CABLINE®-CA II PLUS

Fully-shielded with mechanical lock, High-data-rate transfer (20 Gbps/lane), 0.4 mm pitch, Horizontal mating type micro-coaxial connector

Product Specifications:

Mating type		Horizontal
Board Pitch (mm)		0.4
Wiping Length (mm)		0.54
Mated size (mm)	Height	1.2 max. with cover
	Width	Formula: 6.95 + (0.4*?p)
	Depth	6.7
Pin Counts	Range	Up to 60
	Available	60

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)	#40
Discrete (AWG)	#34 or smaller

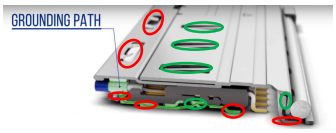
Applicable Standards (Reference Only):

Thunderbolt 3 (20 Gbps/lane), PCIe® Gen 4 (16 GT/s), USB® 3.1 Gen 2 (10 Gbps), eDP HBR 3 (8.1 Gbps)

* Please inquire for pin counts not listed or outside of the pin count range.
*20, 30, 40, 50p are also available with CABLINE®-CA II (narrow space type).

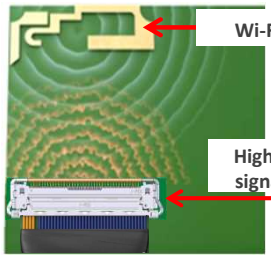
ZenShield® fully-shielded with multi-point grounds to prevent EMI leakage

View From Back

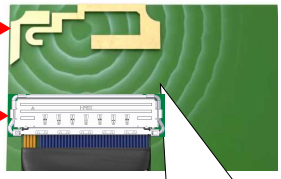


Soldered contacts
Mechanical contacts

General Connector

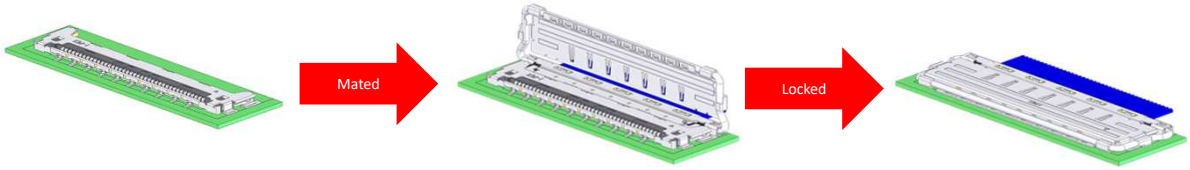


ZenShield® Connector



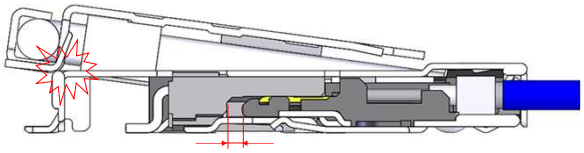
Connectors can be placed closer to antenna

Mechanical locking cover prevents incomplete mating and back-out/un-mating

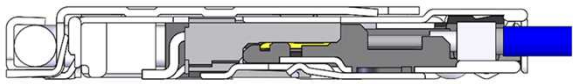


Unable to lock

can only be locked when mating is complete

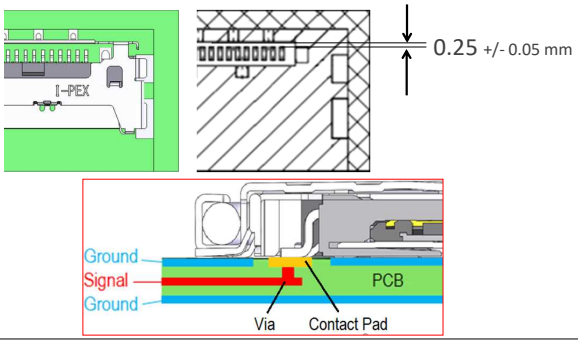
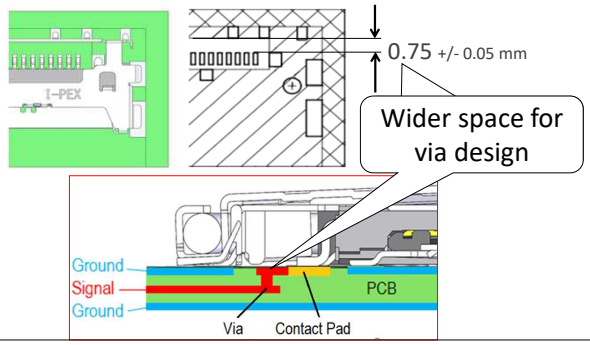


