2D	Theta 90 2D
		

Test:

Review:







SERIAL NUMBER	PRODUCT NAME	MATERIALS/SPECIFICATIONS	COLOR	QUANTITY	REMARKS
⑤	IPEX	IPEX-1	GOLDEN	1	
④	ROD SLEEVE	ABS	BLACK	1	
③	UPPER SOLID	ABS	BLACK	1	
②	LOWER SOLID	PC	BLACK	1	
①	RF CABLE	ϕ1.13 LINE	BLACK	1	

NOTE:

. DIMENSIONS MARKED WITH * ARE THE KEY INSPECTION DIMENSIONS;
  DIMENSIONS WITHOUT SPECIFIED TOLERANCES ARE INSPECTED WITH ±0.15.
. UNMARKED DIMENSIONS SHOULD REFER TO THE DRAWING;
  OTHER DIMENSIONS SHOULD BE BASED ON ACTUAL FIT.
. WIRES SHOULD NOT HAVE SOLDER SLAG, SCRATCHES, ETC.;
  WIRES WITH TERMINALS SHOULD PASS TESTING.
. FINISHED PRODUCT SOLDER PADS SHOULD HAVE NO COLD SOLDER,
  SOLDER BRIDGES, ETC.; FINISHED PRODUCTS SHOULD PASS CONTINUITY TESTING.
. MATERIALS MUST COMPLY WITH ROHS 2.0 AND
  REACH AND OTHER ENVIRONMENTAL REGULATIONS.

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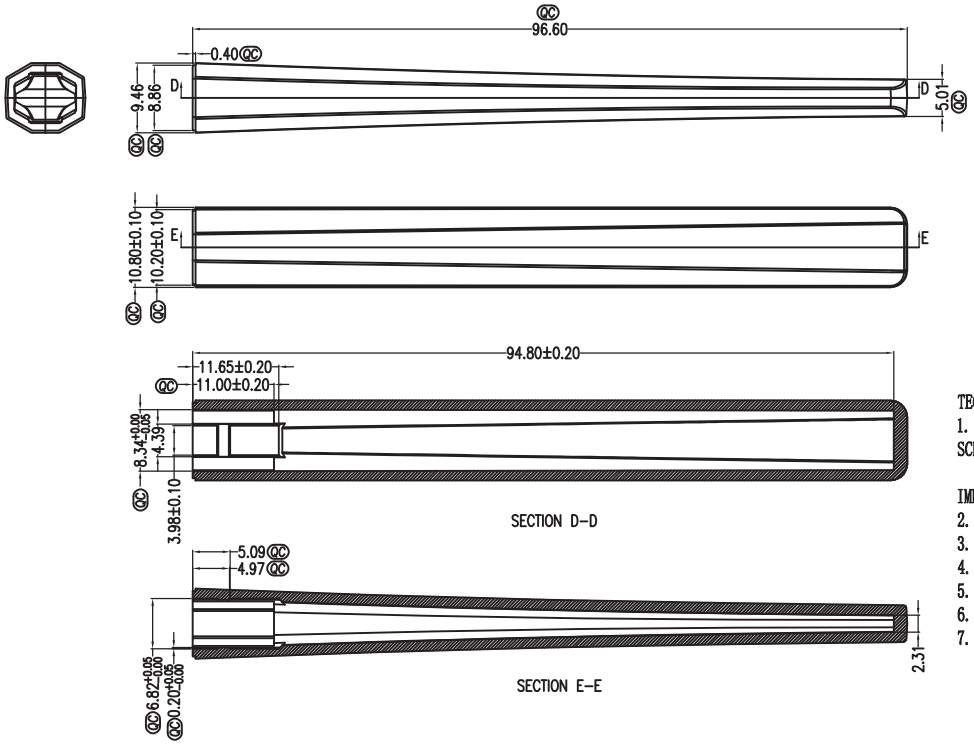
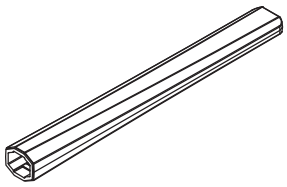
THIRD ANGLE PROJECTION				PROJECT	茂傑	DATE	2025-05-10
		○	0.02	NAME	5.8G - EXTERNAL ANTENNA	DESIGN	bing.Yang
10以下	±0.10	◎	ø0.03	PART NUMBER	NF2-2Z0083-RS	RADIO FREQUENCY	bing.Yang
10~20	±0.12	⊥	0.02	CUSTOMER PART NUMBER		REVIEW	zhiyang.Tan
20~40	±0.15	▱	0.04				
40以上	±0.20	∠	0.02				
REFER TO THE STANDARD FOR THE TOLERANCE OF THE ULTIMATE NOTE					单位	mm	比例 FIT 版本 T:A

