MHF® 7S

改良的EMI性能，是5G mmWave应用的理想选择，在15GHz频率，
2.0 x 2.0 mm 小尺寸封装的情况下，最大驻波比为1.5

Product Specifications:

Mated Height (mm max.)		1.4
Rece. SMT Size (mm)		2.0 x 2.0
Applicable Frequency		DC ~ 15 GHz
Characteristic Impedance		50 ohm
VSWR (L=100 mm)	DC～3 GHz	1.30 max.
	3～6 GHz	1.35 max.
	6～9 GHz	1.40 max.
	9～12 GHz	1.45 max.
	12～15 GHz	1.50 max.

*如您需要了解未列出或不在范围内的Pin数，请咨询我们。

Applicable Cable Size:

O.D. 1.13 mm / AWG 32

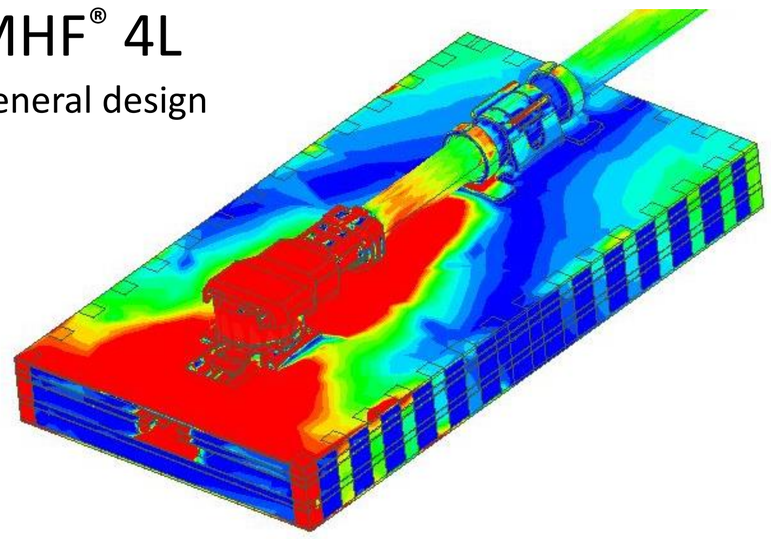
Applicable Standards (Reference Only):c

5G mmWave(~15GHz), 5G sub-6, Wi-Fi 6E, WiGig, LTE/LTE-Advanced, LPWA, Bluetooth, GPS

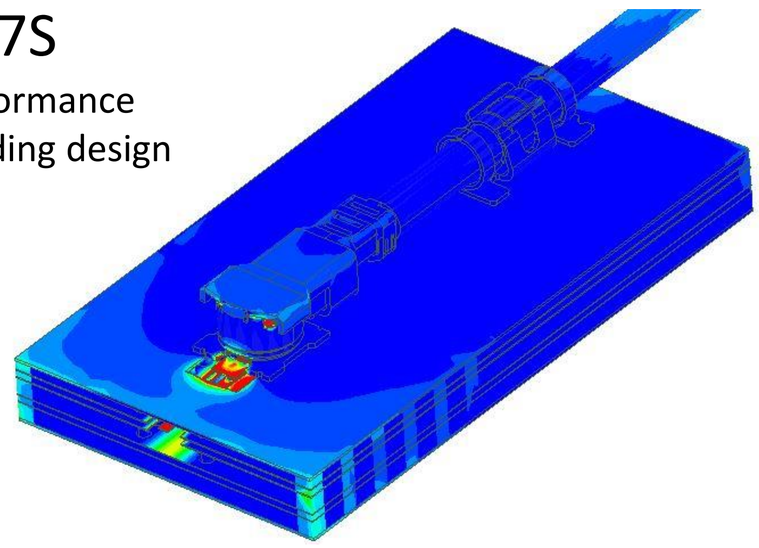
独特的屏蔽设计 (ZenShield®)减少5G mmWave应用中不必要的电磁干扰

电场强度分布(模拟)