incomplete mating



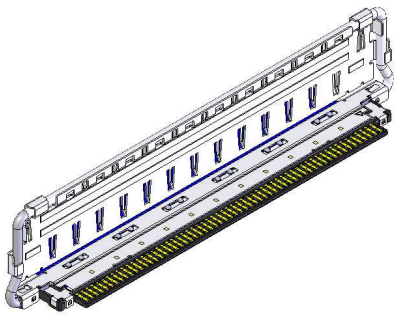
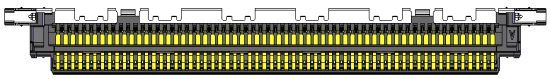
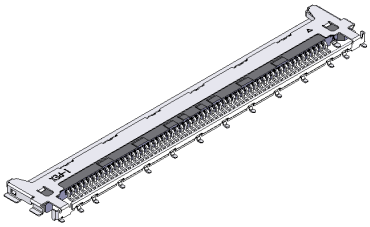
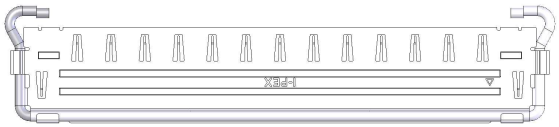
complete mating

Wider space for vias on PCB (for Non-Via-In-Pad type PCB trace design)

CABLINE®-CA II (Narrow Space Type) 40p	CABLINE®-CA II PLUS (Wider Space Type) 60p
	

Component Parts Details

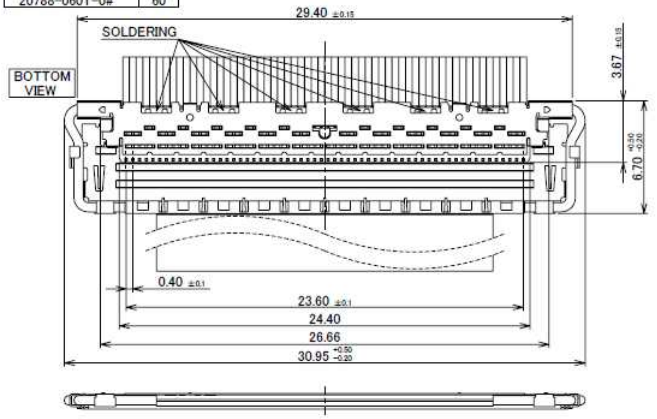
Component Parts

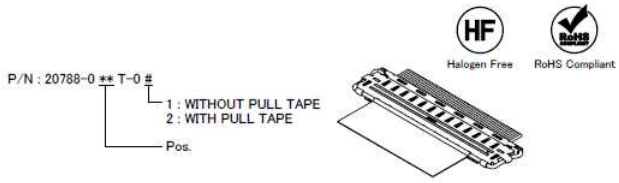
Connector parts	Plug parts
 PLUG	 PLUG HOUSING ASSEMBLY
 RECEPTACLE	 PLUG SHELL-A
	 PLUG LOCK BAR ASSEMBLY

