

# CABLINE®-SS

High-data-rate transfer (16 Gbps/Lane), Narrow depth, robust, max power delivery (AWG#34), 0.4 mm pitch, right angle vertical mating type micro-coaxial connector



**Product Specifications:**

Mating type		Right angle vertical
Board Pitch (mm)		0.4
Wiping Length (mm)		0.3
Mated size (mm)	Height	1.85 Max
	Width	5.8 + (0.4*?p)
	Depth	3.0
Pin Counts	Range	Up to 50
	Available	10, 14, 20, 30, 32, 35, 40, 50

**Applicable Cable Size:**

Maximum O.D. (mm)	0.4
Micro-Coaxial for Signal (AWG)	45 ohm : #38 or smaller
	50 ohm : #40 or smaller
Twin Coaxial (AWG)	-
Discrete (AWG)	#34 or smaller

**Applicable Standards (Reference Only):**

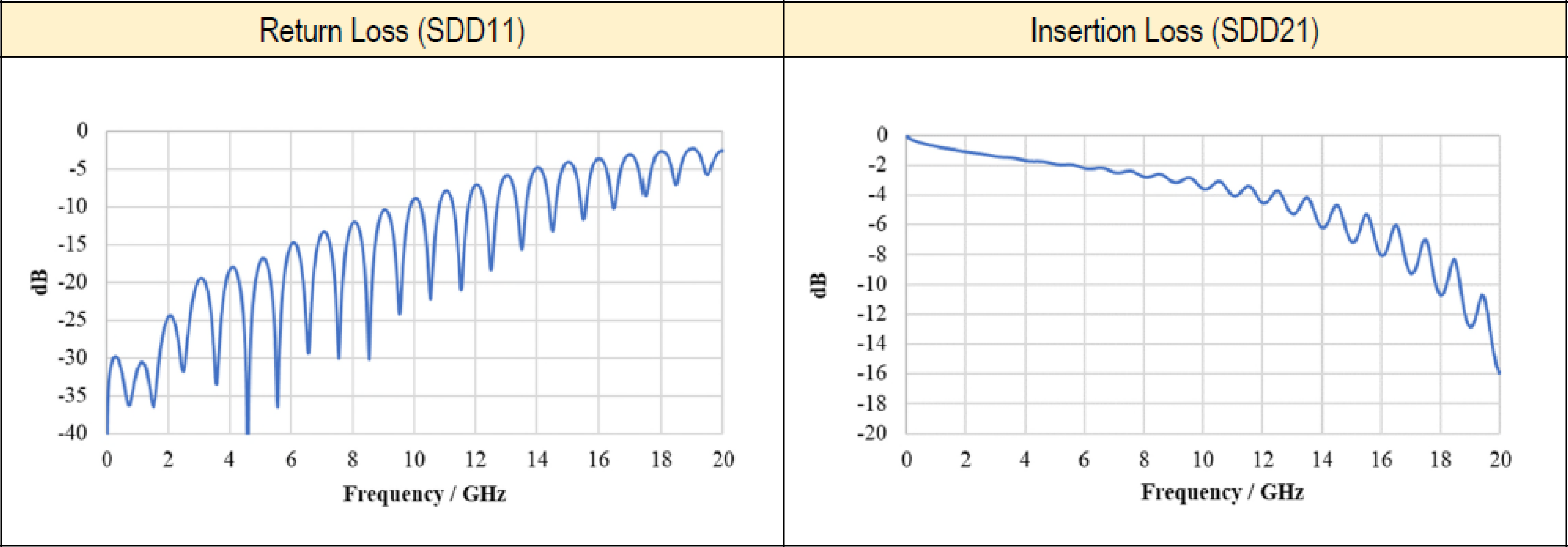
V-by-One® US (16 Gbps/Lane), HDMI 2.1 (12 Gbps/Lane), USB3.2 Gen2 (10 Gbps/ Lane)

\* Please inquire for pin counts not listed or outside of the pin count range.

## High-data-rate transfer, ideal for 16 Gbps/lane applications

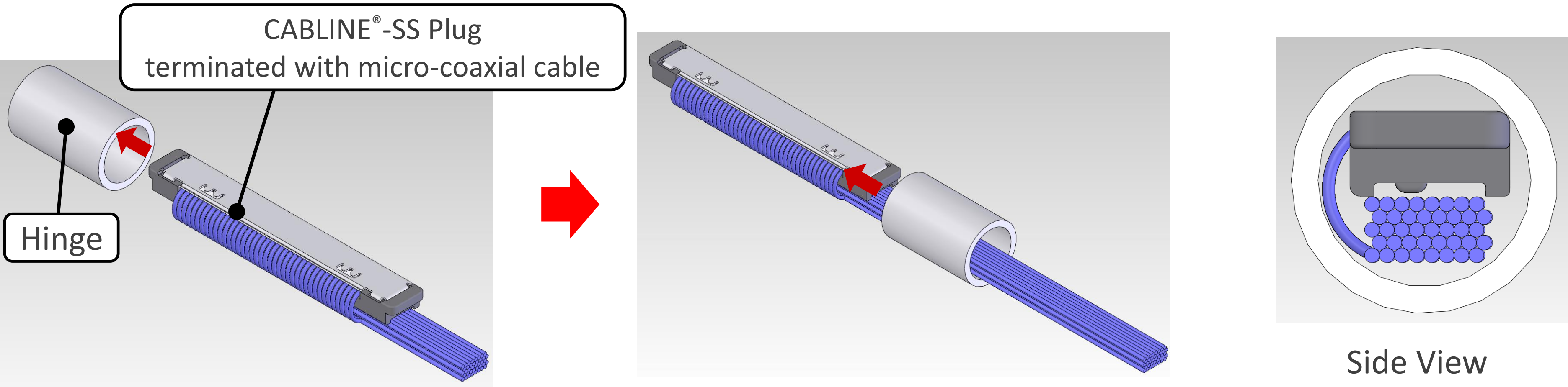
### Measurement results

Connector: CABLINE-SS 40P  
Cable: Micro-coaxial cable  
AWG #40, 45ohm , Length : 100 mm  
Pin Assignment: GSSGSSG

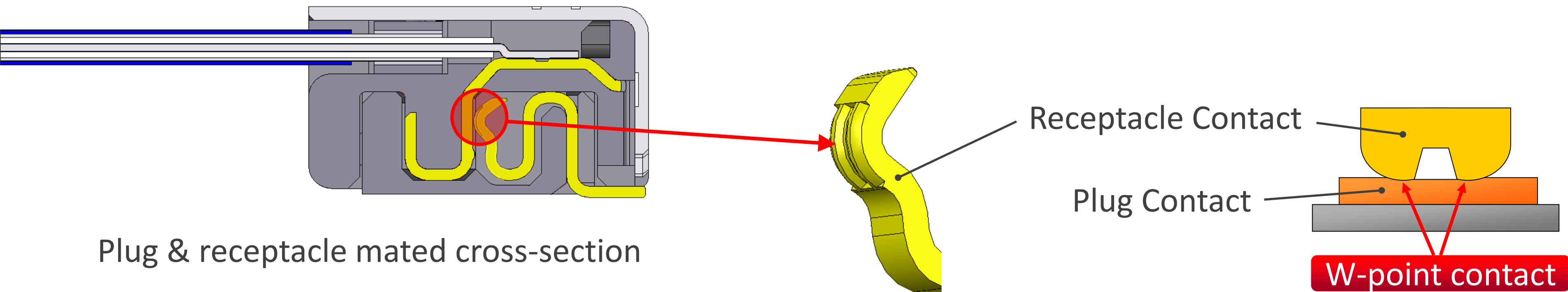


## Narrow depth design with maximum power delivery (AWG#34)

Narrow depth design enables go through small hinge after cable termination.



## Highly reliable contact using I-PEX's unique W-point design



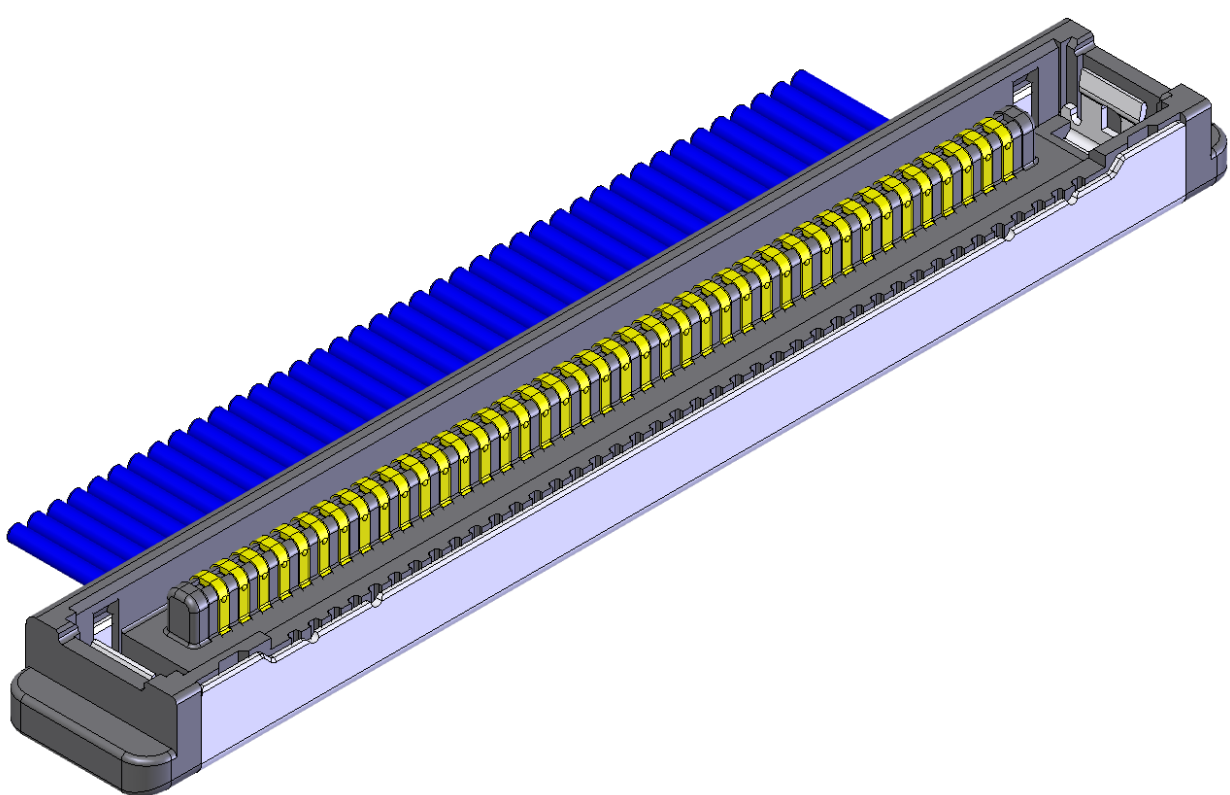
I-PEX prevents poor contact with foreign particles between plug and receptacle contacts. Provides better contact reliability than typical single-point contact designs.