VERSION	RELEASE DATE	RELEASE CONTENT	ISSUER
A	2025-07-28	NEW EDITION RELEASE	Peter





TECHNICAL REQUIREMENTS:

1. THE SURFACE MUST BE SMOOTH, WITHOUT COLLAPSED CORNERS, SCRATCHES, SINK MARKS, OR WATER SPOTS.
   THE INNER CAVITY SHOULD HAVE NO OBVIOUS DEFORMATION, AND ALL IMPORTANT ASSEMBLY SURFACES MUST NOT HAVE OBVIOUS BURRS OR FLASH.
2. PROCESS FILLET R0.20
3. UNMARKED CHAMFERS C0.15
4. MATERIAL: ABS
5. DIMENSIONS MARKED WITH "QC" ARE QC INSPECTION DIMENSIONS
6. MOLD NUMBER:
7. NUMBER OF CAVITIES: ONE MOLD WITH TEN CAVITIES

APPROVE	TITLE Product Name: Rod Sleeve					RoHS Compliant		HT-TECH CORPORATION	
CHECK	PART NO. Part Number: S2-100008					GENERAL TOLERANCE		UNITS mm	SIZE A4
DRAW	REV A	DATE 2025-08-28	DRAW Peter	CHECK Peter	APPROVE De	.X± 0.1 / .XX± 0.05 / .XXX±	X.°± 2° / .X°± 0.5°	SCALE 1:1	SHEET 1/1 REV A

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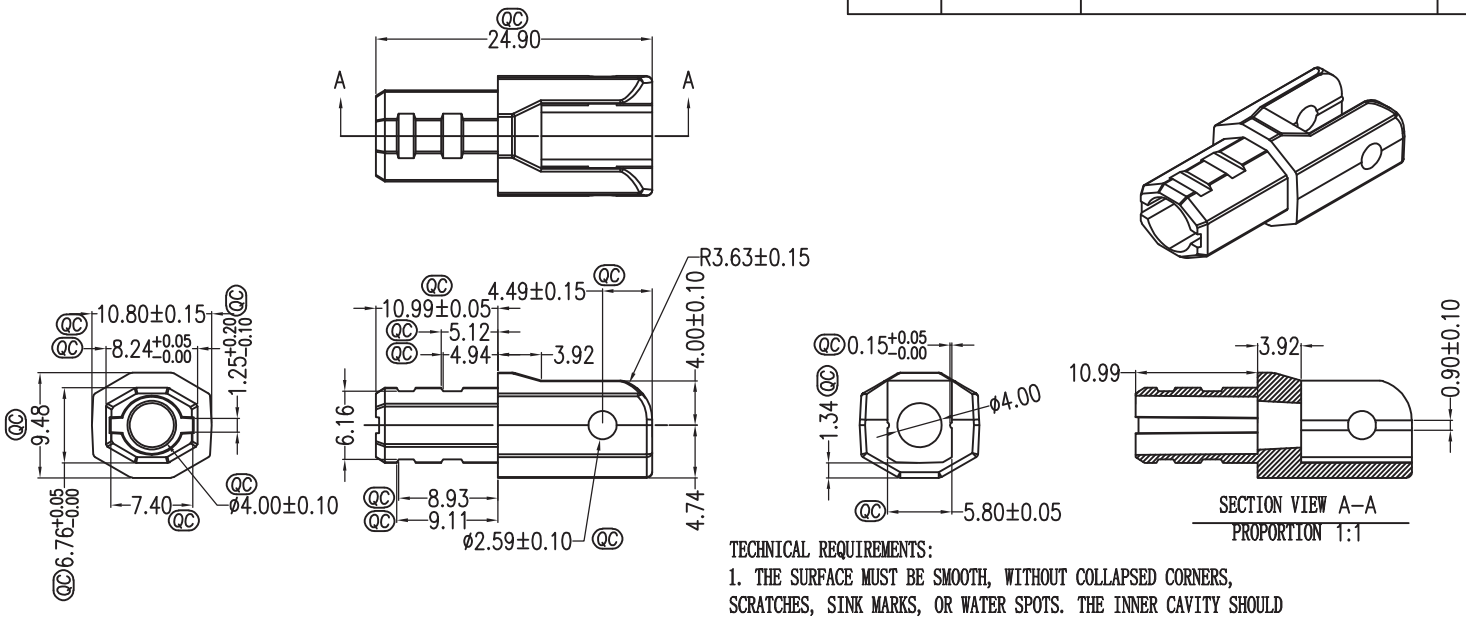
VERSION	RELEASE DATE	RELEASE CONTENT	ISSUER
A	2025-07-28	NEW EDITION RELEASE	Peter