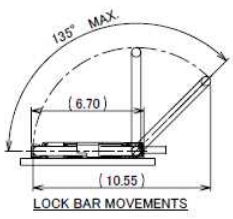
Plug for Cable Assembly

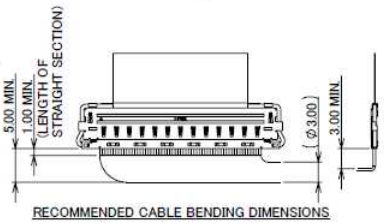
Recommended P/N	20788-0**T-01

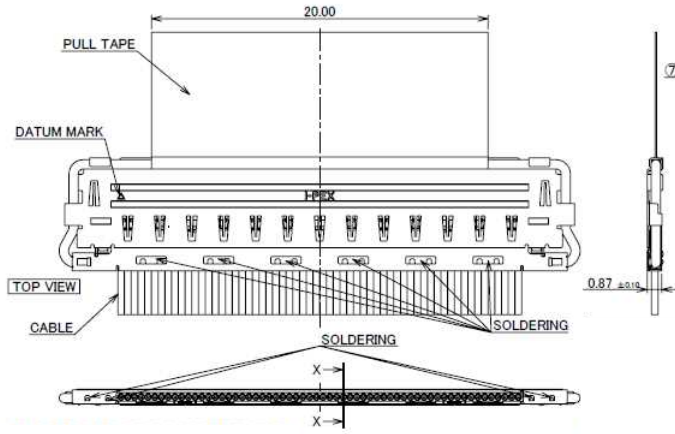
PART NO.	Pos.
20788-060T-0#	60

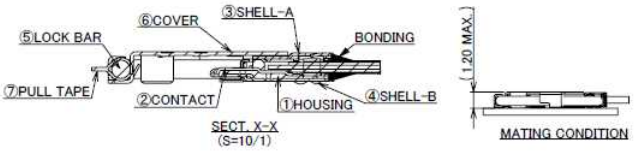








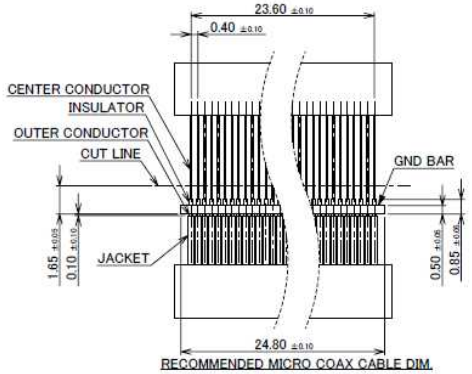


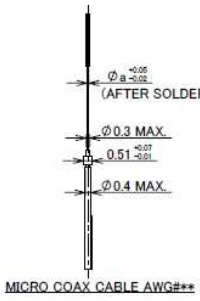


7	PULL TAPE	POLYESTER FILM	-
6	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN.
5	LOCK BAR	SUS Ø0.55	-
4	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.
3	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT & SOLDERING AREA : Au 0.03 μm MIN.
1	HOUSING	LCP	UL94V-0 ,BLACK
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.8