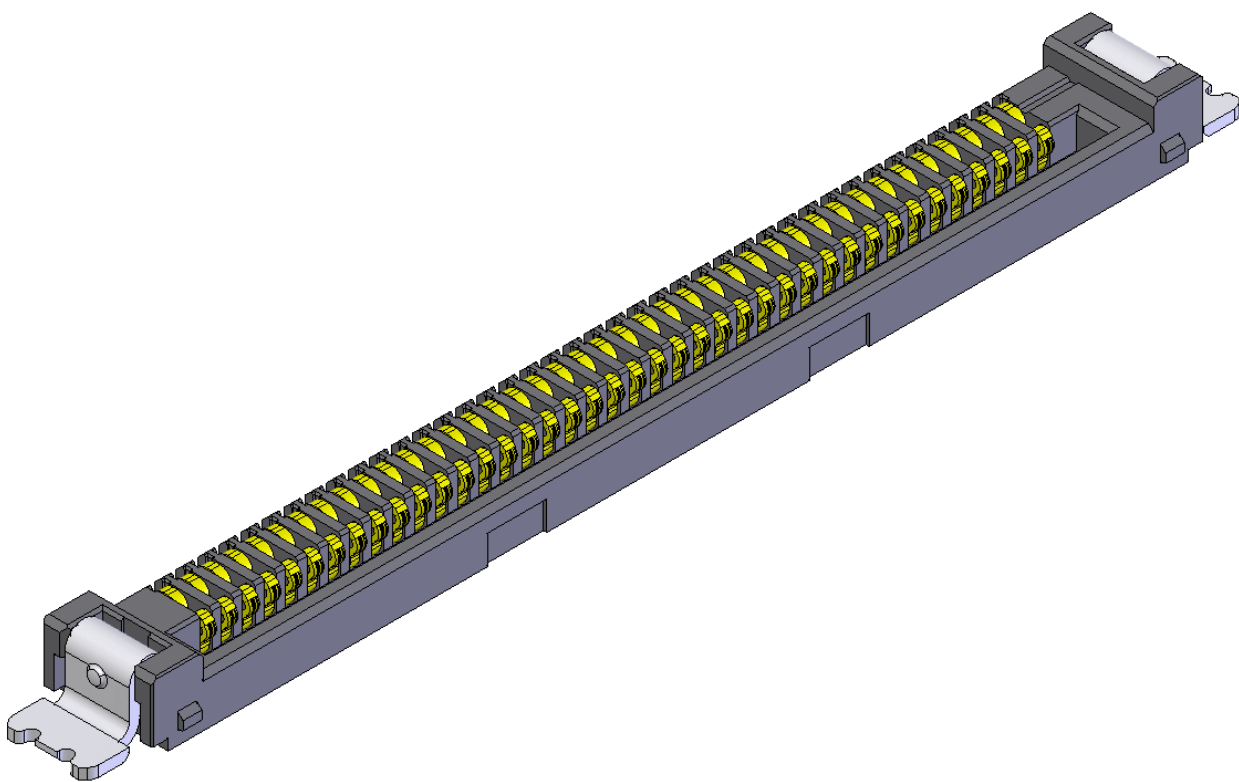
# Component Parts Details

## Component Parts

Connector parts

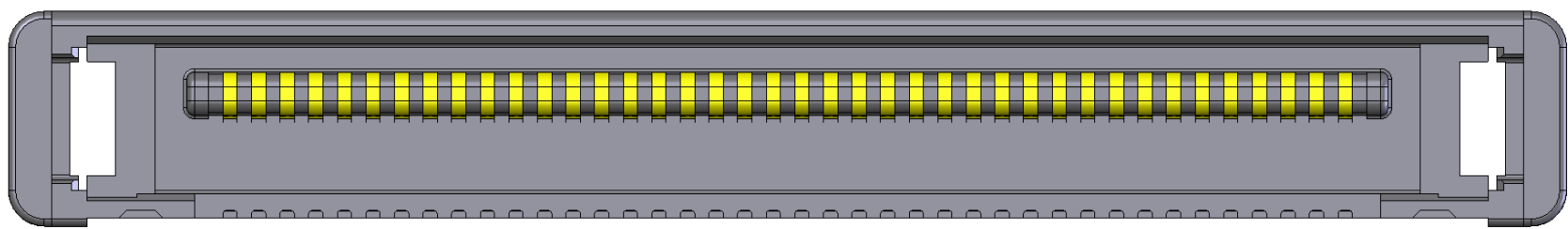


PLUG




RECEPTACLE

Plug parts



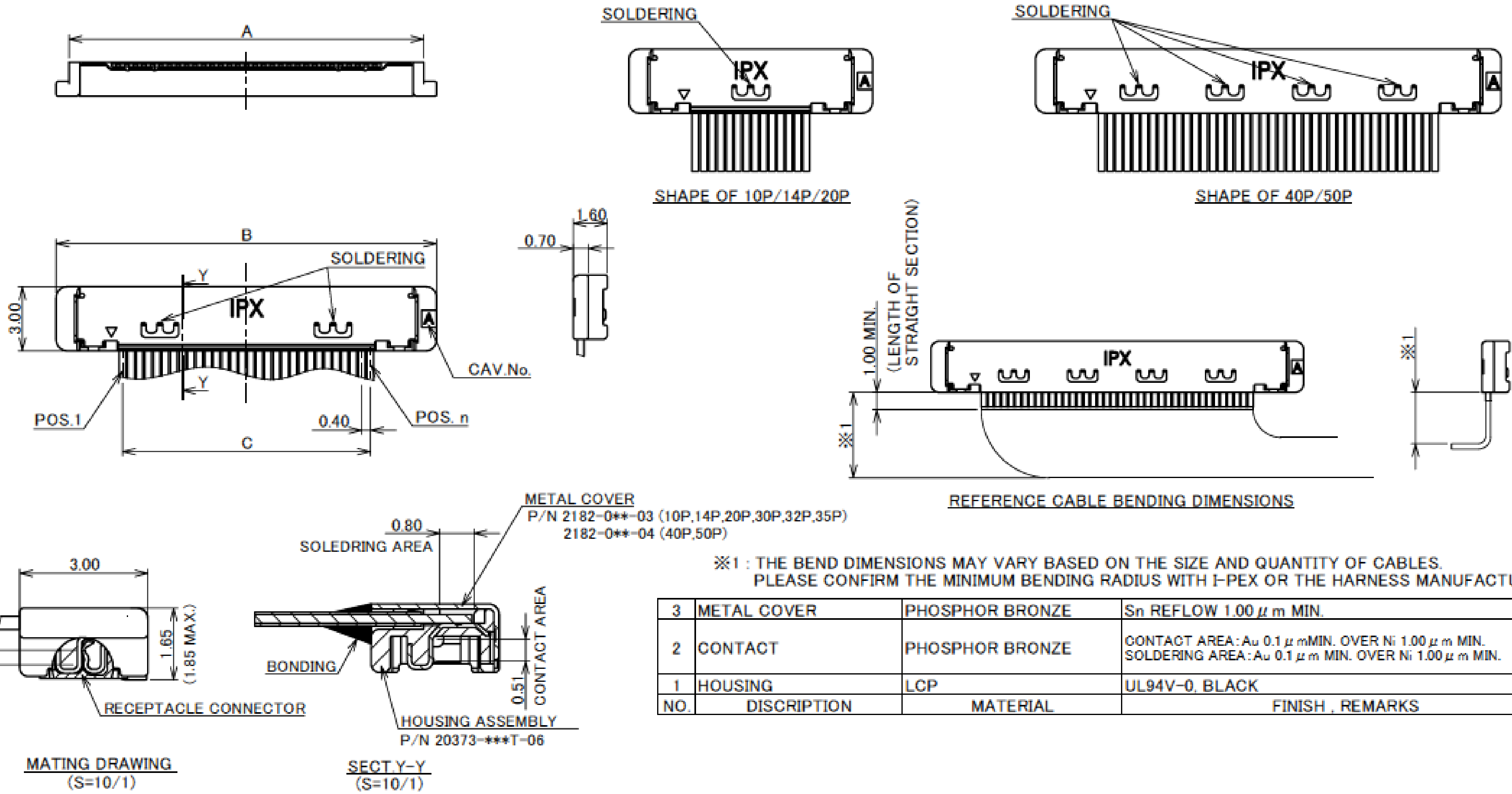
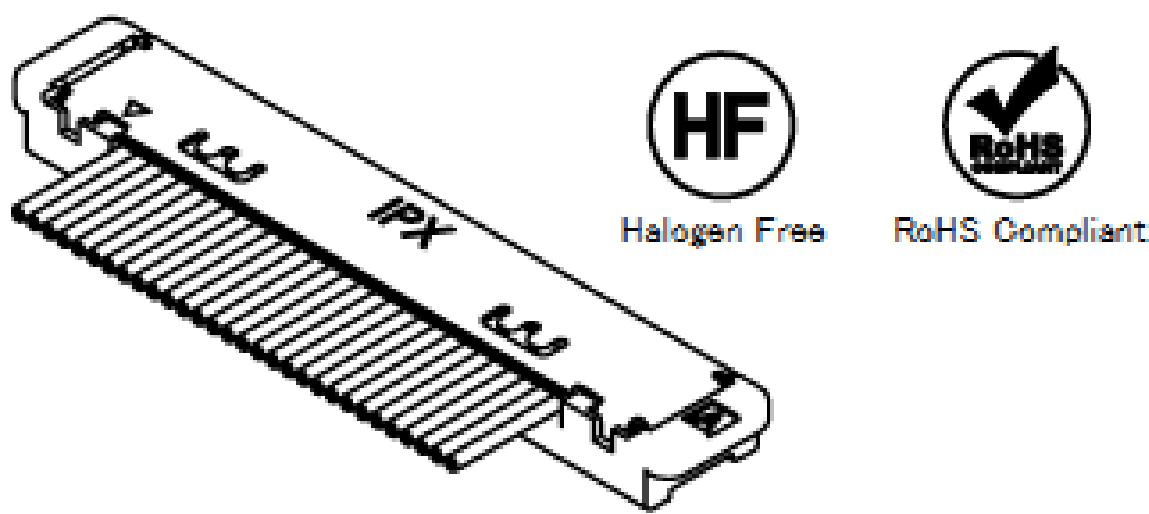
PLUG HOUSING ASSEMBLY



