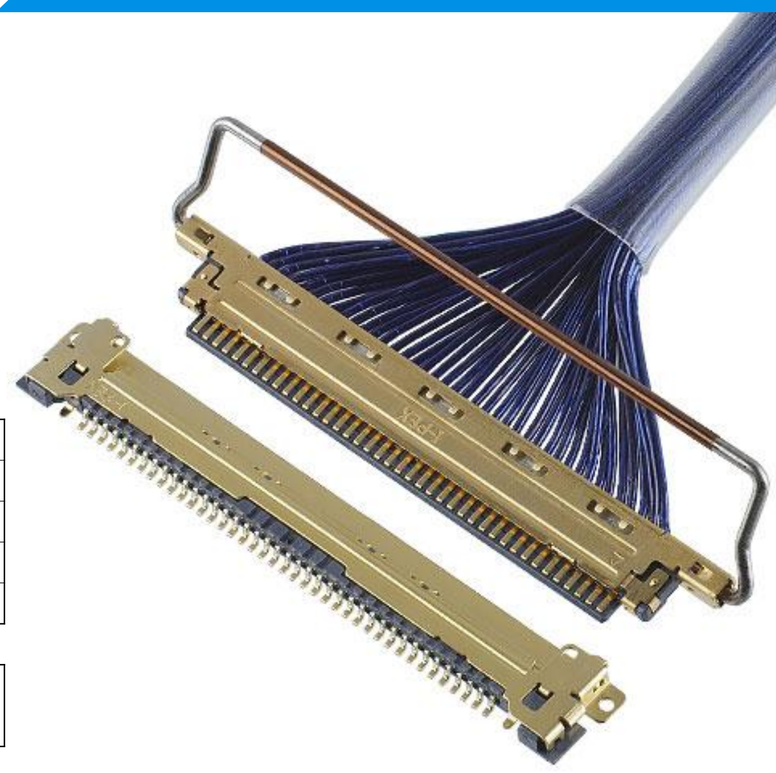
CABLINE® - VS

VESA standard connector, Suitable for high-data-rate transfer (32 Gbps/lane), Mechanical locking bar, 0.5 mm pitch, Horizontal mating type micro-coaxial connector



Product Specifications:

Mating type		Horizontal
Board Pitch		0.5 mm
Wiping Length		0.61 mm
Mated Size	Height	1.0 +/- 0.1 mm
	Width	7.55 + (0.5 x pin count) mm
	Depth	5.8 mm
Pin Counts	Range	Up to 60
	Available	20, 30, 40, 50

Applicable Cable Size:

Maximum O.D.	0.5 mm
Micro-Coaxial for Signal	45 ohm: AWG 36 or smaller
	50 ohm: AWG 38 or smaller
Twinaxial	AWG 40
Discrete	AWG 32 or smaller

Applicable Standards (Reference Only):

32 Gbps/ Lane, USB4 Gen4 (40 Gbps/ Lane PAM3)
Display Port UHBR20 (20 Gbps/Lane)

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

High-data-rate transfer, ideal for 32 Gbps/lane applications

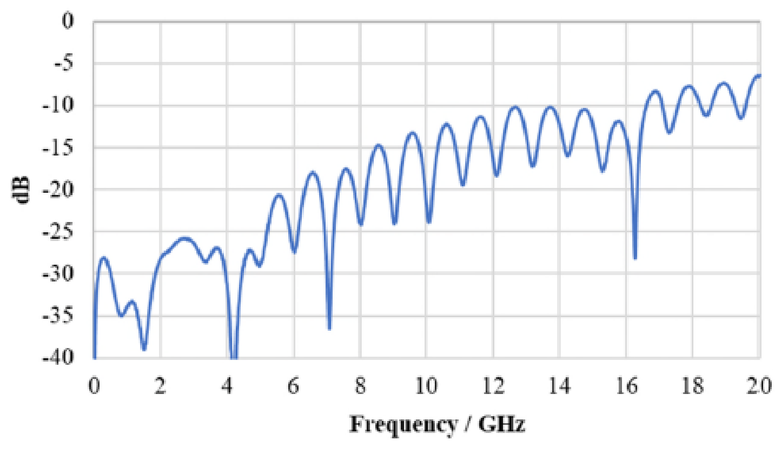
Measurement results

Connector: CABLINE-VS 40 pin

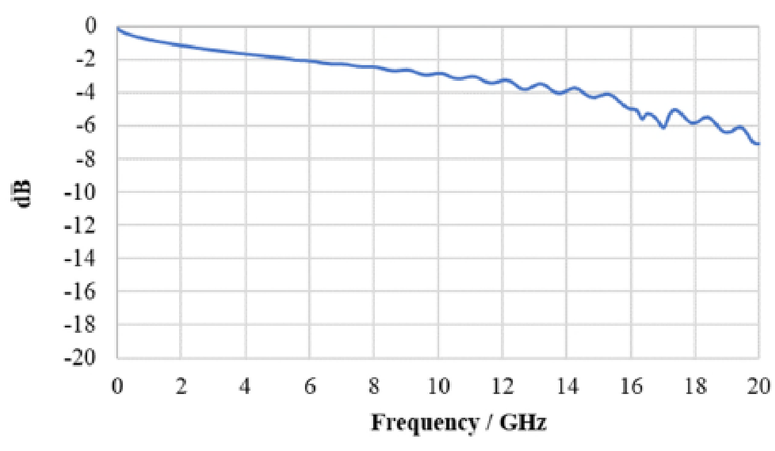
Cable: Micro-coaxial cable
AWG 40, 45ohm , Length : 100 mm

Pin Assignment: GSSGSSG

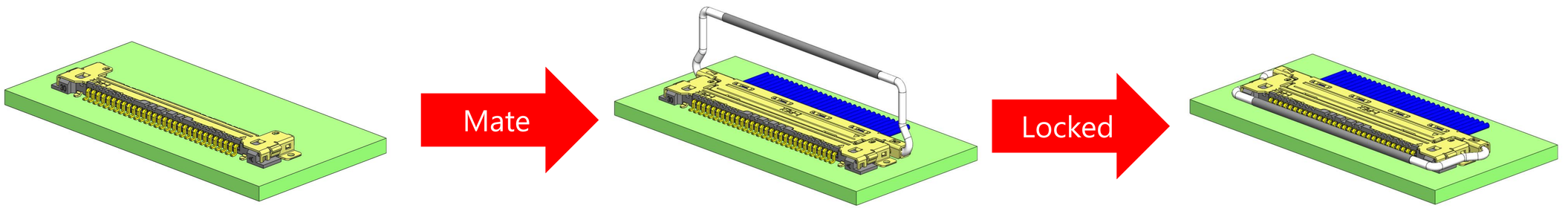
Return Loss (SDD11)



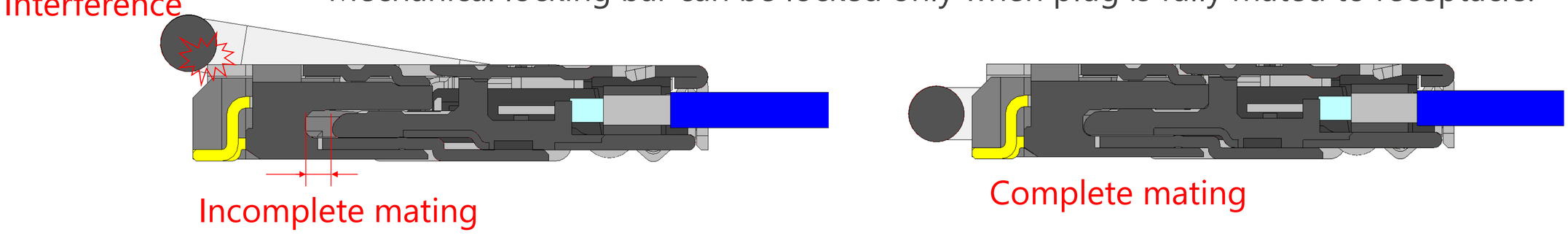
Insertion Loss (SDD21)



Mechanical locking bar prevents incomplete mating and back-out/unmating



Mechanical locking bar can be locked only when plug is fully mated to receptacle.

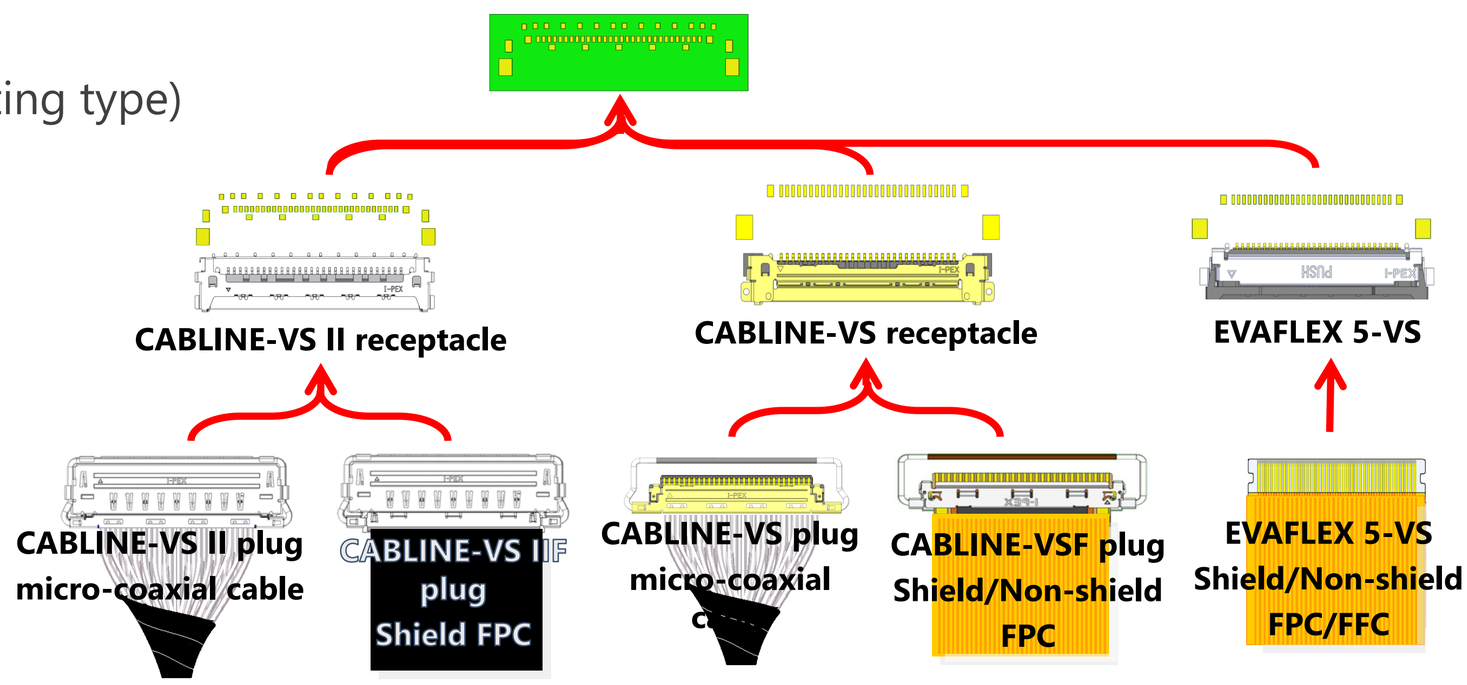


Multiple connector options with I-PEX VS series

I-PEX VS series (0.5 mm pitch, horizontal mating type)