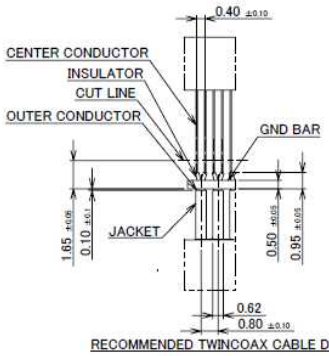
PART NO.	Pos.
20788-060T-##	60

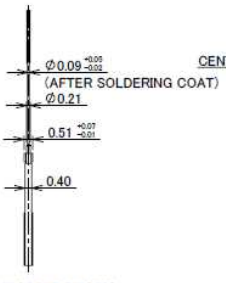


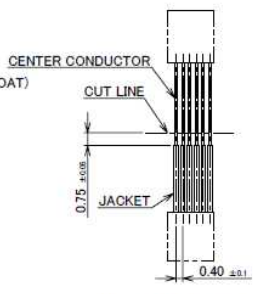


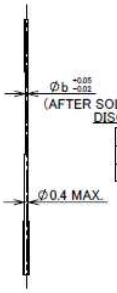
MICRO COAX CABLE DIMENSION

	a
#36	0.15
#38	0.12
#40	0.09
#42	0.075
#44	0.063









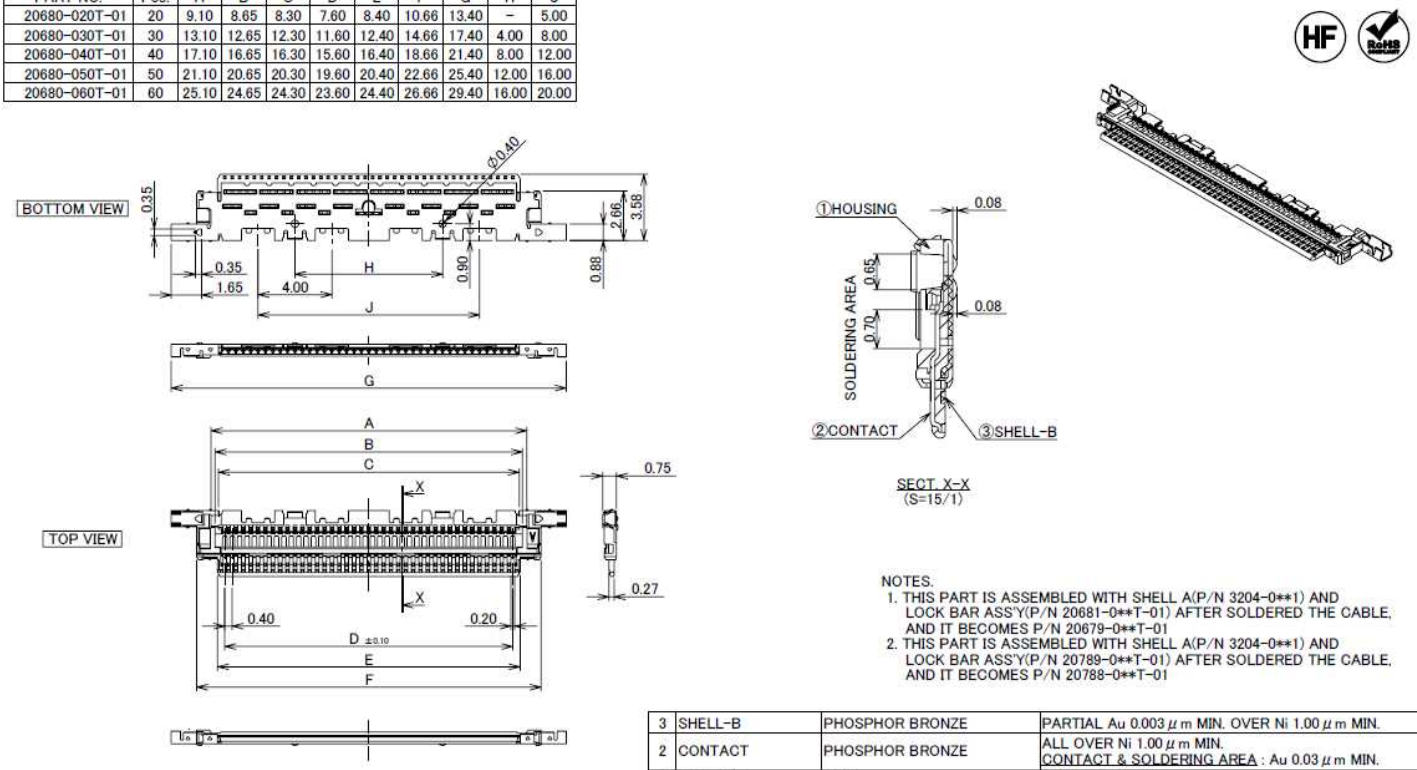
DISCRETE CABLE DIMENSION

	b
#34	0.192
#36	0.15

Rev.8

Plug Housing Assembly

Recommended P/N	20680-0**T-01								
PART NO.	Pos.	A	B	C	D	E	F	G	H	J
20680-020T-01	20	9.10	8.65	8.30	7.60	8.40	10.66	13.40	-	5.00
20680-030T-01	30	13.10	12.65	12.30	11.60	12.40	14.66	17.40	4.00	8.00
20680-040T-01	40	17.10	16.65	16.30	15.60	16.40	18.66	21.40	8.00	12.00
20680-050T-01	50	21.10	20.65	20.30	19.60	20.40	22.66	25.40	12.00	16.00
20680-060T-01	60	25.10	24.65	24.30	23.60	24.40	26.66	29.40	16.00	20.00