PLUG METAL COVER

Plug for Cable Assembly

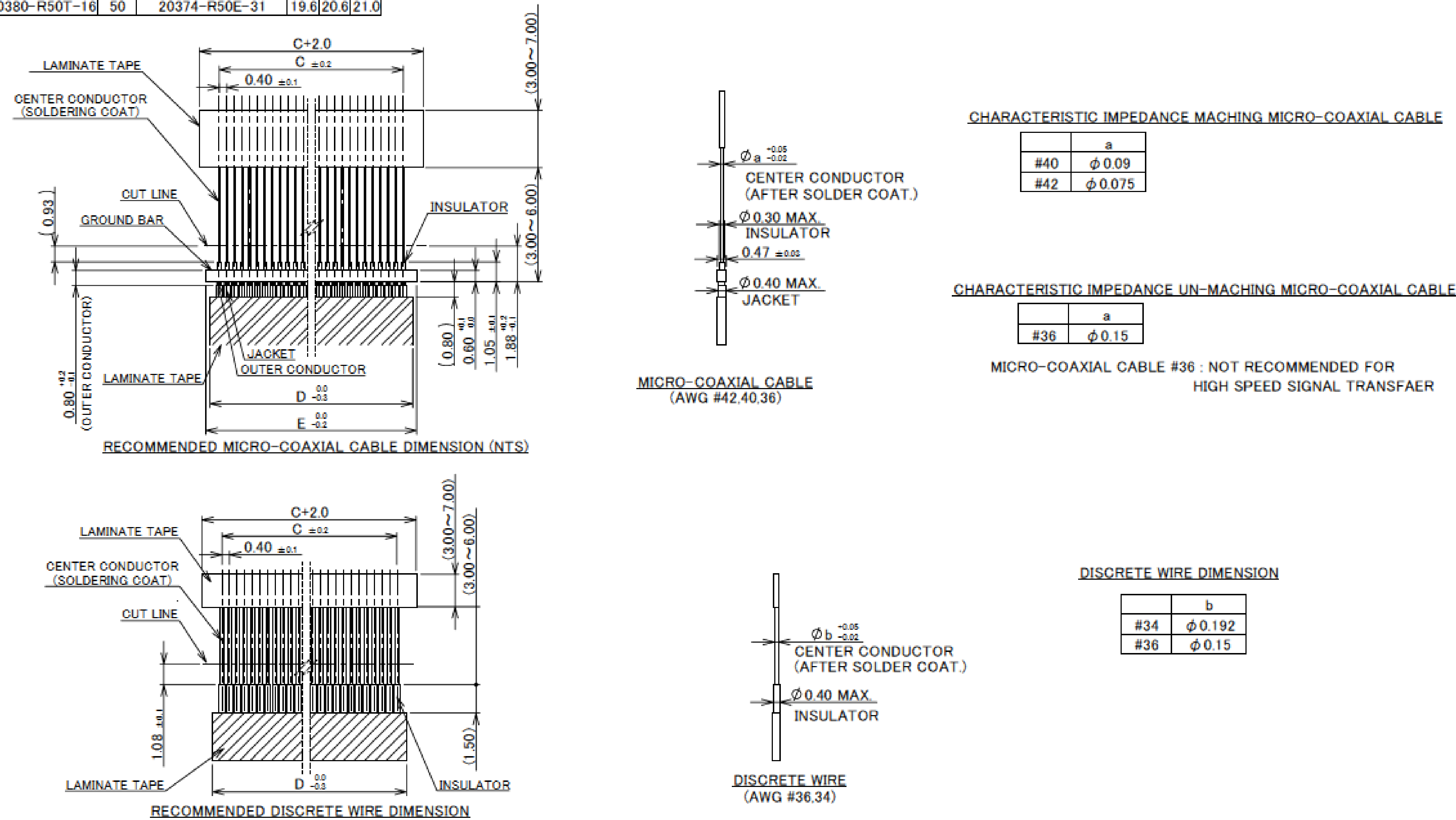
Recommended P/N		20380-R**T-06 (10P / 14P / 20P / 30P / 32P / 35P)				20380-R**T-16 (40P / 50P)	
PART NO.	POS.	MATING RECEPTACLE P/N	A	B	C		
20380-R10T-06	10	20374-R10E-31	8.6	9.8	3.6		
20380-R14T-06	14	20374-R14E-31	10.2	11.4	5.2		
20380-R20T-06	20	20374-R20E-31	12.6	13.8	7.6		
20380-R30T-06	30	20374-R30E-31	16.6	17.8	11.6		
20380-R32T-06	32	20374-R32E-31	17.4	18.6	12.4		
20380-R35T-06	35	20374-R35E-31	18.6	19.8	13.6		
20380-R40T-16	40	20374-R40E-31	20.6	21.8	15.6		
20380-R50T-16	50	20374-R50E-31	24.6	25.8	19.6		



NOTES  
1. THE CABLE MUST NOT HOLD WHEN UN-MATING A CONNECTOR.

Rev.28

Recommended P/N		20380-R**T-06 (10P / 14P / 20P / 30P / 32P / 35P)				20380-R**T-16 (40P / 50P)	
PART NO.	POS.	MATING RECEPTACLE P/N	C	D	E		
20380-R10T-06	10	20374-R10E-31	3.6	4.6	5.0		
20380-R14T-06	14	20374-R14E-31	5.2	6.2	6.6		
20380-R20T-06	20	20374-R20E-31	7.6	8.6	9.0		
20380-R30T-06	30	20374-R30E-31	11.6	12.6	13.0		
20380-R32T-06	32	20374-R32E-31	12.4	13.4	13.8		
20380-R35T-06	35	20374-R35E-31	13.6	14.6	15.0		
20380-R40T-16	40	20374-R40E-31	15.6	16.6	17.0		
20380-R50T-16	50	20374-R50E-31	19.6	20.6	21.0		

