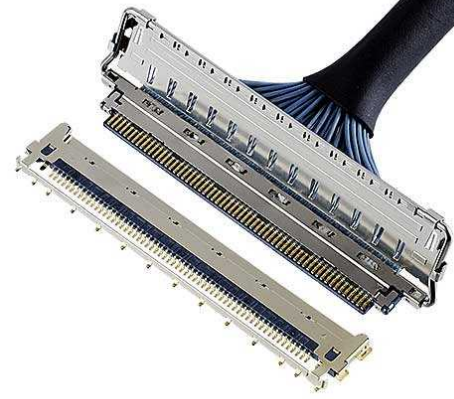


# CABLIN<sup>®</sup>-CA II PLUS

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:**

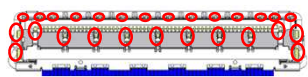
Maximum O.D. (mm)	0.4
Micro-Coaxial for Signal (AWG)	45 ohm: #38 or smaller
	50 ohm: #40 or smaller
Twin Coaxial (AWG)	#40, #42
Discrete (AWG)	#34 or smaller

**Applicable Standards (Reference Only):**

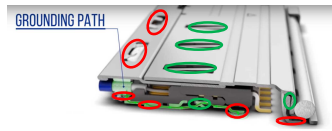
Thunderbolt 4 (20 Gbps/lane), PCIe<sup>®</sup> Gen 4 (16 GT/s), USB<sup>®</sup> 3.1 Gen 2 (10 Gbps), eDP HBR 3 (8.1 Gbps)

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

## ZenShield<sup>®</sup> fully-shielded with multi-point grounds to prevent EMI leakage

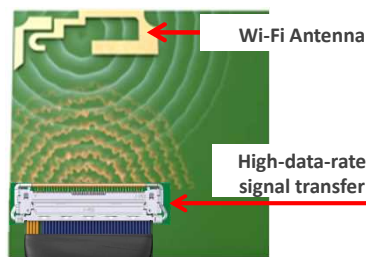


View From Back

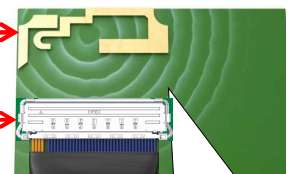


○ Soldered contacts  
 ○ Mechanical contacts

**General Connector**

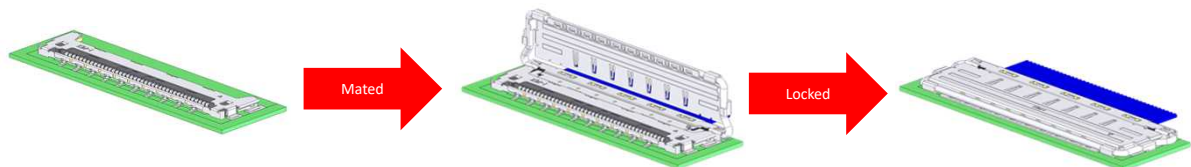


**ZenShield<sup>®</sup> Connector**



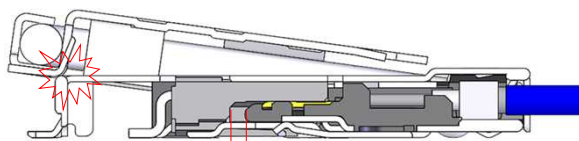
Connectors can be placed closer to antenna