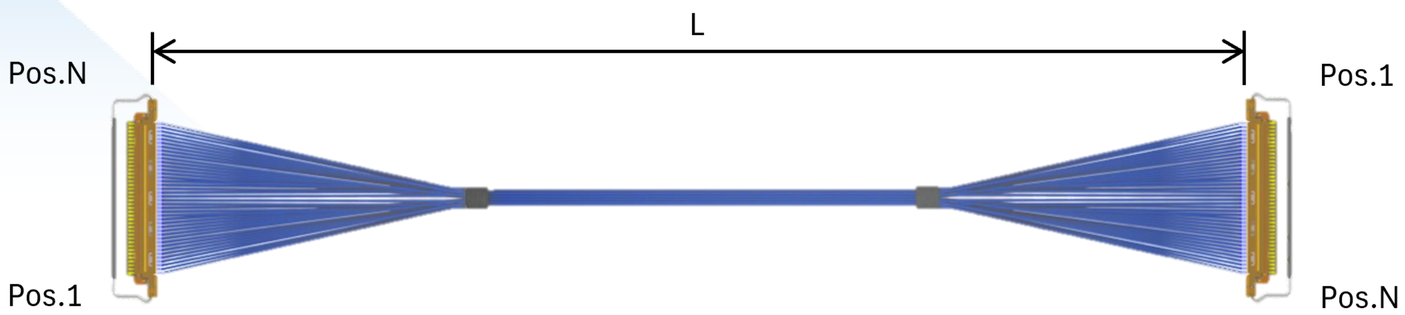
CABLINE-VS, VS II receptacles and EVAFLEX® 5-VS can be mounted to the same PCB layout.

CABLINE-VS Receptacle:
Has #1 share in the Notebook PC panel connector market as VESA standard connector.

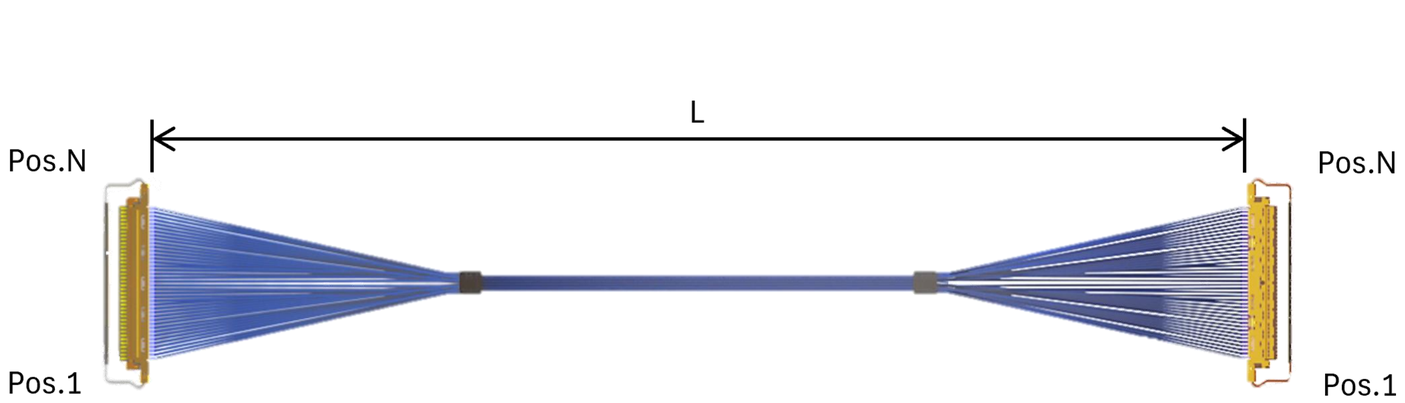


CABLINE®-VS standard harness

- Please click the part number to get its 2D drawing.
- Please be advised that if it becomes necessary to change the harness specifications, the part number will also need to be updated. The following part number is valid only when used with the harness specifications shown below.
- Please contact us via Inquiry form for other harness specifications.



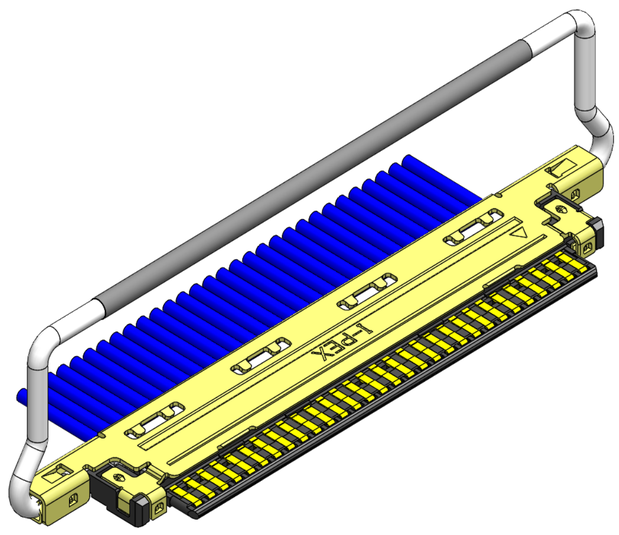
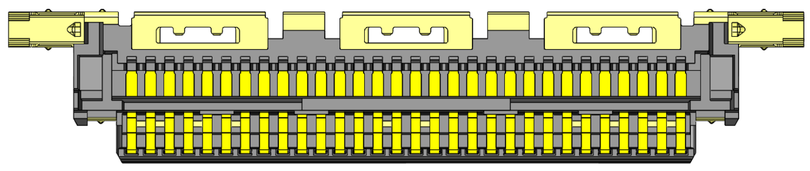
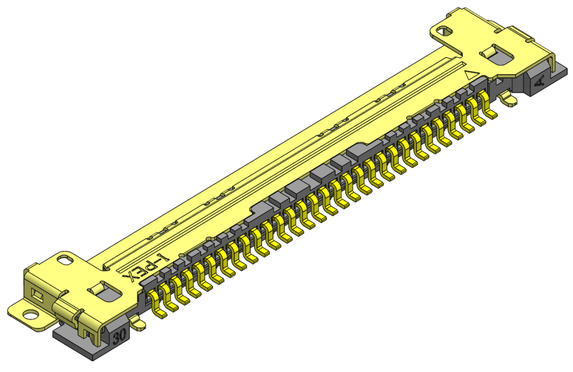
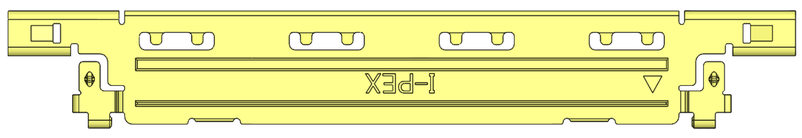
Part Number Description	Part Number (Link to Drawing)	Sample available
CABLINE-VS harness 20pin micro-coaxial 40AWG L=200mm 1-N	82067-100B-02-D	Buy from Digikey
CABLINE-VS harness 30pin micro-coaxial 40AWG L=100mm 1-N	82189-100B-02-D	Buy from Digikey
CABLINE-VS harness 30pin micro-coaxial 40AWG L=200mm 1-N	81421-100B-02-D	Buy from Digikey
CABLINE-VS harness 30pin micro-coaxial 40AWG L=300mm 1-N	82289-100B-02-D	Buy from Digikey
CABLINE-VS harness 40pin micro-coaxial 40AWG L=100mm 1-N	82190-100B-02-D	Buy from Digikey
CABLINE-VS harness 40pin micro-coaxial 40AWG L=200mm 1-N	81422-100B-02-D	Buy from Digikey
CABLINE-VS harness 40pin micro-coaxial 40AWG L=300mm 1-N	82290-100B-02-D	Buy from Digikey
CABLINE-VS harness 50pin micro-coaxial 40AWG L=200mm 1-N	82450-100B-02-D	Buy from Digikey



Part Number Description	Part Number (Link to Drawing)	Sample available
CABLINE-VS harness 30pin micro-coaxial 40AWG L=100mm 1-1	82687-100B-01-D	Contact us
CABLINE-VS harness 30pin micro-coaxial 40AWG L=200mm 1-1	82688-100B-01-D	Contact us
CABLINE-VS harness 30pin micro-coaxial 40AWG L=300mm 1-1	82689-100B-01-D	Contact us
CABLINE-VS harness 40pin micro-coaxial 40AWG L=100mm 1-1	82690-100B-01-D	Contact us
CABLINE-VS harness 40pin micro-coaxial 40AWG L=200mm 1-1	82691-100B-01-D	Contact us
CABLINE-VS harness 40pin micro-coaxial 40AWG L=300mm 1-1	82692-100B-01-D	Contact us