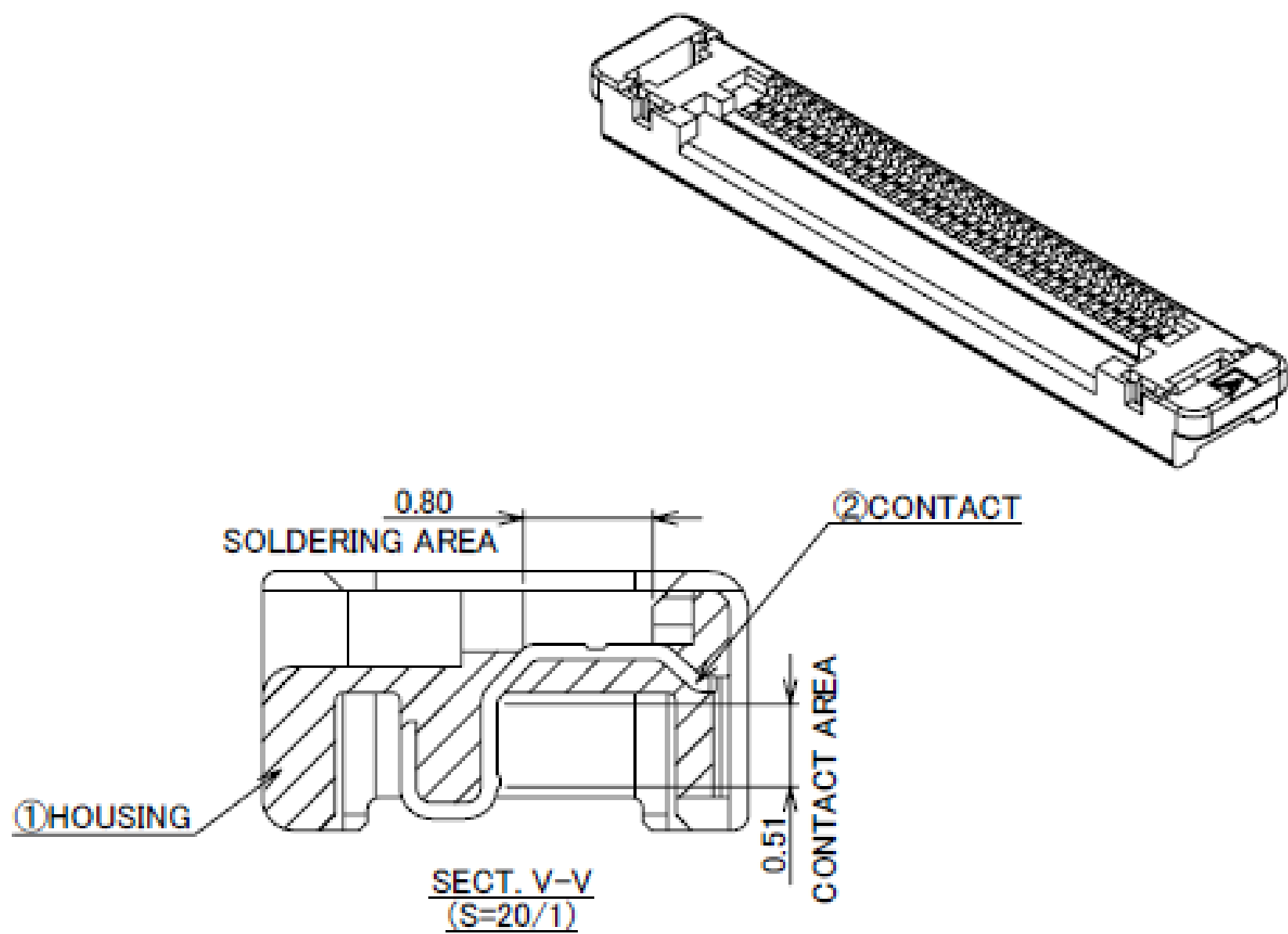
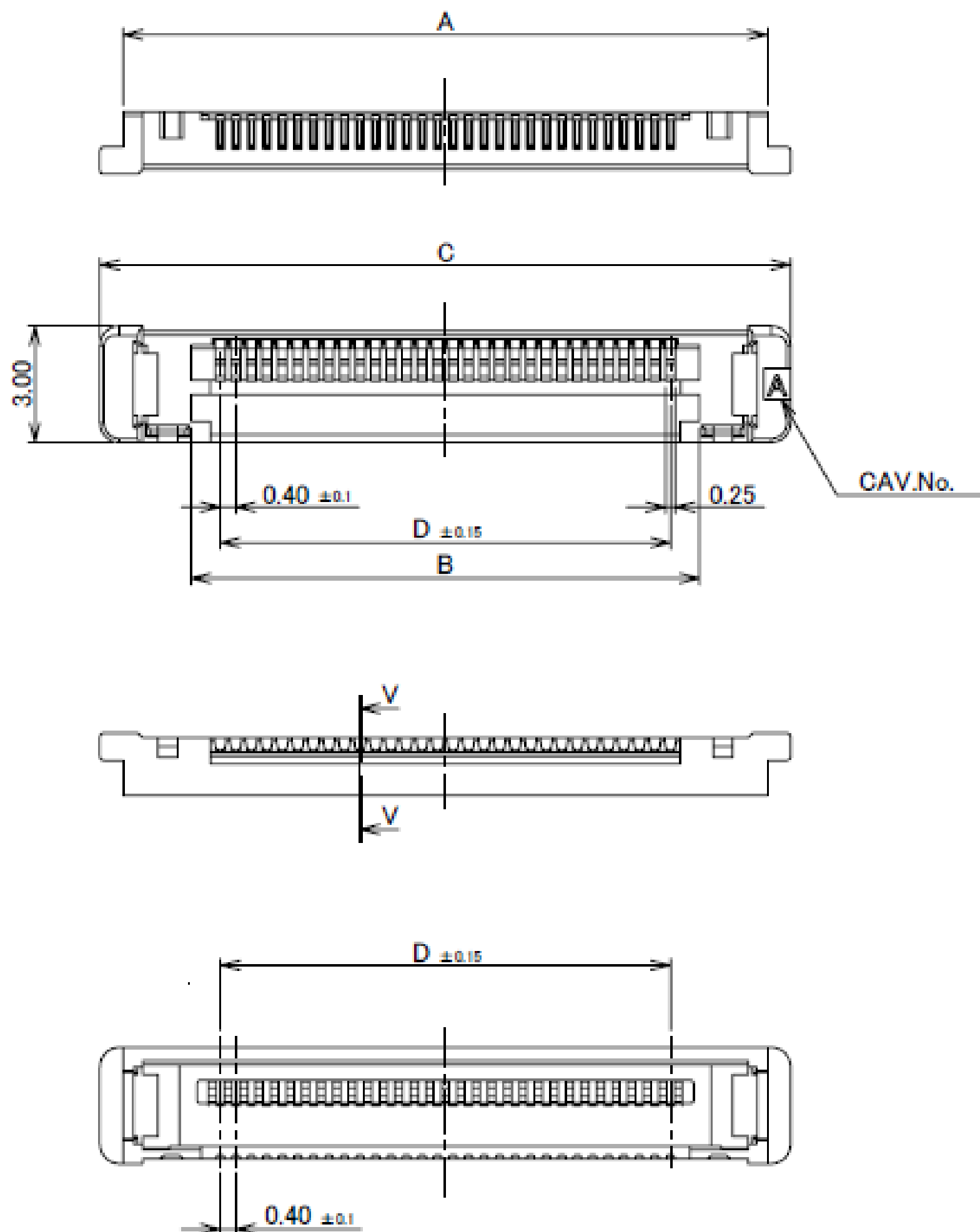
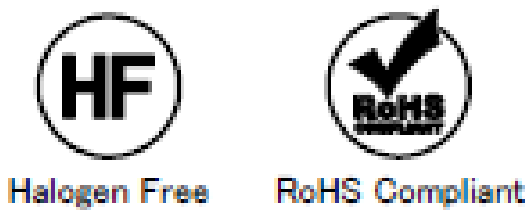


Rev.28

Plug Housing Assembly

Recommended P/N		20373-R**T-06			
PART NO.	Pos.	A	B	C	D
20373-R10T-06	10	8.60	5.10	9.80	3.60
20373-R14T-06	14	10.20	6.70	11.40	5.20
20373-R20T-06	20	12.60	9.10	13.80	7.60
20373-R30T-06	30	16.60	13.10	17.80	11.60
20373-R32T-06	32	17.40	13.90	18.60	12.40
20373-R35T-06	35	18.60	15.10	19.80	13.60
20373-R40T-06	40	20.60	17.10	21.80	15.60
20373-R50T-06	50	24.60	21.10	25.80	19.60

FOR AWG #34,#36,#40,#42



NOTES

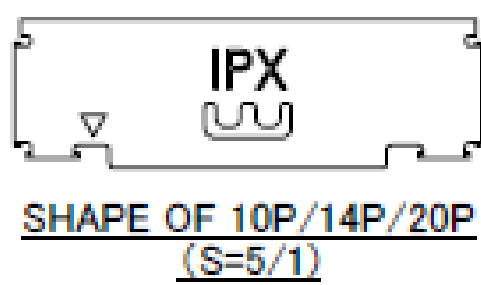
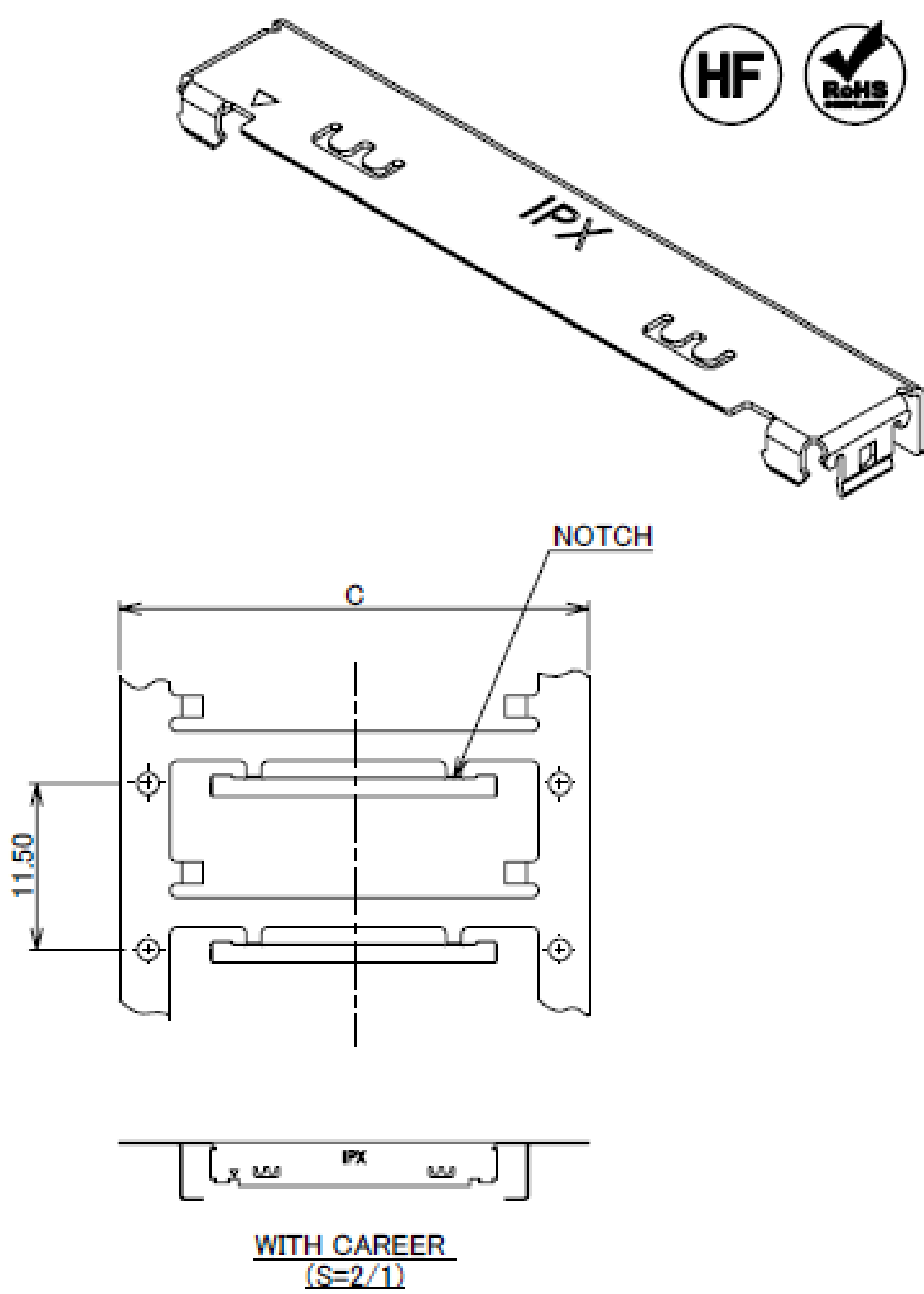
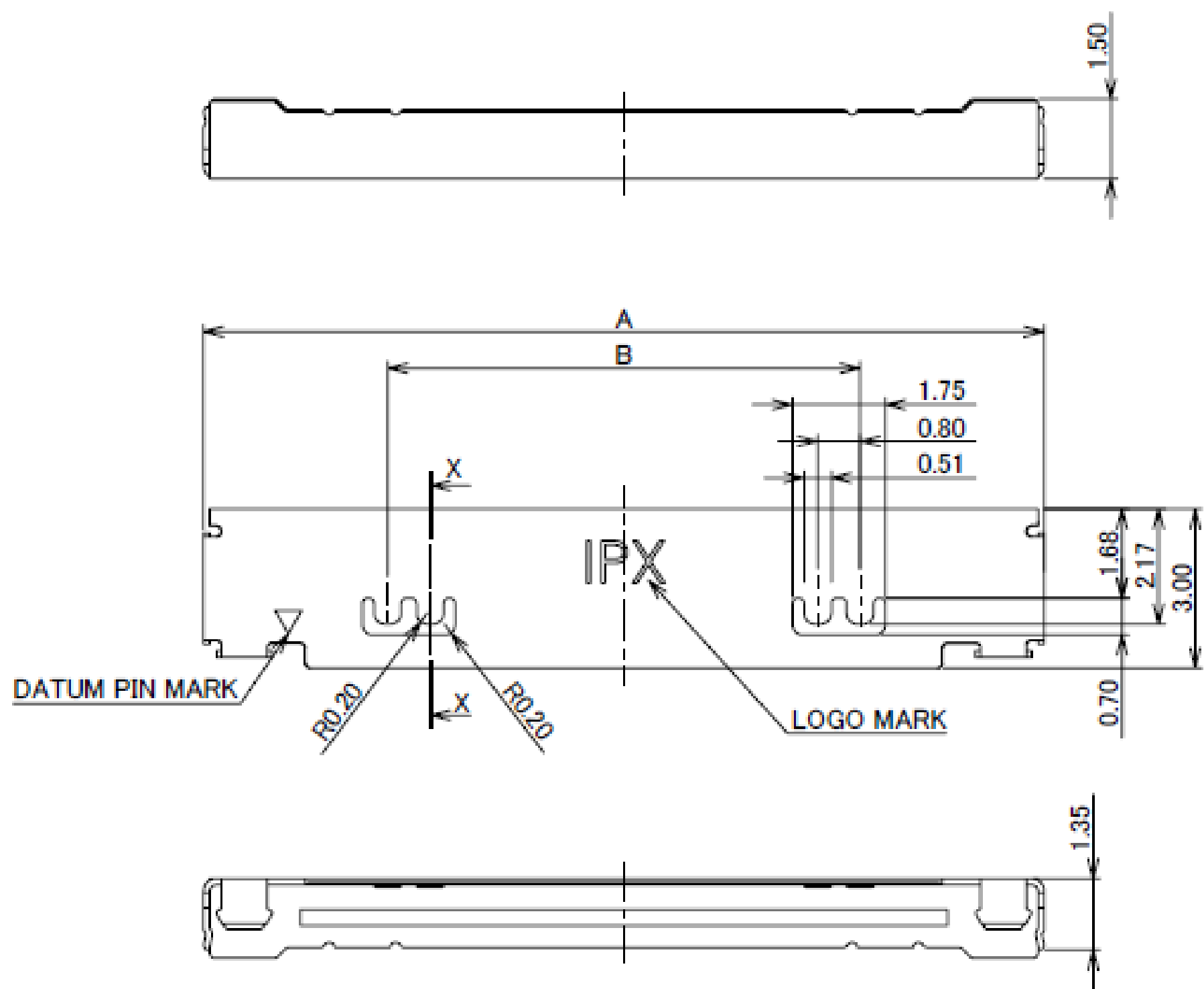
1. THIS PART IS ASSEMBLED WITH METAL COVER (P/N 2182-0\*\*-03(10P,14P,20P,30P,32P,35P) or 2182-0\*\*-04(40P,50P)) AFTER SOLDERED CABLE, AND IT BECOMES P/N 20380-R\*\*T-06(10P,14P,20P,30P,32P,35P) or 20380-R\*\*T-16(40P,50P)