TECHNICAL REQUIREMENTS:

1. THE SURFACE MUST BE SMOOTH, WITHOUT COLLAPSED CORNERS, SCRATCHES, SINK MARKS, OR WATER SPOTS. THE INNER CAVITY SHOULD HAVE NO OBVIOUS DEFORMATION, AND ALL CRITICAL ASSEMBLY SURFACES MUST BE FREE OF NOTICEABLE BURRS AND RAISED EDGES.
2. PROCESS FILLET RADIUS R0.20.
3. UNMARKED CHAMFERS C0.15.
4. MATERIAL: PC.
5. DIMENSIONS MARKED WITH "QC" ARE QC INSPECTION DIMENSIONS.
6. MOLD NUMBER:
7. NUMBER OF CAVITIES: TEN CAVITIES IN ONE MOLD.

APPROVE	TITLE	Product Name: Upper solid				RoHS Compliant		HT-TECH CORPORATION		
CHECK	PART NO.	Part Number: S2-700003				GENERAL TOLERANCE			UNITS mm	SIZE A4
DRAW	REV	DATE	DRAW	CHECK	APPROVE	.X± 0.1	X.'± 2'	SCALE 1:1	SHEET 1/1	REV A
	A	2025-07-28	Peter	Peter	De	.XX± 0.05	.X'± 0.5'			
						.XXX±				

