DW-5

Hybrid connector for discrete wire and FPC, height 1.0 mm, 0.5 mm pitch, horizontal, backflip

Product Specifications:		Plug	Receptacle
Board Pitch		0.5 mm	
Wiping Length		1 mm	
Size	Height	1.0 +/- 0.1 mm	
	Width	3.8 + (0.5 x pin count) mm	3.7 + (0.5 x pin count) mm
	Depth	Open: Mating FPC: 3.0 mm Mating PLUG CABLE : 4.9 mm	
		Close: Mating FPC: 3.5 mm Mating PLUG CABLE : 5.39 mm	
Pin Counts	Range	6 to 20	
	Available	6, 8, 10	

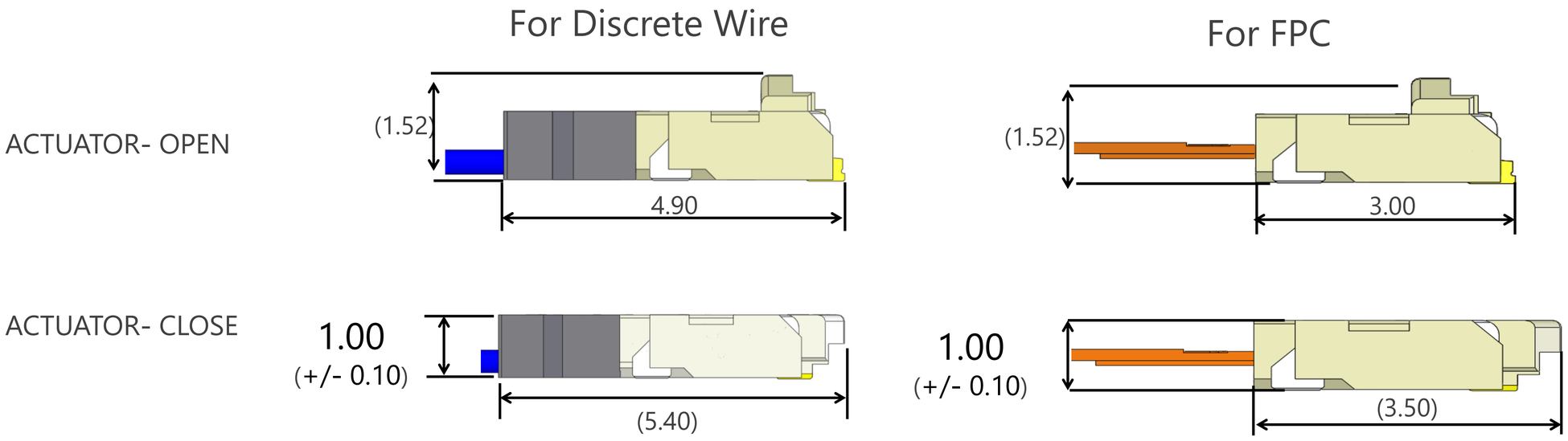
* Please inquire for pin counts not listed or outside of the pin count range.

Applicable FPC/FFC:	
FPC/FFC Contact Pitch	0.5
FPC/FFC Contact Point	Top and Bottom
FPC/FFC Thickness	0.2 +/- 0.03 mm

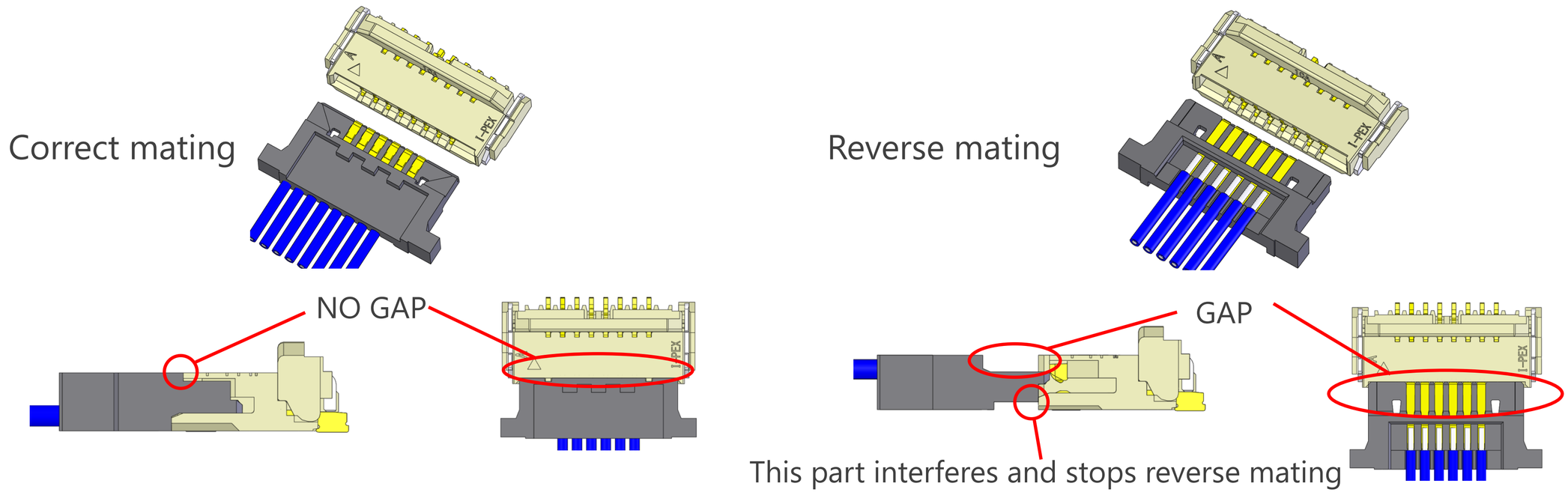
Hybrid connector for discrete wire and FPC

