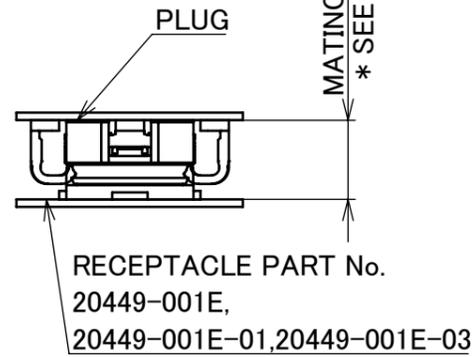
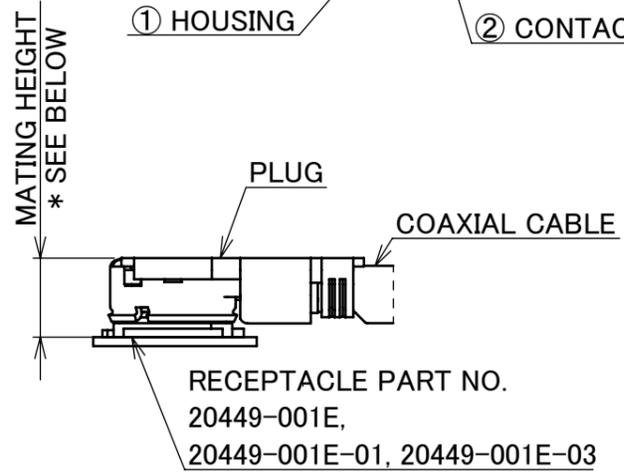
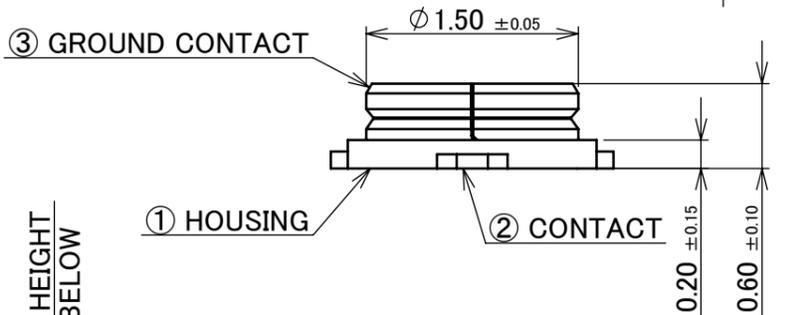
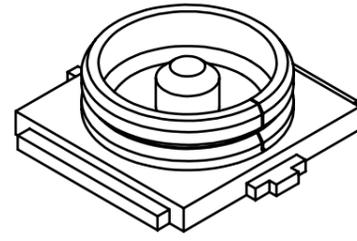
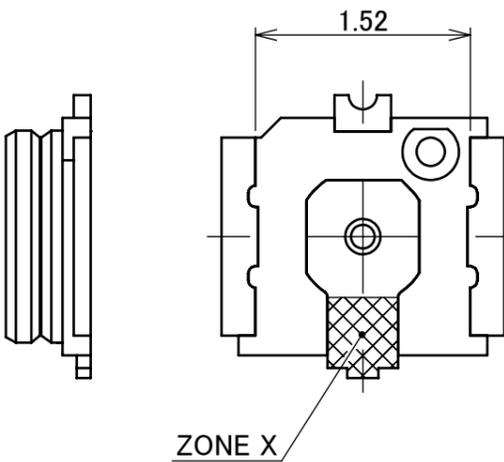
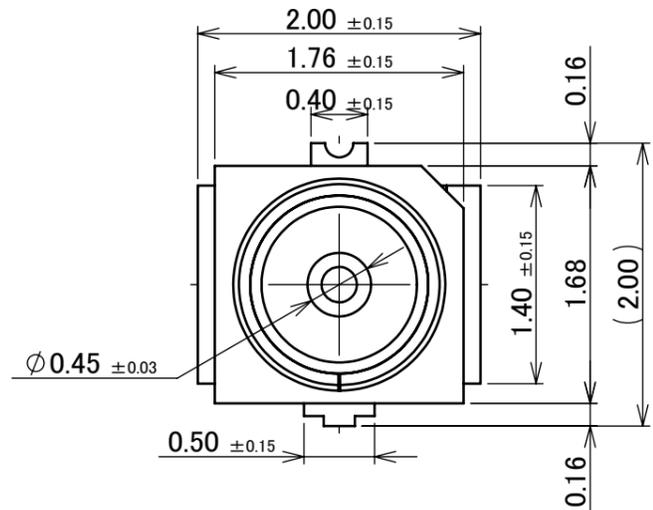