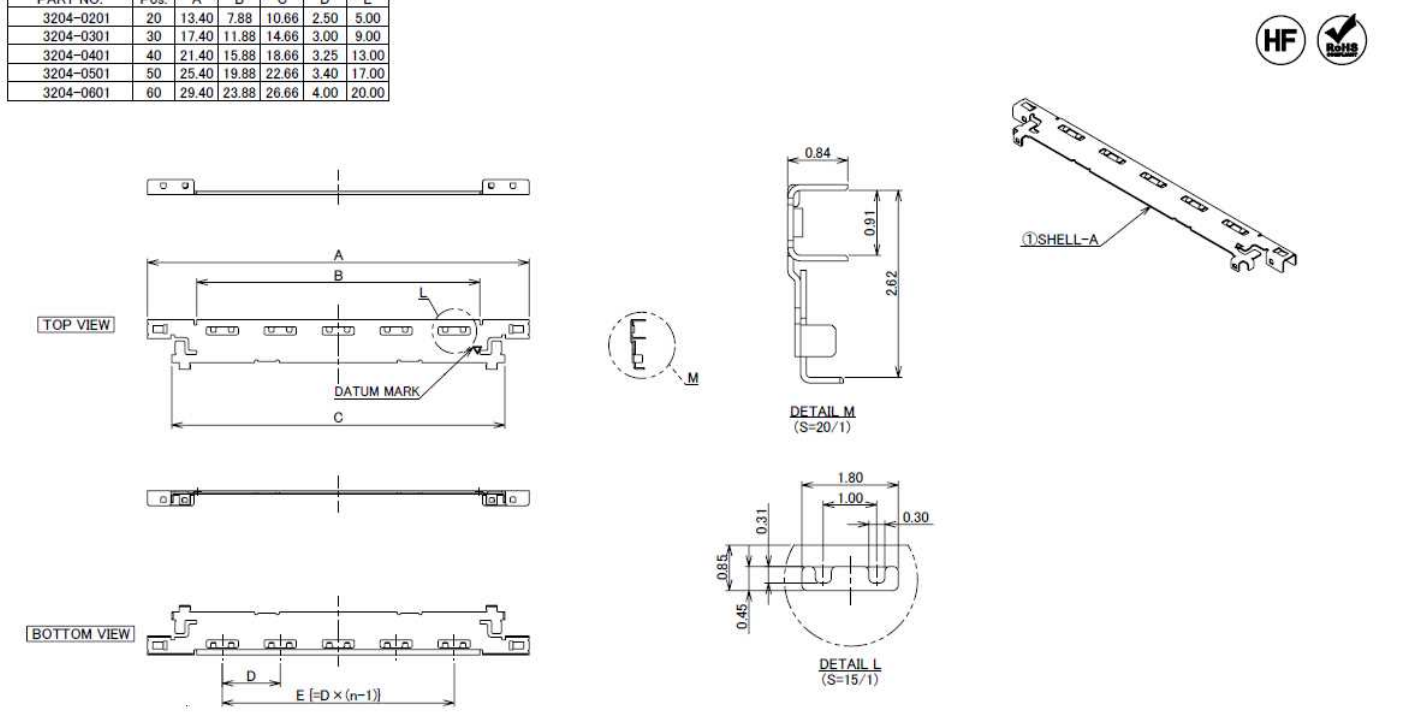


NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
3	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT & SOLDERING AREA : Au 0.03 μm MIN.
1	HOUSING	LCP	UL94V-0 ,BLACK

Rev.7

Plug Shell-A

Recommended P/N	3204-0**1					
PART NO.	Pos.	A	B	C	D	E
3204-0201	20	13.40	7.88	10.66	2.50	5.00
3204-0301	30	17.40	11.88	14.66	3.00	9.00
3204-0401	40	21.40	15.88	18.66	3.25	13.00
3204-0501	50	25.40	19.88	22.66	3.40	17.00
3204-0601	60	29.40	23.88	26.66	4.00	20.00