Smallest in class at 1.0 mm height

Very low height of 1.00 mm, world's smallest class 6 pin dimension



Anti-reverse mating structure reduces operational error



Component Parts Details

Plug for Cable Assembly

Recommended P/N	20598-0**T-02

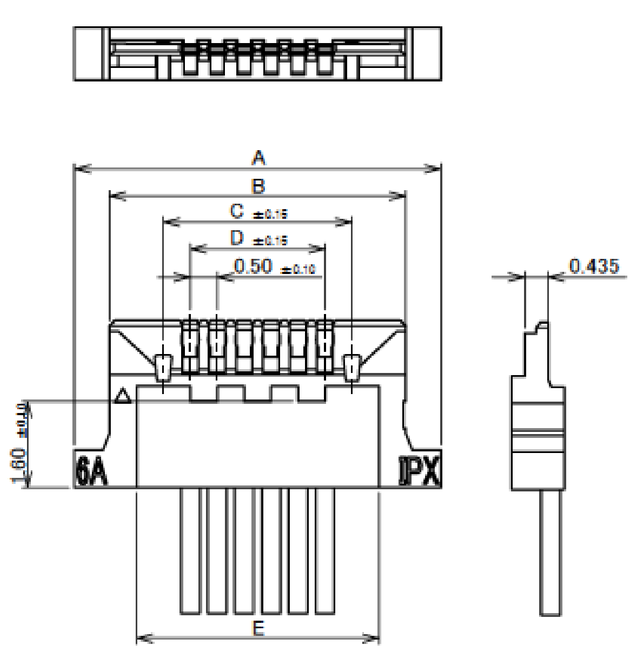
Halogen Free

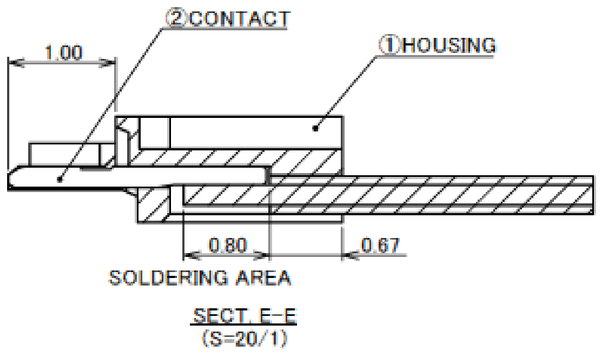
RoHS Compliant

CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-14010 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

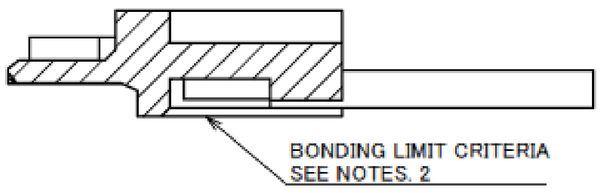
PART No.	POS.	A	B	C	D	E
20598-006T-02	6	6.80	5.50	3.50	2.50	4.50
20598-008T-02	8	7.80	6.50	4.50	3.50	5.50
20598-010T-02	10	8.80	7.50	5.50	4.50	6.50
◆20598-020T-02	20	13.80	12.50	10.50	9.50	11.50

◆MARK MEANS NOT AVAILABLE

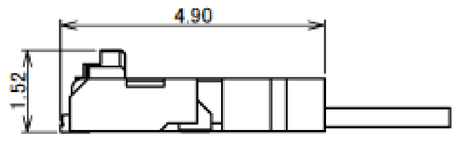




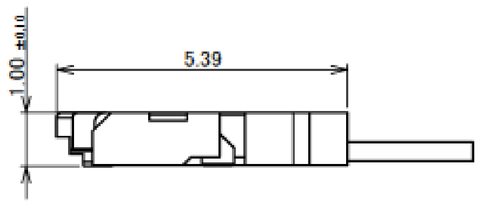
SECT. E-E
(S=20/1)



