



- ✓ ZenShield® fully-shielded with multi-point grounds to prevent EMI leakage
- ✓ Mechanical locking cover prevents incomplete mating and back-out/un-mating
- ✓ High-data-rate transfer, ideal for Thunderbolt™ 3 (20 Gbps/lane) applications

Pin counts:

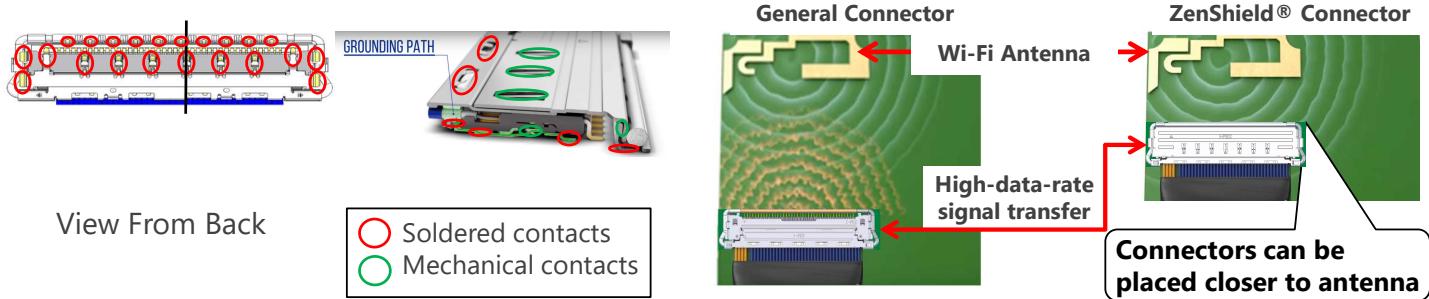
Range	Up to 60
Available	20, 30, 40, 50

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

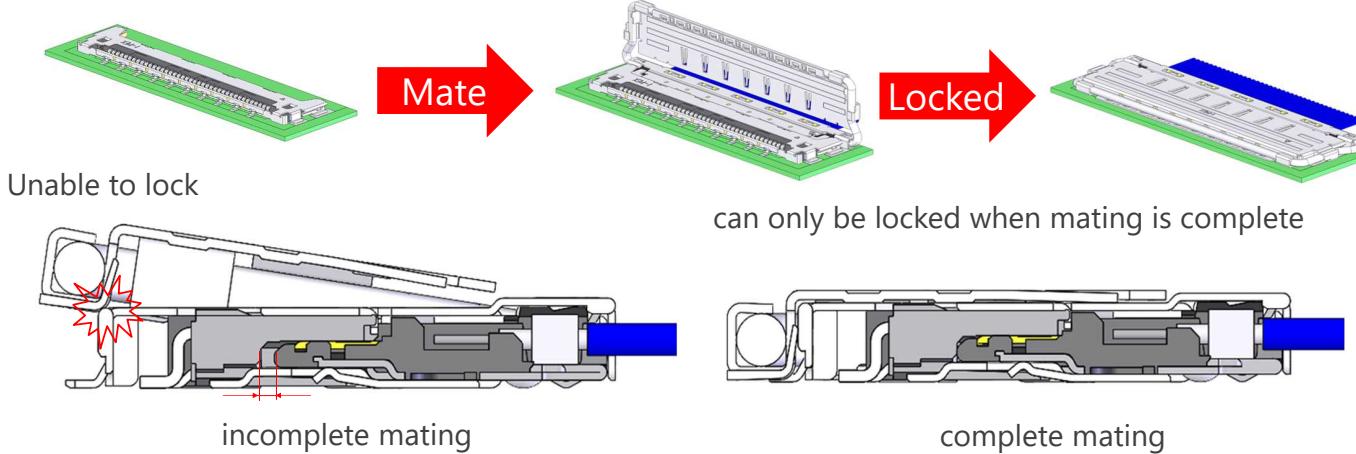
\*60p is also available with CABLINE® -CA II PLUS (wider space type).