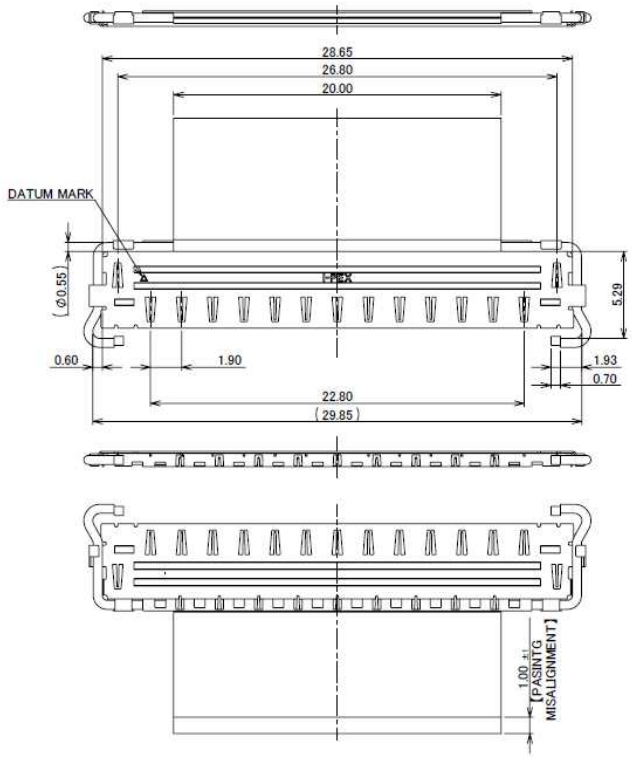


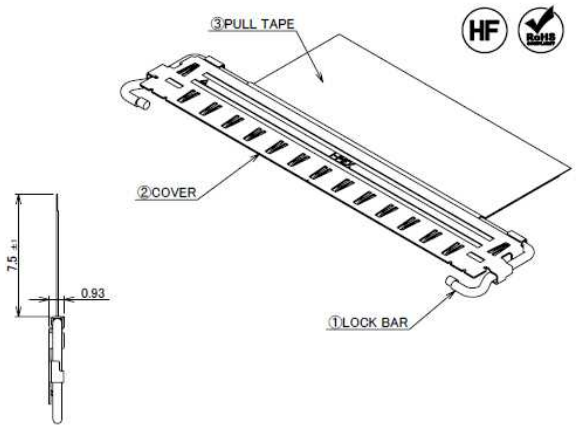
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
1	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.

Rev.7

Lock Bar Assembly

Recommended P/N	20789-0**T-01
PART NO.	Pos.	PULL TAPE
20789-060T-01	60	WITHOUT
20789-060T-02	60	WITH