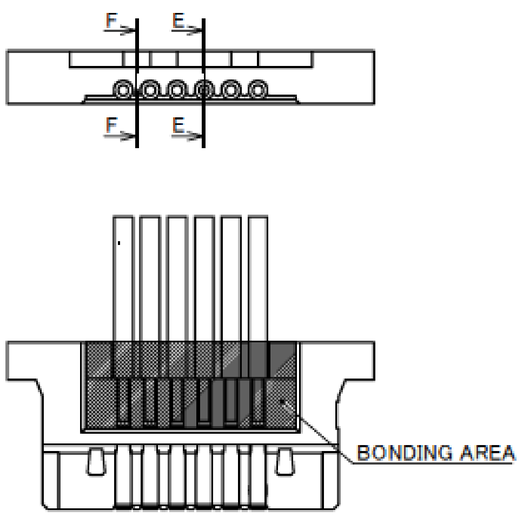
SECT. F-F
(S=20/1)



RECEPTACLE ACTUATOR OPEN
(MATING DIAGRAM)



RECEPTACLE ACTUATOR CLOSE
(MATING DIAGRAM)



NOTES.
1. DO NOT PULL THE CABLE WHEN UN-MATING CONNECTORS
2. BONDING MUST NOT EXCEED THE LIMIT CRITERIA

TABLE. 1

PART NO.	FINISH
20598-0**T-02	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.0 μm MIN.
	SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.

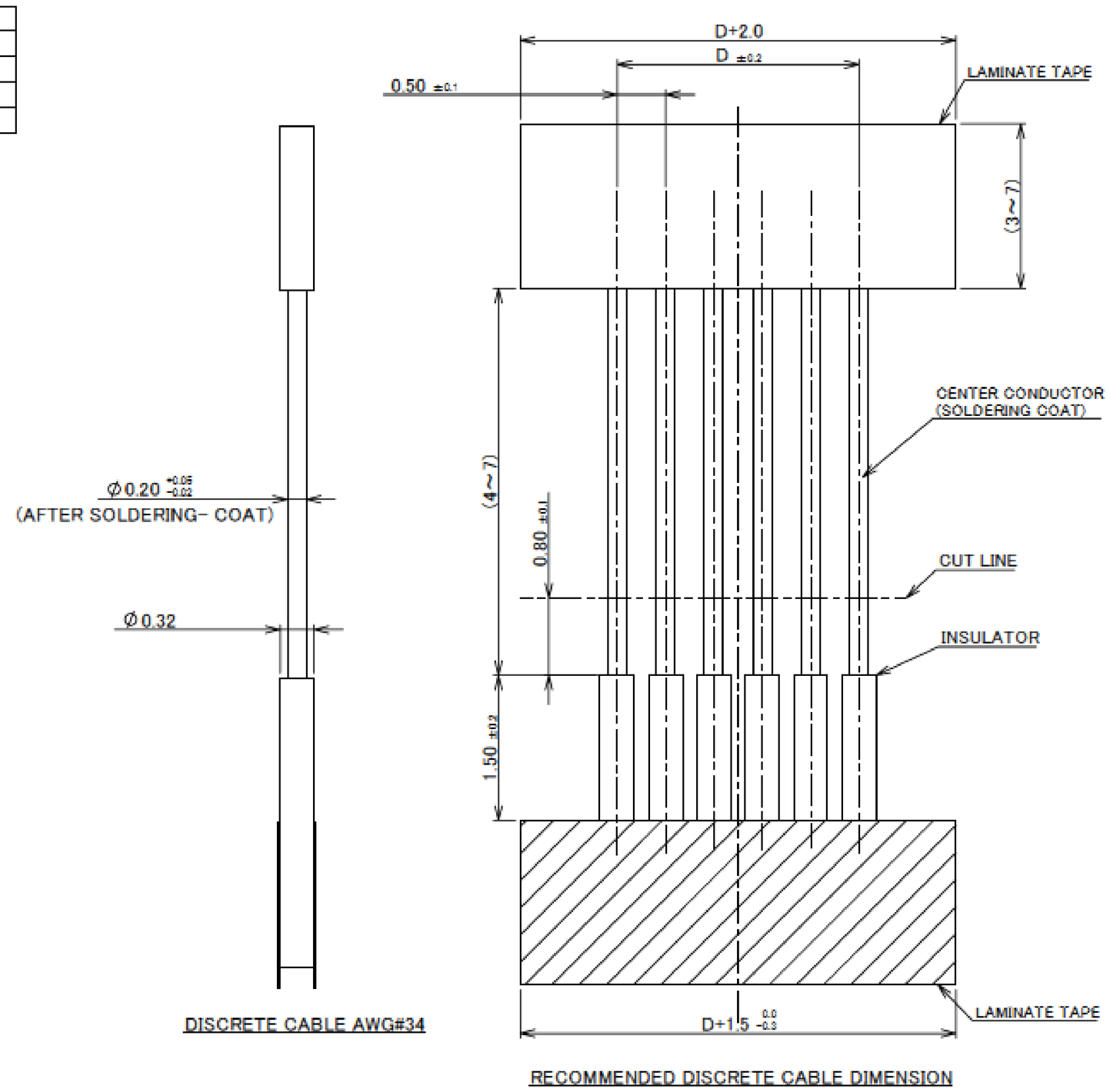
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
2	CONTACT	PHOSPHOR BRONZE	SEE TABLE. 1
1	HOUSING	LCP	UL94V-0, BLACK