2	CONTACT	PHOSPHOR BRONZE	CONTACT AREA: Au 0.1 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA: Au 0.1 μm MIN. OVER Ni 1.00 μm MIN.
1	HOUSING	LCP (RED PHOSPHORUS IS NOT USED)	UL94V-0, BLACK
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.22

Plug Metal Cover

Recommended P/N		2182-0**-03 (10P / 14P / 20P / 30P / 32P / 35P)			2182-0**-04 (40P / 50P)	
PART NO.	POS.	A	B	C		
2182-010-03	10	7.84	-	24.50		
2182-014-03	14	9.44	-	24.50		
2182-020-03	20	11.84	-	24.50		
2182-030-03	30	15.84	8.90	28.50		
2182-032-03	32	16.64	9.70	29.30		
2182-035-03	35	17.84	10.90	30.50		

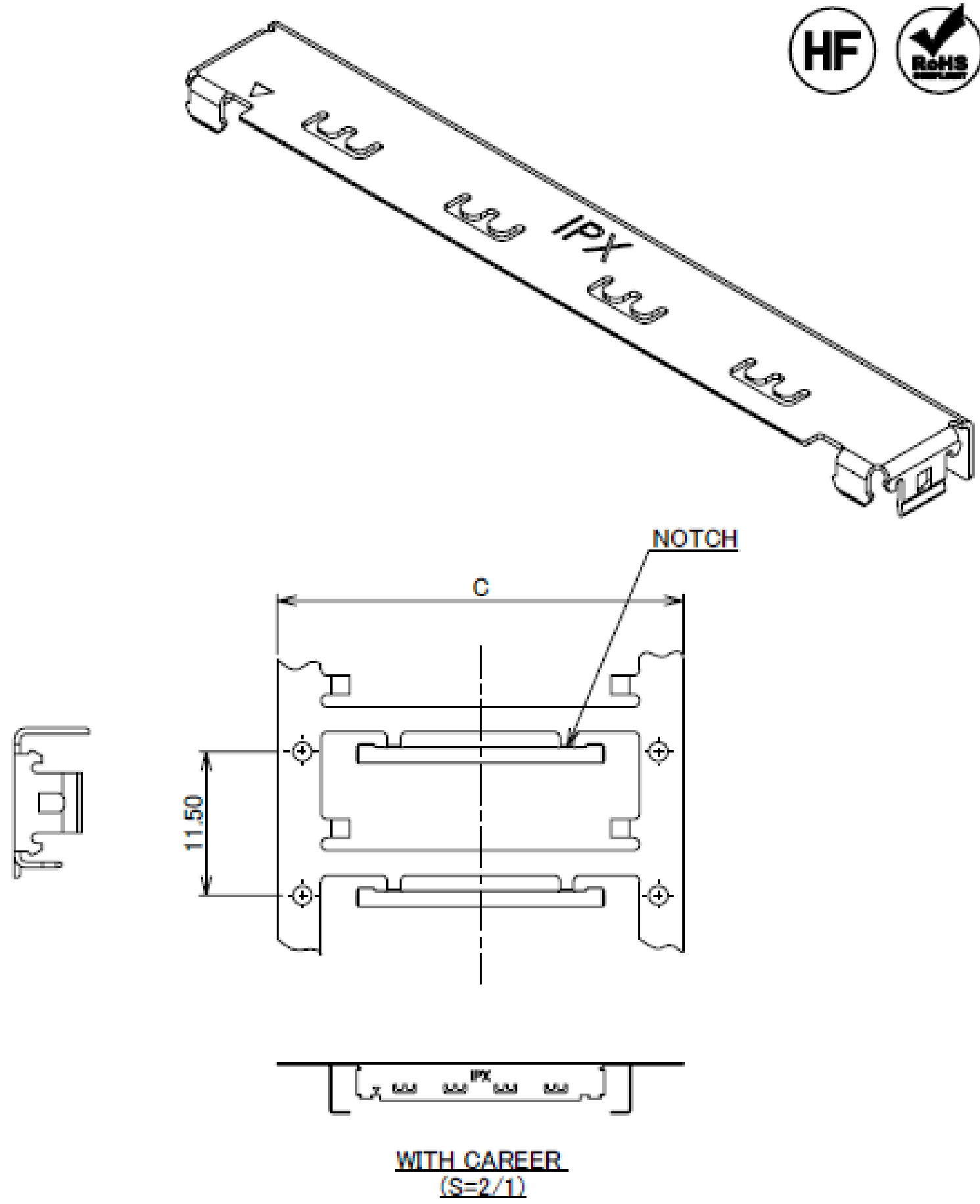
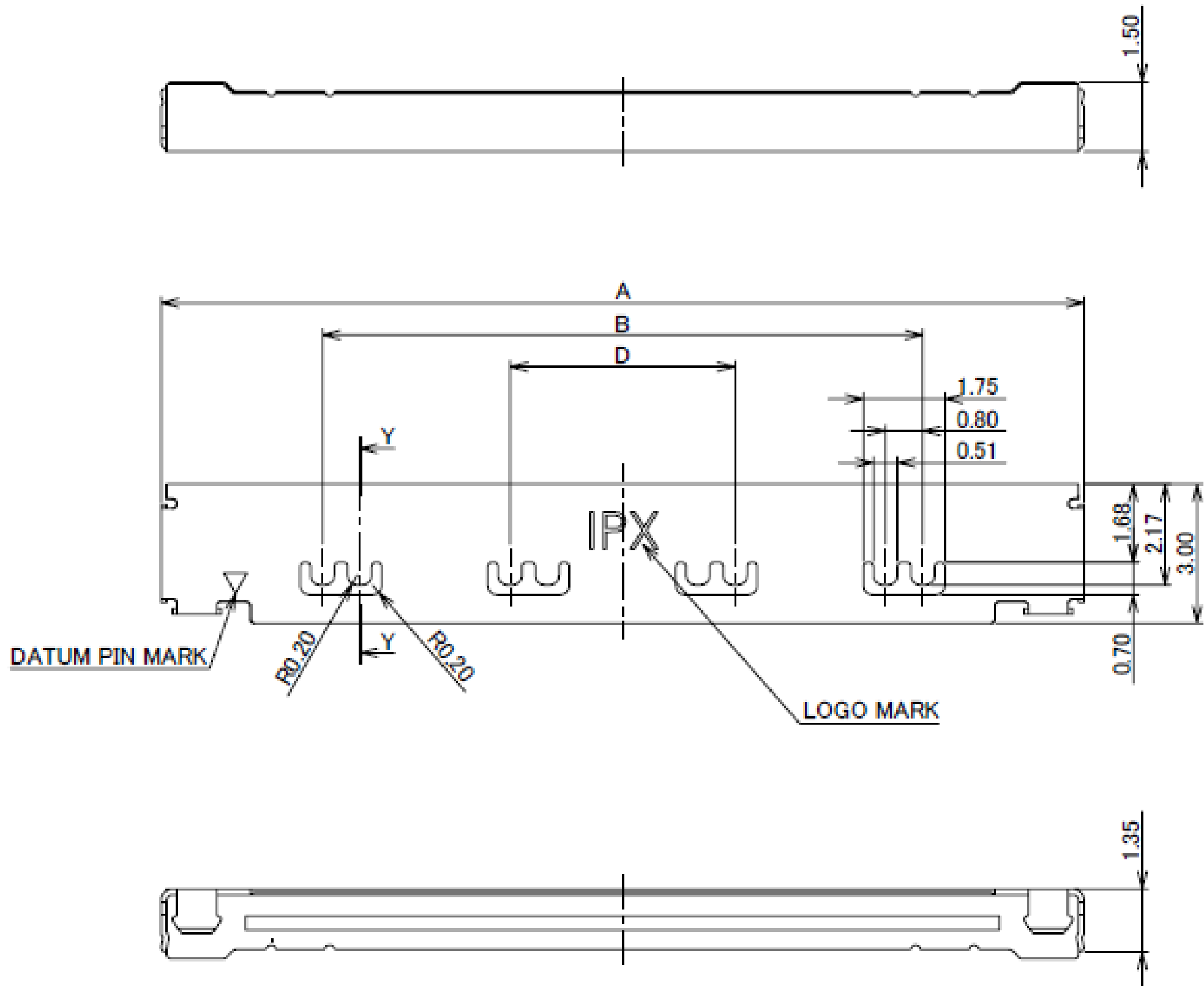