Mating type		Horizontal
Wire (FPC) pitch (mm)		0.4
Board pitch (mm)		0.4
Mated size (mm)	Height	1.1 max. with cover
	Width	6.95 + (0.4*?p)
Formula	Depth	6.20
	Wiping length (mm)	0.54
Applicable wire (AWG#)	Micro-coax for signals	45Ω : #38 or smaller
		50Ω : #40 or smaller
	Twincoax	#40
	Discrete	#34 or smaller
	Contact point	Top
	Performance (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)

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



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



## High-data-rate transfer, ideal for Thunderbolt™ 3 (20 Gbps/lane) applications

Thunderbolt 3 (20 Gbps/lane)

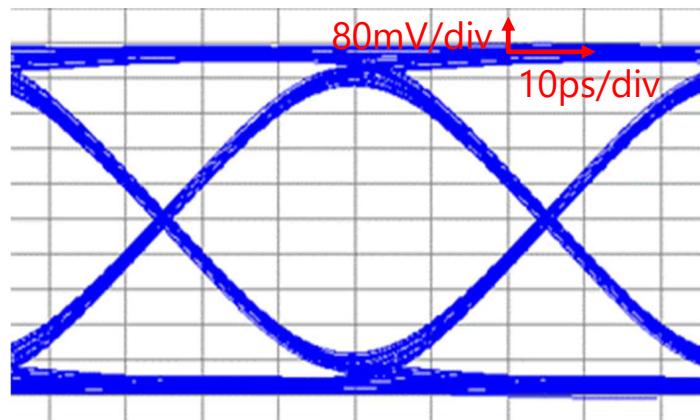
Eye pattern (Differential)

Bit rate : 20 Gbps

Rise time : 30ps (10-90%)

Input voltage : 800mVp-p

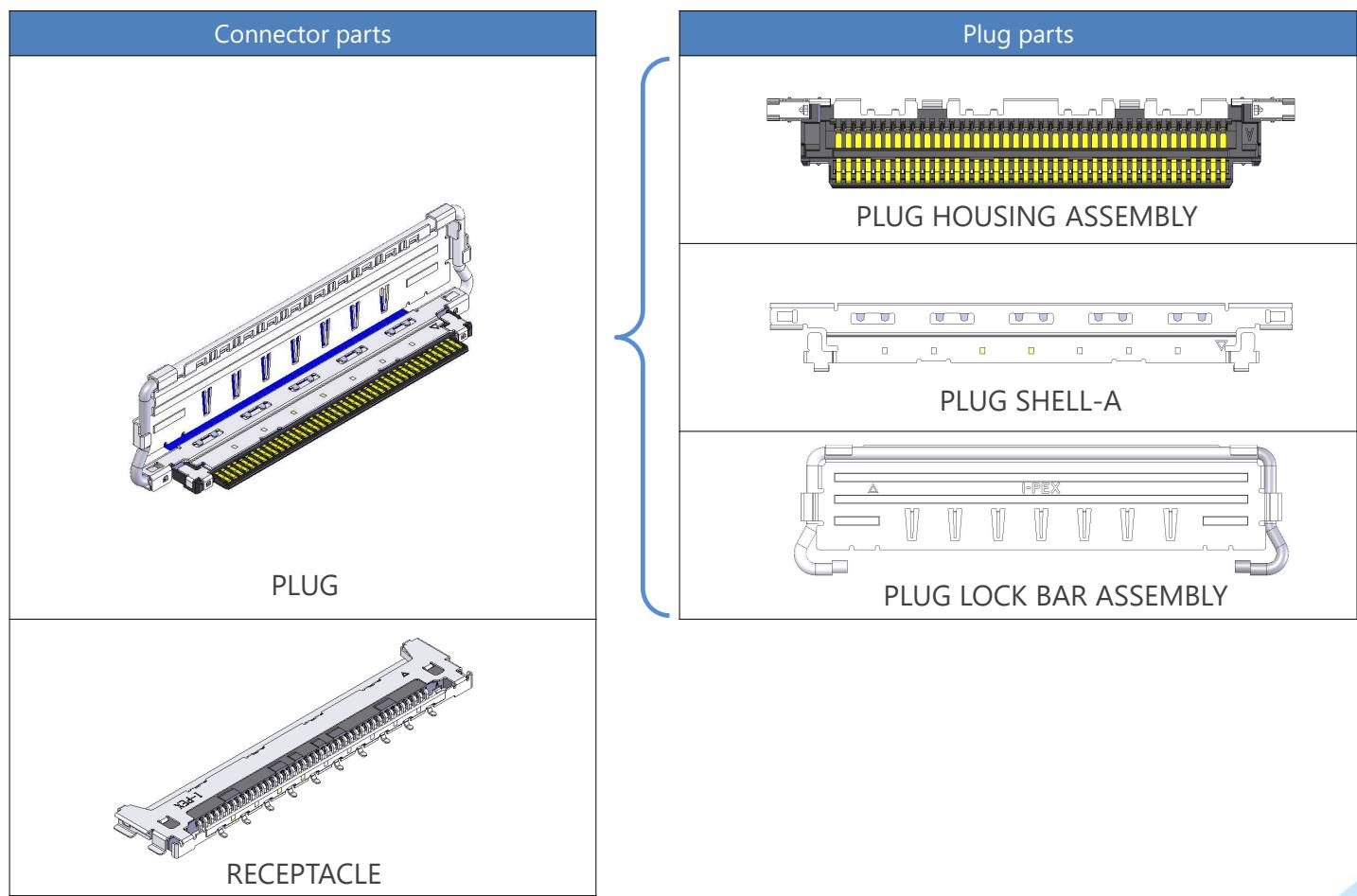
\*Please contact I-PEX for more test details.