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

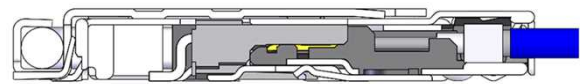


Unable to lock

can only be locked when mating is complete



incomplete mating



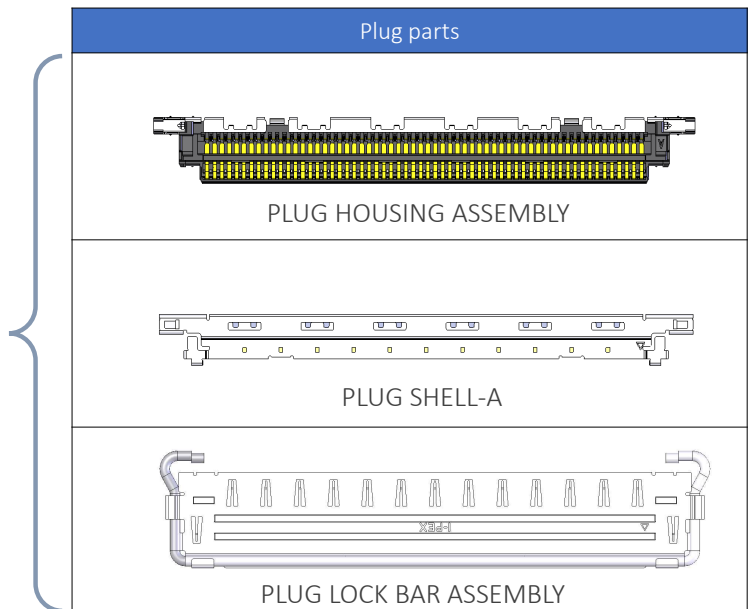
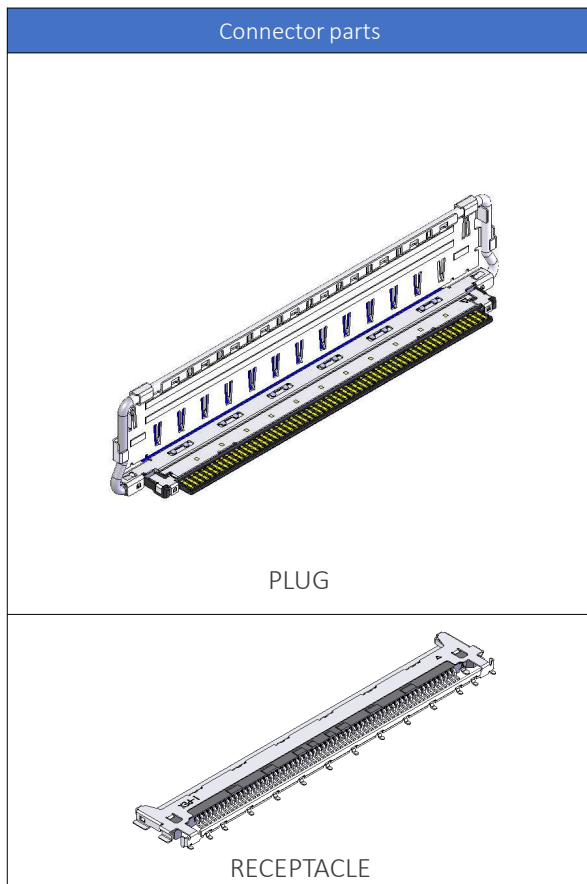
complete mating

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

CABLIN <sup>®</sup> -CA II (Narrow Space Type) 40p	CABLIN <sup>®</sup> -CA II PLUS (Wider Space Type) 60p
<p>0.25 +/- 0.05 mm</p>	<p>0.75 +/- 0.05 mm</p> <p>Wider space for via design</p>
<p>Ground Signal Ground Via Contact Pad PCB</p>	<p>Ground Signal Ground Via Contact Pad PCB</p>