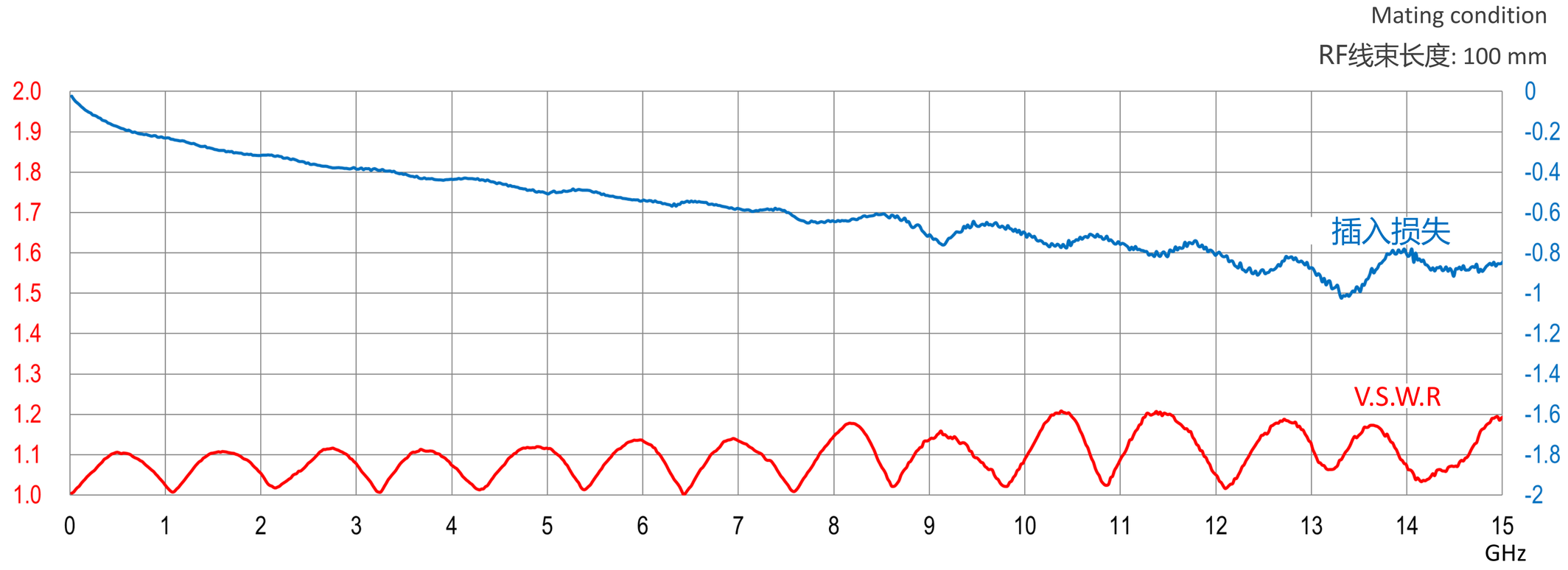
MHF® 4L
General design



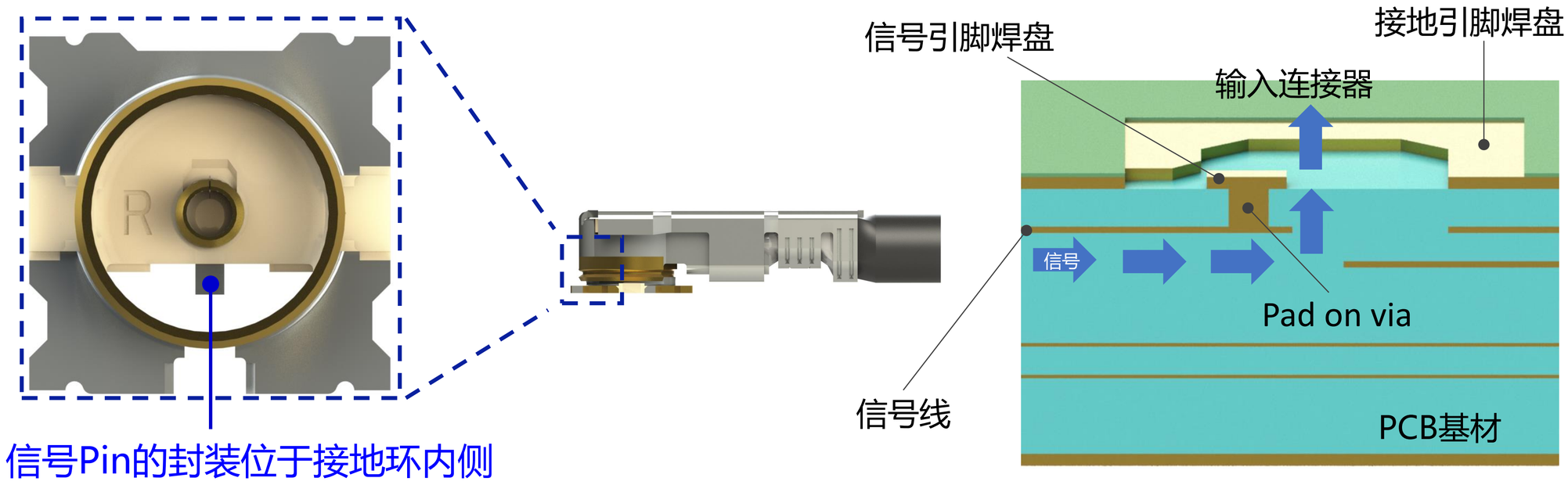
MHF® 7S
High-performance
EMI shielding design



超小体积，最大驻波比为1.5



业内首创：将母座的信号Pin的封装位于接地环内侧

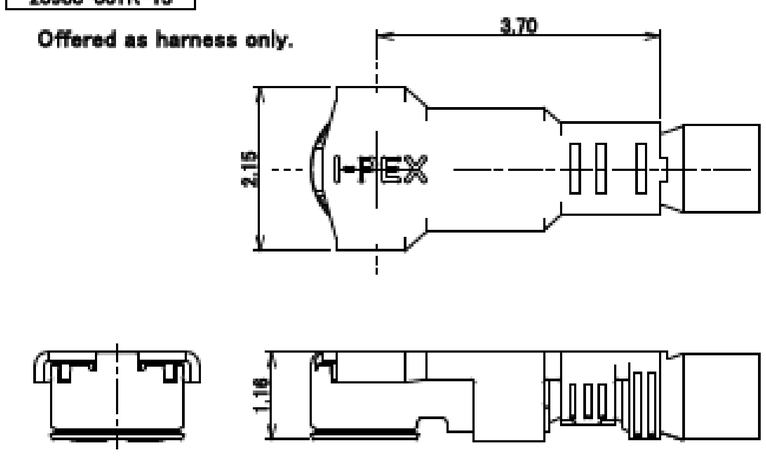