PART NO.	PACKING QUANTITY / REEL	CONTACT PLATING			GROUND CONTACT PLATING		
		CONTACT PART	SOLDERING PART	ALL OVER	CONTACT PART	SOLDERING PART	ALL OVER
20449-001E	10,000 PCS.	TOP: Au 0.05 μm MIN. ZONE X: Au 0.03 μm MIN.	TOP: Au 0.01 μm MIN.	Ni 1.00 μm MIN.	TOP: Au 0.03 μm MIN.	TOP: Au 0.01 μm MIN.	Ni 1.00 μm MIN.
20449-001E-01		TOP: Au 0.05 μm MIN.					
20449-001E-03		TOP: Au 0.01 μm MIN. MIDDLE: Pd-Ni 0.02 μm MIN.	TOP: Au 0.01 μm MIN. MIDDLE: Pd-Ni 0.02 μm MIN.		TOP: Au 0.01 μm MIN. MIDDLE: Pd-Ni 0.02 μm MIN.		



NOTES.

- APPLICABLE CONNECTOR (CABLE SIZE)
 MHF 4 PLUG: 20611-001R (Φ0.81), 20448-00*R-081 (Φ0.81), 20448-001R-081E (Φ0.81)
 MHF 4L PLUG: 20572-001R-08 (Φ0.64, Φ0.81), 20565-001R-** (Φ0.83, Φ0.95, Φ1.13), 20632-001R-37 (Φ1.37)
 MHF 4 SMT PUG: 20462-001E
- COPLANARITY: 0.1 mm MAX.
- THIS IS "Pb-FREE" CONNECTOR.
- CHARACTERISTIC IMPEDANCE: 50 Ω (NOMINAL VALUE)

NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
3	GROUND CONTACT	PHOSPHOR BRONZE	SEE TABLE
2	CONTACT	BRASS	SEE TABLE
1	HOUSING	LCP	UL94V-0, BLACK

NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS									
15	Z201077	TOI	2020/10/16	M.T	ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION ⊕	SERIES No. R5	CUSTOMER COPY	
14	Z200094	SEI	2020/01/22	Y.S	6 MAX.	±0.2	30 OVER 120 MAX.	±0.5				
13	Z191575	SEI	2019/12/05	Y.S	GENERAL TOLERANCE.				TITLE MHF® 4 RECEPTACLE	SCALE 20:1	UNIT mm	I-PEX
12	Z191282	SEI	2019/09/25	Y.S	DWG.	DATE		2007/11/12				
11	Z190285	SEI	2019/02/28	TAK	K.Oobayashi		DATE					
10	Z171402	M.N	2017/12/01	Ken	CHK.	DATE						
REV.	ECN	BY	DATE	APP.	APP.	DATE		DWG. No.	20449	SIZE	SHEET	REV.
REVISION RECORD					E.Kawabe	2007/11/13		A3	1/7	15		

* MATING HEIGHT
 1.2 MAX. WITH 20611-001R, 20572-001R-08,
 20448-00*R-081, 20448-001R-081E
 1.4 MAX. WITH 20565-001R-**
 1.7 MAX. WITH 20632-001R-37

MATING CONDITION
 WITH MHF 4/MHF 4L PLUG
 (S = 10/1)

* MATING HEIGHT
 1.2 MAX. WITH 20462-001E

MATING CONDITION
 WITH MHF 4 SMT
 (S = 10/1)