1	METAL COVER	PHOSPHOR BRONZE	Sn REFLOW 1.00 μm MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.19

Plug Metal Cover

Recommended P/N		2182-0**-03 (10P / 14P / 20P / 30P / 32P / 35P)					2182-0**-04 (40P / 50P)	
PART NO.	POS.	A	B	C	D			
2182-040-04	40	19.84	12.90	32.50	4.84			
2182-050-04	50	23.84	16.90	36.50	6.17			

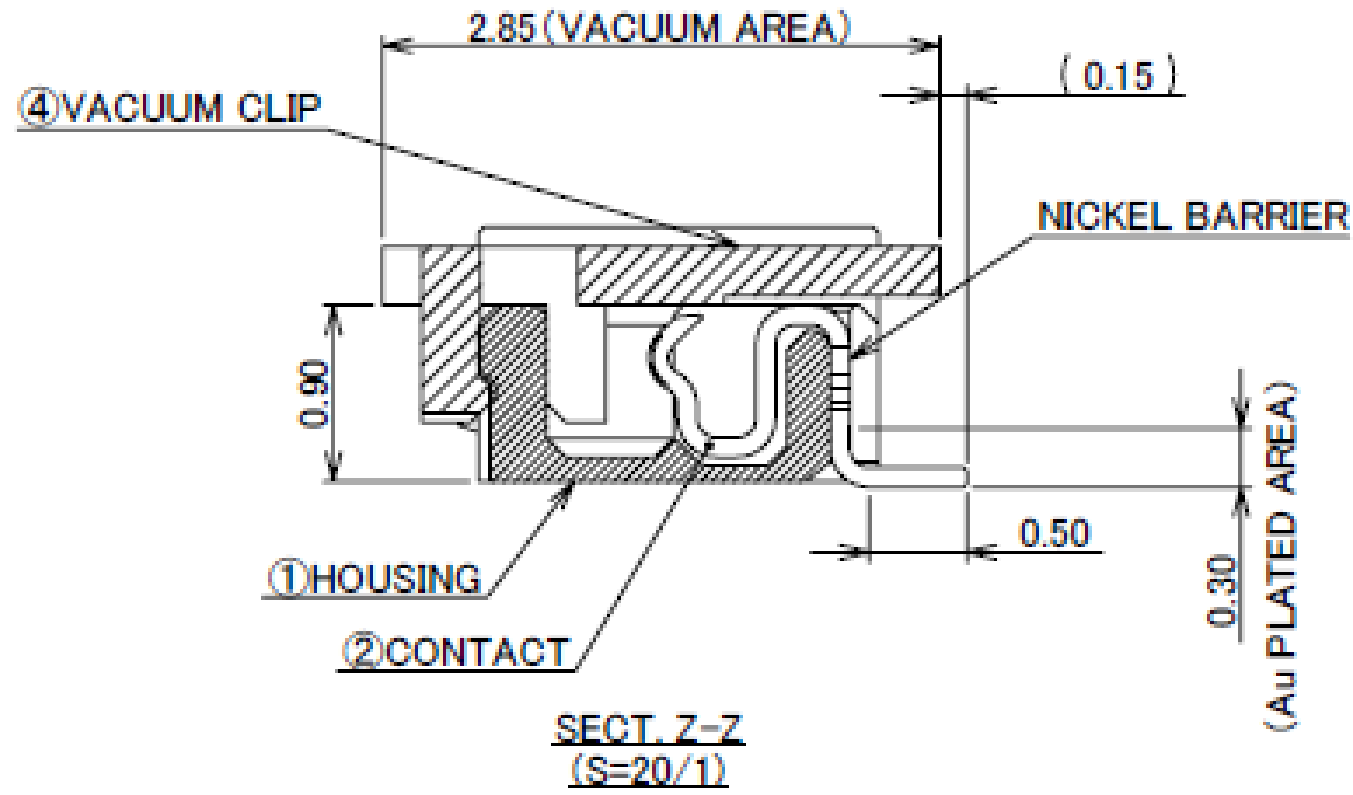
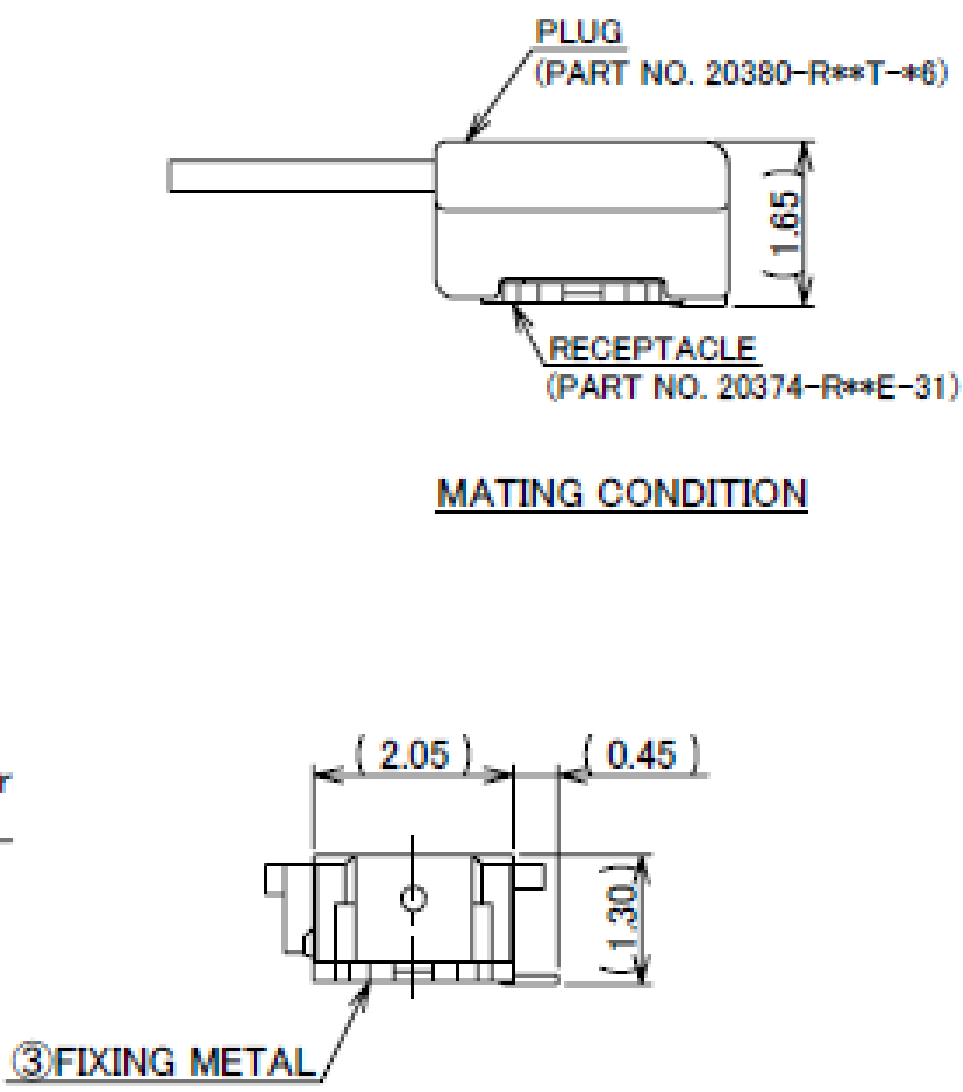
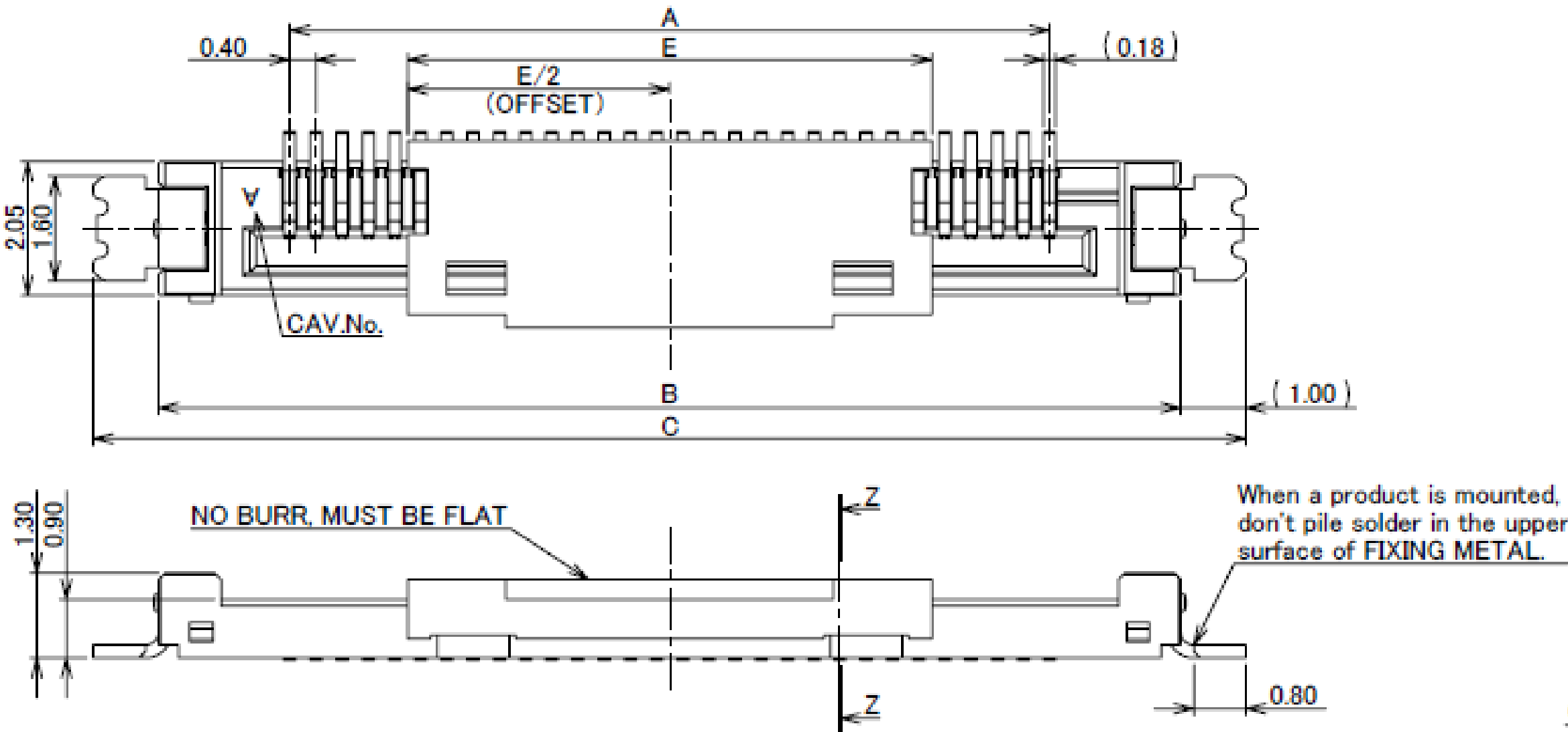
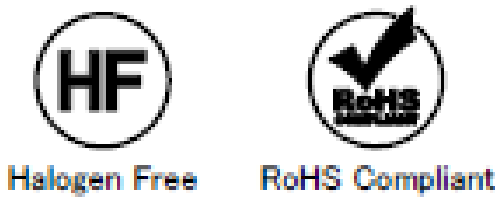