Component Parts Details

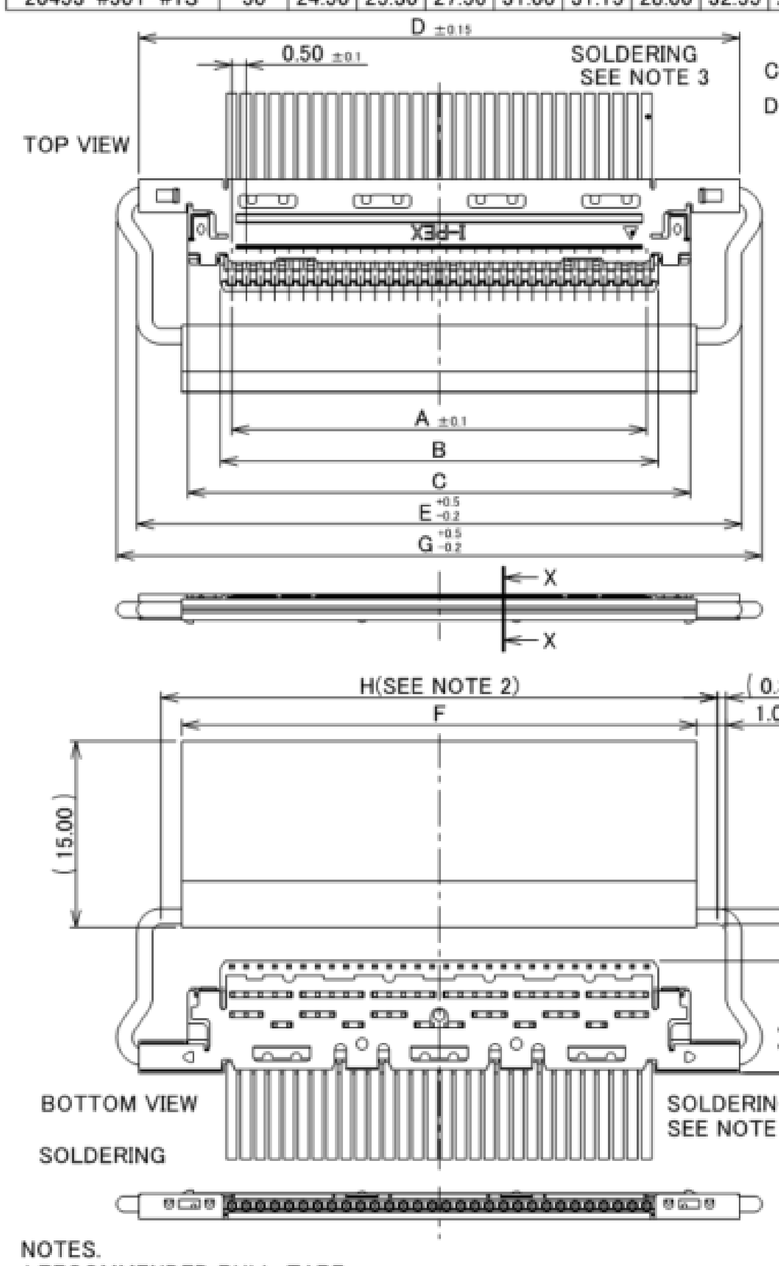
Component Parts

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

Plug for Cable Assembly

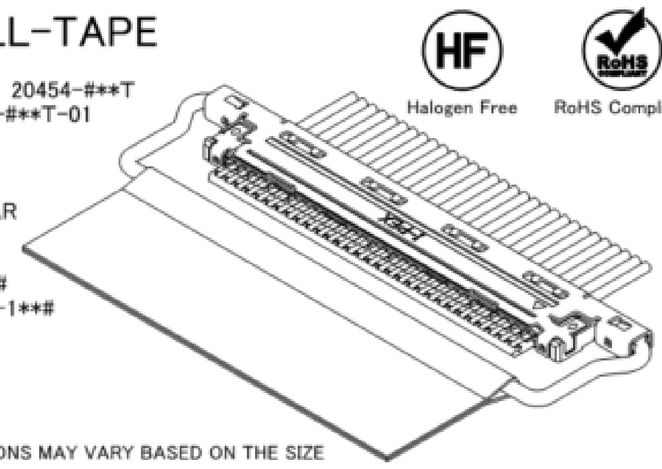
Recommended P/N	20453-2**T-03(20P/30P/40P)								20453-250T-03S(50P)
PART NO.	Pos.	A	B	C	D	E	F	G	H
20453-#20T-#1	20	9.50	10.30	12.56	16.00	16.15	13.00	17.55	14.45
20453-#30T-#1	30	14.50	15.30	17.56	21.00	21.15	18.00	22.55	19.45
20453-#40T-#1	40	19.50	20.30	22.56	26.00	26.15	23.00	27.55	24.45
20453-#50T-#1S	50	24.50	25.30	27.56	31.00	31.15	28.00	32.55	29.45

WITH PULL-BAR & PULL-TAPE



P/N:20453- # **T-# # #

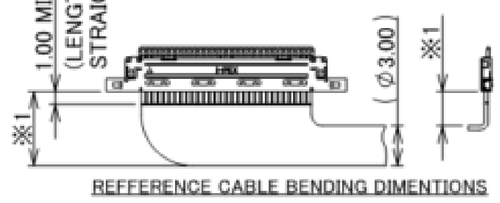
- NOTHING : HOUSING ASSEMBLY P/N 20454-#**T
  S : HOUSING ASSEMBLY P/N 20454-#**T-01
- 1 : WITH PULL-BAR P/N 2576-0**-00
  2 : WITHOUT PULL-BAR
  3 : WITH INSULATION COAT PULL-BAR P/N 2576-1**-00
- 0 : WITH DATUM MARK P/N 2574-0**#
  1 : WITHOUT DATUM MARK P/N 2574-1**#
- SEE TABLE 1.



Halogen Free RoHS Compliant

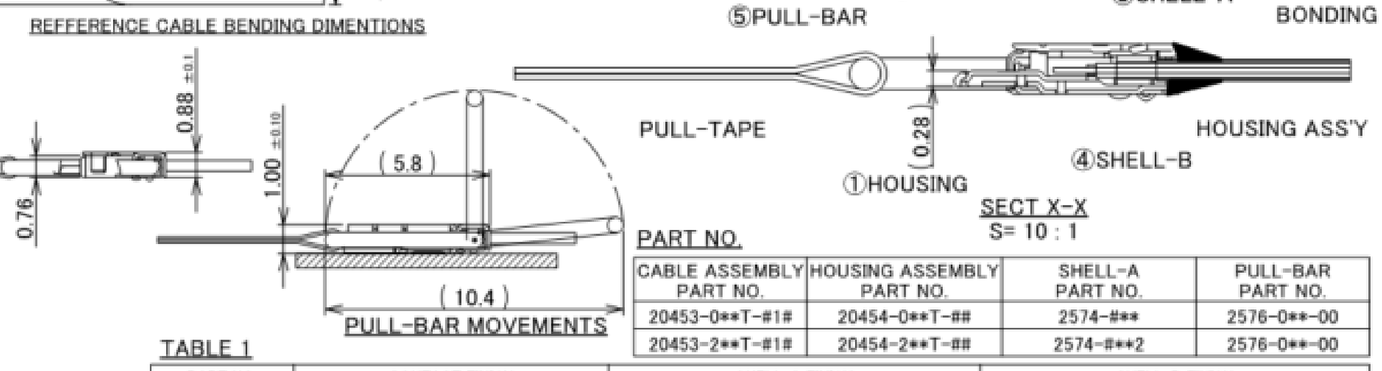
CABLE

DATUM MARK



REFFERENCE CABLE BENDING DIMENTIONS

※1: THE BEND DIMENSIONS MAY VARY BASED ON THE SIZE AND QUANTITY OF CABLES.
PLEASE CONFIRM THE MINIMUM BENDING RADIUS WITH I-PEX OR THE HARNESS MANUFACTURER.



SECT X-X
S= 10 : 1

PART NO.

CABLE ASSEMBLY PART NO.	HOUSING ASSEMBLY PART NO.	SHELL-A PART NO.	PULL-BAR PART NO.
20453-0**T-#1#	20454-0**T-##	2574-#**	2576-0**-00
20453-2**T-#1#	20454-2**T-##	2574-#**2	2576-0**-00

TABLE 1

PART NO.	CONTACT FINISH	SHELL-A FINISH	SHELL-B FINISH
20453-0**T-###	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN.	TOP SIDE : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN. BOTTOM SIDE : Au 0.015 μm MIN. OVER Ni 1.00 μm MIN.	TOP SIDE : Au 0.015 μm MIN. OVER Ni 1.00 μm MIN. BOTTOM SIDE : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN.
20453-2**T-###	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN.	TOP SIDE : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN. BOTTOM SIDE : Ni 1.00 μm MIN.(THERE IS THE POSSIBILITY THAT Au ATTACHES RANDOMLY)	TOP SIDE : Ni 1.00 μm MIN.(THERE IS THE POSSIBILITY THAT Au ATTACHES RANDOMLY) BOTTOM SIDE : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.

NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
5	PULL-BAR	SUS	
4	SHELL-B	PHOSPHOR BRONZE	SEE ABOVE TABLE 1.
3	SHELL-A	PHOSPHOR BRONZE	SEE ABOVE TABLE 1.
2	CONTACT	PHOSPHOR BRONZE	SEE ABOVE TABLE 1.
1	HOUSING	LCP	UL94V-0, BLACK

NOTES.
1.RECOMMENDED PULL-TAPE
PULL-TAPE : TERAOKA's INSULATION TAPE No.650S(#50) t=0.08
2.PULL-TAPE CAN BE PUT WITHIN THE RANGE OF "H"(STRAIGHT AREA)
3.SOLDERING IS ONLY A CASE WITH GND-BAR

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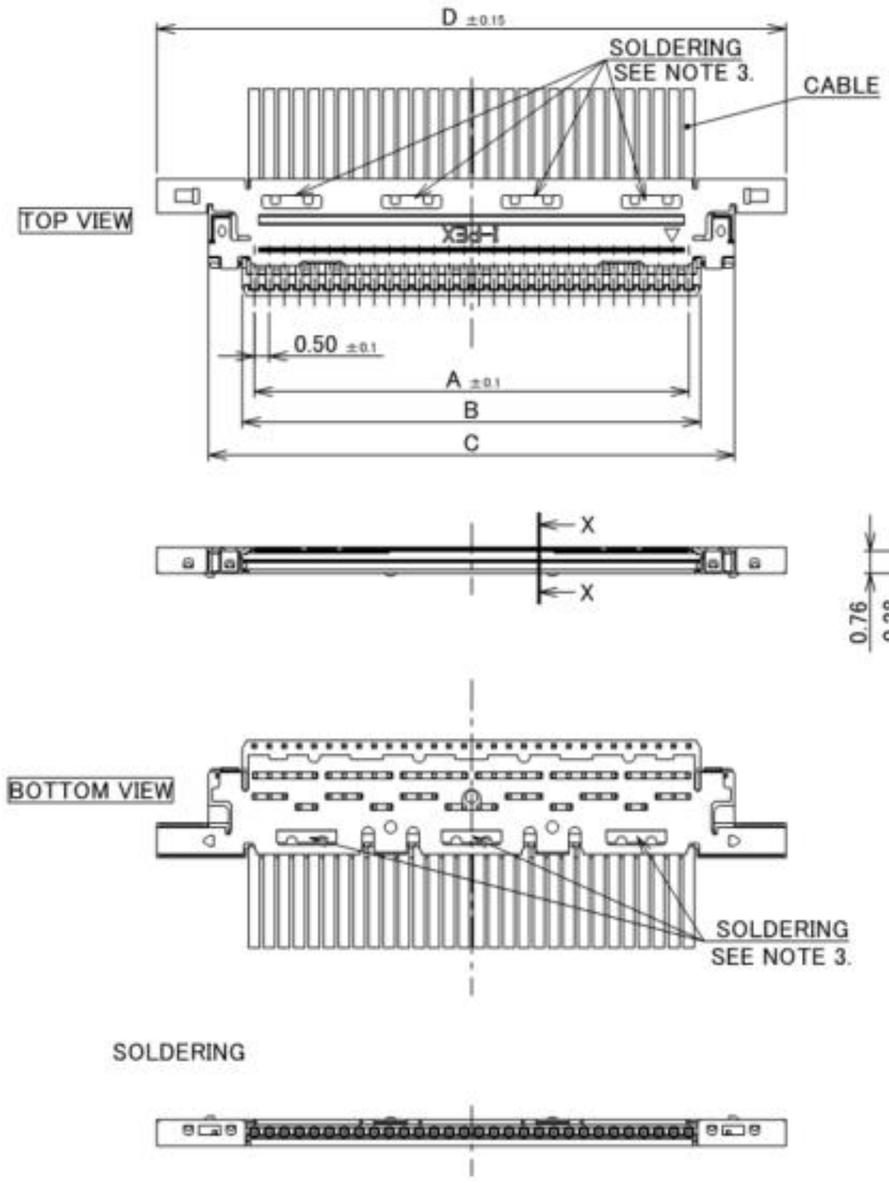
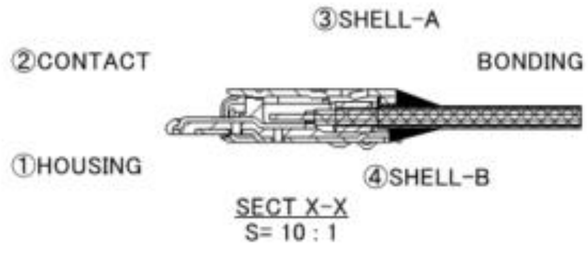
Recommended P/N	20453-2**T-03(20P/30P/40P)				20453-250T-03S(50P)
PART NO.	Pos.	A	B	C	D
20453-#20T-#2	20	9.50	10.30	12.56	16.00
20453-#30T-#2	30	14.50	15.30	17.56	21.00
20453-#40T-#2	40	19.50	20.30	22.56	26.00
20453-#50T-#2S	50	24.50	25.30	27.56	31.00

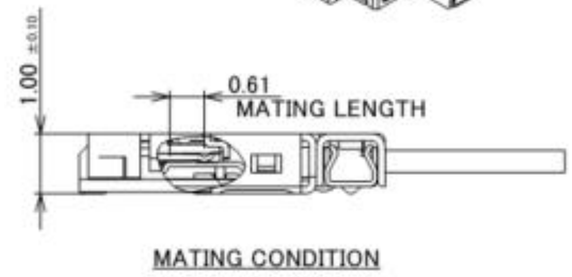
WITHOUT PULL-BAR



Halogen Free RoHS Compliant

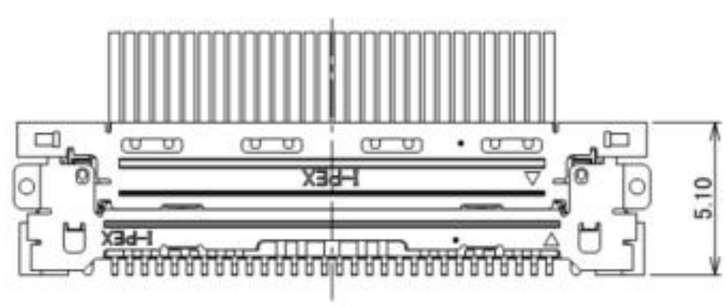


SECT X-X
S= 10 : 1



MATING CONDITION

PLUG P/N:20453-#**T-#2#



RECEPTACLE P/N:20455-#**E-##

PART NO.

CABLE ASSEMBLY PART NO.	HOUSING ASSEMBLY PART NO.	SHELL-A PART NO.	PULL-BAR PART NO.
20453-0**T-#2#	20454-0**T-##	2574-#**	-
20453-2**T-#2#	20454-2**T-##	2574-#**2	-

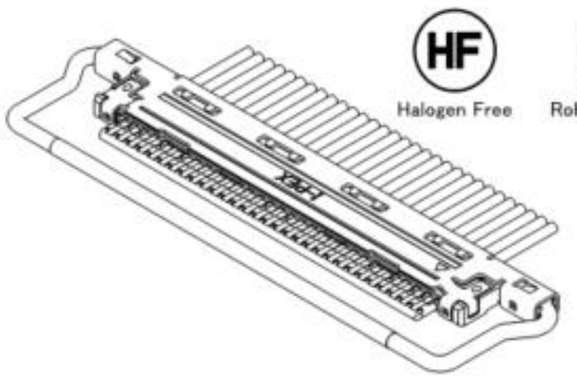
Rev.38

Plug for Cable Assembly

Recommended P/N	20453-2**T-03(20P/30P/40P)	20453-250T-03S(50P)

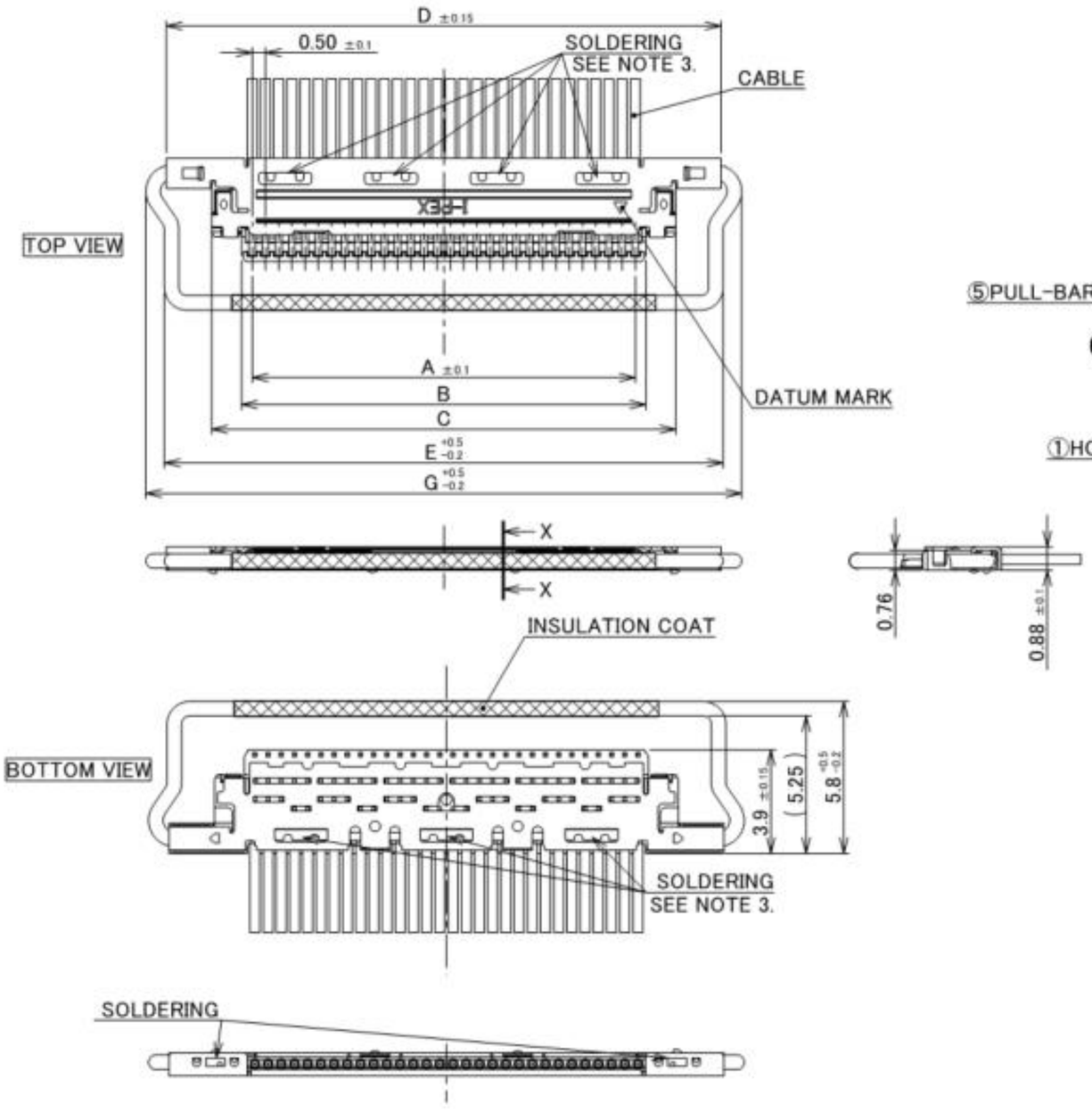
PART NO.	Pos.	A	B	C	D	E	G
20453-#20T-#3	20	9.50	10.30	12.56	16.00	16.15	17.55
20453-#30T-#3	30	14.50	15.30	17.56	21.00	21.15	22.55
20453-#40T-#3	40	19.50	20.30	22.56	26.00	26.15	27.55
20453-#50T-#3S	50	24.50	25.30	27.56	31.00	31.15	32.55