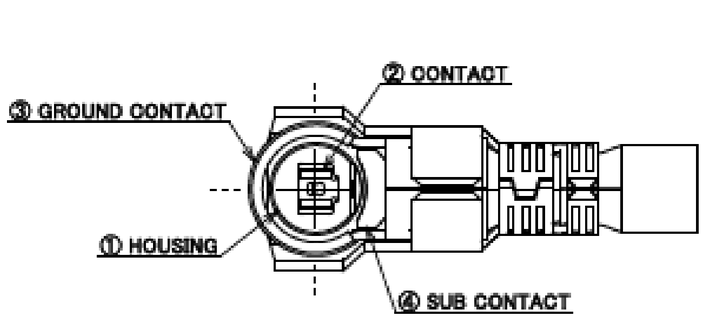
Component Parts Details

MHF® 7S plug

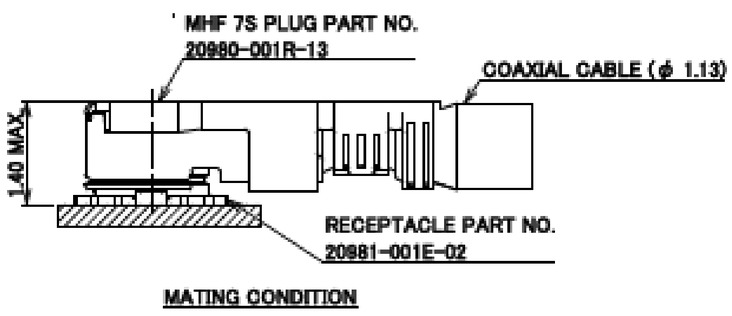
Recommended P/N	20980-001R-13
PART NO.	
20980-001R-13	

Offered as harness only.