Rev.4

Plug for Cable Assembly

PART No.	POS.	D
20598-006T-02	6	2.50
20598-008T-02	8	3.50
20598-010T-02	10	4.50
◆20598-020T-02	20	9.50

◆MARK MEANS NOT AVAILABLE



DISCRETE CABLE AWG#34

RECOMMENDED DISCRETE CABLE DIMENSION

Rev.4

ITEMS	SPECIFICATION
APPLICABLE CABLE	DISCRETE : AWG#34
RATING VOLTAGE	50V AC (PER CONTACT)
RATING AMPERAGE	0.7A DC [AWG#34] (PER CONTACT)
OPERATING TEMPERATURE	233～358K(−40℃～85℃)
OPERATING HUMIDITY	80% MAX.
CONTACT RESISTANCE	INITIAL : 40mohm MAX. / AFTER TEST : ⊿20mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	20TH CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : 0.6N(61gf) × (n + 2) MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : 0.05N(5gf) × (n + 2) MIN.
PLUG RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL : 0.15N(15gf) × n + 2.0N MIN. / AFTER TEST : 0.15N(15gf) × n + 1.0N MIN.
PRODUCT SPECIFICATION	PRS-1880
TEST REPORT	TR-13103
PACKING STANDARD	PST-14006
INSTRUCTION MANUAL	HIM-14010
ASSEMBLY MANUAL	ASM-12002
APPEARANCE CRITERIA No.	QLS-A***

※ "n" IS THE NUMBER OF PIN

Rev.4

Receptacle for Cable Assembly

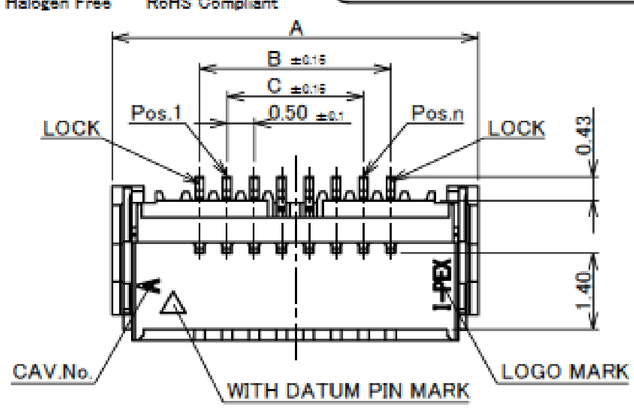
Recommended P/N	20597-0**E-02

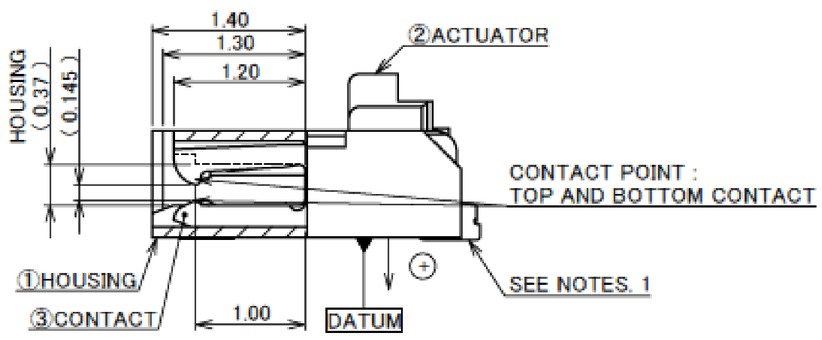
Halogen Free　RoHS Compliant

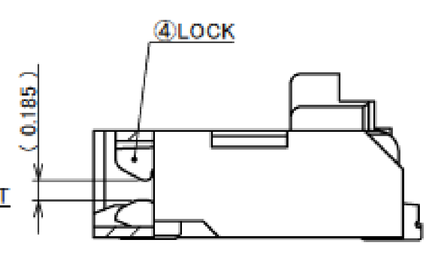
CAUTION　VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-14010 AND HIM-12019 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