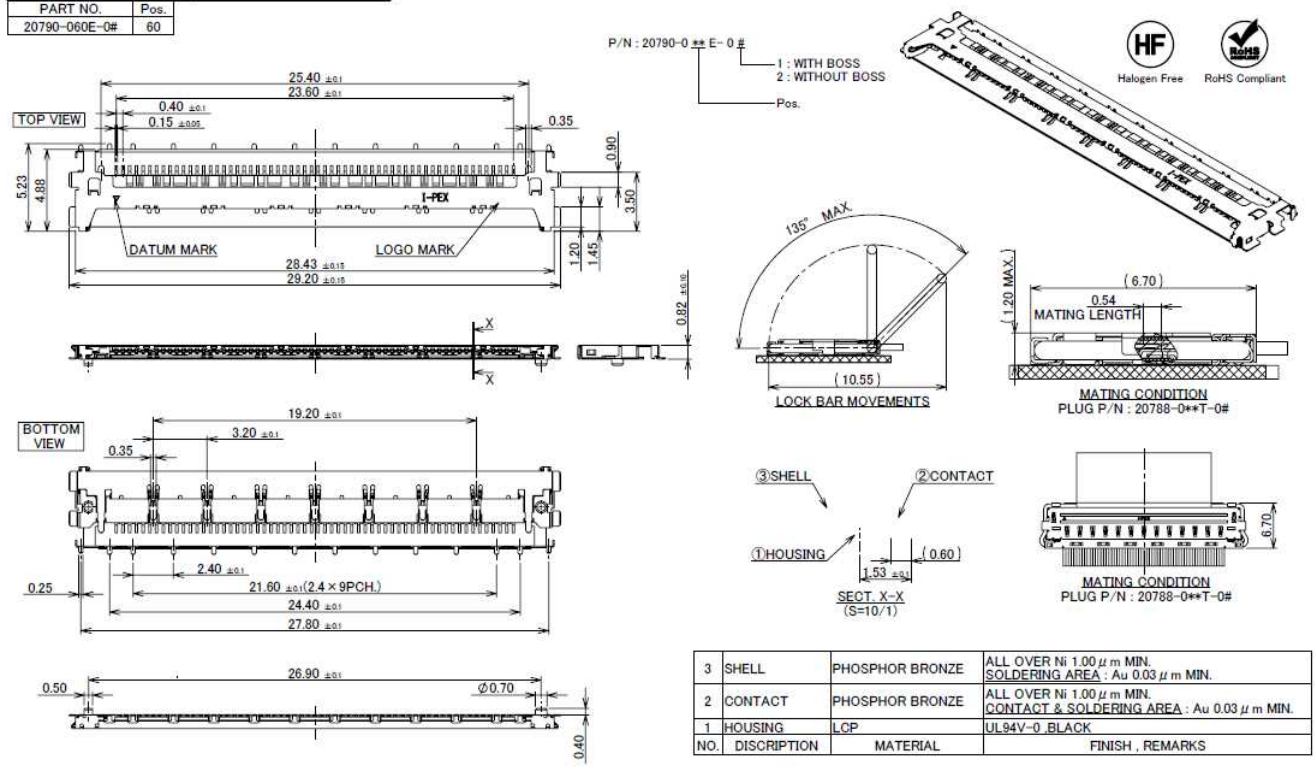


NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
3	PULL TAPE	POLYESTER FILM	–
2	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN.
1	LOCK BAR	SUS ϕ0.55	–

Rev.8

Receptacle Assembly

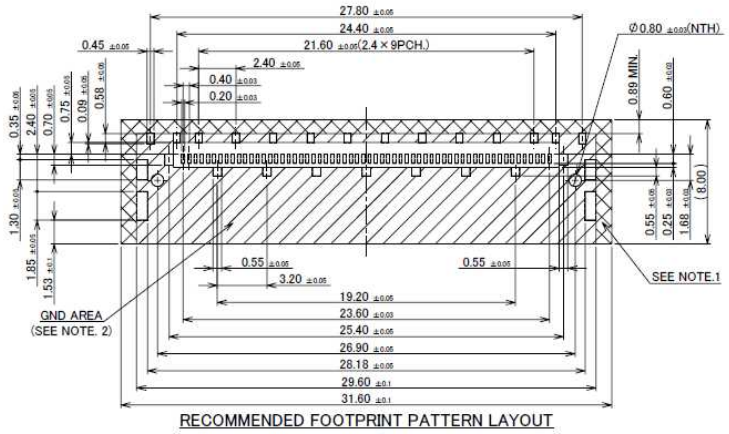
Recommended P/N	20790-0**E-02
PART NO.	Pos.
20790-060E-0#	60



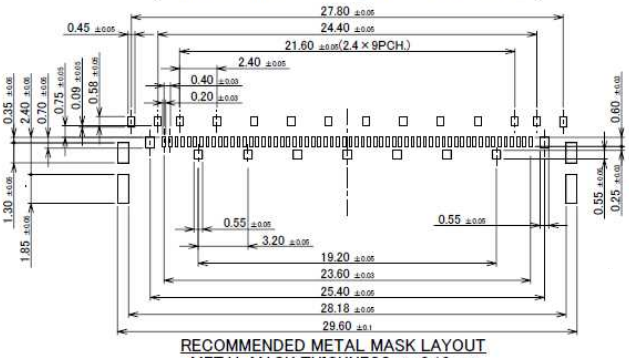
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
3	SHELL	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.03 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT & SOLDERING AREA : Au 0.03 μm MIN.
1	HOUSING	LCP	UL94V-0 ,BLACK