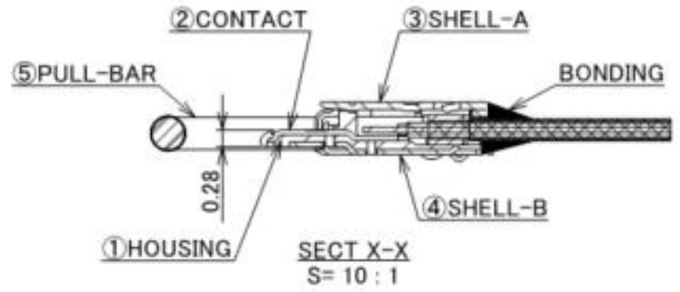
WITH INSULATION COAT PULL-BAR

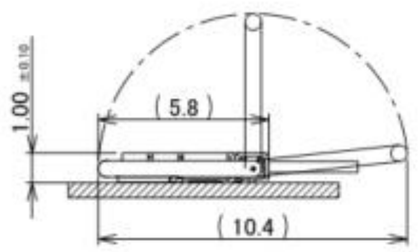


HF Halogen Free

RoHS Compliant







PULL-BAR MOVEMENTS

PART NO.

CABLE ASSEMBLY PART NO.	HOUSING ASEMBLY PART NO.	SHELL-A PART NO.	PULL-BAR PART NO.
20453-0**T-#3#	20454-0**T-##	2574-#**	2576-1**-00
20453-2**T-#3#	20454-2**T-##	2574-#**2	2576-1**-00

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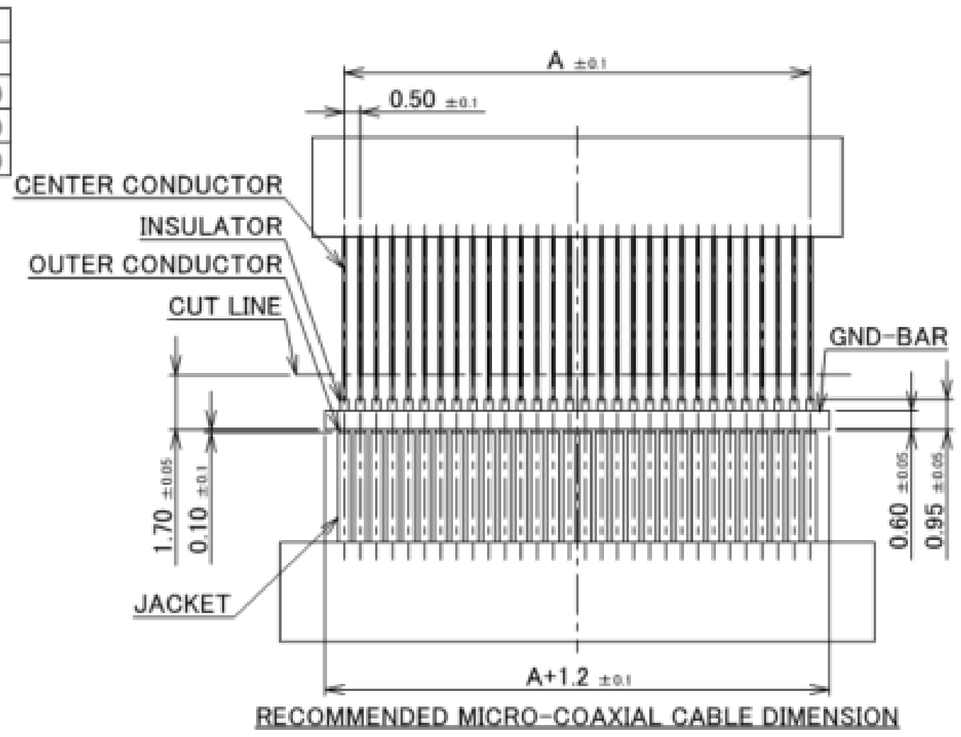
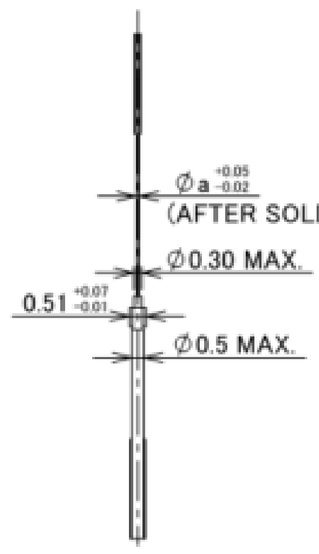
PART NO.	Pos.	A
20453-#20T-##	20	9.50
20453-#30T-##	30	14.50
20453-#40T-##	40	19.50
20453-#50T-##S	50	24.50



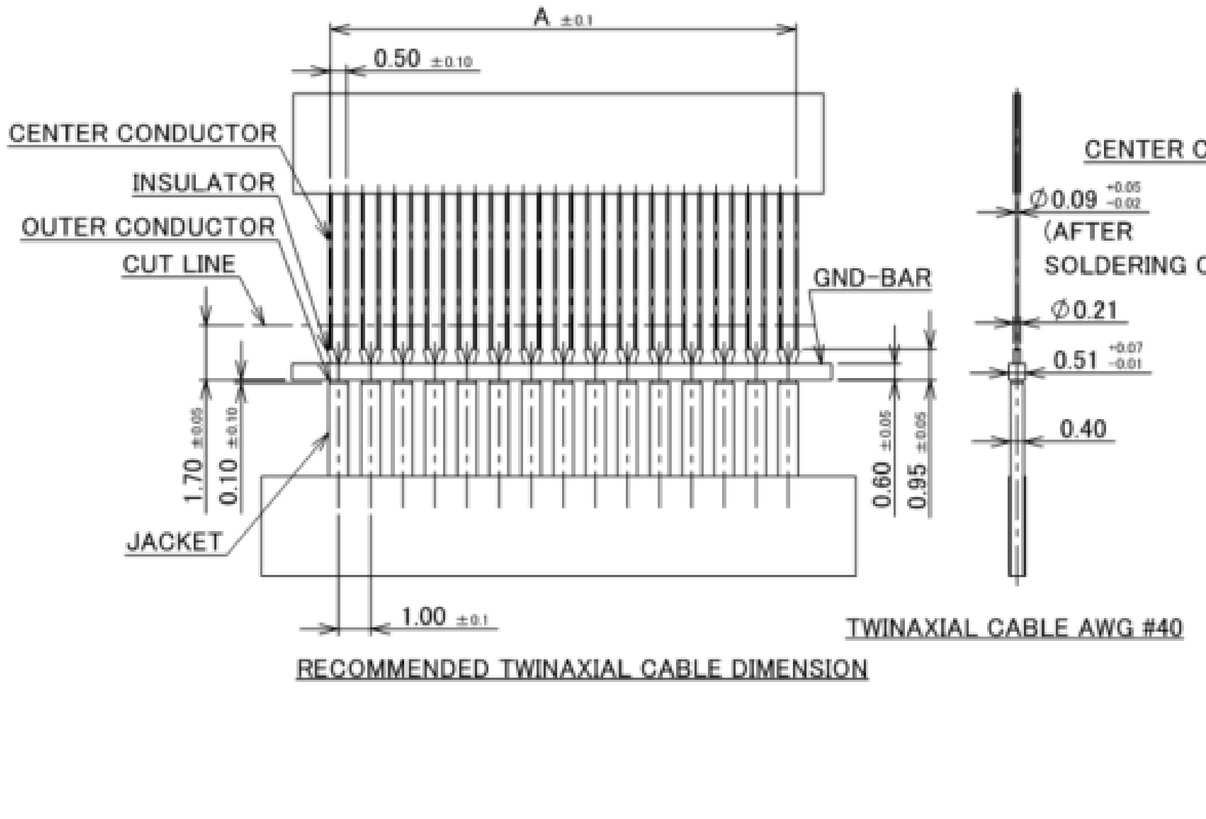
RECOMMENDED MICRO-COAXIAL CABLE DIMENSION



