

MHF[®]-A

외경 1.13 mm 케이블, 대응 주파수 ~6 GHz 저배형 RF 커넥터

Product Specifications:

Mated Height (mm max.)	1.45	
Rece. SMT Size (mm)	3.0 x 3.0	
Applicable Frequency	DC ~ 6 GHz	
Characteristic Impedance	50 ohm	
VSWR (L=100 mm)	DC~3 GHz	1.3 max.
	3~6 GHz	1.5 max.

Applicable Cable Size:

O.D. 1.13 mm / AWG 32

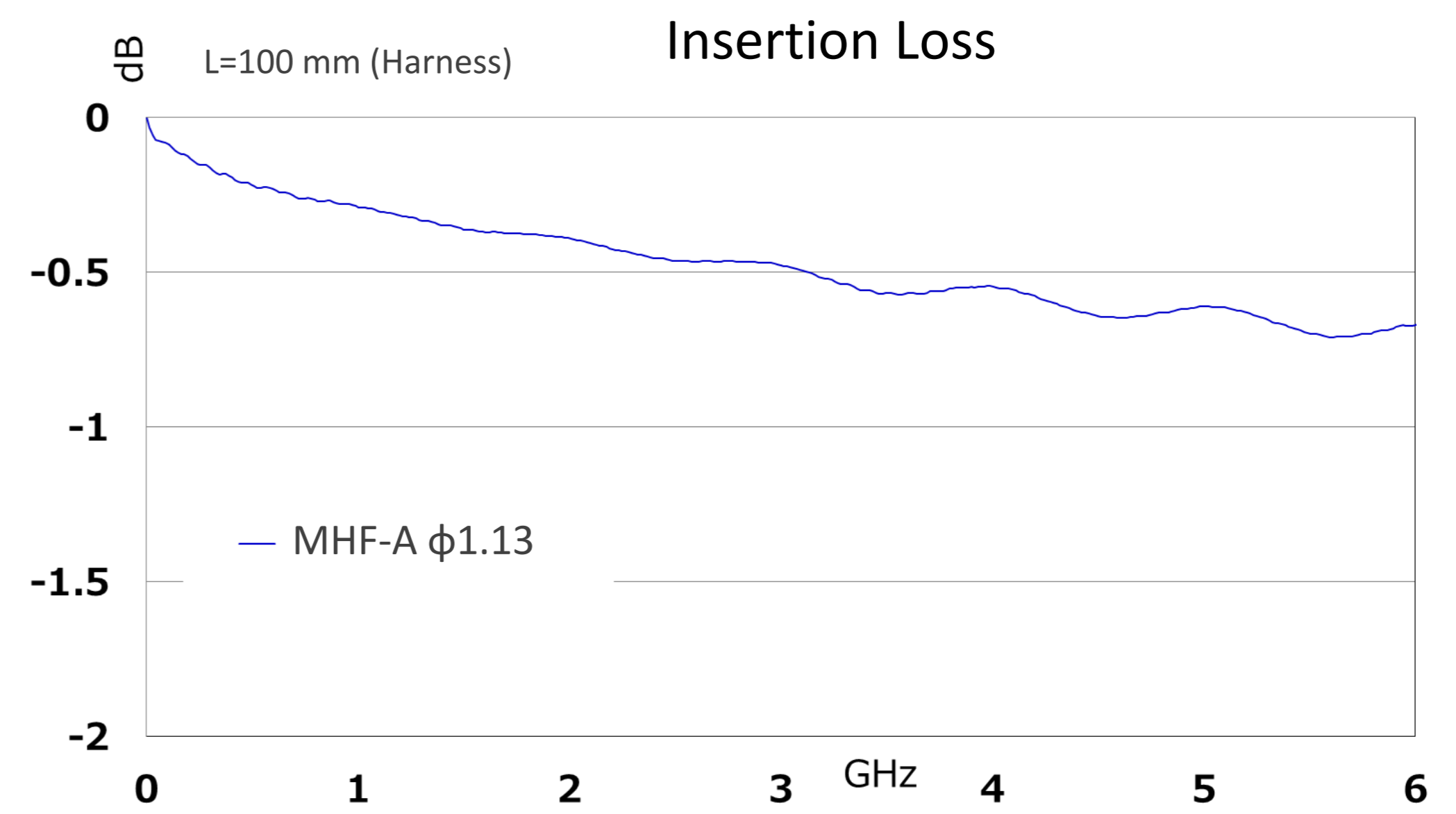
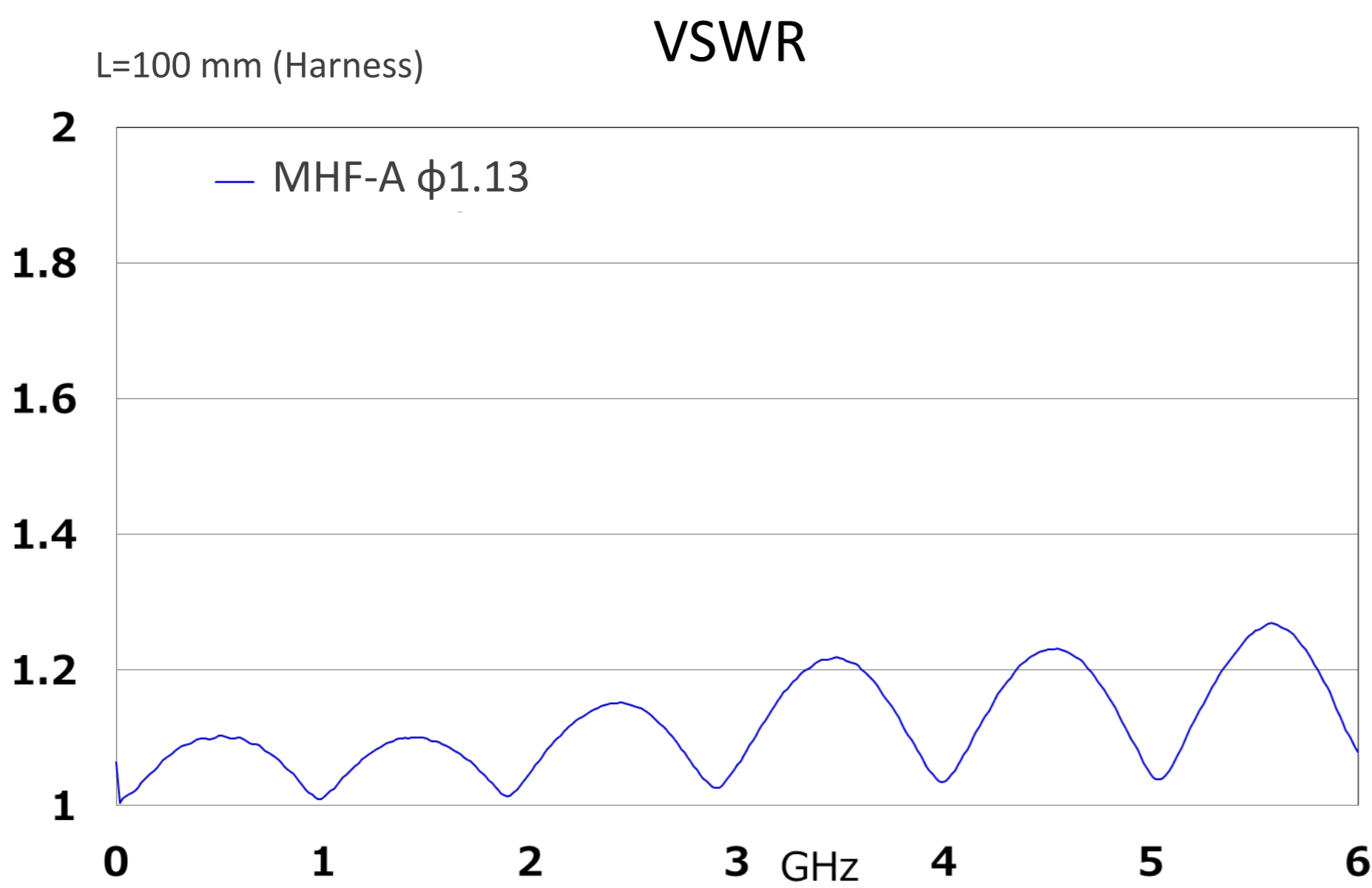
Applicable Standards (Reference Only):