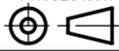
FOR MHF 4 PLUG

ITEMS	SPECIFICATION	
	20611-001R (CABLE Φ0.81 TYPE)	20448-001R (CABLE Φ0.81 TYPE)
APPLICABLE CONNECTOR PART No.		
RATING VOLTAGE	60 V AC (R.M.S)/DC	
RATING FREQUENCY	DC~9GHz	
OPERATING TEMPERATURE	233~363 K (-40°C~+90°C)	
CHARACTERISTIC IMPEDANCE	50 ohm (NOMINAL VALUE)	
VSWR	1.3 MAX. AT DC~3GHz, 1.4 MAX. AT 3~6GHz, 1.5 MAX. AT 6~9GHz	
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 20 mohm MAX.	
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 100 mohm MAX.	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 20 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.	
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE	
DURABILITY	30 CYCLES	
MATING FORCE (INITIAL / AFTER TEST)	-	
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL : 4 N MIN. / AFTER TEST : 2 N MIN.	
PRODUCT SPECIFICATION	PRS-2530	PRS-1745
TEST REPORT	TR-18086	TR-12118
PACKING STANDARD	20449-001E-03: 300-604	
INSTRUCTION MANUAL	HIM-10003	
APPEARANCE CRITERIA No.	QLS-A***	

ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION 	SERIES No. R5	CUSTOMER COPY		
6 MAX.	±0.2	30 OVER 120 MAX.	±0.5					
GENERAL TOLERANCE.				TITLE MHF® 4 RECEPTACLE	SCALE 5:1	UNIT mm I-PEX		
DWG.	DATE							
CHK.								
APP.								
				DWG. No.	20449	SIZE A3	SHEET 2/7	REV. 15

FOR MHF 4L PLUG

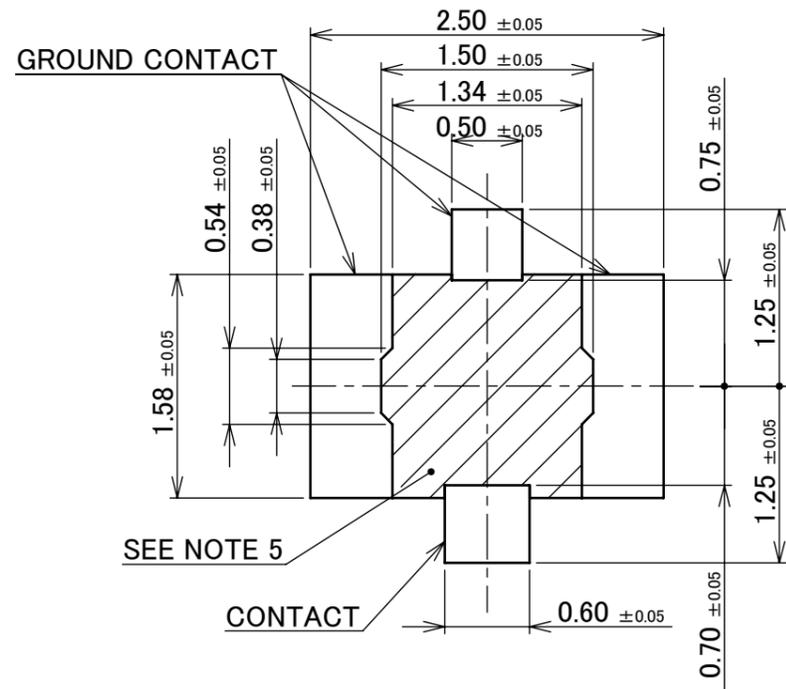
ITEMS	SPECIFICATION			
APPLICABLE CONNECTOR PART No.	20572-001R-08 (CABLE Φ0.64 TYPE) (CABLE Φ0.81 TYPE)	20565-001E-13 (CABLE Φ0.95 TYPE) (CABLE Φ1.13 TYPE)	20565-001R-83 (CABLE Φ0.83 TYPE)	20632-001R-37 (CABLE Φ1.37 TYPE)
RATING VOLTAGE	60 V AC (R.M.S)/DC			
RATING FREQUENCY	DC ~ 9GHz			
OPERATING TEMPERATURE	233~363 K(-40°C~+90°C)			
CHARACTERISTIC IMPEDANCE	50 ohm (NOMINAL VALUE)			
VSWR	1.3 MAX. AT DC~3GHz, 1.4 MAX. AT 3~6GHz, 1.5 MAX. AT 6~9GHz			
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 20 mohm MAX.			
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : ΔR 20 mohm MAX.			
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.			
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE			
DURABILITY	30 CYCLES			
MATING FORCE (INITIAL / AFTER TEST)	INITIAL : 30 N MAX. / AFTER TEST : 30 N MAX.			
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL : 20 N MAX. 5 N MIN. / AFTER TEST : 20 N MAX. 3 N MIN.			
PRODUCT SPECIFICATION	PRS-1944 (CABLE Φ0.64 TYPE) PRS-1772 (CABLE Φ0.81 TYPE)	PRS-2051 (CABLE Φ0.95 TYPE) PRS-1772 (CABLE Φ1.13 TYPE)	PRS-2062 (CABLE Φ0.83 TYPE)	PRS-2008 (CABLE Φ1.37 TYPE)
TEST REPORT	TR-14078 (CABLE Φ0.64 TYPE) TR-13011 (CABLE Φ0.81 TYPE)	TR-14142 (CABLE Φ0.95 TYPE) TR-13011 (CABLE Φ1.13 TYPE)	TR-15011 (CABLE Φ0.83 TYPE)	TR-14100 (CABLE Φ1.37 TYPE)
PACKING STANDARD	20449-001E-03: 300-604			
INSTRUCTION MANUAL	HIM-12011	HIM-12012		HIM-16011
APPEARANCE CRITERIA No.	QLS-A***			

ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION 	SERIES No. R5	CUSTOMER COPY		
6 MAX.	±0.2	30 OVER 120 MAX.	±0.5			SCALE -	I-PEX	
GENERAL TOLERANCE.				TITLE MHF® 4 RECEPTACLE	UNIT mm			
DWG.	DATE			DWG. No. 20449	SIZE A3	SHEET 3/7		REV. 15
CHK.								
APP.								

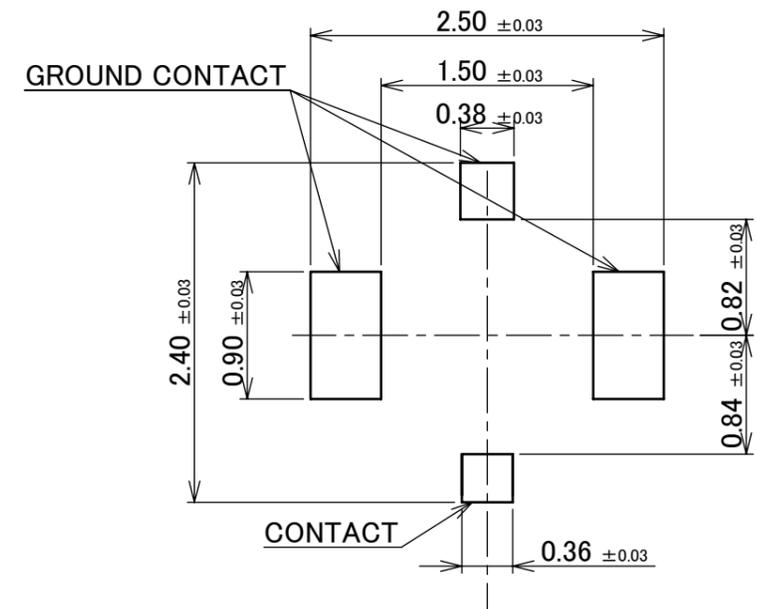
FOR MHF 4 SMT PLUG

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20462-001E (MHF 4 SMT PLUG)
RATING VOLTAGE	60 V AC (R.M.S)/DC
RATING FREQUENCY	DC~9GHz
OPERATING TEMPERATURE	233~363 K(-40°C~+90°C)
CHARACTERISTIC IMPEDANCE	50 ohm (NOMINAL VALUE)
VSWR	1.3 MAX. AT DC~3GHz, 1.4 MAX. AT 3~6GHz, 1.5 MAX. AT 6~9GHz
MAIN CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : \angle R 20 mohm MAX.
GROUND CONTACT RESISTANCE	INITIAL : 20 mohm MAX. / AFTER TEST : \angle R 20 mohm MAX.
INSULATION RESISTANCE	INITIAL : 500 Mohm MIN. / AFTER TEST : 100 Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	200 V AC 1 MINUTE
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	INITIAL : 30 N MAX. / AFTER TEST : 15 N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	INITIAL : 4 N MIN. / AFTER TEST : 2 N MIN.
PRODUCT SPECIFICATION	PRS-1404
TEST REPORT	TR-08022
PACKING STANDARD	20449-001E-03: 300-604
INSTRUCTION MANUAL	HIM-15005
APPEARANCE CRITERIA No.	QLS-A***