1	METAL COVER	PHOSPHOR BRONZE	Sn REFLOW 1.00 $\mu$ m MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.19

Receptacle Assembly

Recommended P/N		20374-R**E-31				
PART NO.	POS.	A	B	C	D	E
20374-R10E-31	10	3.60	7.60	9.60	7.20	5.50
20374-R14E-31	14	5.20	9.20	11.20	8.80	5.50
20374-R20E-31	20	7.60	11.60	13.60	11.20	8.00
20374-R30E-31	30	11.60	15.60	17.60	15.20	8.00
20374-R32E-31	32	12.40	16.40	18.40	16.00	8.00
20374-R35E-31	35	13.60	17.60	19.60	17.20	8.00
20374-R40E-31	40	15.60	19.60	21.60	19.20	8.00
20374-R50E-31	50	19.60	23.60	25.60	23.20	8.00

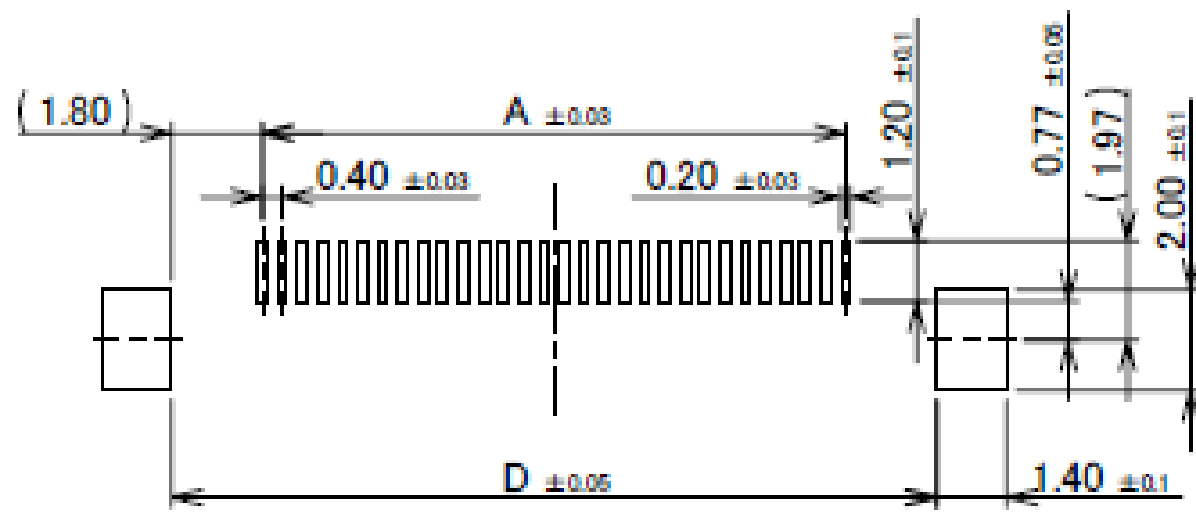


4	VACUUM CRIP	LCP	UL94V-0, BEIGE
3	FIXING METAL	PHOSPHOR BROZE	Sn/Cu(98/2) (LUSTER) 2.0 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
2	CONTACT	PHOSPHOR BROZE	CONTACT AREA: Au 0.1 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
1	HOUSING	LCP (RED PHOSPHORUS IS NOT USED)	SOLDERING AREA: Au 0.05 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

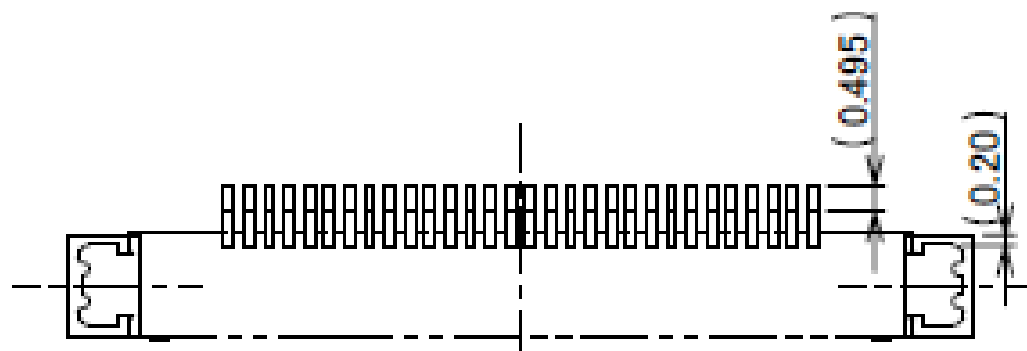
Rev.30

Receptacle Assembly

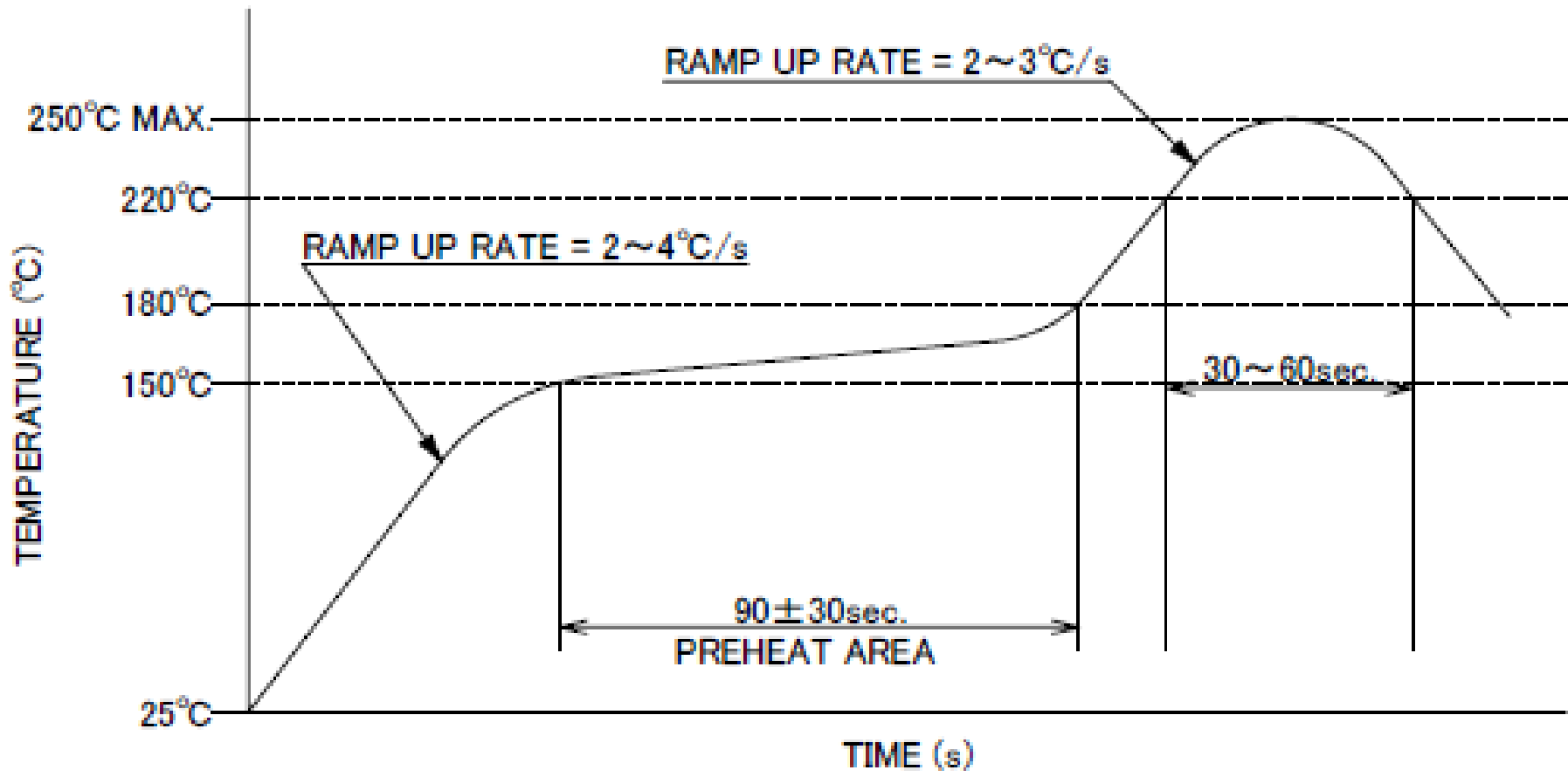
PART NO.	POS.	A	D
20374-R10E-31	10	3.60	7.20
20374-R14E-31	14	5.20	8.80
20374-R20E-31	20	7.60	11.20
20374-R30E-31	30	11.60	15.20
20374-R32E-31	32	12.40	16.00
20374-R35E-31	35	13.60	17.20
20374-R40E-31	40	15.60	19.20
20374-R50E-31	50	19.60	23.20