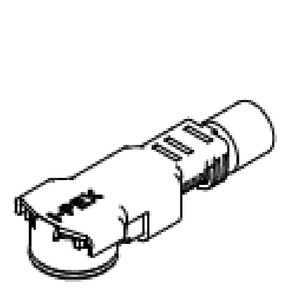




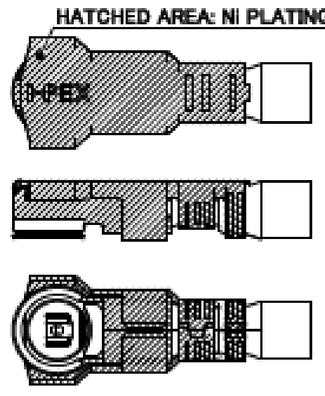
CABLE ASSEMBLY



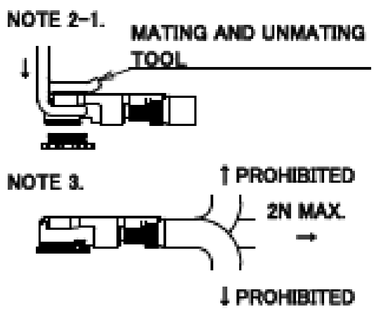
MATING CONDITION



HATCHED AREA: Ni PLATING AREA



NOTES
1. APPLICABLE CONNECTOR: 20981-001E-02
2. MATING AND UNMATING INSTRUCTION
2-1. MATING
MATE THE CONNECTOR VERTICALLY AS MUCH AS POSSIBLE. ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE. DO NOT SLANT MATE.
2-2. UNMATING
USE THE MATING AND UNMATING TOOL (PART NO. 91186-0001) AS THE FOLLOWING DRAWING, AND PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
3. PERMISSIBLE LOAD OF CABLE AT MATING.
4. CHARACTERISTIC IMPEDANCE: 50Ω (NOMINAL VALUE)



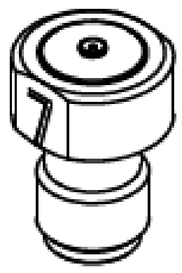
NO.	DESCRIPTION	MATERIAL	FINISH , REMARKS
4	SUB CONTACT	PHOSPHOR BRONZE	ALL OVER: Ni 1.00 μm MIN. CONTACT PART: Au 0.1 μm MIN.
3	GROUND CONTACT	PHOSPHOR BRONZE	ALL OVER: Ni 0.7 μm MIN. CONTACT PART: Au 0.1 μm MIN. [Ni PLATING AREA] Ni ONLY
2	CONTACT	CORSON ALLOY	ALL OVER: Ni 1.00 μm MIN. CONTACT PART: Au 0.1 μm MIN.
1	HOUSING	LCP	UL94V-0, WHITE