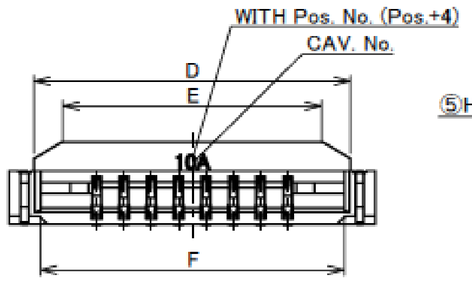
PART No.	POS.	A	B	C	D	E	F	G
20597-006E-02	6	6.70	3.50	2.50	5.80	4.80	5.56	6.15
20597-008E-02	8	7.70	4.50	3.50	6.80	5.80	6.56	7.15
20597-010E-02	10	8.70	5.50	4.50	7.80	6.80	7.56	8.15
◆20597-020E-02	20	13.70	10.50	9.50	12.80	6.80	12.56	13.15

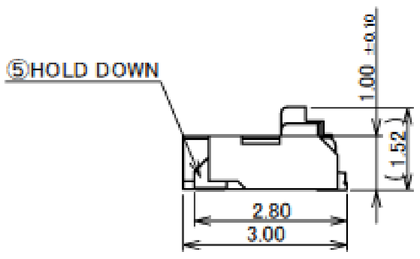
◆MARK MEANS NOT AVAILABLE

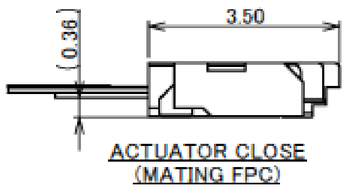


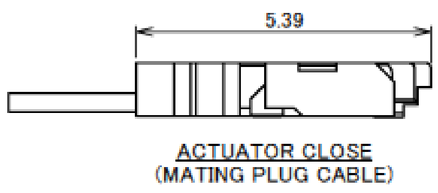


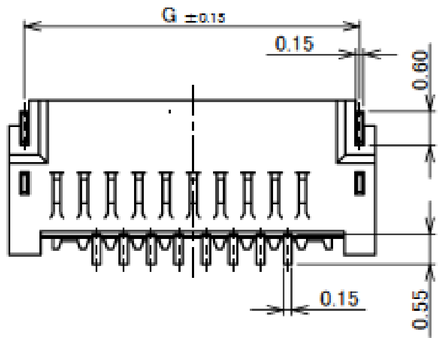












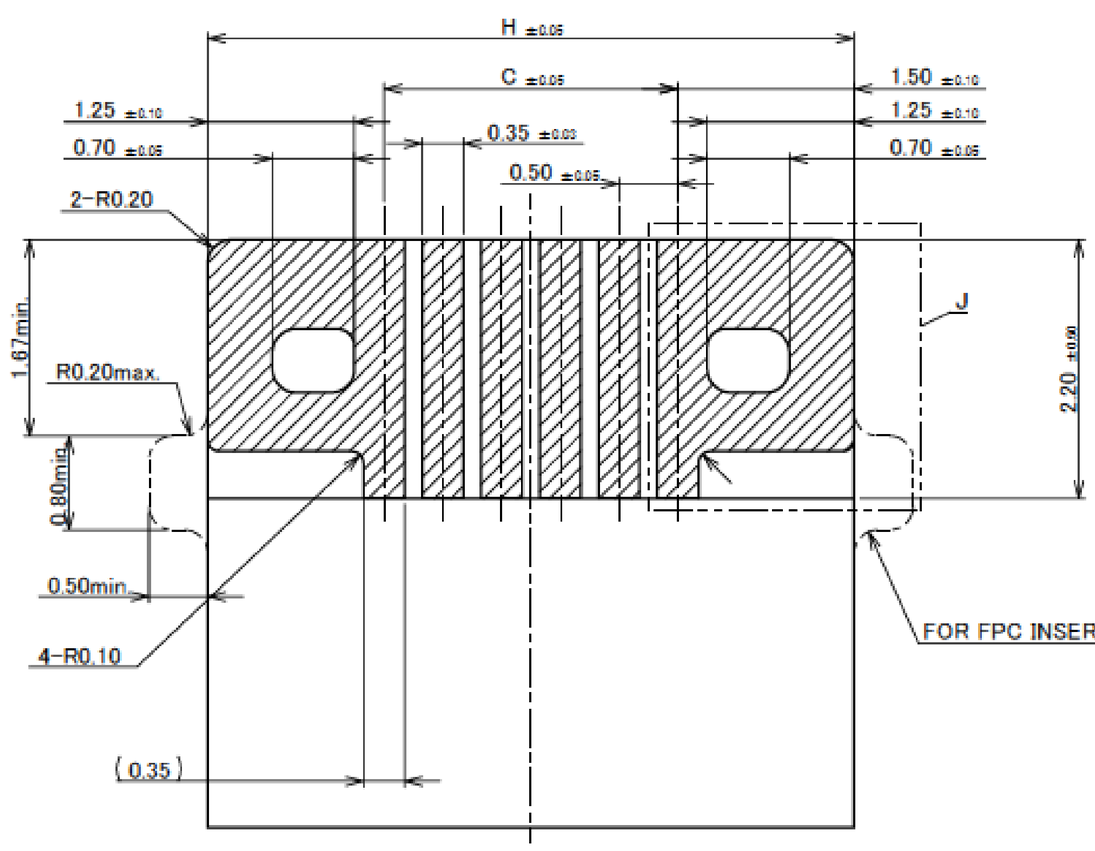
5	HOLD DOWN	PHOSPHOR BRONZE	Sn 2～6 μm MIN.OVER Ni 1.0 μm MIN.
4	LOCK	PHOSPHOR BRONZE	Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.
3	CONTACT	PHOSPHOR BRONZE	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.0 μm MIN.
			SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.
2	ACTUATOR	LCP	UL94V-0, BEIGE
1	HOUSING	LCP	UL94V-0, BEIGE