5G sub-6, Wi-Fi 6, LTE/LTE-Advanced, LPWA, Bluetooth, GPS

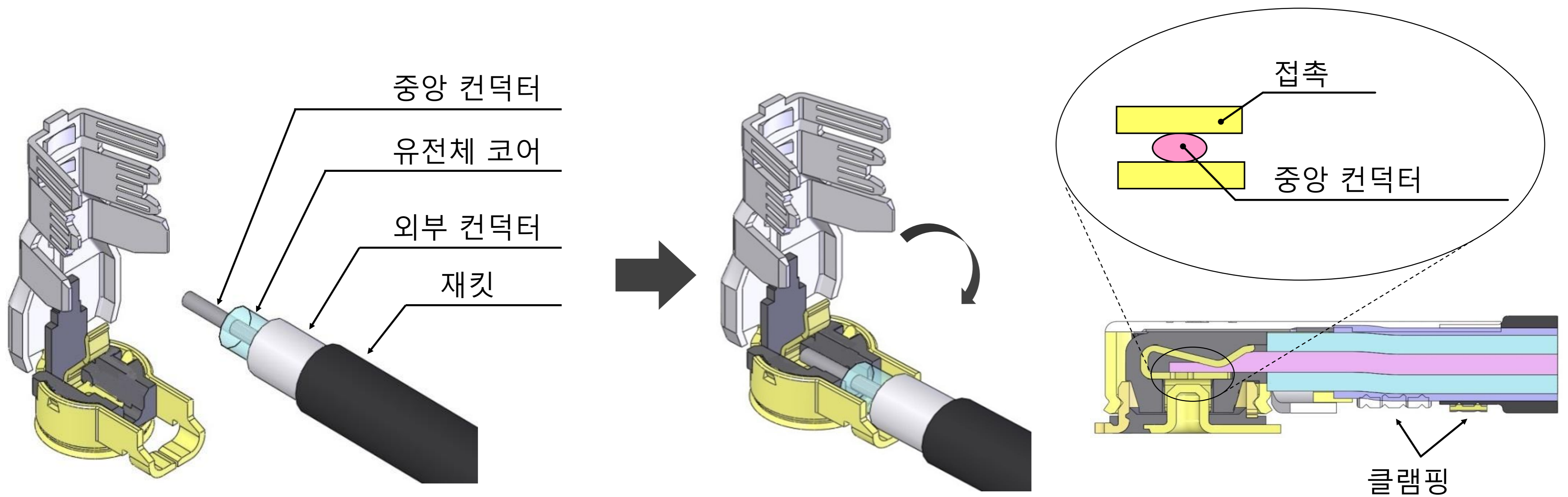


*기재가 되어있지 않은 핀 수의 대응 여부에 대해서는 문의해 부탁드립니다.