# CABLITE®-CA II

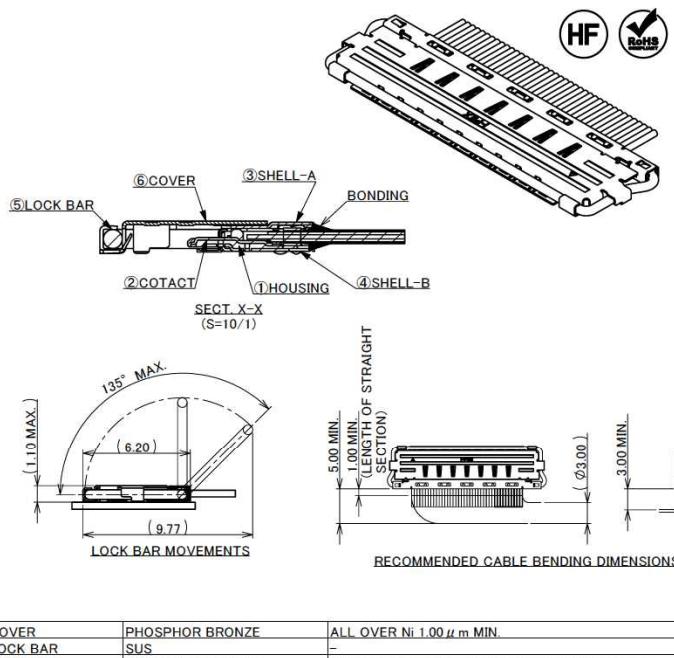
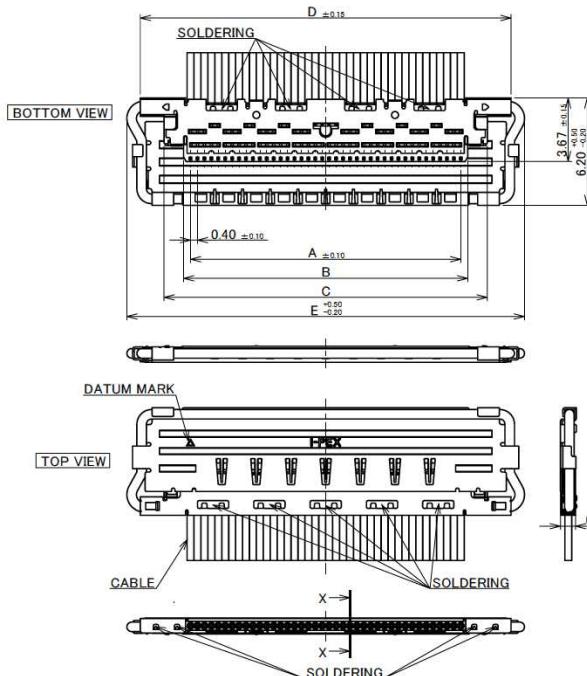
## Component Parts Detail