Rev.11

Receptacle Assembly



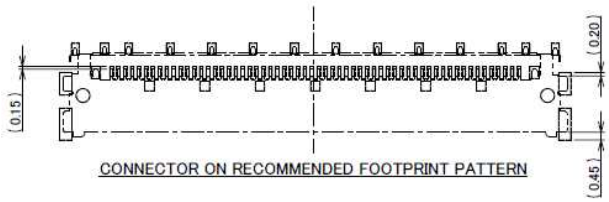
RECOMMENDED FOOTPRINT PATTERN LAYOUT



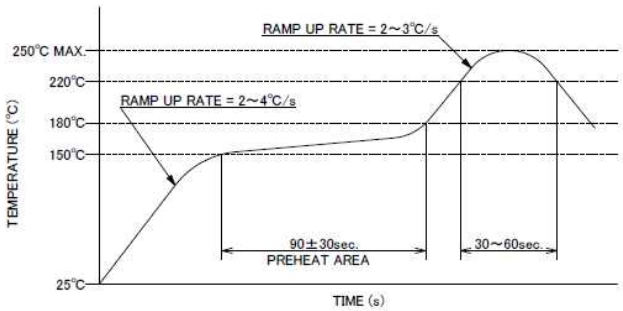
RECOMMENDED METAL MASK LAYOUT
METAL MASK THICKNESS : t=0.12mm

NOTES.
1. THIS AREA CANNOT MOUNT ANOTHER COMPONENTS.
2. SOLDER RESIST SHALL BE APPLIED TO PREVENT SHORT CIRCUITS WHEN PLACING SIGNAL LINES ON GROUND AREA.

Rev.11



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

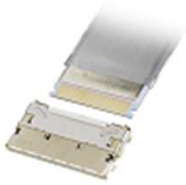
Rev.11

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO COAX : AWG# 44 , 42 , 40 , 38 , 36 DISCRETE : AWG# 36 , 34 TWINCOAX : AWG#40
RATING VOLTAGE	100V AC (PER CONTACT)
RATING AMPERAGE (FOR CONTACT)	0.1A AC/DC [AWG#44] PER CONTACT / UP TO 60 CONTACTS 0.24A AC/DC [AWG#42] PER CONTACT / UP TO 60 CONTACTS 0.3A AC/DC [AWG#40] PER CONTACT / UP TO 60 CONTACTS 0.5A AC/DC [AWG#38] PER CONTACT / UP TO 18 CONTACTS 0.8A AC/DC [AWG#36] PER CONTACT / UP TO 6 CONTACTS 1.0A AC/DC [AWG#34] PER CONTACT / UP TO 6 CONTACTS ※TESTING BY REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION
OPERATING TEMPERATURE	248～378K(-40℃～105℃)
OPERATING HUMIDITY	85% MAX.(NON-CONDENDING)
CONTACT RESISTANCE	INITIAL : 180mohm MAX.(AWG#34) / AFTER TEST : ⊿40mohm MAX. 275mohm MAX.(AWG#36) 360mohm MAX.(AWG#38) 600mohm MAX.(AWG#40) 700mohm MAX.(AWG#42) 1080mohm MAX.(AWG#44)
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 30 CYCLES)	29.10N MAX.
UN-MATING FORCE (INITIAL / AFTER 30 CYCLES)	6.0N MIN.
CABLE RETENTION FORCE	29.40N MIN.
PRODUCT SPECIFICATION	PRS-2261
TEST REPORT	TR-16075
INSTRUCTION MANUAL	HIM-16028
ASSEMBLY MANUAL	ASM-16004
APPEARANCE CRITERIA NO.	QLS-A***

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

Contact your sales representative or more detailed information.

www.i-pex.com

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