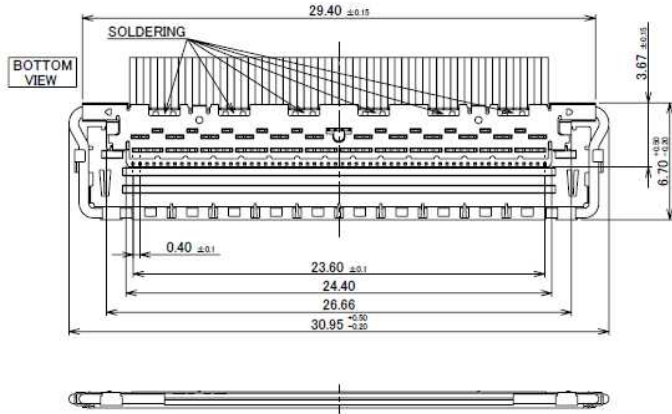
# Component Parts Details

## Component Parts

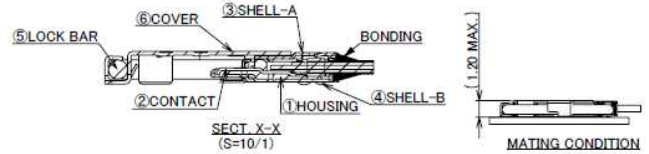
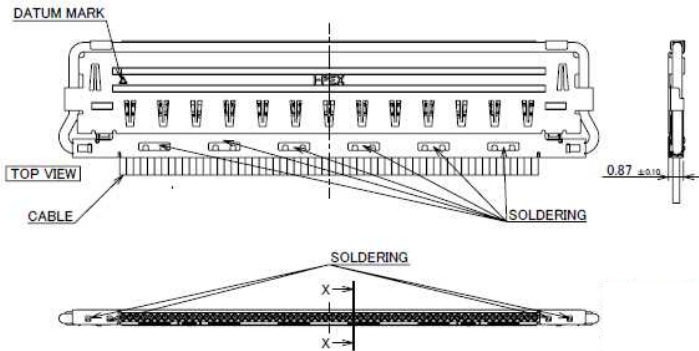
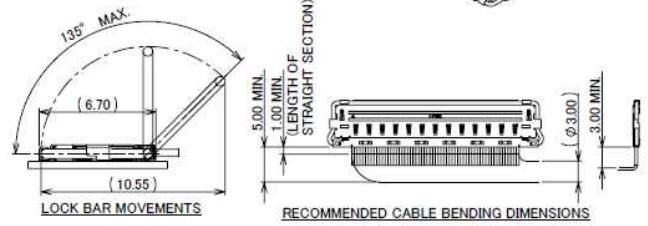


# Plug for Cable Assembly

Recommended P/N		20788-0**T-01
PART NO.	Pos.	
20788-060T-01	60	



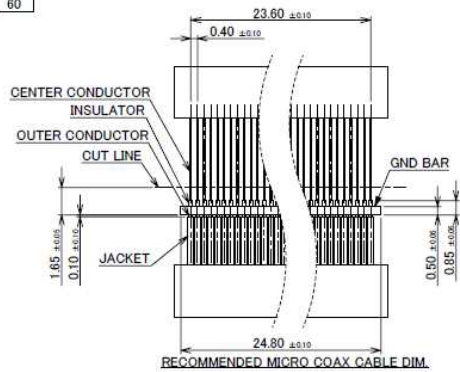
P/N : 20788-0\*\*T-01  
Pos.



NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
6	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN.
5	LOCK BAR	SUS φ0.55	-
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