Rev.4

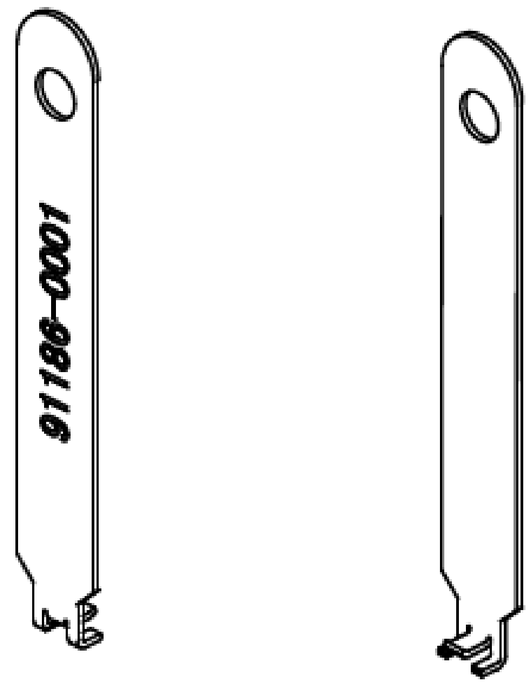
MHF® 7S plug

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20981-001E-02
RATING VOLTAGE	60 V AC (R.M.S)/DC
RATING FREQUENCY	DC～15 GHz
OPERATING TEMPERATURE	233～363 K (-40℃～+90℃)
OPERATING HUMIDITY	90% MAX. (NON-CONDENSING)
CHARACTERISTIC IMPEDANCE	50 ohm (NOMINAL VALUE)
VSWR	1.30 MAX. AT 0.1 ～ 3 GHz, 1.35 MAX. AT 3 ～ 6 GHz, 1.40 MAX. AT 6 ～ 9 GHz, 1.45 MAX. AT 9 ～ 12 GHz, 1.50 MAX. AT 12 ～ 15 GHz
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ⊿R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ⊿R 20 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	INITIAL: 30N MAX. (VERTICAL DIRECTION) AFTER TEST: 30N MAX. (VERTICAL DIRECTION)
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL: 20N MAX., 5N MIN. (VERTICAL DIRECTION) AFTER TEST: 20N MAX., 3N MIN. (VERTICAL DIRECTION)
CRIMP STRENGTH	10N MIN.
PRODUCT SPECIFICATION	PRS-2676
TEST REPORT	TR-20043
INSTRUCTION MANUAL	HIM-19009
APPEARANCE CRITERIA No.	QLS-A***

Accessories for MHF® 7S plug



MHF 7 (S) PLUG SMA ADAPTER
PART NO. 91255-0001

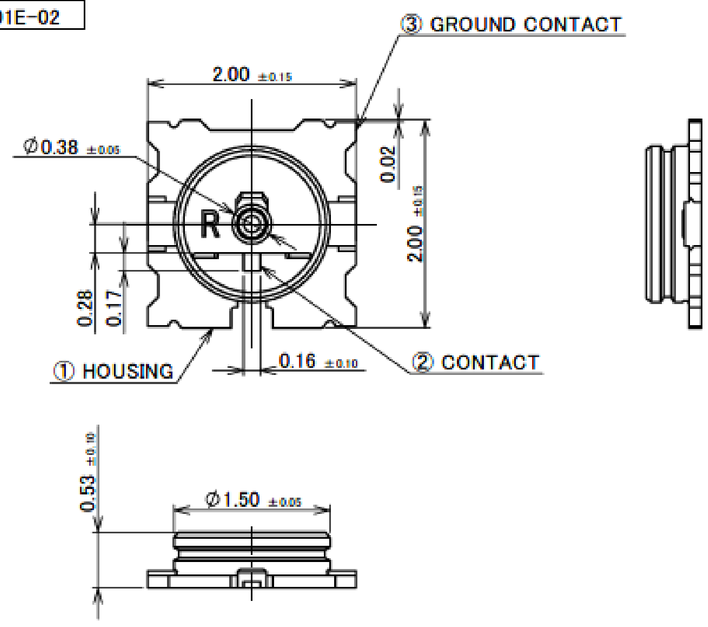


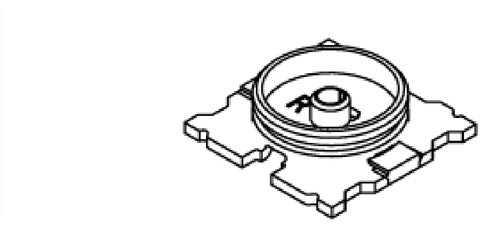
MHF 7S MATING AND UNMATING TOOL
PART NO. 91186-0001