▶ **최소한의 제품 사이즈로, ~6 GHz 에서 우수한 퍼포먼스를 실현**



▶ **신뢰성 높은 무납땜 결선 기술 "i-Fit[®]" 테크놀러지로, 안정된 성능의 하네스 제공**



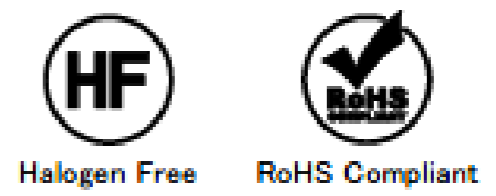
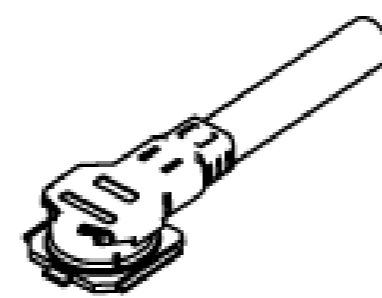
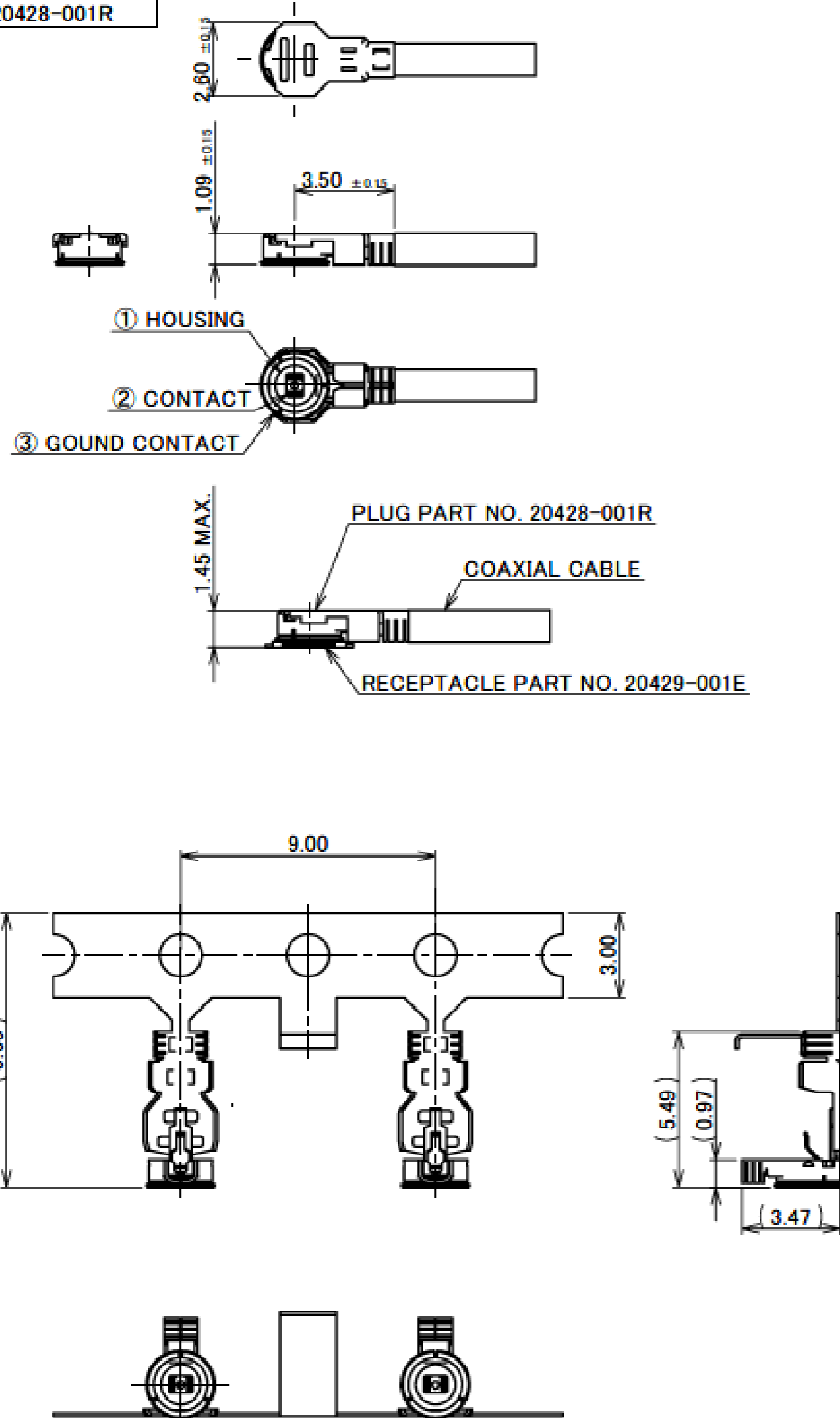
▶ **대응 케이블: 1.13 mm (32)**

Product name	MHF [®] -A	MHF [®] 4L
Frequency	DC - 6 GHz	DC - 12 GHz
Mating Height	1.45 mm max.	1.7 mm max.
Coax O.D. (Center Conductor AWG)	1.37 mm (AWG#30)	●
	1.13 mm (AWG#32)	●
	0.95 mm (AWG#33)	●
	0.81 mm (AWG#36)	●
	0.64 mm (AWG#36)	●
Receptacle	MHF-A receptacle	MHF 4 receptacle , MHF 4L receptacle