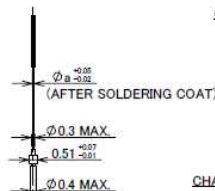
Rev.10

PART NO.	Pos.
20788-060T-01	60



### CHARACTERISTIC IMPEDANCE MATCHING MICRO COAX CABLE

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

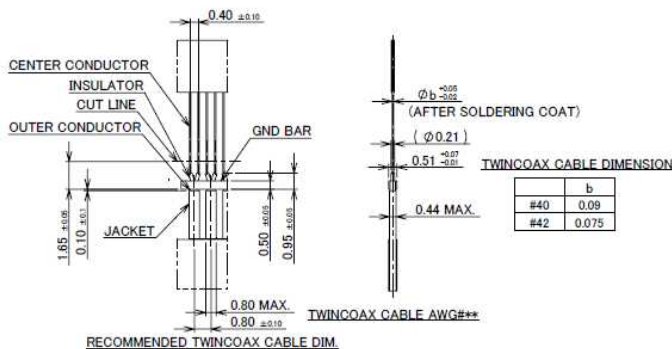


### CHARACTERISTIC IMPEDANCE UN-MATCHING MICRO COAX CABLE

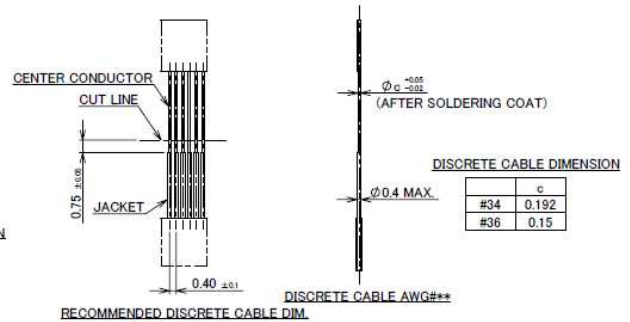
	a
#36	0.15

MICRO COAX CABLE #36 : NOT RECOMMENDED FOR HIGH SPEED SIGNAL TRANSFER

MICRO COAX CABLE AWG\*\*\*



	b
#40	0.09
#42	0.075



	c
#34	0.192
#36	0.15

RECOMMENDED DISCRETE CABLE DIM.

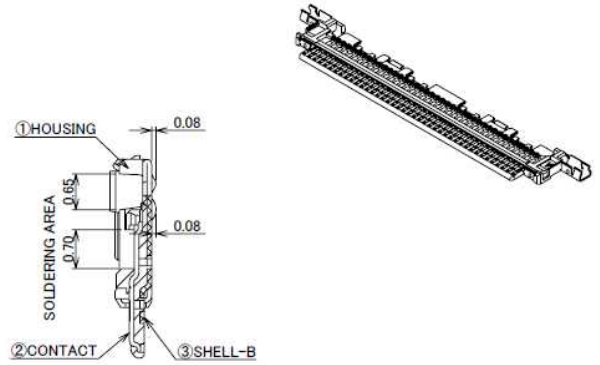
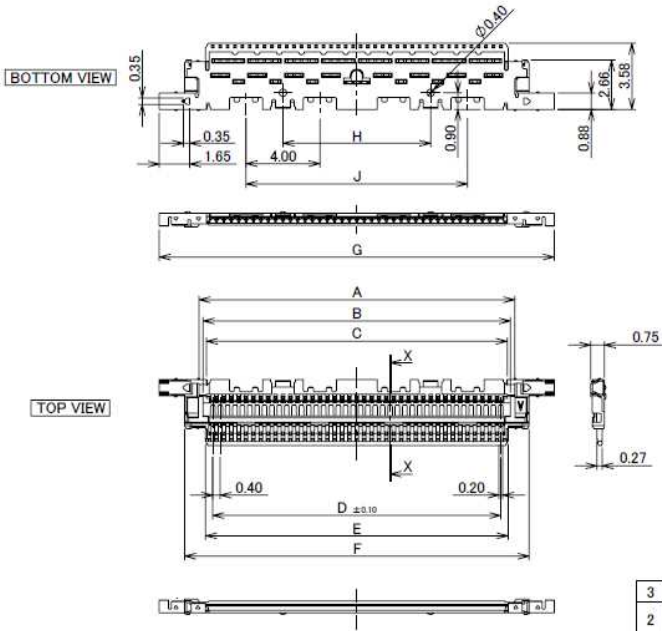
DISCRETE CABLE AWG\*\*\*

Rev.10

# 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



SECT. X-X  
(S=15/1)

- NOTES:
- THIS PART IS ASSEMBLED WITH SHELL A(P/N 3204-0\*\*1) AND LOCK BAR ASS'Y(P/N 20681-0\*\*T-01) AFTER SOLDERED THE CABLE, AND IT BECOMES P/N 20679-0\*\*T-01
  - THIS PART IS ASSEMBLED WITH SHELL A(P/N 3204-0\*\*1) AND LOCK BAR ASS'Y(P/N 20789-0\*\*T-01) AFTER SOLDERED THE CABLE, AND IT BECOMES P/N 20788-0\*\*T-01