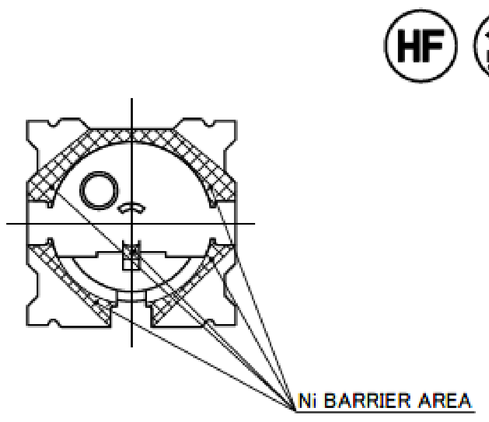
MHF® 7S Receptacle

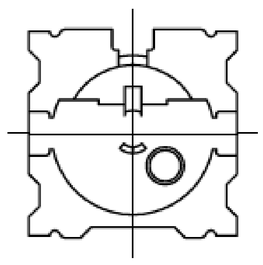
Recommended P/N	20981-001E-02

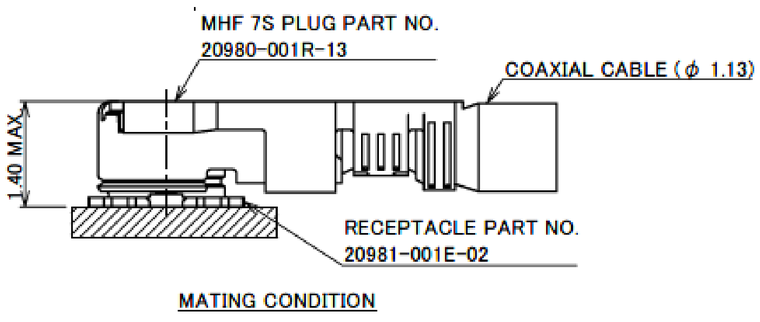
PART NO.
20981-001E-02









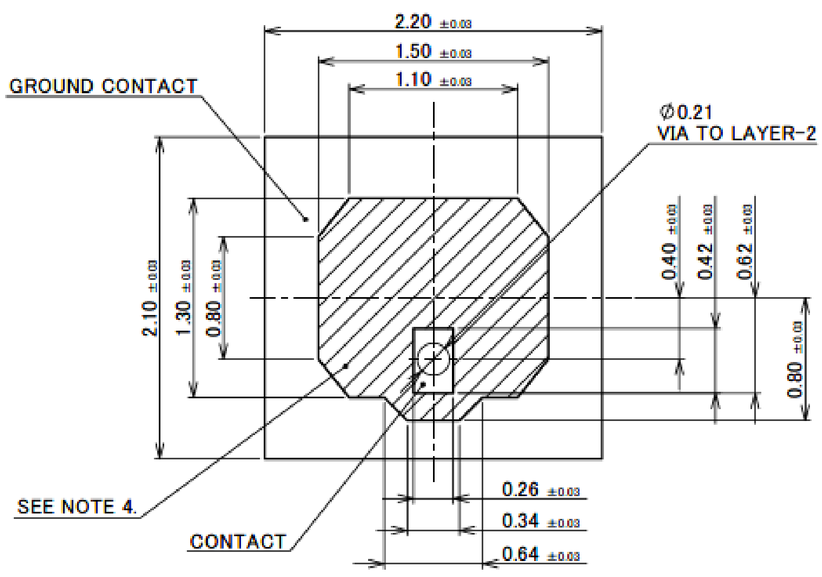


MATING CONDITION

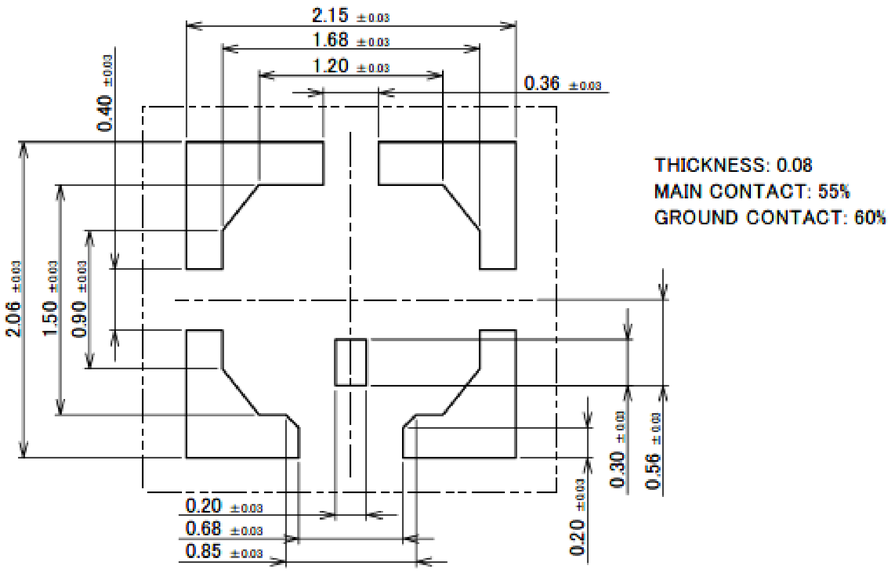
NOTES
1. APPLICABLE CONNECTOR
   20980-001R-13
2. COPLANARITY: 0.08mm MAX.
3. CHARACTERISTIC IMPEDANCE: 50Ω (NOMINAL VALUE)

NO.	DESCRIPTION	MATERIAL	FINISH , REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	ALL OVER: Ni 1.00 μm MIN. CONTACT PART: 0.05 μm MIN. SOLDERING PART Au AREA: 0.02 μm MIN.