Component Parts Details

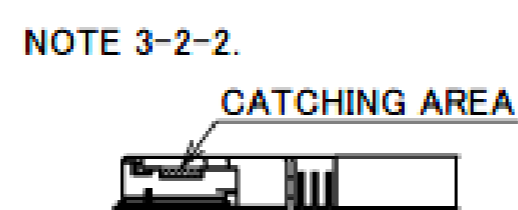
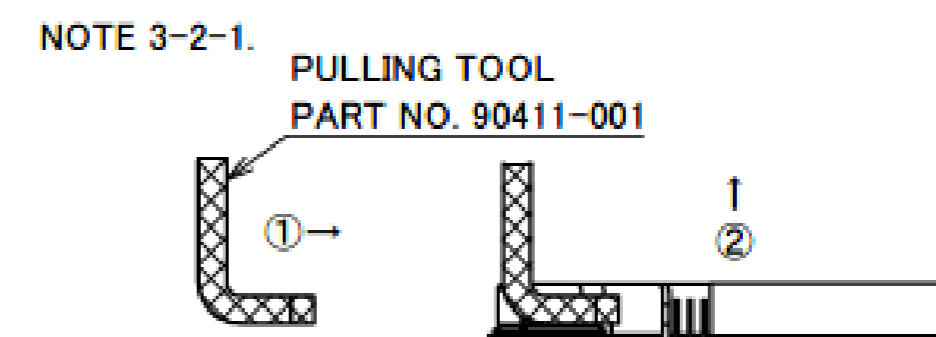
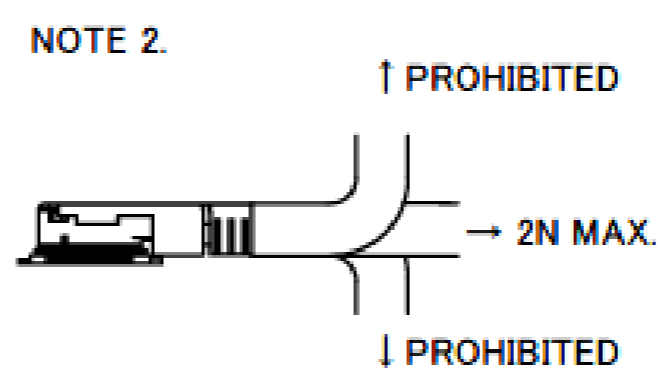
Plug for Cable Assembly

Recommended P/N	20428-001R
PART NO.	20428-001R



NOTES

1. APPLICABLE CONNECTOR: 20429-001E
2. PERMISSIBLE LOAD OF CABLE AT MATING.
3. SUGGESTIONS FOR MATING & UNMATING OPERATION.
 - 3-1. MATING
PLEASE MATE THE CONNECTOR STRAIGHTLY TO VERTICAL DIRECTION AS MUCH AS POSSIBLE, ADJUSTING THE MATING AXIS OF PLUG AND RECEPTACLE.
AS EXCESSIVE SLANT ANGLE MATING MAY BREAK THE CONNECTOR, PLEASE DON'T DO IT.
 - 3-2. UNMATING
 - 3-2-1.
IN CASE OF UNMATING BY PULLING TOOL.
PLEASE USE THE PULLING TOOL AS THE FOLLOWING DRAWING, AND PLEASE PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.
 - 3-2-2.
IN CASE OF UNMATING DIRECTLY BY HAND.
PLEASE CATCH THE CATCHING AREA OF PLUG, AND PLEASE PULL PLUG TO VERTICAL DIRECTION AS DIRECTLY AS POSSIBLE.



NO.	DESCRIPTION	MATERIAL	FINISH , REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. CONTACT PART Au 0.05 μ m MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. CONTACT PART Au 0.1 μ m MIN.
1	HOUSING	PBT	UL94V-0, BLACK

Plug for Cable Assembly

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20429-001R
RATING VOLTAGE	60 V AC (R.M.S)
RATING FREQUENCY	DC~9 GHz
OPERATING TEMPERATURE	233~363 K (-40°C~+90°C)
VSWR (MATED WITH SMA ADAPTER PART No. 90413-001)	1.30 MAX. AT 0.1~3 GHz, 1.50 MAX. AT 3~6 GHz, 1.90 MAX. AT 6~9 GHz
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : Δ R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : Δ R 20 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC 200 V 1min
DURABILITY	30 CYCLES
TOTAL MATING FORCE (INITIAL / AFTER TEST)	15 N MAX. / 15 N MAX.
TOTAL UNMATING FORCE (INITIAL / AFTER TEST)	4 N MIN. / 2 N MIN.
CRIMP STRENGTH	8 N MIN.
PRODUCT SPECIFICATION	PRS-1350
TEST REPORT	TR-07031
PACKING STANDARD	300-587
INSTRUCTION MANUAL	HIM-11001
APPEARANCE CRITERIA No.	QLS-A***

Rev.6

PART NO.	20428-001R	
APPLICABLE CABLE NOMINAL DIMENSION		
	MUST NOT USE SOLDER COATED INNER CONDUCTOR AND OUTER CONDUCTOR.	
BRAID SHIELD OF OUTER CONDUCTOR	SINGLE	
PART NO. OF SEMI AUTO TERMINATION MACHINE	90420-013 (SEMI-AUTO)	
CRIMP HEIGHT		
	CH-1 (i-Fit® PART) : 1.055~1.105	CH-2 (JACKET PART) : 1.06~1.13
BARREL GAP		

NOTES

4. APPLICABLE CABLE

4-1. DIScription

INNER CONDUCTOR: AWG#32 (7/0.08)
SILVER PLATING ANNEALED COPPER WIRE OR SILVER PLATING
TIN-COPPER ALLOY.

* MUST NOT USE SOLDER COATED INNER CONDUCTOR.

DIELECTRIC CORE: FLUORO-PLASTICS

DIAMETER 0.68 (+0.04/-0.02)MM.

NOMINAL THICKNESS 0.22MM.

OUTER CONDUCTOR: 16/4/0.05

NOMINAL DIAMATER 0.93MM, SILVER PLATING ANNEALED COPPER WIRE.

* MUST NOT USE SOLDER COATED OUTER CONDUCTOR.

JACKET: FLUORO-PLASTICS

DIAMETER 1.13 (+0.08/-0.05)MM, NOMINAL THICKNESS 0.1MM.