### Component Parts:



# Plug for Cable Assembly :

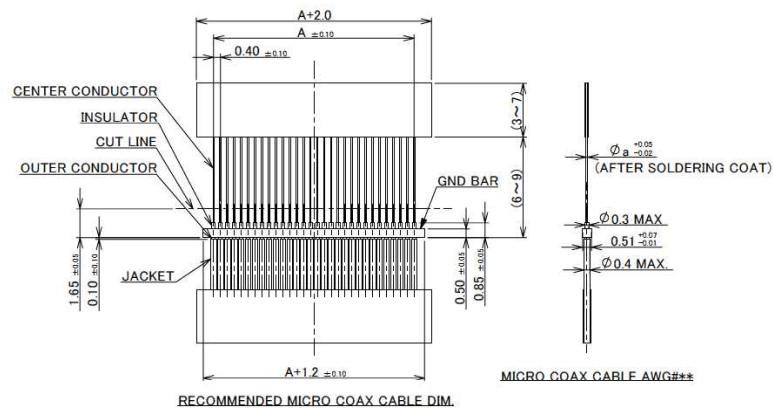
Recommended P/N	20679-0**T-01					
PART NO.	Pos.	A	B	C	D	E
20679-020T-01	20	7.60	8.40	10.66	13.40	14.95
20679-030T-01	30	11.60	12.40	14.66	17.40	18.95
20679-040T-01	40	15.60	16.40	18.66	21.40	22.95
20679-050T-01	50	19.60	20.40	22.66	25.40	26.95



NO.	DESCRIPTION	MATERIAL	FINISH , REMARKS
6	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 $\mu$ m MIN.
5	LOCK BAR	SUS	-
4	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
3	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 $\mu$ m MIN. OVER Ni 1.00 $\mu$ 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

Rev.6

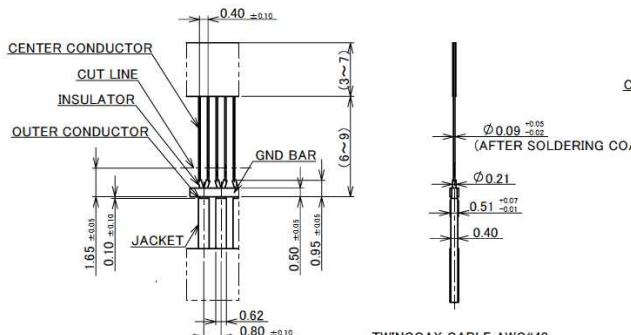
PART NO.	Pos.	A
20679-020T-01	20	7.60
20679-030T-01	30	11.60
20679-040T-01	40	15.60
20679-050T-01	50	19.60



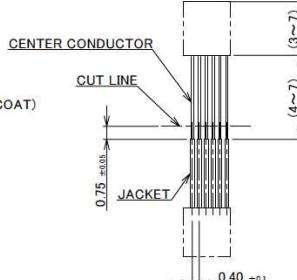
MICRO COAX CABLE DIMENSION

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

RECOMMENDED MICRO COAX CABLE DIM.



RECOMMENDED TWINCOAX CABLE DIM.



RECOMMENDED DISCRETE CABLE DIM.

DISCRETE CABLE DIMENSION

b
#34 0.192
#36 0.15



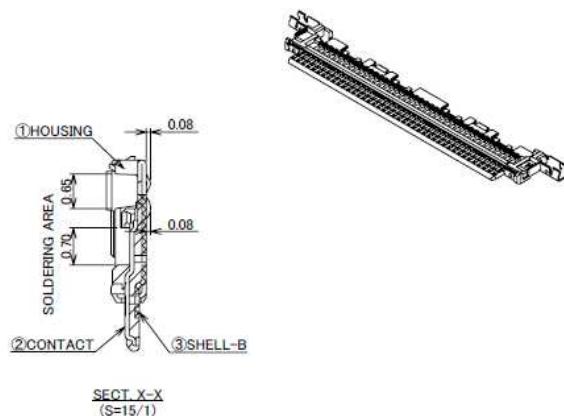
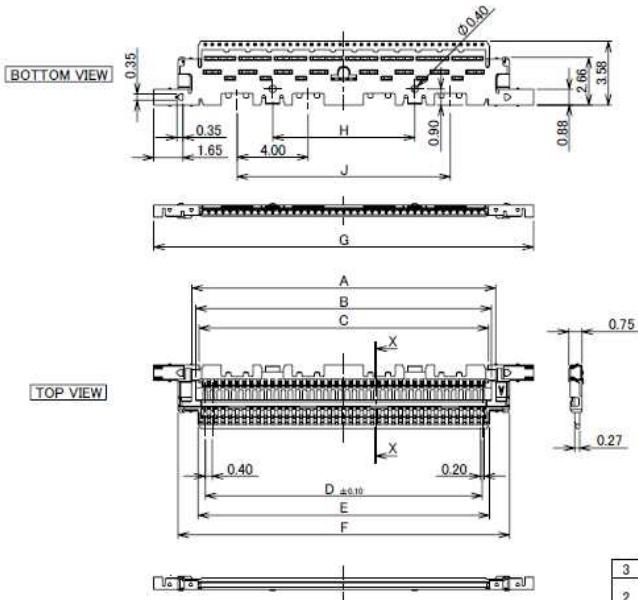
DISCRETE CABLE AWG##