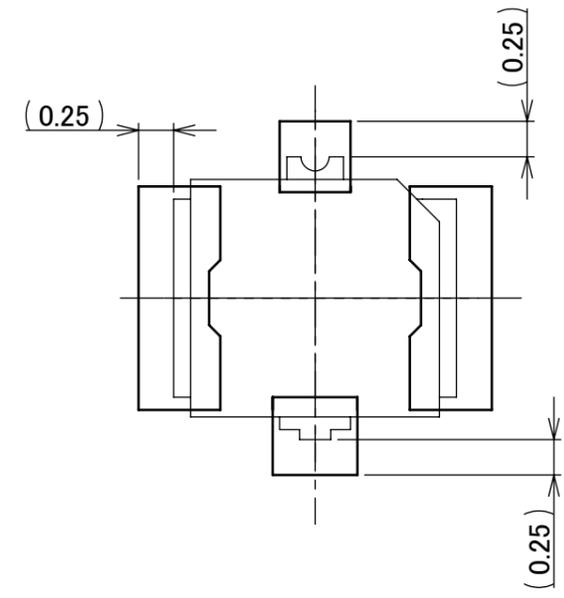
ANGLE	$\pm 2^\circ$	6 OVER 30 MAX.	± 0.3	PROJECTION 	SERIES No. R5	CUSTOMER COPY		
6 MAX.	± 0.2	30 OVER 120 MAX.	± 0.5					
GENERAL TOLERANCE.				TITLE MHF [®] 4 RECEPTACLE	SCALE	I-PEX		
DWG.	DATE				-			
CHK.					UNIT			
APP.					mm			
				DWG. No.	20449	SIZE	SHEET	REV.
						A3	4/7	15