4-2. REQUIREMENTS

CHARACTERISTIC IMPEDANCE: 50 (+2/-2)OHM BY TDR METHOD

NOMINAL CAPACITANCE (REFER VALUE): 97 PF/M

CONDUCTOR RESISTANCE OF INNER CONDUCTOR AT 293K (REFERENCEVALU)

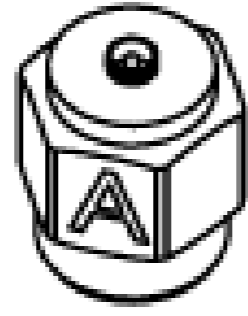
: 520 OHM/KM

INSULATION RESISTANCE: 1500 MEGA-OHM/KM MIN.

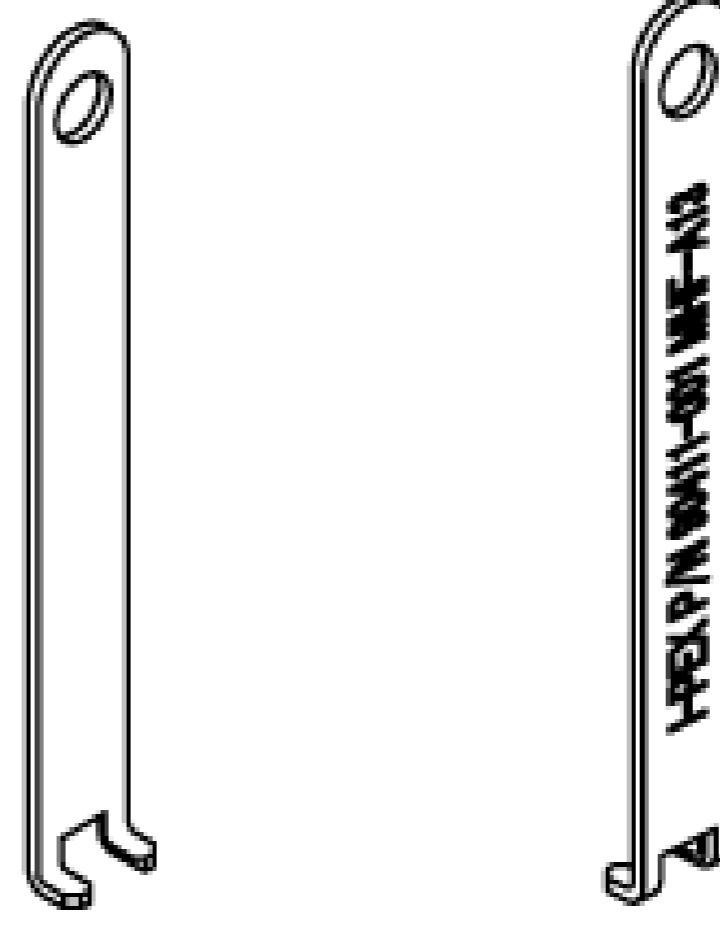
DILECTRIC WITHSTANCE VOLTAGE: NO BREAKDOWN AT AC100V FOR 1 MINUTES.

Rev.6

Accessories for MHF[®]-A plug



MHF-A13 SMA ADAPTER
PART NO. 90413-001

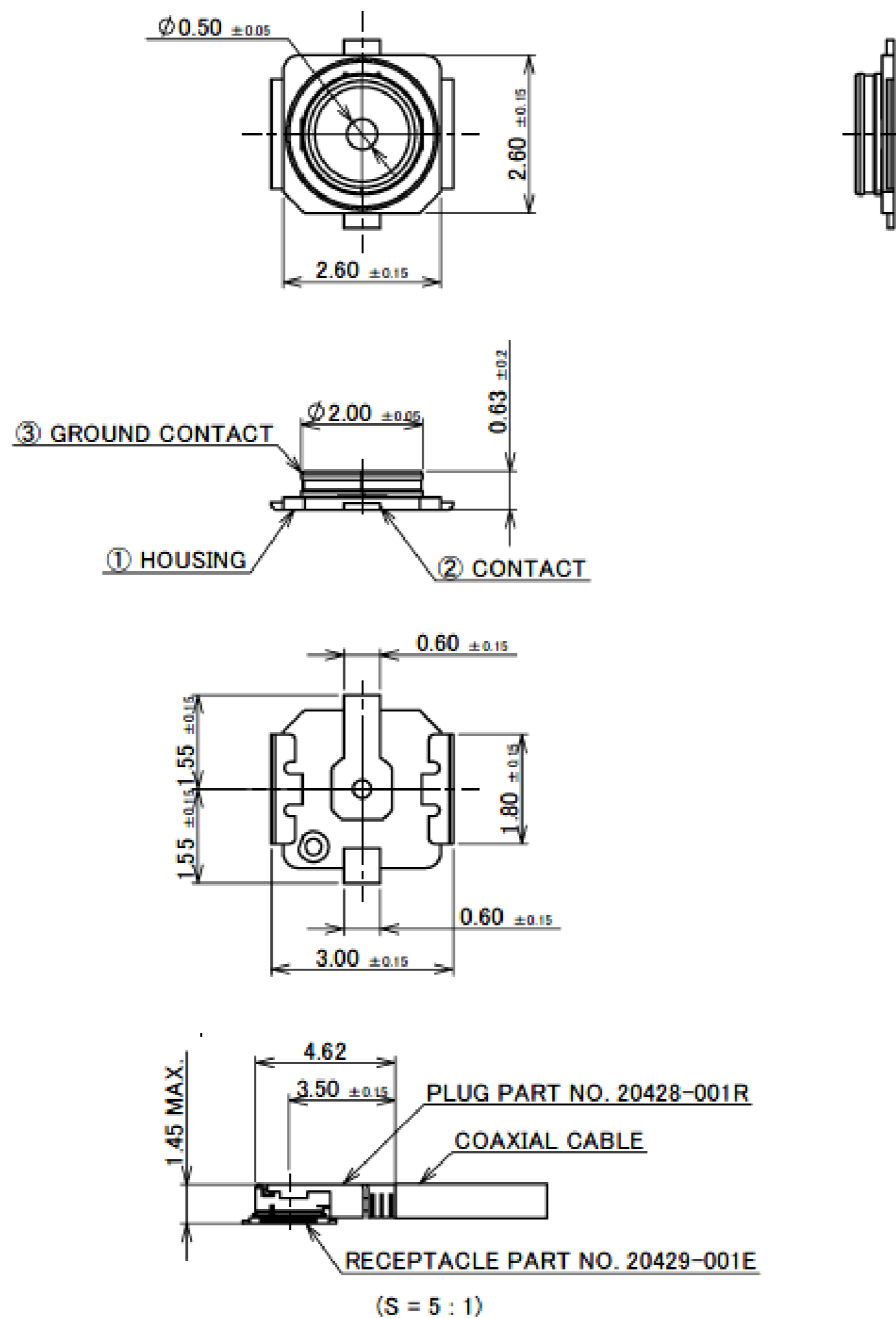
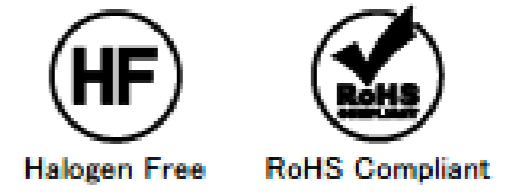