Rev.6

# 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



## NOTES.

1. THIS PART IS ASSEMBLED WITH SHELL A(P/N 3204-0\*\*1) AND LOCK BAR ASSY(P/N 20681-0\*\*T-01) AFTER SOLDERED THE CABLE, AND IT BECOMES P/N 20679-0\*\*T-01
2. THIS PART IS ASSEMBLED WITH SHELL A(P/N 3204-0\*\*1) AND LOCK BAR ASSY(P/N 20789-0\*\*T-01) AFTER SOLDERED THE CABLE, AND IT BECOMES P/N 20788-0\*\*T-01

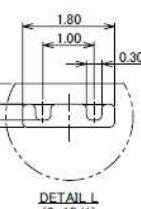
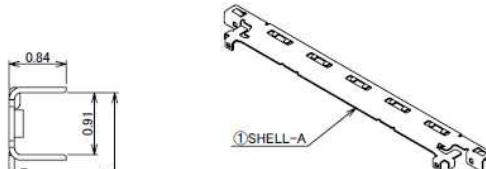
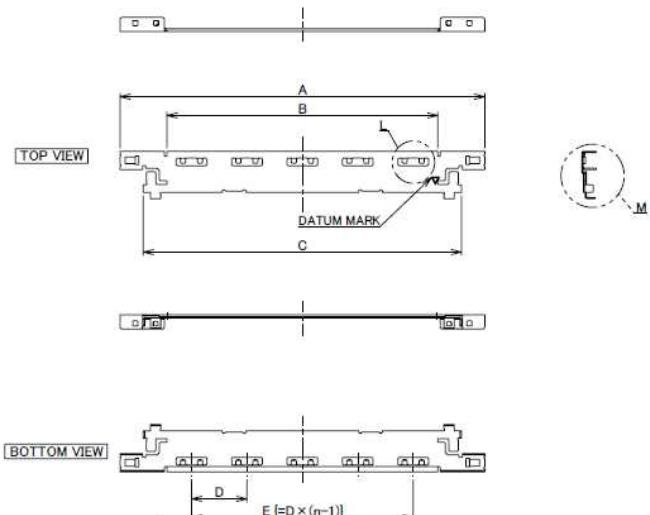
3	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 $\mu$ m MIN. CONTACT & SOLDERING AREA : Au 0.03 $\mu$ m MIN.
1	HOUSING	LCP	UL94V-0_BLACK
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.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



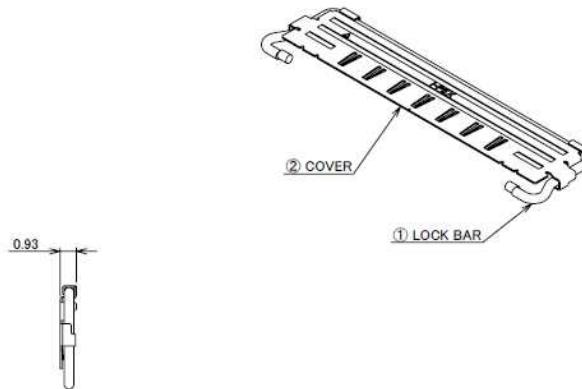
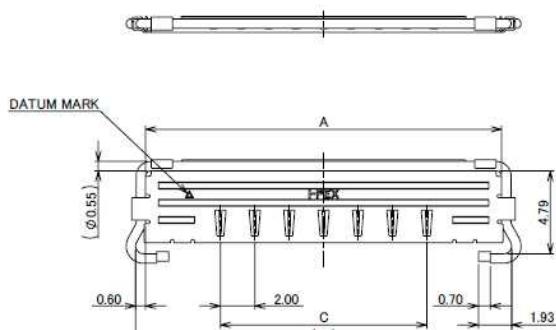
1	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.7

# Lock Bar Assembly :

Recommended P/N 20681-0\*\*T-01

PART NO.	Pos.	A	B	C
20681-020T-01	20	12.65	13.85	4.00
20681-030T-01	30	16.65	17.85	8.00
20681-040T-01	40	20.65	21.85	12.00
20681-050T-01	50	24.65	25.85	16.00