NOTES
1. CONTACT TAIL IS PROJECTION FROM HOUSING IN THE + DIRECTION. (0～0.06)

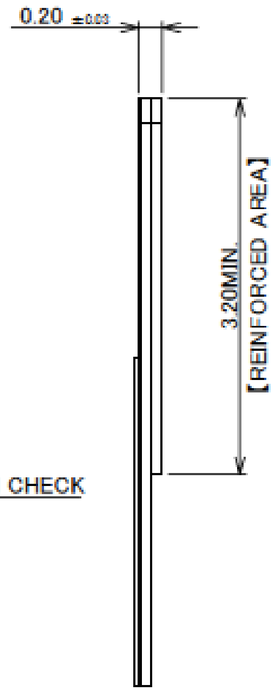
Rev.8

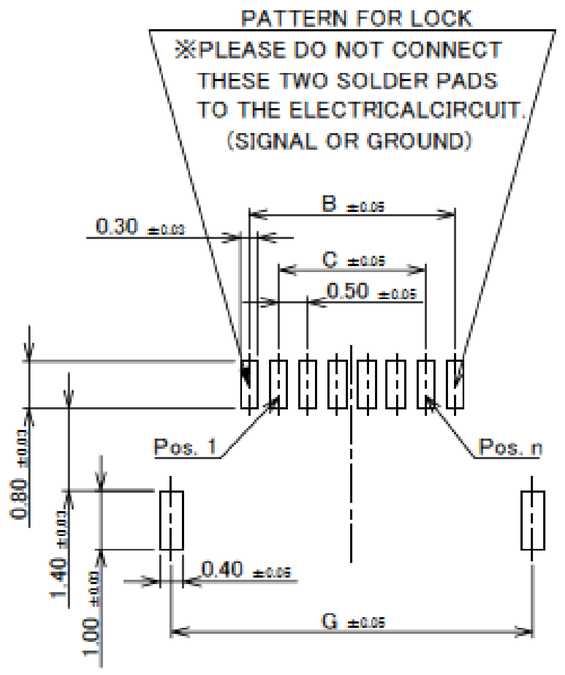
PART No.	POS.	B	C	G	H
20597-006E-02	6	3.50	2.50	6.15	5.50
20597-008E-02	8	4.50	3.50	7.15	6.50
20597-010E-02	10	5.50	4.50	8.15	7.50
◆20597-020E-02	20	10.50	9.50	13.15	12.50

◆MARK MEANS NOT AVAILABLE

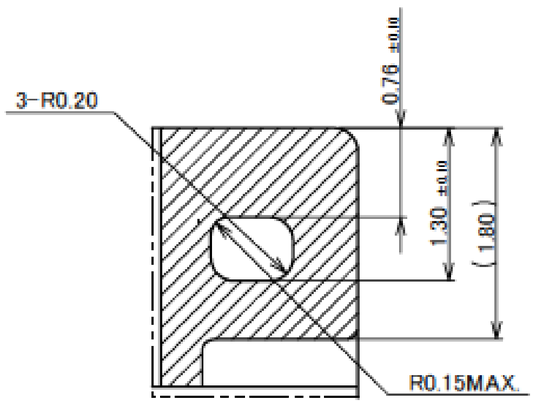


RECOMMENDED FPC LAYOUT





RECOMMENDED PCB LAYOUT & METAL MASK LAYOUT
METAL MASK THICKNESS : t=0.12mm

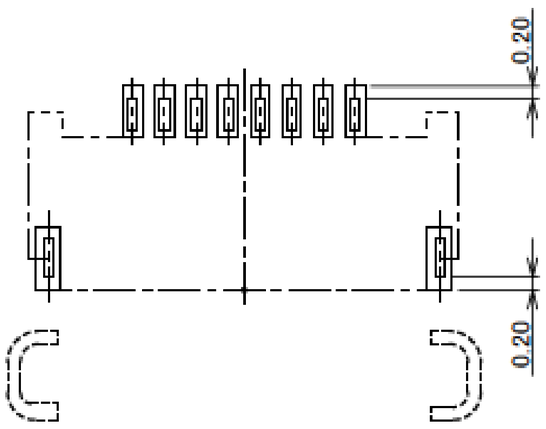


DETAIL J
(S=20/1)