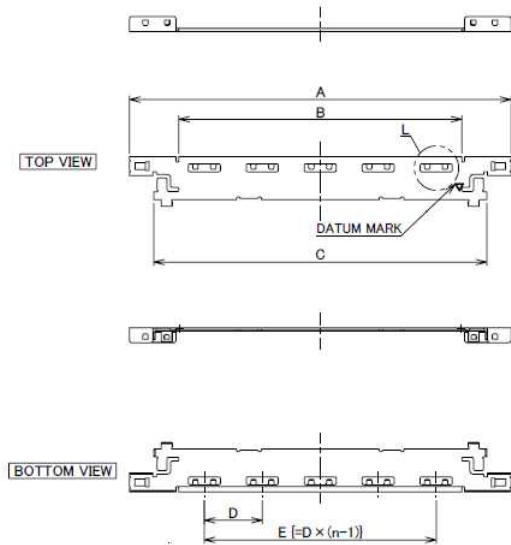
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
3	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT & SOLDERING AREA : Au 0.03 μm MIN.
1	HOUSING	LCP	UL94V-0 ,BLACK

Rev.7

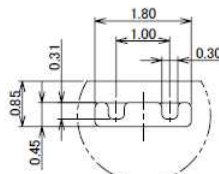
# Plug Shell-A

Recommended P/N 3204-0\*\*1

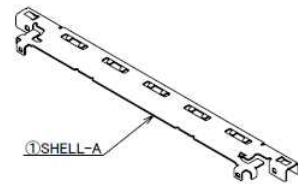
PART NO.	Pos.	A	B	C	D	E
3204-0201	20	13.40	7.88	10.66	2.50	5.00
3204-0301	30	17.40	11.88	14.66	3.00	9.00
3204-0401	40	21.40	15.88	18.66	3.25	13.00
3204-0501	50	25.40	19.88	22.66	3.40	17.00
3204-0601	60	29.40	23.88	26.66	4.00	20.00



DETAIL M  
(S=20/1)



DETAIL L  
(S=15/1)

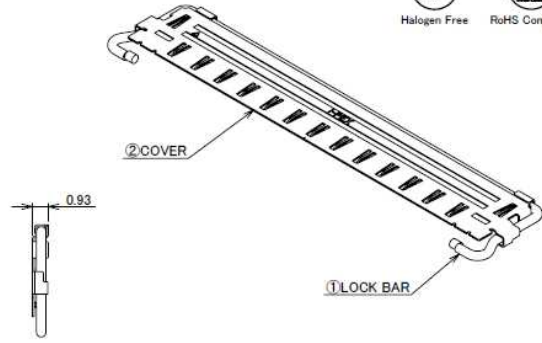
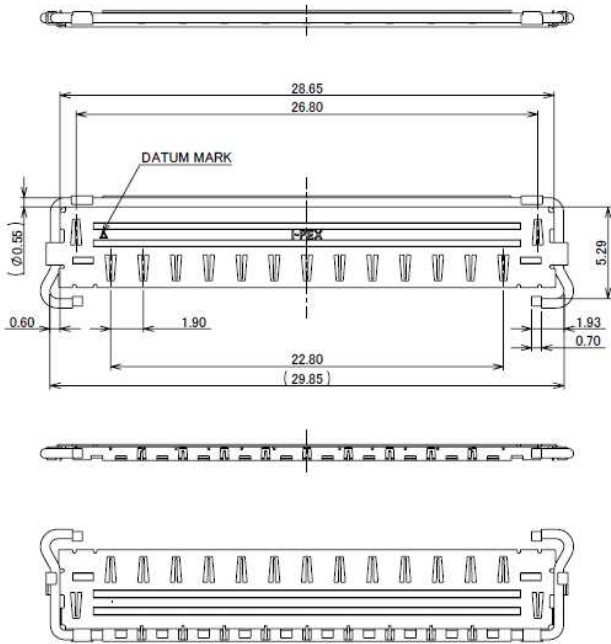


NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
1	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.