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

Rev.5

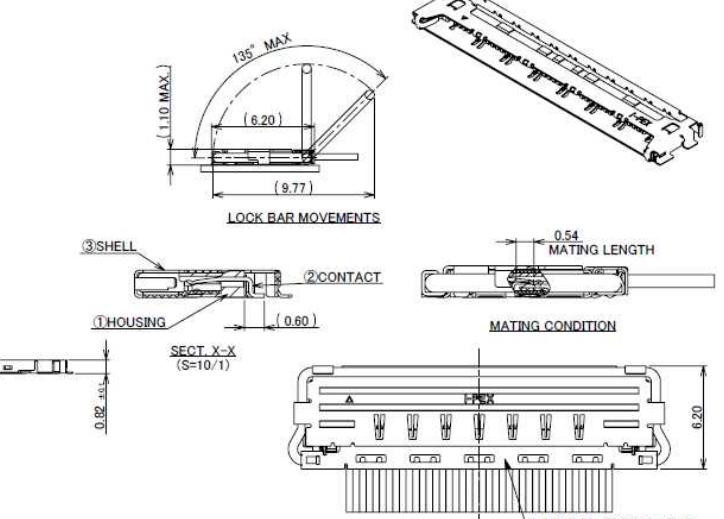
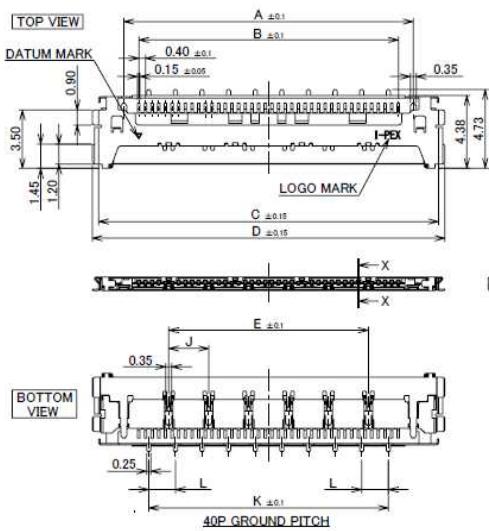
# Receptacle Assembly :

Recommended P/N 20682-0\*\*E-02

PART NO.	Pos.	A	B	C	D	E	J	K	L
20682-020E-02	20	9.40	7.60	12.43	13.20	4.80	2.40	5.60	2.00
20682-030E-02	30	13.40	11.60	16.43	17.20	9.60	2.40	12.00	1.60
20682-040E-02	40	17.40	15.60	20.43	21.20	12.00	2.40	14.40	1.60
20682-050E-02	50	21.40	19.60	24.43	25.20	16.80	2.80	18.40	1.60

P/N : 20682-0\*\*E-02

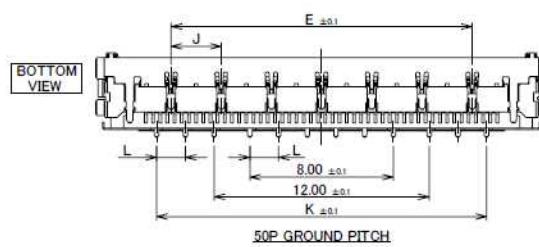
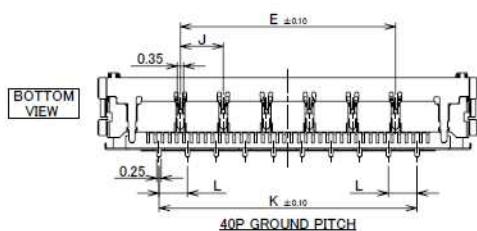
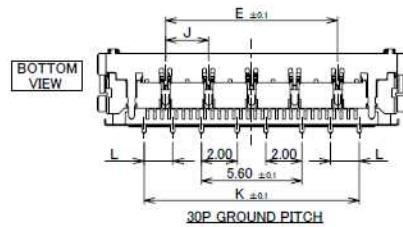
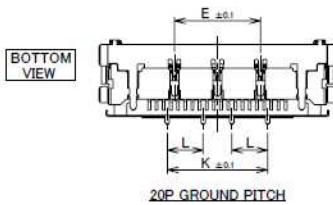
Pos.