MICRO-COAXIAL CABLE AWG #**

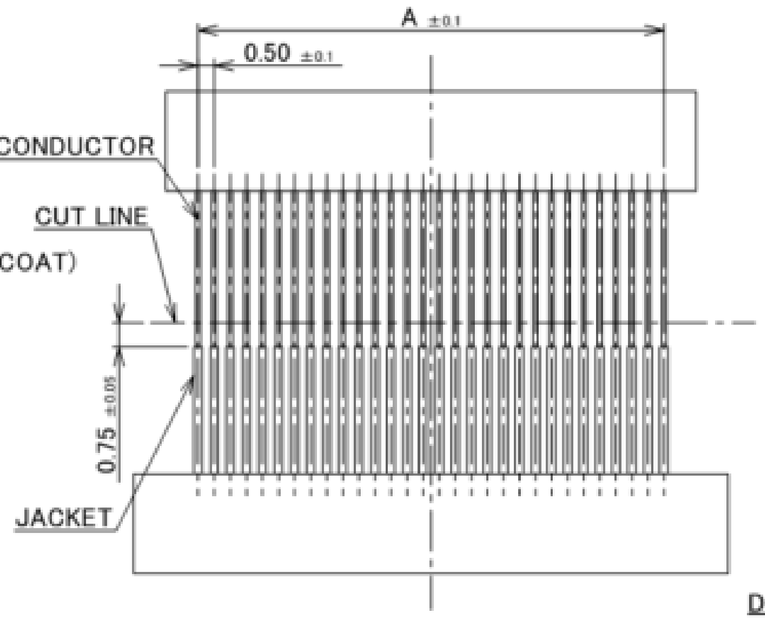
MICRO-COAXIAL CABLE DIMENSION

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

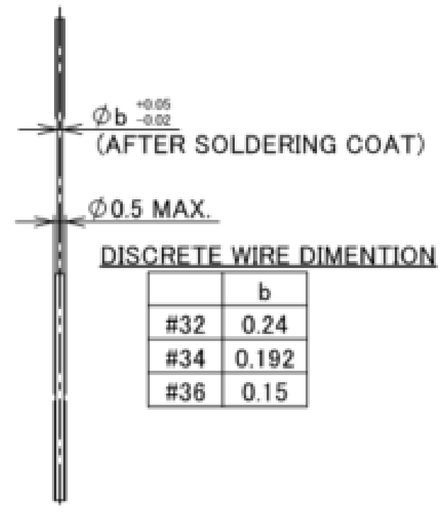


RECOMMENDED TWINAXIAL CABLE DIMENSION

TWINAXIAL CABLE AWG #40



RECOMMENDED DISCRETE WIRE DIMENSION



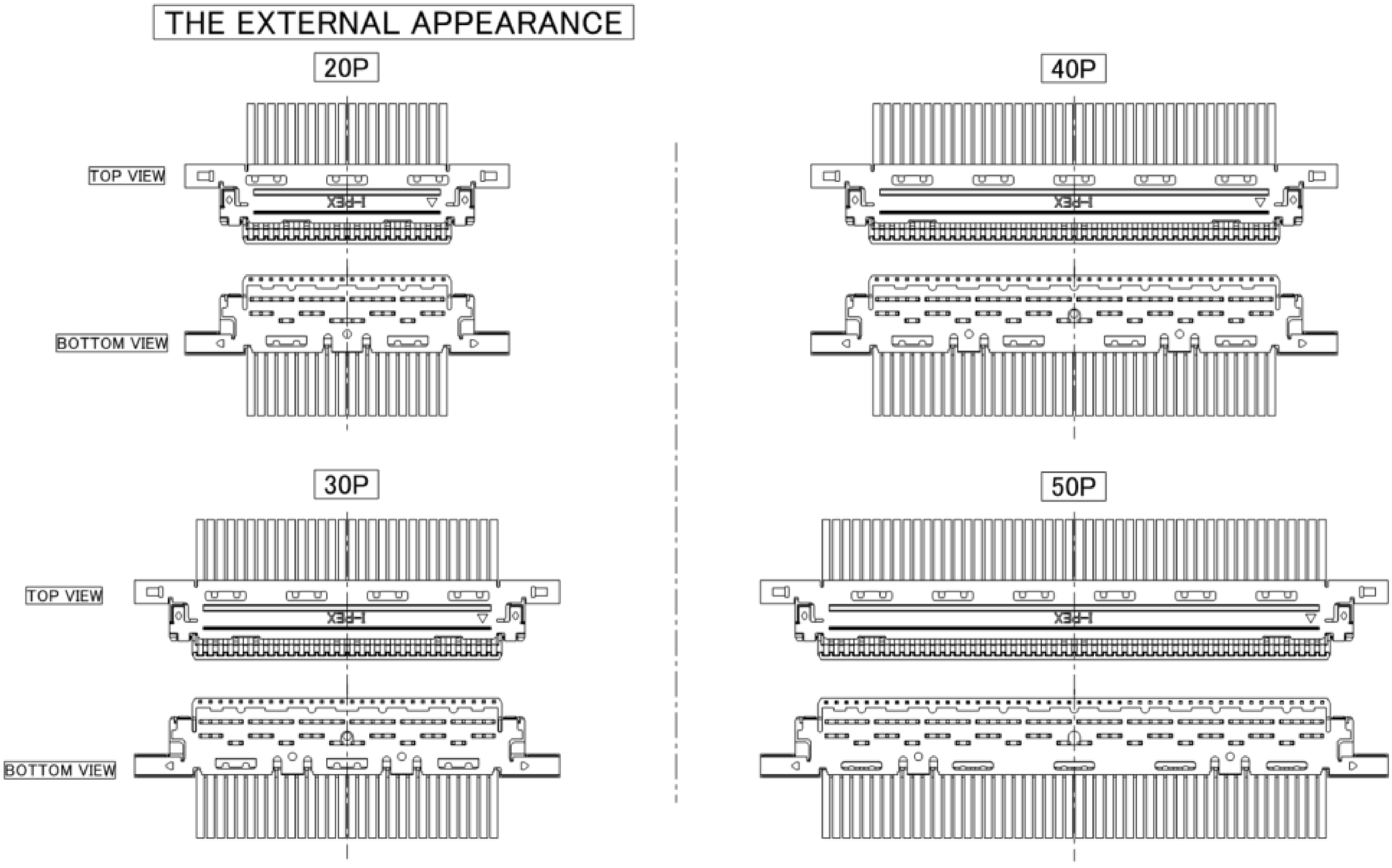
DISCRETE WIRE DIMENTION

	b
#32	0.24
#34	0.192
#36	0.15

DISCRETE WIRE AWG #**

Rev.38

Plug for Cable Assembly

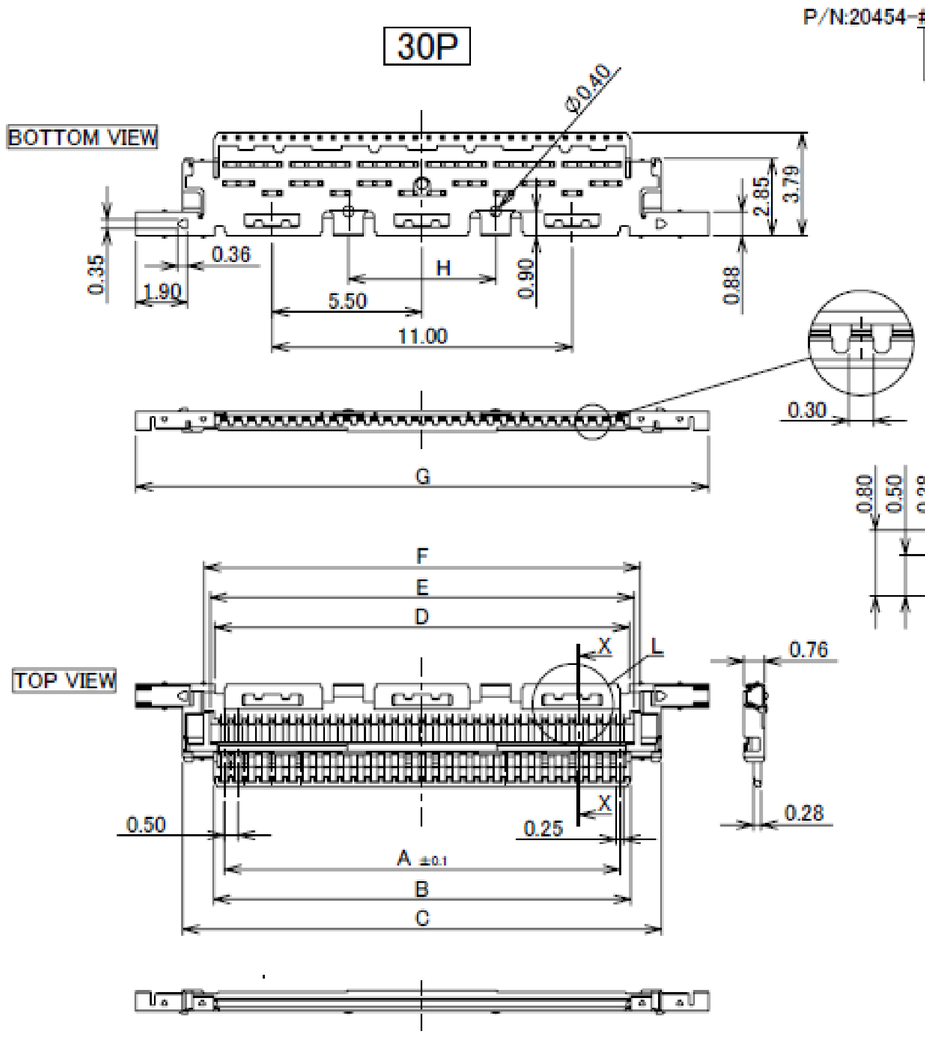


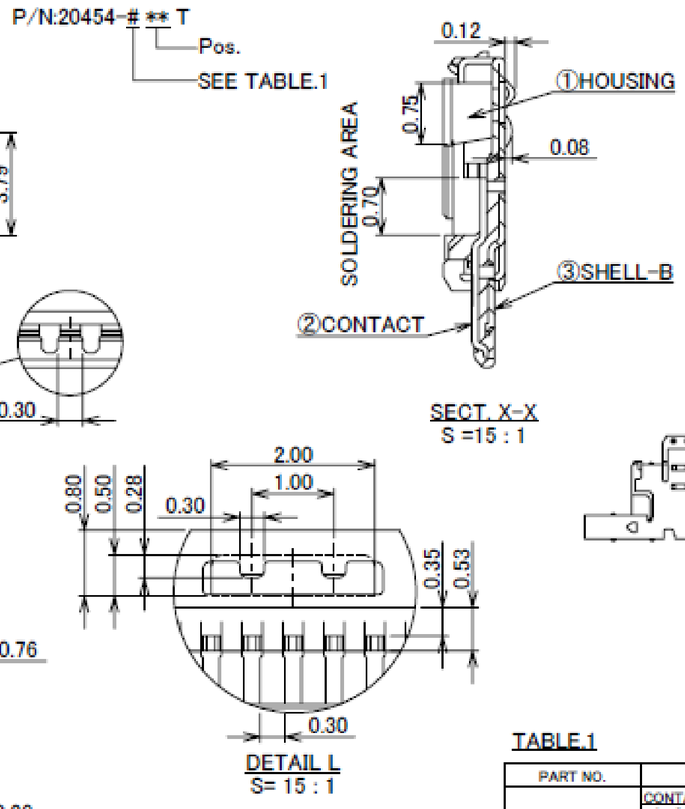
ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG #44, 42, 40, 38, 36 DISCRETE WIRE : AWG #36, 34, 32 TWINAXIAL CABLE : AWG #40
RATED VOLTAGE	100V AC (PER CONTACT PIN) ※THIS IS THE RATED VOLTAGE OF THE CONNECTOR. PLEASE NOTE THAT THE RATED VOLTAGE MAY VARY IN THE HARNESS DEPENDING ON THE CABLES USED.
RATED CURRENT (FOR CONTACT)	0.1A AC/DC [AWG #44] PER CONTACT PIN/UP TO 50 CONTACTS 0.24A AC/DC [AWG #42] PER CONTACT PIN/UP TO 50 CONTACTS 0.3A AC/DC [AWG #40] PER CONTACT PIN/UP TO 50 CONTACTS 0.5A AC/DC [AWG #38] PER CONTACT PIN/UP TO 14 CONTACTS 0.8A AC/DC [AWG #36] PER CONTACT PIN/UP TO 10 CONTACTS 1.0A AC/DC [AWG #34] PER CONTACT PIN/UP TO 6 CONTACTS 1.0A AC/DC [AWG #32] PER CONTACT PIN/UP TO 6 CONTACTS TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPERTURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233 TO 358K(-40℃ TO +85℃)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE	INITIAL : 140mohm MAX.(AWG #32) / AFTER TEST : ⊿40mohm MAX. 180mohm MAX.(AWG #34) 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	AC 250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	20P : 9.45N MAX. 30P : 12.15N MAX. 40P : 16.20N MAX. 50P : 20.25N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	20P : 2.0N MIN. 30P : 3.0N MIN. 40P : 4.0N MIN. 50P : 5.0N MIN.
CABLE RETENTION FORCE	20P : 9.80N MIN. 30P : 14.70N MIN. 40P : 19.60N MIN. 50P : 24.50N MIN.
PRODUCT SPECIFICATION	PRS-1427
TEST REPORT	TR-08047 (20453-0**T-###) / TR-13084 (20453-2**T-###)
INSTRUCTION MANUAL	HIM-08004
ASSEMBLY MANUAL	ASM-08003
APPEARANCE CRITERIA No.	QLS-A***