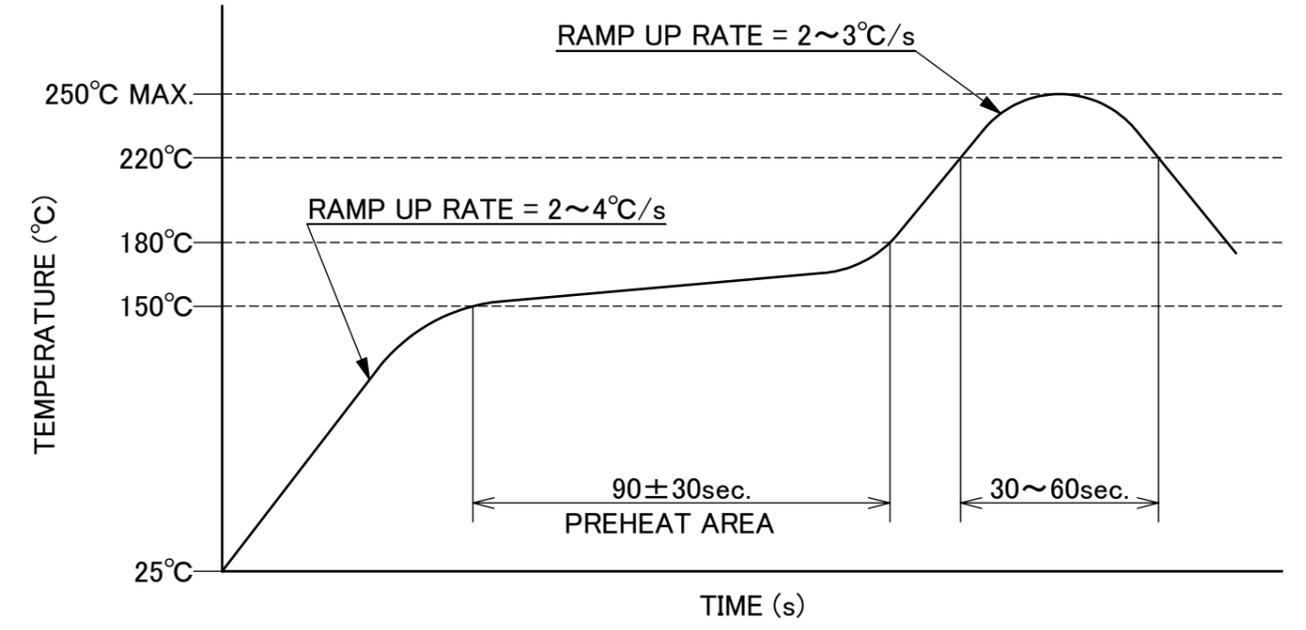
RECOMMENDED FOOTPRINT PATTERN



MASK THICKNESS: 0.12 mm
RECOMMENDED METAL MASK LAYOUT



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN

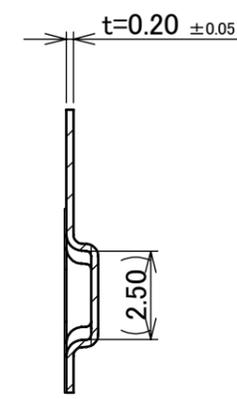
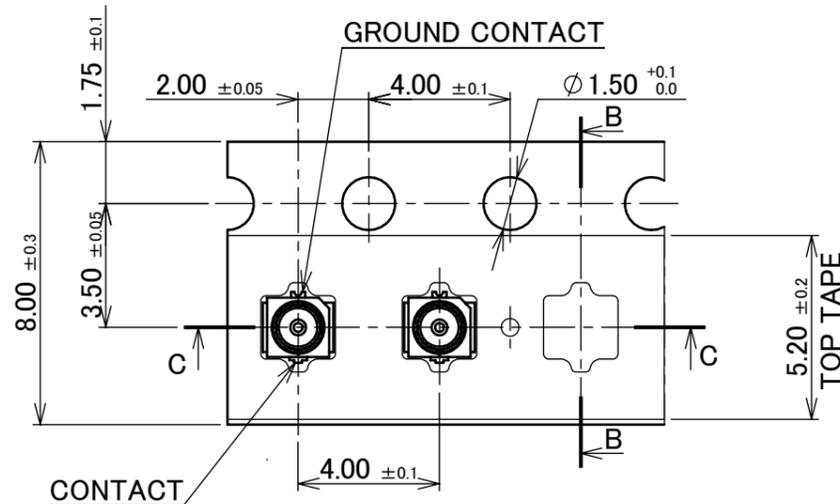
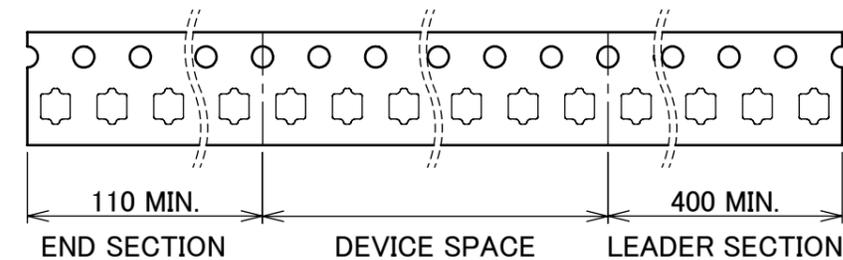
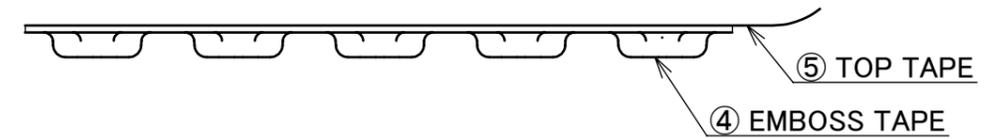
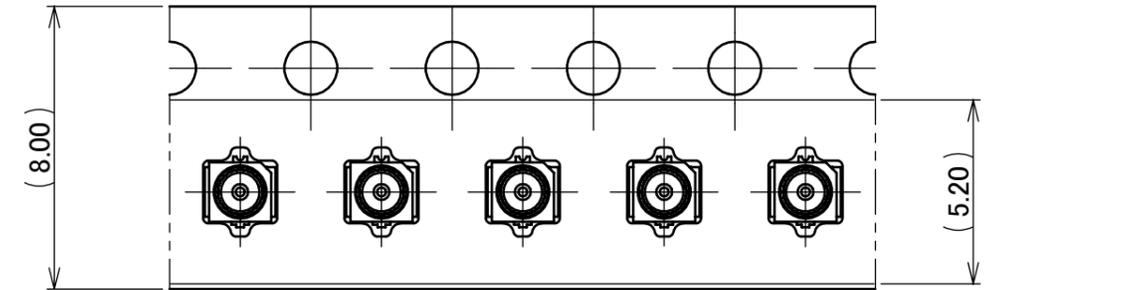
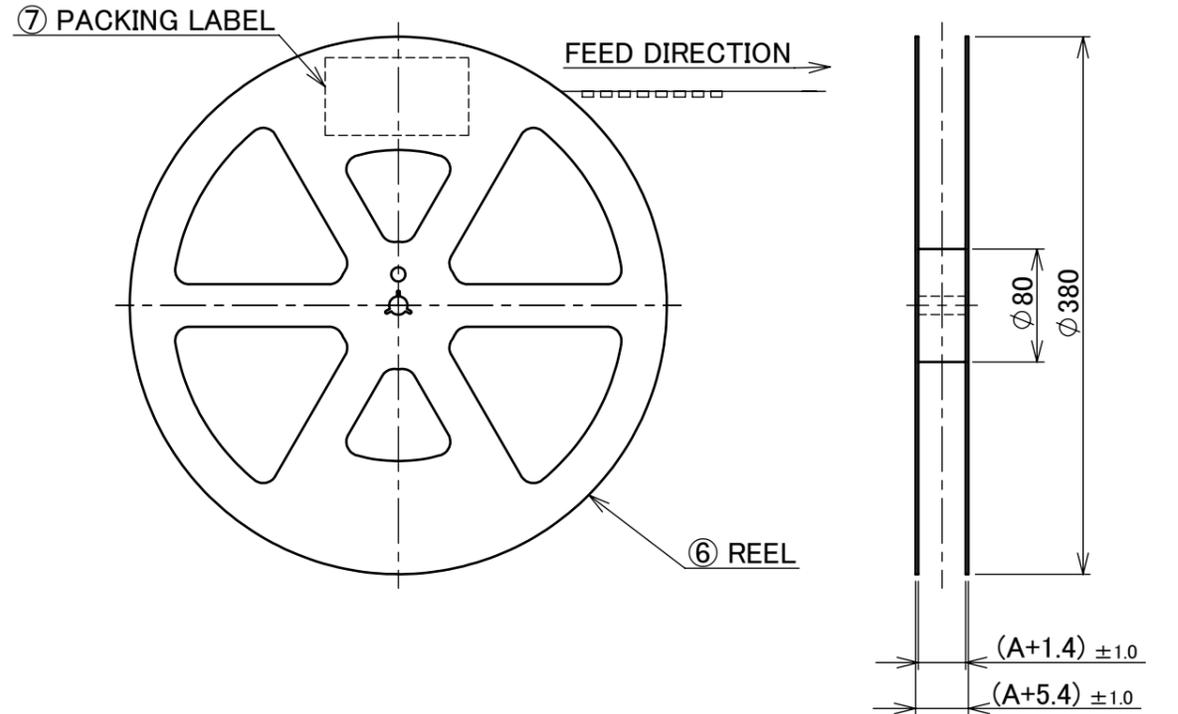