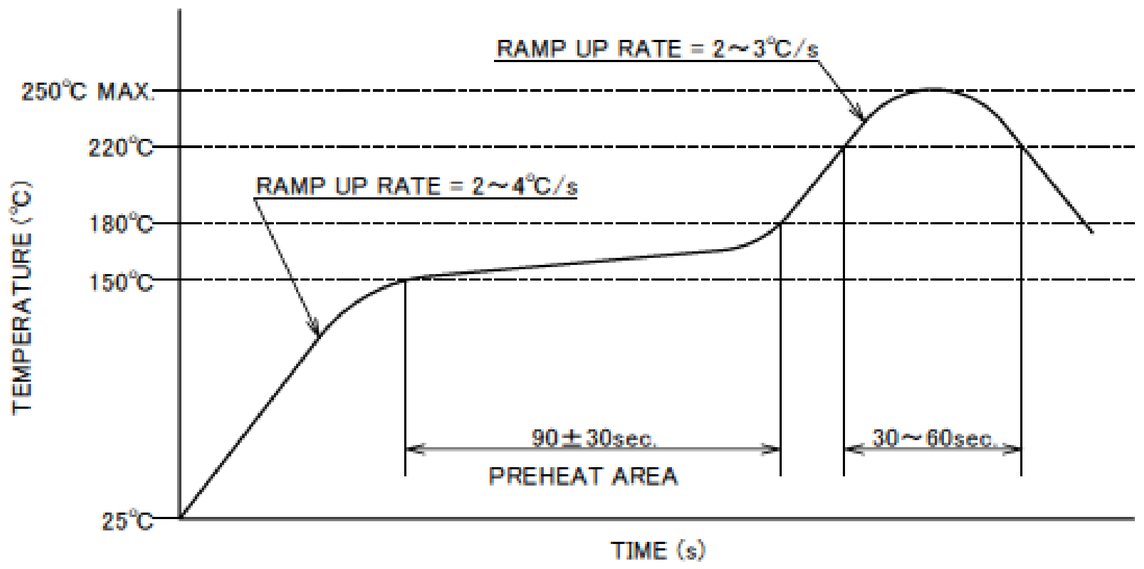
NOTES
2.MATERIAL
COVER FILM : PI
CONDUCTOR : COPPER(RARE)
BASE FILM : PI
STIFFENER : PI
ADHESIVE : THERMOSETTING ADHESIVE
3.FINISH
Au OVER Ni PLATING.

Rev.8

Receptacle for Cable Assembly



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC (PER CONTACT)
RATING AMPERAGE	0.5A DC [FPC] (PER CONTACT) 0.7A DC [AWG#34] (PER CONTACT)
OPERATING TEMPERATURE	233～358K(-40℃～85℃)
OPERATING HUMIDITY	80% MAX.
CONTACT RESISTANCE	INITIAL : 40mohm MAX. / AFTER TEST : ⊿20mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MAX. (PLUG CABLE) 100Mohm MIN. (FPC)
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	20TH CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : 0.6N(61gf) × (n + 2) MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : 0.05N(5gf) × (n + 2) MIN.
PLUG AND FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL : 0.15N(15gf) × n + 2.0N MIN. / AFTER TEST : 0.15N(15gf) × n + 1.0N MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-1880
TEST REPORT	TR-13103
PACKING STANDARD	PST-13047
INSTRUCTION MANUAL	HIM-14010 (FOR MATING PLUG CABLE) HIM-12019 (FOR MATING FPC)
APPEARANCE CRITERIA No.	QLS-A***