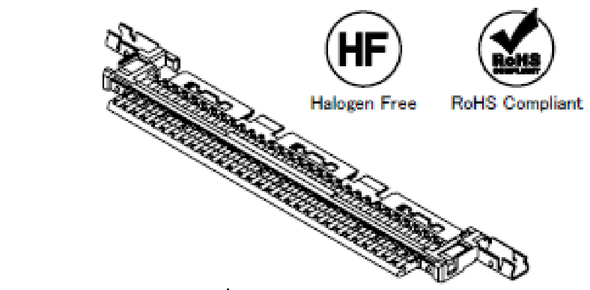
Plug Housing Assembly

Recommended P/N	20454-2**T								
PART NO.	Pos.	A	B	C	D	E	F	G	H
20454-#20T	20	9.50	10.30	12.56	10.20	10.55	11.00	16.00	-
20454-#30T	30	14.50	15.30	17.56	15.20	15.55	16.00	21.00	5.40
20454-#40T	40	19.50	20.30	22.56	20.20	20.55	21.00	26.00	10.40

20454-#**T : STANDARD







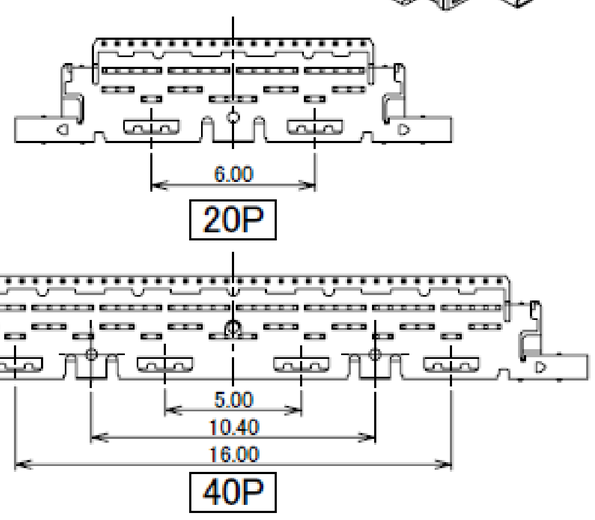


TABLE.1

PART NO.	CONTACT FINISH	SHELL-B FINISH
20454-0**T	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN.	TOP SIDE : Au 0.015 μm MIN. OVER Ni 1.00 μm MIN. BOTTOM SIDE : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN.
20454-2**T	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN.	TOP SIDE : Ni 1.00 μm MIN. (THERE IS THE POSSIBILITY THAT Au ATTACHES RANDOMLY) BOTTOM SIDE : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.

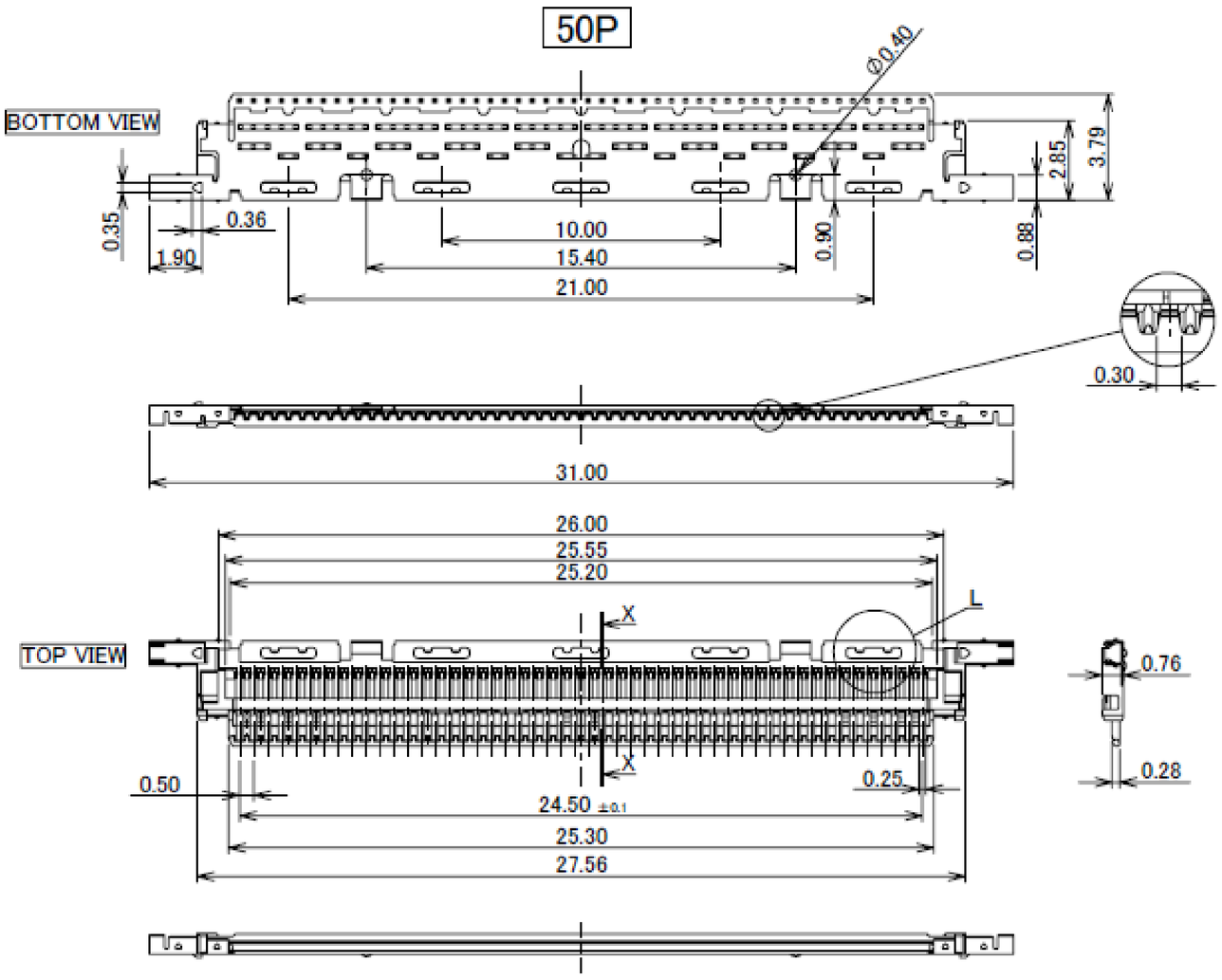
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
3	SHELL B	PHOSPHOR BRONZE	SEE ABOVE TABLE.1
2	CONTACT	PHOSPHOR BRONZE	SEE ABOVE TABLE.1
1	HOUSING	LCP	UL94V-0, BLACK

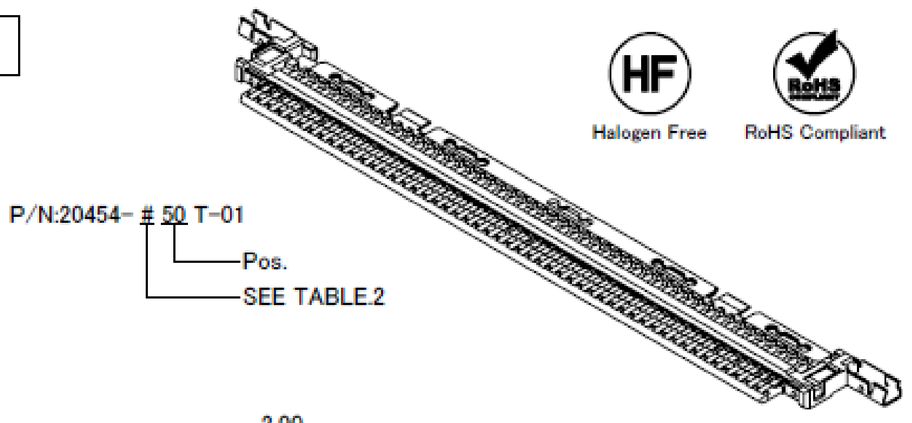
NOTES.
1.THIS PART IS ASSEMBLED WITH SHELL-A(P/N:2574-#**) AFTER SOLDERED THE CABLE, AND IT BECOMES P/N:20453-#**T-#**.
THIS PART IS ASSEMBLED WITH SHELL-A type-H(P/N:2699-#40) AFTER SOLDERED THE CABLE, AND IT BECOMES P/N:20508-040T-#*.
THIS PART IS ASSEMBLED WITH SHELL-A(P/N:2574-#**) AND ALIGNMENT COVER(P/N:2658-0**) AFTER SOLDERED THE CABLE, AND IT BECOMES P/N:20492-1**T.