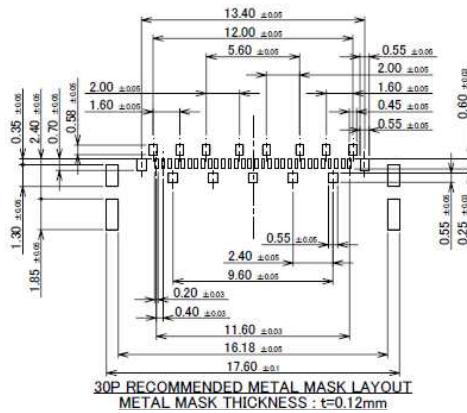
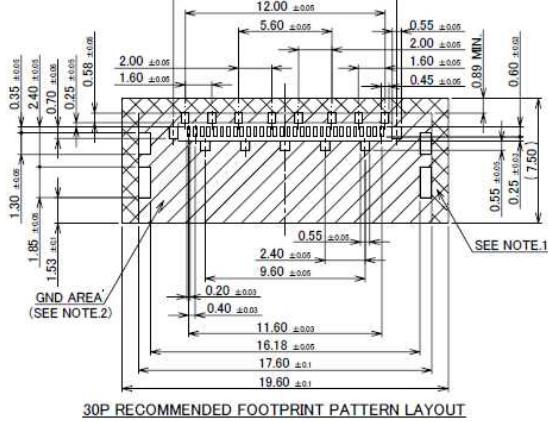
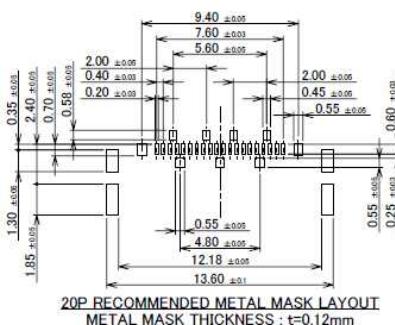
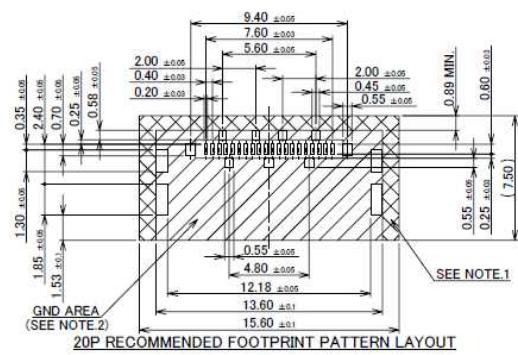
NO.	DESCRIPTION	MATERIAL	FINISH , REMARKS
3	SHELL	PHOSPHOR BRONZE	ALL OVER Ni 1.00 $\mu$ m MIN. SOLDERING AREA : Au 0.03 $\mu$ m MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 $\mu$ m MIN. CONTACT & SOLDERING AREA : Au 0.03 $\mu$ m MIN.
1	HOUSING	LCP	UL94V-0 BLACK

Rev.10

PART NO.	Pos.	E	J	K	L
20682-020E-02	20	4.80	2.40	5.60	2.00
20682-030E-02	30	9.60	2.40	12.00	1.60
20682-040E-02	40	12.00	2.40	14.40	1.60
20682-050E-02	50	16.80	2.80	18.40	1.60