2	CONTACT	CORSON ALLOY	ALL OVER: Ni 1.00 μm MIN. CONTACT PART: 0.1 μm MIN. SOLDERING PART Au AREA: 0.02 μm MIN.
1	HOUSING	LCP	UL94V-0, WHITE

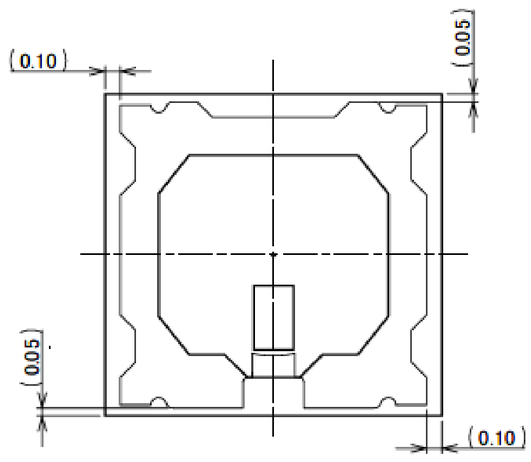
Rev.4



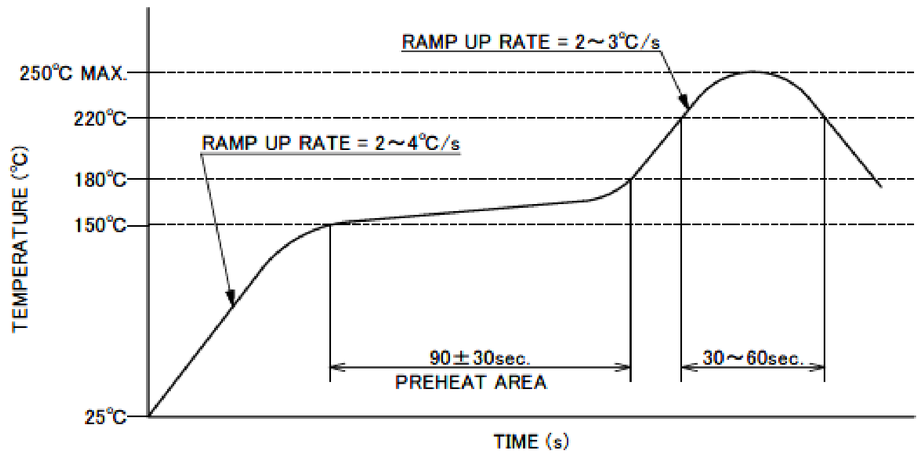
RECOMMENDED FOOTPRINT PATTERN



METAL MASK



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



REFLOW TEMPERATURE PROFILE
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

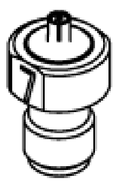
NOTES.
4. NO GROUND, SIGNAL, AND RESIST IN THIS AREA.