RECOMMENDED FOOTPRINT PATTERN (MOUNT SIDE)  
Recommended Thickness of Metal Mask : t=0.13mm  
Recommended Opening Ratio of Metal Mask : 79.6%



CONNECTOR ON RECOMMENDED FOOTPRIT PATTERN



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

Rev.30

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 42 , 40 , 36 DISCRETE WIRE : AWG# 36 , 34
RATING VOLTAGE	100V AC (PER CONTACT PIN) ※THIS IS THE RATED VOLTAGE OF THE CONNECTOR. PLEASE NOTE THAT THE RATED VOLTAGE MAY VARY IN THE HARNESS DEPENDING ON THE CABLES USED.
RATING AMPERAGE (FOR CONTACT)	0.24A AC/DC [AWG#42] AVAILABLE TO 50 PIN 0.25A AC/DC [AWG#40] AVAILABLE TO 50 PIN 0.30A AC/DC [AWG#40] AVAILABLE TO 32 PIN 0.35A AC/DC [AWG#36] AVAILABLE TO 50 PIN 0.40A AC/DC [AWG#36] AVAILABLE TO 37 PIN 0.35A AC/DC [AWG#34] AVAILABLE TO 50 PIN 1.00A AC/DC [AWG#34] AVAILABLE TO 2 PIN
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 180mohm MAX. (AWG#34) / AFTER TEST : ≦40mohm MAX. 275mohm MAX. (AWG#36) 600mohm MAX. (AWG#40) 700mohm MAX. (AWG#42) (INITIAL CONTAINS THE CONDUCTOR RESISTANCE OF A CABLE 100mm)
GROUND SHELL RESISTANCE	INITIAL : 50mohm MAX. / AFTER TEST : ≦40mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	10P : 29.00N MAX. 32P : 33.40N MAX. 14P : 29.80N MAX. 35P : 34.00N MAX. 20P : 31.00N MAX. 40P : 35.00N MAX. 30P : 33.00N MAX. 50P : 38.00N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	10P : INITIAL : 4.00N MIN. / AFTER 30 CYCLES : 2.87N MIN. 14P : INITIAL : 4.40N MIN. / AFTER 30 CYCLES : 3.23N MIN. 20P : INITIAL : 5.00N MIN. / AFTER 30 CYCLES : 3.76N MIN. 30P : INITIAL : 6.00N MIN. / AFTER 30 CYCLES : 4.65N MIN. 32P : INITIAL : 6.20N MIN. / AFTER 30 CYCLES : 4.84N MIN. 35P : INITIAL : 6.50N MIN. / AFTER 30 CYCLES : 5.07N MIN. 40P : INITIAL : 7.00N MIN. / AFTER 30 CYCLES : 5.50N MIN. 50P : INITIAL : 8.00N MIN. / AFTER 30 CYCLES : 6.41N MIN.
CABLE RETENTION FORCE	10P : 4.90N MIN. 32P : 15.68N MIN. 14P : 6.86N MIN. 35P : 17.15N MIN. 20P : 9.80N MIN. 40P : 19.60N MIN. 30P : 14.70N MIN. 50P : 24.50N MIN.
PRODUCT SPECIFICATION	PRS-1239
TEST REPORT	TR-04037
INSTRUCTION MANUAL	HIM-04001
ASSEMBLY MANUAL	ASM-04001
APPEARANCE CRITERIA No.	QLS-A***

Rev.28



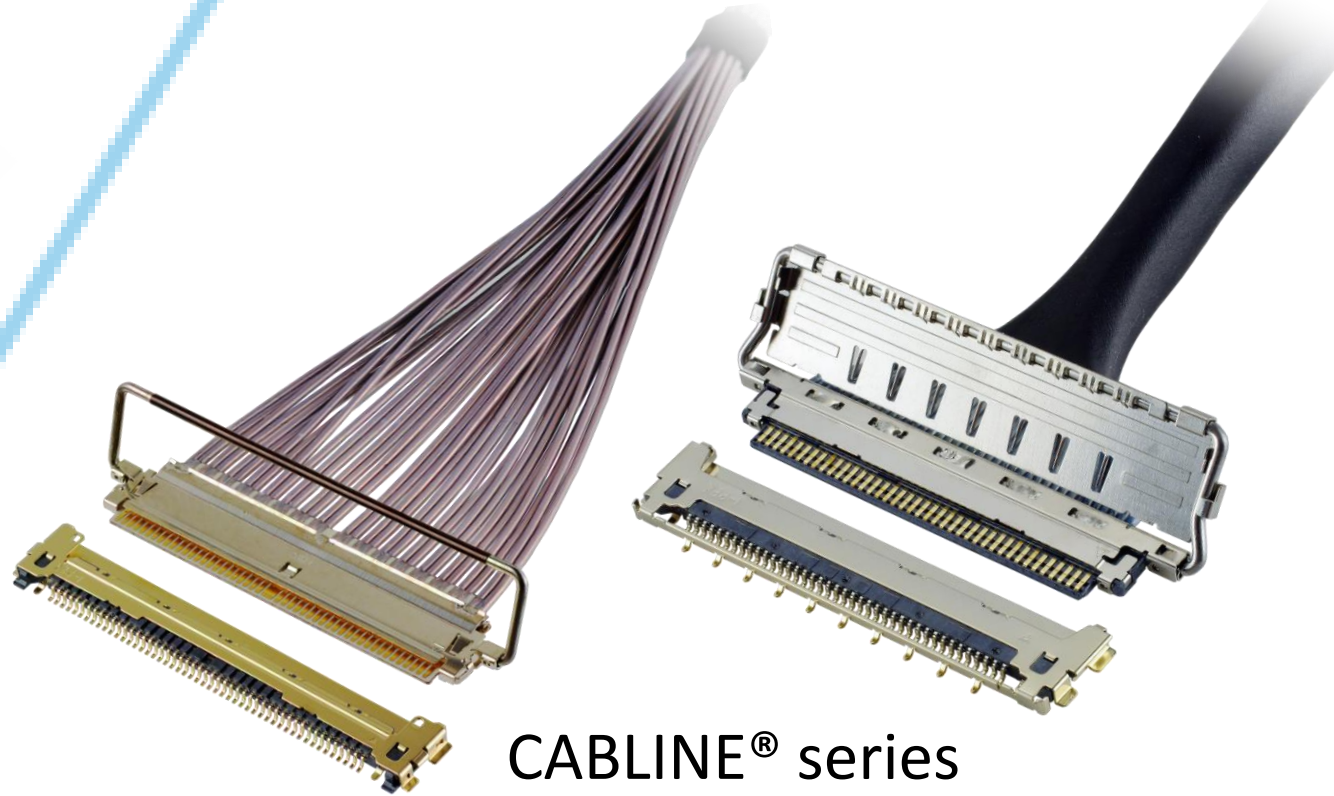
Custom  
Connectors  
Available

 RF  
Connectors

MHF® series



CABLINE® series



 Micro-Coaxial/Twinax  
Connectors



Wire-to-Board  
Connectors/  
Terminals

AP series



ISH® series



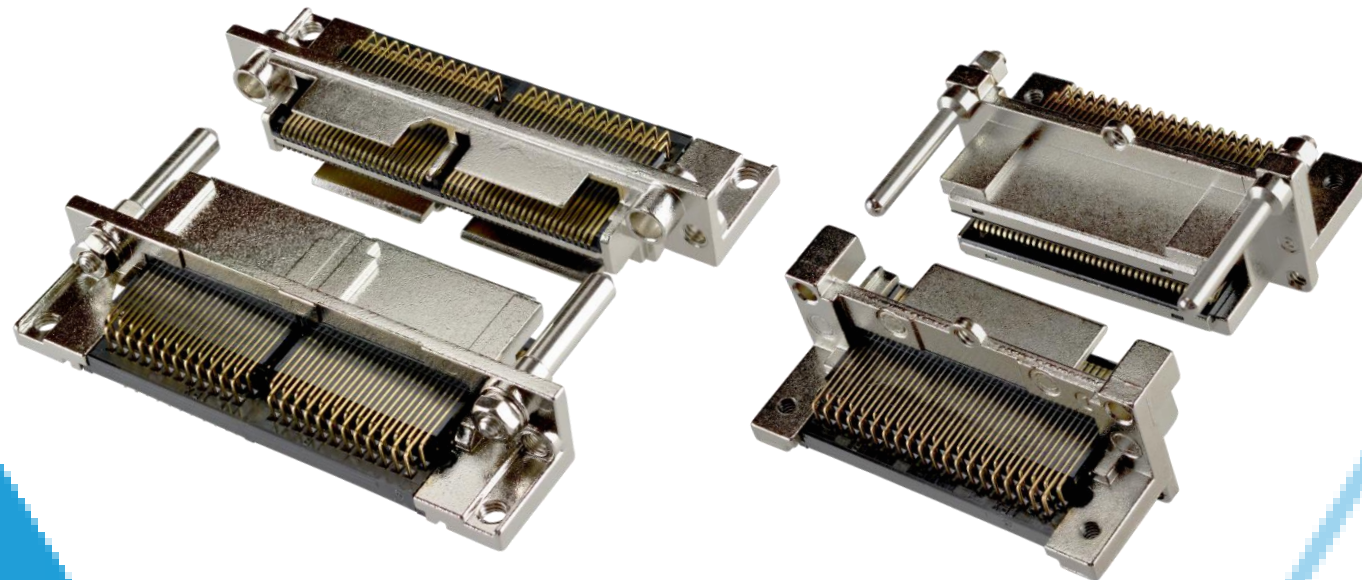
NOVASTACK® series



Board-to-Board  
Connectors



I/O  
Connectors



MINIDOCK™ series

MINIFLEX® series

EVAFLEX® series



FPC/FFC  
Connectors



Inquiry



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