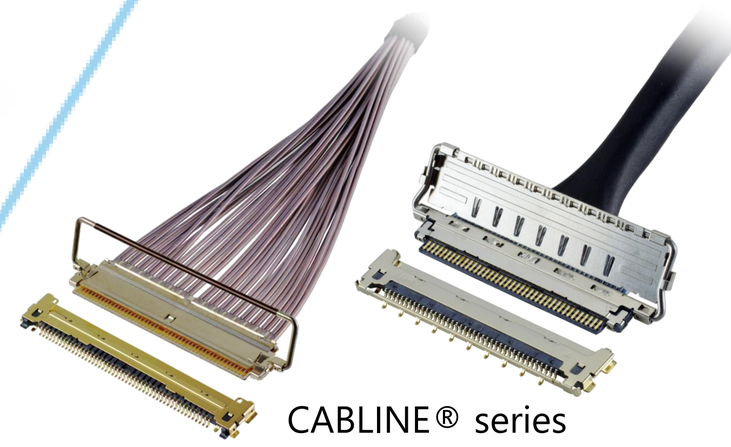
※ "n" IS THE NUMBER OF PIN

Custom Connectors Available

RF Connectors

MHF® series

Micro-Coaxial/Twinaxial Connectors



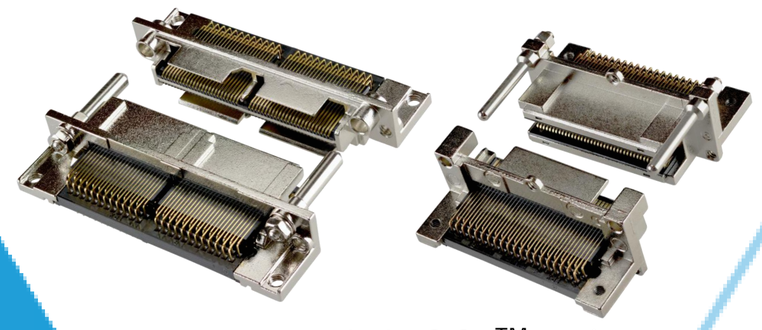
CABLINE® series

Wire-to-Board Connectors/ Terminals

AP series

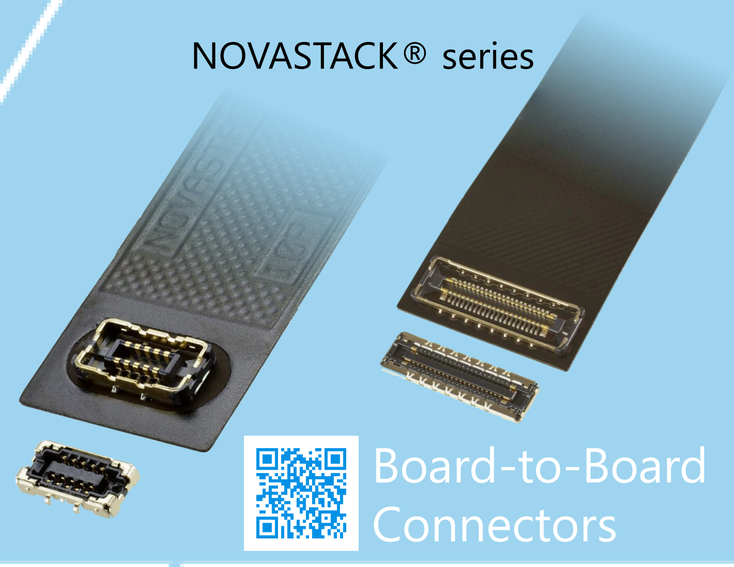
ISH® series

I/O Connectors



MINIDOCK™ series

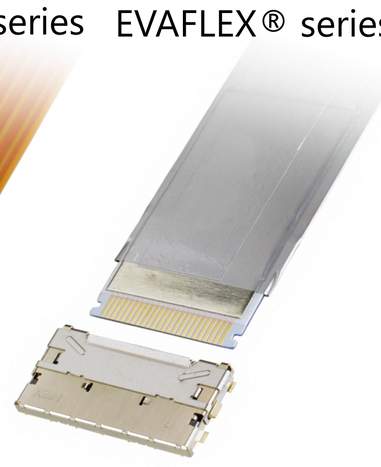
NOVASTACK® series



Board-to-Board Connectors

MINIFLEX® series

EVAFLEX® series



FPC/FFC Connectors

Inquiry

I-PEX, MHF, CABLINE, NOVASTACK, ISH, IARPB, MINIFLEX, EVAFLEX, MINIDOCK, i-Fit and ZenShield are registered trademarks of I-PEX Inc. Please note that the contents in the catalog might be changed without prior notification. I-PEX Inc. assumes no responsibility for any inaccuracies or obligation to update Information on these documents. Please be sure to read and understand the latest "Precautions for Use" and "Instruction Manual" before you use our products. We shall not be responsible for any defects, damages or troubles in case you use our products without following the precautions for use. Please feel free to contact our sales representatives when you use our products for any applications that require very high reliability and safety, or that relate to human life (ex. nuclear power control, aerospace, transportation, medical equipment, safety equipment etc.).

Contact your sales representative or more detailed information.

www.i-pex.com

I-PEX

© I-PEX Inc. 2025
All rights reserved