Rev.4

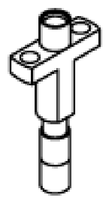
MHF® 7S Receptacle

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20980-001R-13
RATING VOLTAGE	60 V AC (R.M.S)/DC
RATING FREQUENCY	DC～15 GHz
OPERATING TEMPERATURE	233～363 K (-40℃～+90℃)
OPERATING HUMIDITY	90% MAX. (NON-CONDENSING)
CHARACTERISTIC IMPEDANCE	50 ohm (NOMINAL VALUE)
VSWR	1.30 MAX. AT 0.1 ～ 3 GHz, 1.35 MAX. AT 3 ～ 6 GHz, 1.40 MAX. AT 6 ～ 9 GHz, 1.45 MAX. AT 9 ～ 12 GHz, 1.50 MAX. AT 12 ～ 15 GHz
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ⊿R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ⊿R 20 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	INITIAL: 30N MAX. (VERTICAL DIRECTION) AFTER TEST: 30N MAX. (VERTICAL DIRECTION)
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL: 20N MAX., 5N MIN. (VERTICAL DIRECTION) AFTER TEST: 20N MAX., 3N MIN. (VERTICAL DIRECTION)
CRIMP STRENGTH	10N MIN.
PRODUCT SPECIFICATION	PRS-2676
TEST REPORT	TR-20043
PACKING STANDARD	PST-19094
INSTRUCTION MANUAL	HIM-19009
APPEARANCE CRITERIA No.	QLS-A***

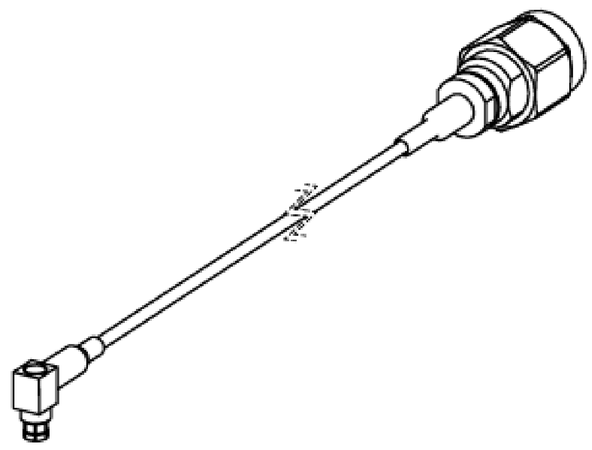
Accessories for MHF® 7S Receptacle



MHF 7 (S) RECEPTACLE SMA ADAPTER
PART NO. 91256-0001



MHF 7 (S) RECEPTACLE HIGH CYCLE N30 SMPM ADAPTER
PART NO. 91145-0001



MHF SERIES N30 SMPM TO SMA ADAPTER CABLE
PART NO. 91197-0300

* 91145-0001AND 91197-0300 SHOULD BE USED TOGETHER.

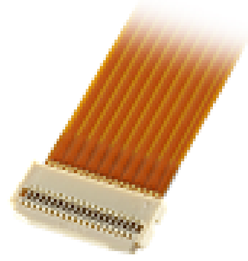
Board to Board

High-Density

Autolocking FPC/FFC

High-Density

FPC/FFC



Micro-Coaxial / Discrete Cable

High-Speed

RF

High-Frequency

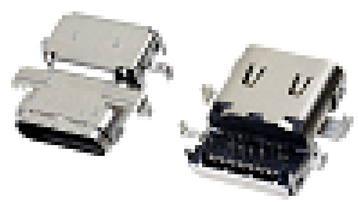
Optical Module

High-Speed

Power

High-Power

I/O (Input/Output)



Quick charge

Effector

Custom Connectors Available

Inquiry

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Contact your sales representative or more detailed information.

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