REFLOW TEMPERATURE PROFILE
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

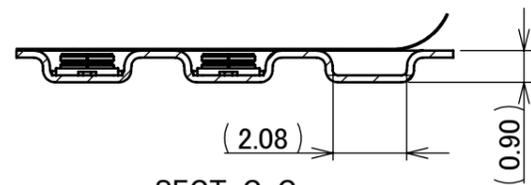
NOTE 5. CUT OUT PROHIBITION AREA.

ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION ⊕	SERIES No. R5	CUSTOMER COPY			
6 MAX.	±0.2	30 OVER 120 MAX.	±0.5						
GENERAL TOLERANCE.				TITLE		SCALE	I-PEX		
DWG.	DATE			MHF [®] 4 RECEPTACLE		20:1			
CHK.						UNIT			
APP.						mm			
				DWG. No.	20449	SIZE	SHEET	REV.	
						A3	5/7	15	

PART NO.	A	QTY. PER EMBOSS REEL (PIECES / REEL)	QTY. PER PACKING CARTON (REELS / CARTON)
20449-001E	8	10,000 / REEL	9 REELS/ CARTON = 90,000 PIECES
20449-001E-01			
20449-001E-03			



SECT. B-B
(S = 5:1)



SECT. C-C
(S = 5:1)

NOTES.