Rev.7

# Lock Bar Assembly

Recommended P/N		20789-0**T-01
PART NO.	Pos.	
20789-060T-01	60	

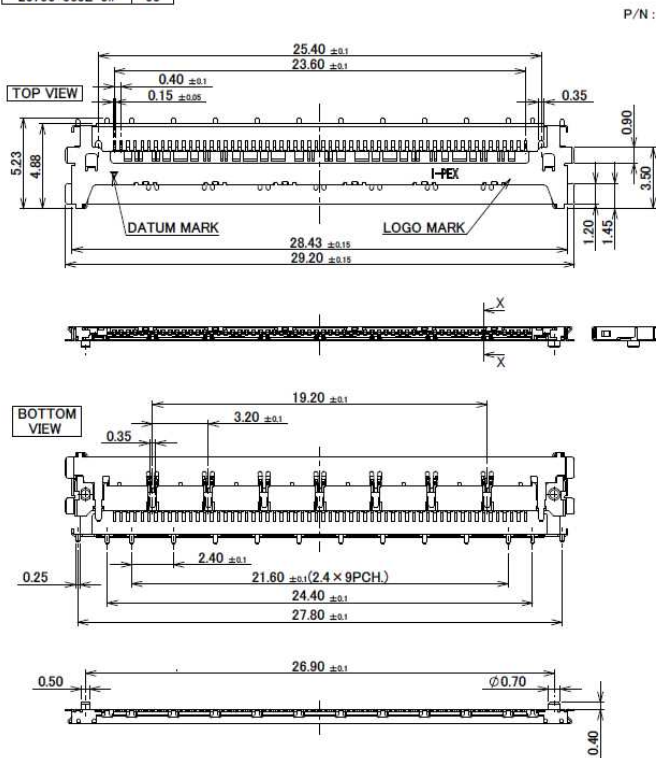


2	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 $\mu$ m MIN.
1	LOCK BAR	SUS $\phi$ 0.55	-
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