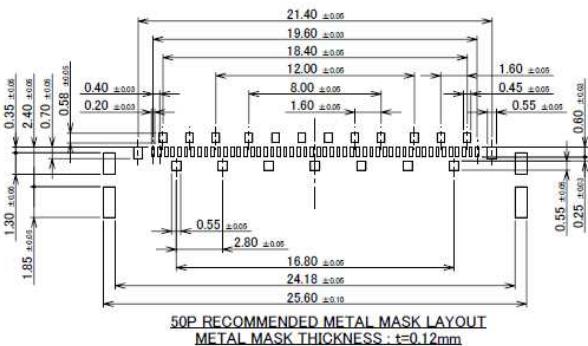
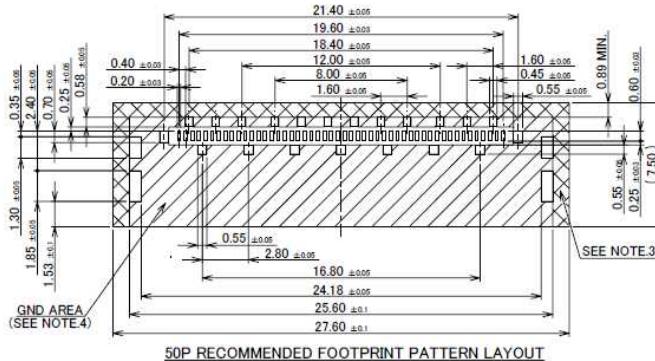
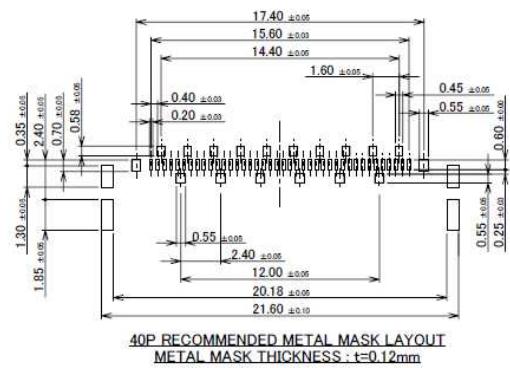
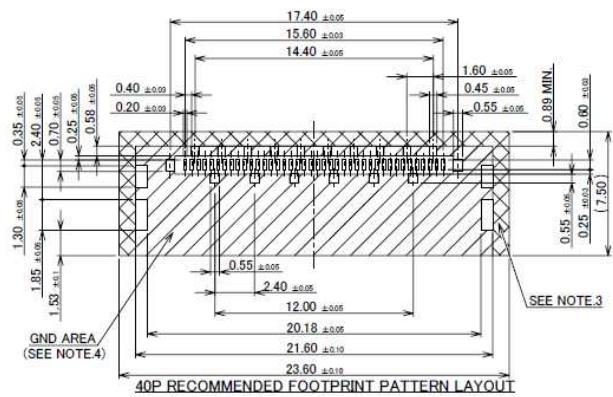
Rev.10



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.

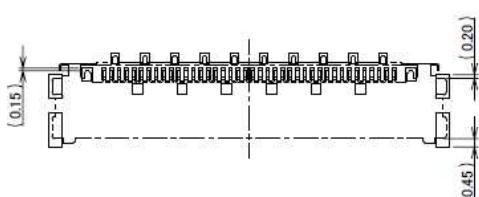
Rev.10



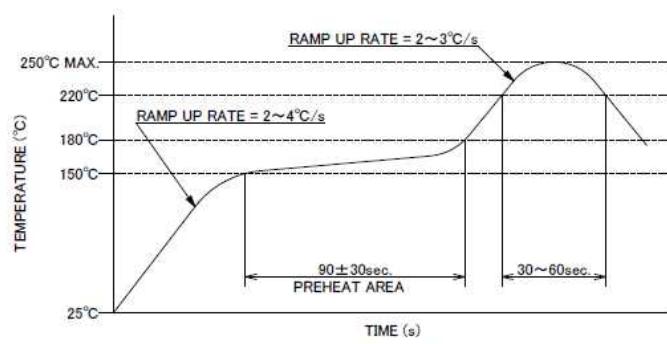
NOTES:

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

Rev.10



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO COAX : AWG# 44, 42, 40, 38, 36 DISCRETE : AWG# 36, 34 TWINGOAX : AWG# 40
RATING VOLTAGE	100V AC (PER CONTACT)
RATING AMPERAGE (FOR CONTACT)	0.1A AC/DC [AWG#44] PER CONTACT/UP TO 50 CONTACTS 0.24A AC/DC [AWG#42] PER CONTACT/UP TO 50 CONTACTS 0.3A AC/DC [AWG#40] PER CONTACT/UP TO 50 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 A REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233~358K(-40°C~85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 180mohm MAX.(AWG#34) / AFTER TEST : 140mohm 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 : 140mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MIN.
Dielectric Withstanding Voltage	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER 30 CYCLES)	20P : 9.70N MAX. 30P : 14.55N MAX. 40P : 19.40N MAX. 50P : 24.25N MAX.
UN-MATING FORCE (INITIAL / AFTER 30 CYCLES)	20P : 2.0N MIN. 30P : 3.0N MIN. 40P : 4.0N MIN. 50P : 5.0N MIN.
CABLE RETENTION FORCE	20P : 9.70N MIN. 30P : 14.55N MIN. 40P : 19.40N MIN. 50P : 24.25N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2163
TEST REPORT	TR-15103
INSTRUCTION MANUAL	HIM-15033
PACKING STANDARD	PST-15027
APPEARANCE CRITERIA No.	QLS-A***

Rev.10



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