MHF-A13 PULLING TOOL
PART NO. 90411-001

Rev.6

Receptacle for Cable Assembly

Recommended P/N	20429-001E
PART NO.	20429-001E



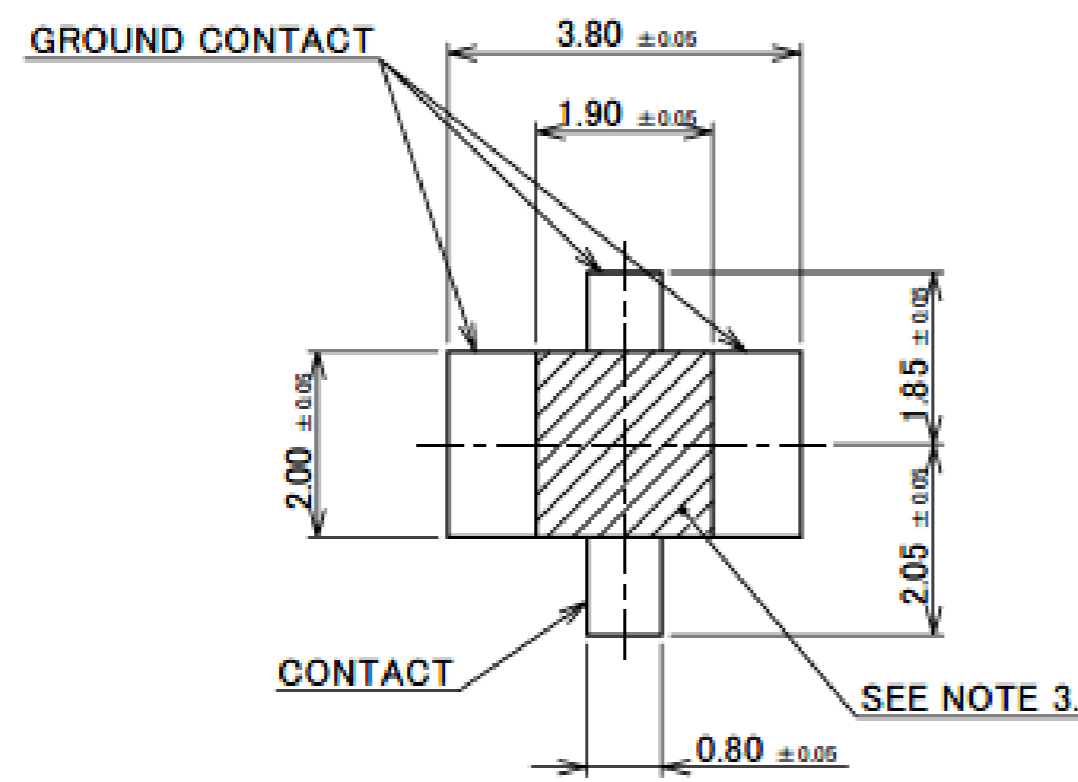
NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. CONTACT PART Au 0.03 μ m MIN. SOLDERING PART Au 0.03 μ m MIN.
2	CONTACT	BRASS	ALL OVER Ni 1.00 μ m MIN. CONTACT PART Au 0.05 μ m MIN. SOLDERING PART Au 0.05 μ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK