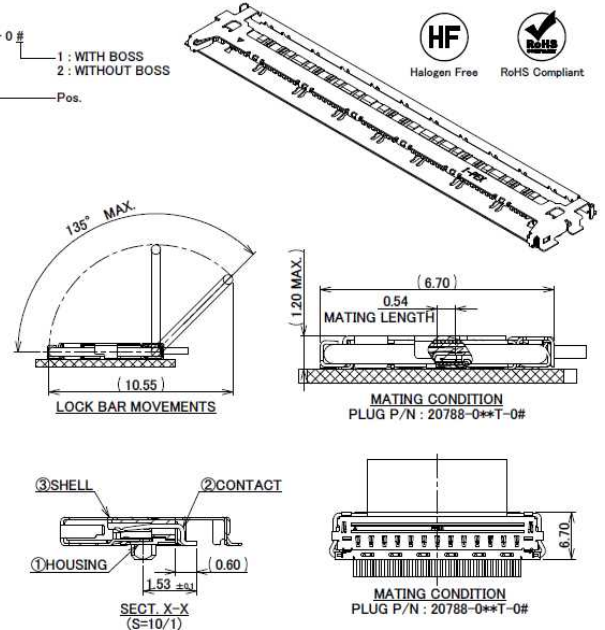
Rev.9

# Receptacle Assembly

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



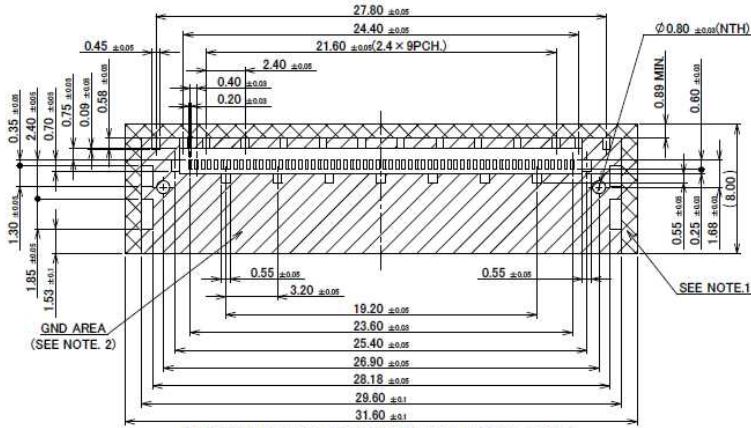
P/N : 20790-0\*\*E-0#  
 1 : WITH BOSS  
 2 : WITHOUT BOSS  
 Pos.



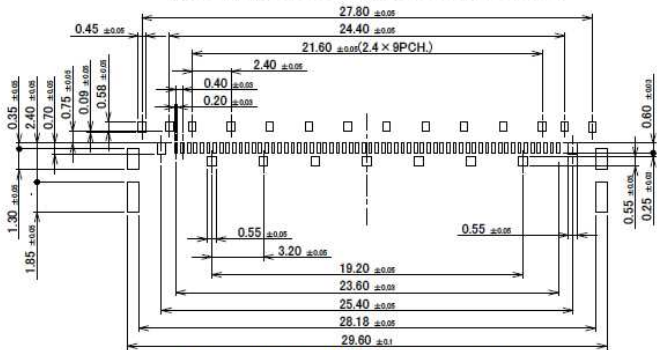
3	SHELL	PHOSPHOR BRONZE	ALL OVER Ni 1.00 $\mu$ m MIN. SOLDERING AREA : Au 0.03 $\mu$ m MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 $\mu$ m MIN. CONTACT & SOLDERING AREA : Au 0.03 $\mu$ m MIN.
1	HOUSING	LCP	UL94V-0 ,BLACK
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.12

# Receptacle Assembly

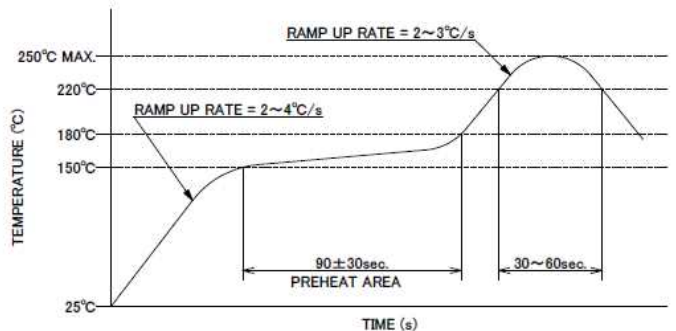
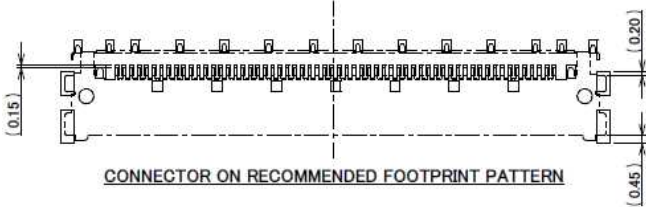


RECOMMENDED FOOTPRINT PATTERN LAYOUT



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.12

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO COAX : AWG# 44 , 42 , 40 , 38 , 36 DISCRETE : AWG# 36 , 34 TWINCOAX : AWG# 40 , 42
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°C~105°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENDING)
CONTACT RESISTANCE	INITIAL : 180mohm MAX.(AWG#34) / AFTER TEST : $\triangle$ 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 : $\triangle$ 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***

Rev.10

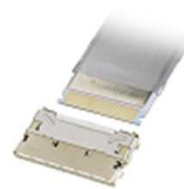
Board to Board



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



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Contact your sales representative or more detailed information.

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