PRODUCT DRAWING

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VERSION	RELEASE DATE	RELEASE CONTENT	ISSUER
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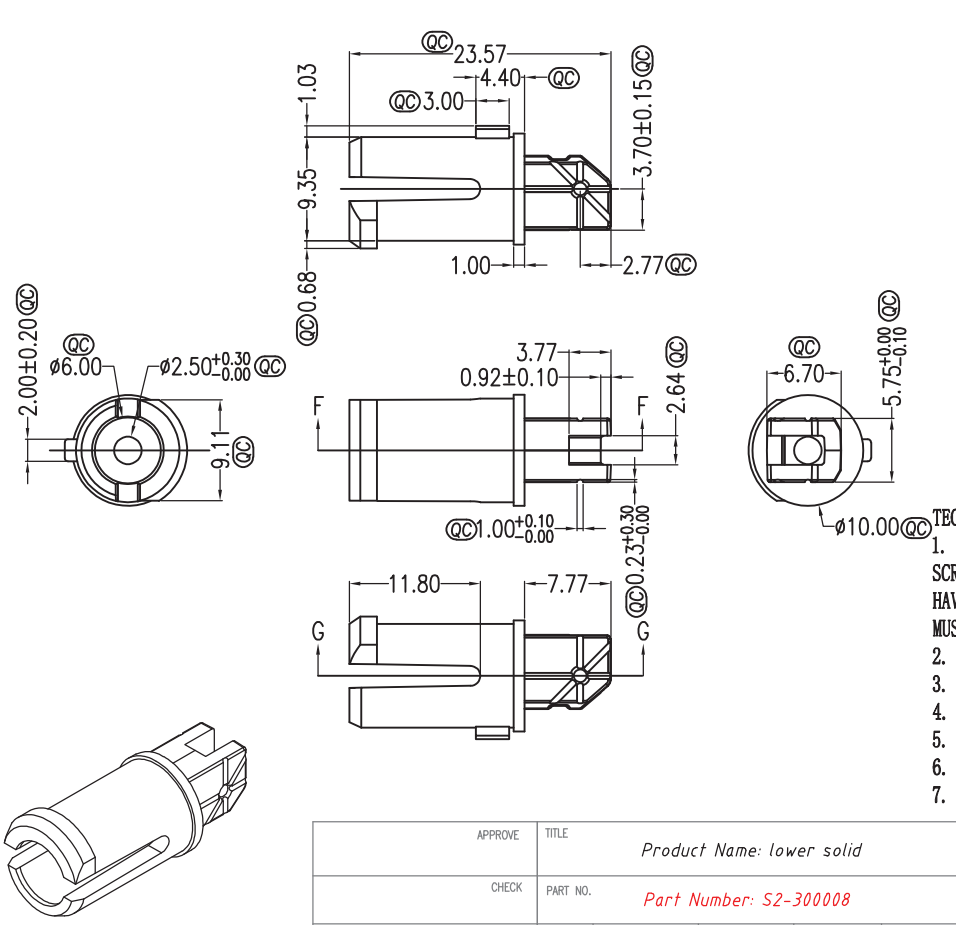
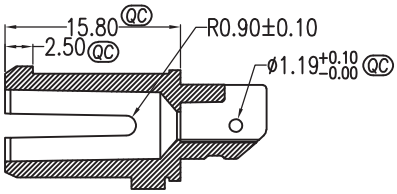
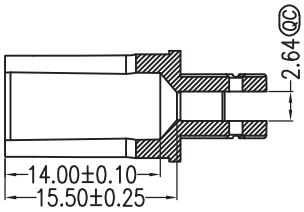




SECTION F-F



SECTION G-G

TECHNICAL REQUIREMENTS:

1. THE SURFACE MUST BE SMOOTH, WITHOUT COLLAPSED CORNERS, SCRATCHES, SINK MARKS, OR WATER SPOTS. THE INNER CAVITY SHOULD HAVE NO OBVIOUS DEFORMATION, AND ALL CRITICAL ASSEMBLY SURFACES MUST BE FREE OF NOTICEABLE BURRS AND RAISED EDGES.
2. PROCESS FILLET RADIUS R0.20.
3. UNMARKED CHAMFERS C0.15.
4. MATERIAL: PC.
5. DIMENSIONS MARKED WITH "QC" ARE QC INSPECTION DIMENSIONS.
6. MOLD NUMBER:
7. NUMBER OF CAVITIES: TEN CAVITIES IN ONE MOLD.

APPROVE	TITLE: Product Name: lower solid					RoHS Compliant		HT-TECH CORPORATION	
CHECK	PART NO. Part Number: S2-300008					GENERAL TOLERANCE		UNITS mm	SIZE A4
DRAW	REV	DATE	DRAW	CHECK	APPROVE	.X± 0.1	X.°± 2°	SCALE 1:1	SHEET 1/1
	A	2025-07-28	Peter	Peter	De	.XX± 0.05	.X°± 0.5°		REV A
						.XXX±			

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