Rev.10

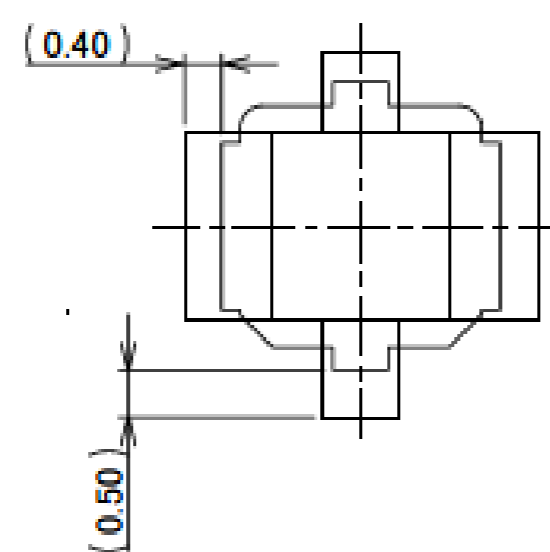
Receptacle for Cable Assembly

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART NO.	20428-001R
RATING VOLTAGE	60 V AC (R.M.S)
RATING FREQUENCY	DC~9 GHz
OPERATING TEMPERATURE	233~363 K (-40°C~+90°C)
VSWR (MATED WITH SMA ADAPTER PART No. 90413-002)	1.30 MAX. AT 0.1~3 GHz. 1.40 MAX. AT 3~6 GHz. 1.50 MAX. AT 6~9 GHz
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : Δ R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : Δ R 20 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC 200 V 1min
DURABILITY	30 CYCLES
TOTAL MATING FORCE (INITIAL / AFTER TEST)	15 N MAX. / 15 N MAX.
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PRODUCT SPECIFICATION	PRS-1350
TEST REPORT	TR-07031
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INSTRUCTION MANUAL	HIM-11001
APPEARANCE CRITERIA NO.	QLS-A***

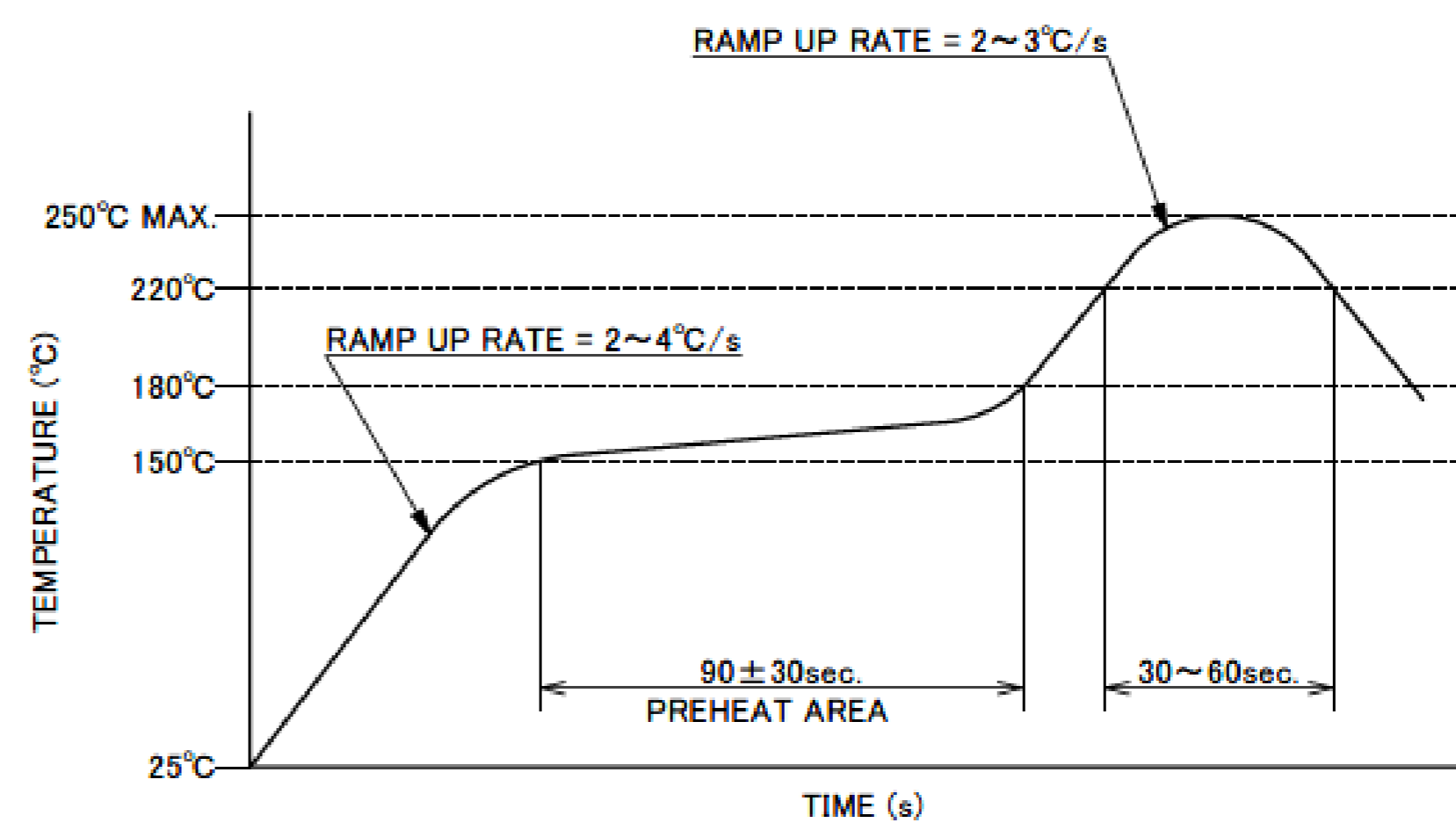
Rev.10



RECOMMENDED FOOTPRINT PATTERN



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



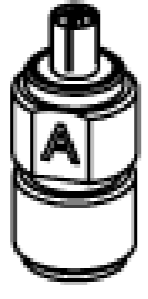
REFLOW TEMPERATURE PROFILE
SENJU METAL INDUSTRY CO., LTD. M705-SHF(Sn96.5 Ag3.0 Cu0.5)

NOTES

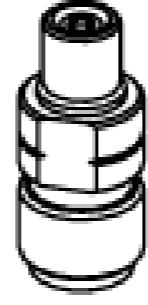
3. NO GROUND, SIGNAL, AND RESIST IN THIS AREA.