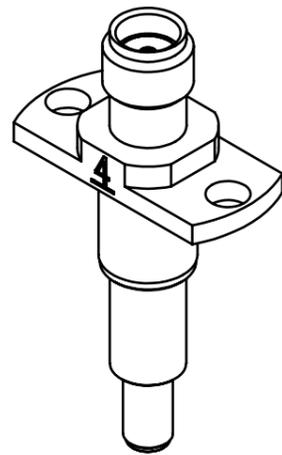
- TAPING SPECIFICATION FOLLOWS JIS C 0806 (IEC 60286-3).
- MAKE EMPTY SECTION OF LEADER AND END ON EACH END OF THE TAPE.
- TOP TAPE SHALL NOT STICK OUT FROM EMBOSS TAPE.
- TOP TAPE SHALL NOT COVER FEED HOLE.

NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS
7	PACKING LABEL	-	-
6	REEL	PS	ANTI-STATIC TYPE
5	TOP TAPE	PET	ANTI-STATIC TYPE HEAT ACTIVATED
4	EMBOSS TAPE	PS t=0.2	ANTI-STATIC TYPE OR CONDUCTIVE

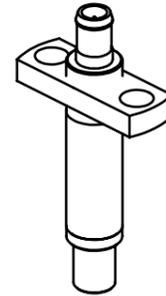
ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION	SERIES No.	CUSTOMER COPY		
6 MAX.	±0.2	30 OVER 120 MAX.	±0.5		R5			
GENERAL TOLERANCE.				TITLE	SCALE			
DWG.	DATE			MHF® 4	-		I-PEX	
CHK.				RECEPTACLE	mm			
APP.				DWG. No.	20449	SIZE	SHEET	REV.
						A3	6/7	15



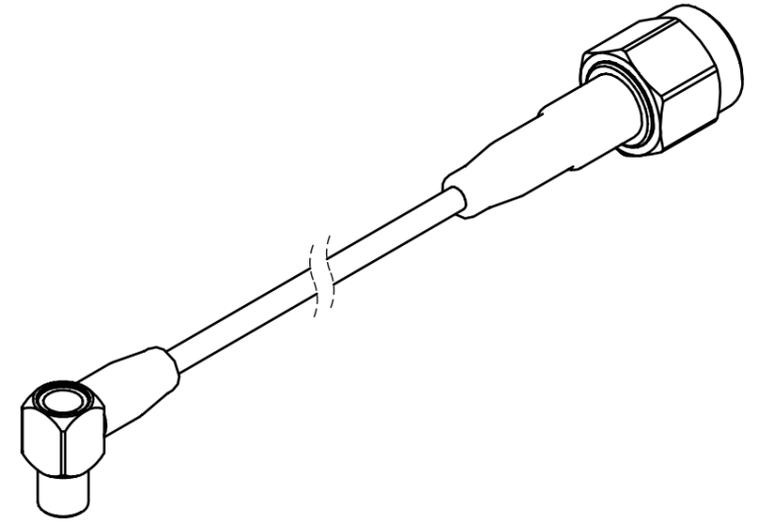
MHF 4 (4L) SMA ADAPTOR
PART NO. 90449-002



MHF 4 SMA ADAPTOR HIGH CYCLE TYPE
PART NO. 90698-0001



MHF 4 RECEPTACLE NARROW PITCH
SMA ADAPTOR HIGH CYCLE TYPE
PART NO. 90576-0001



4.5MM HIGH CYCLE TEST PROBE CABLE ASS'Y
PART NO. 90577-****

* 90576-0001 AND 90577-**** SHOULD BE USED TOGETHER.

ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION ⊕	SERIES No. R5	CUSTOMER COPY			
6 MAX.	±0.2	30 OVER 120 MAX.	±0.5						
GENERAL TOLERANCE.				TITLE		SCALE	I-PEX		
DWG.	DATE			MHF® 4 RECEPTACLE		2:1			
CHK.						UNIT			
APP.						mm			
				DWG. No.	20449	SIZE	SHEET	REV.	
						A3	7/7	15	