Rev.10

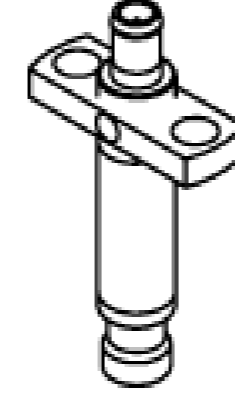
Accessories for MHF[®]-A Receptacle



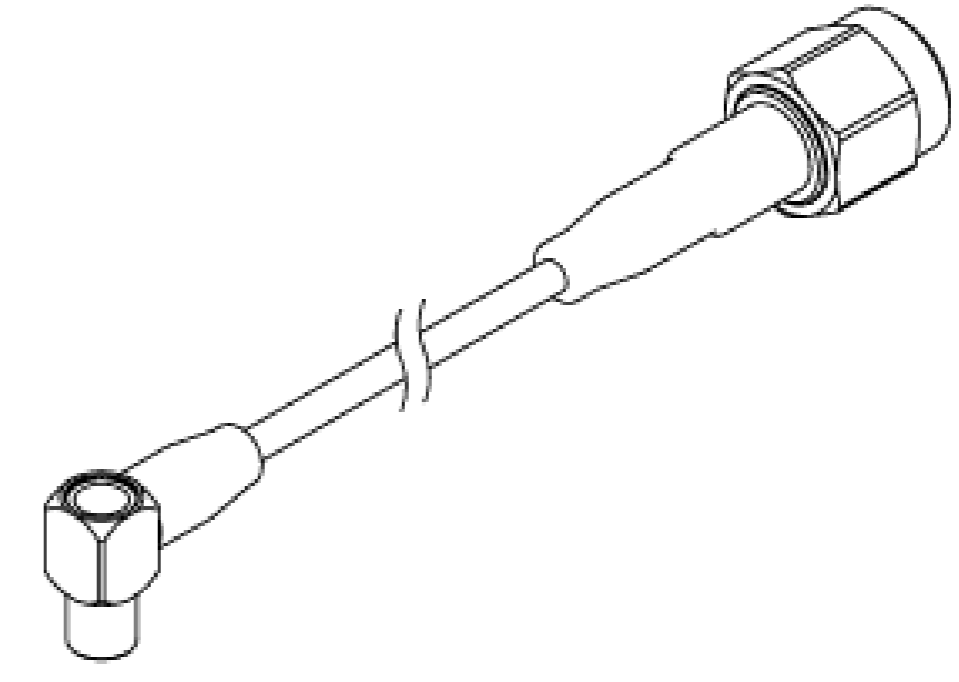
MHF-A13 SMA ADAPTER
PART NO. 90413-002



MHF-A13 RECEPTACLE HIGH CYCLE TYPE
PART NO. 90416-001



MHF I RECEPTACLE HIGH CYCLE N45 C ADAPTER
PART NO. 90575-0001



MHF SERIES N45 C TO SMA ADAPTER CABLE
PART NO. 90577-****
(S = 5 : 1)

* 90575-0001 AND 90577-**** SHOULD BE USED TOGETHER.

Board to Board



High-Density



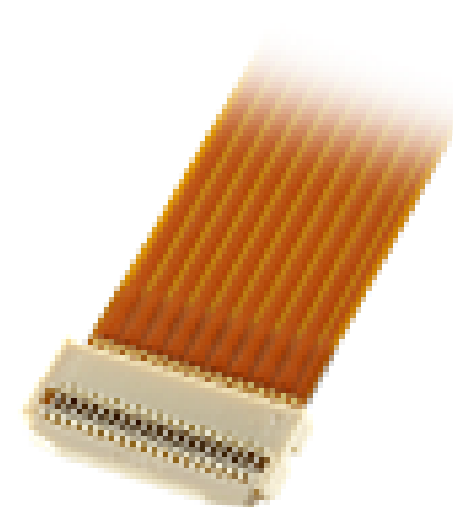
Autolocking FPC/FFC



High-Density



FPC/FFC



Micro-Coaxial / Discrete Cable



High-Speed



RF



High-Frequency



Optical Module



High-Speed



Effector



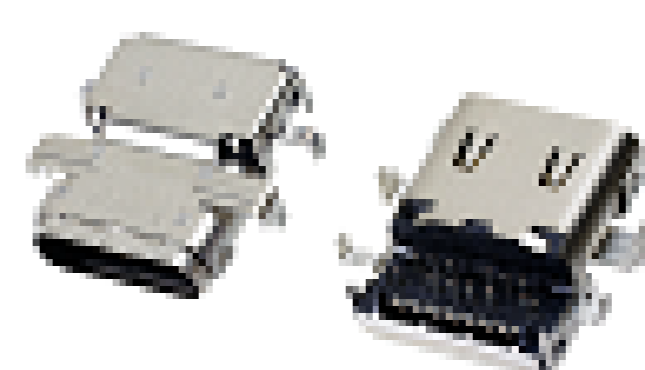
Power



High-Power



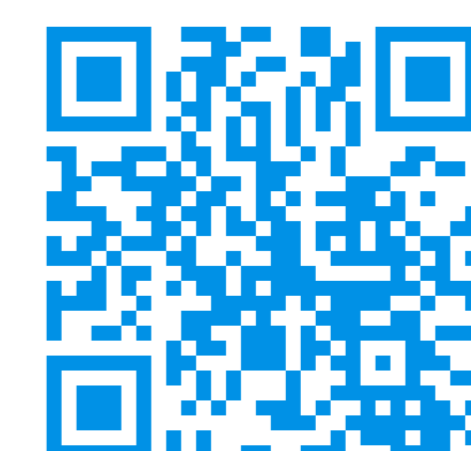
I/O (Input/Output)



Quick charge



Inquiry



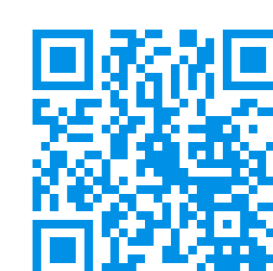
Custom Connectors Available



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