Rev.20

Recommended P/N	20454-250T-01
PART NO.	Pos.
20454-#50T-01	50

20454-#50T-01 : TYPE-i





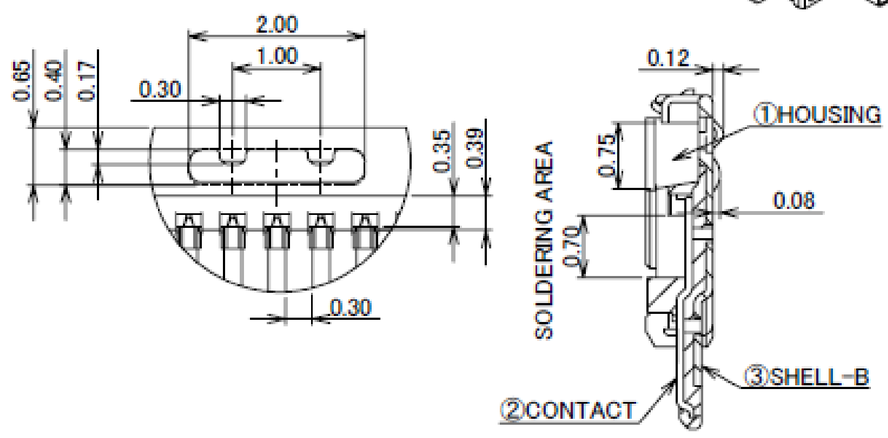


TABLE.2

PART NO.	CONTACT FINISH	SHELL-B FINISH
20454-0**T-01	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN.	TOP SIDE : Au 0.015 μm MIN. OVER Ni 1.00 μm MIN. BOTTOM SIDE : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN.
20454-2**T-01	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN.	TOP SIDE : Ni 1.00 μm MIN. (THERE IS THE POSSIBILITY THAT Au ATTACHES RANDOMLY) BOTTOM SIDE : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.

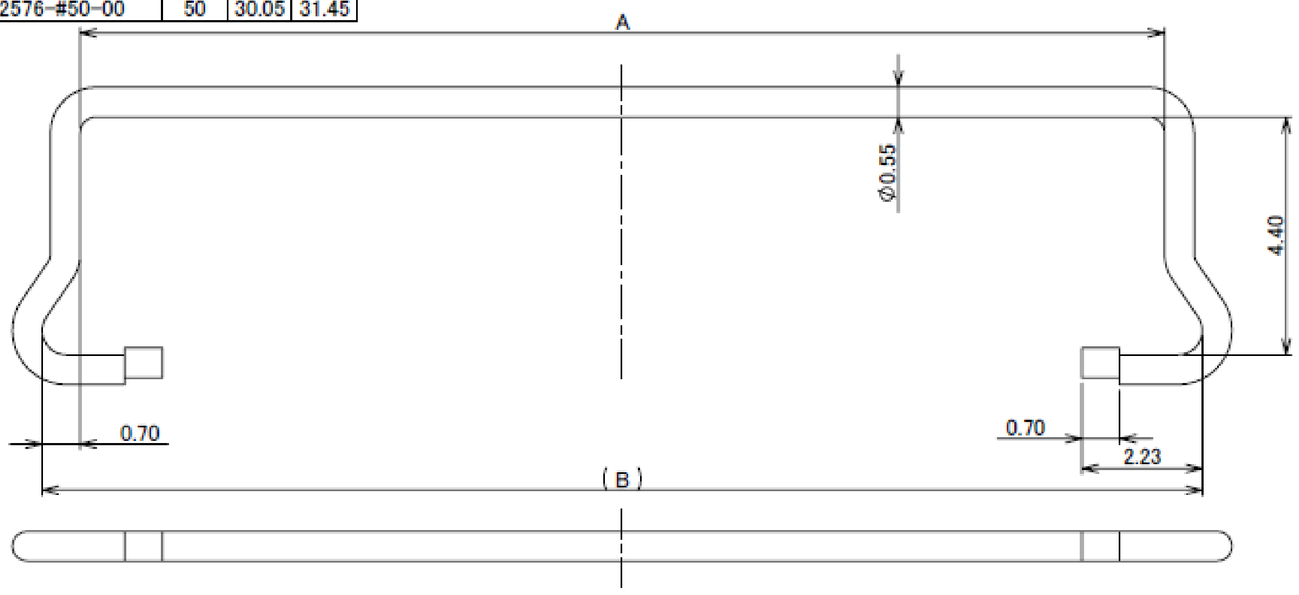
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
3	SHELL B	PHOSPHOR BRONZE	SEE ABOVE TABLE.2
2	CONTACT	PHOSPHOR BRONZE	SEE ABOVE TABLE.2
1	HOUSING	LCP	UL94V-0, BLACK

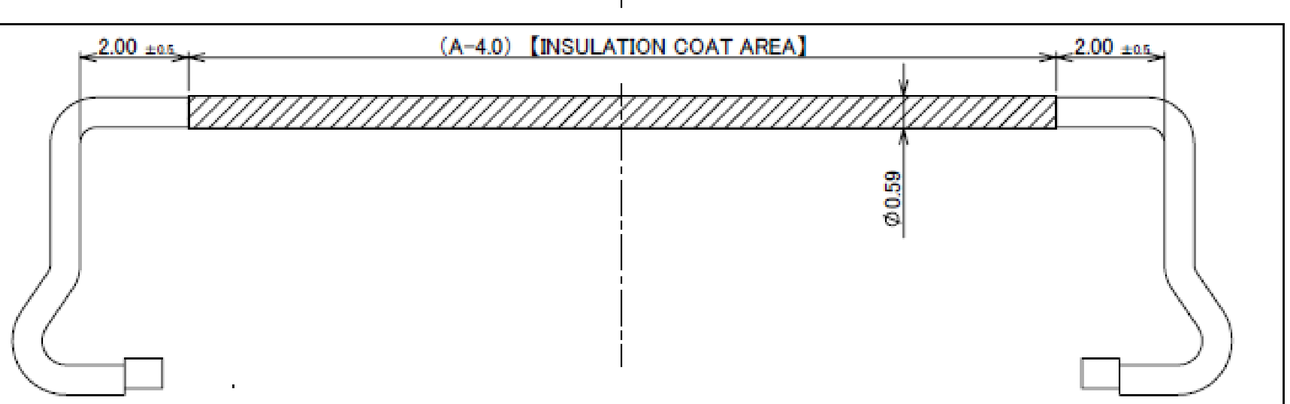
Rev.20

Pull Bar

Recommended P/N	2576-1**-00		
PART NO.	Pos.	A	B
2576-#20-00	20	15.05	16.45
2576-#30-00	30	20.05	21.45
2576-#40-00	40	25.05	26.45
2576-#50-00	50	30.05	31.45

2576-0**-00





2576-1**-00

HF Halogen Free

RoHS Compliant

P/N: 2576-# ** - 00
- POS.
- 0 : WITHOUT INSULATION COAT
- 1 : WITH INSULATION COAT

NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
1	PULL BAR	SUS	-

Rev.15

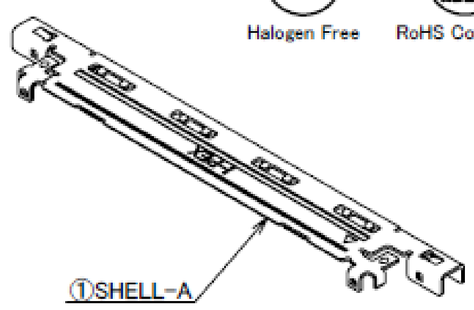
Shell-A

Recommended P/N	2574-0**2				
PART NO.	Pos.	A	B	C	D
2574-#20#	20	9.78	12.56	16.00	8.00 [= 4.0 × (3-1)]
2574-#30#	30	14.78	17.56	21.00	12.00 [= 4.0 × (4-1)]
2574-#40#	40	19.78	22.56	26.00	16.00 [= 4.0 × (5-1)]
2574-#50#	50	24.78	27.56	31.00	20.00 [= 4.0 × (6-1)]

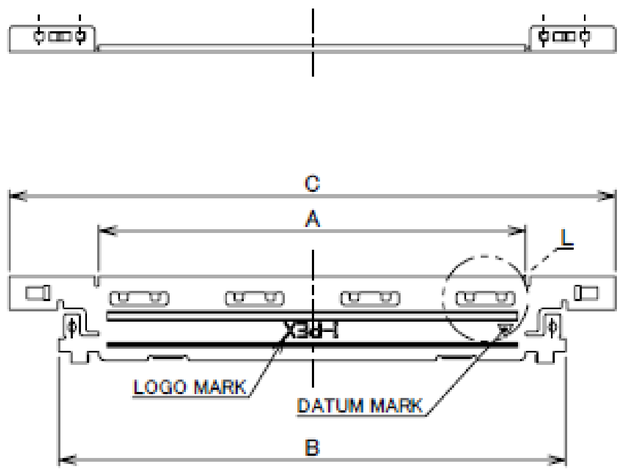
P/N:2574-# * * #
- SEE TABLE.1
- Pos.
- 0 : WITH DATUM MARK
- 1 : WITHOUT DATUM MARK

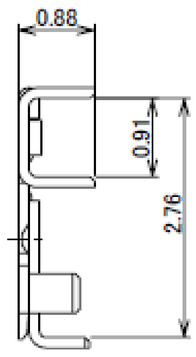
HF Halogen Free

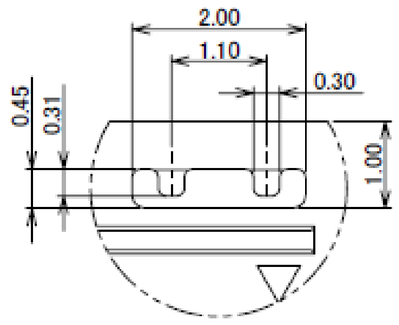
RoHS Compliant



TOP VIEW







DETAIL L
S= 15 : 1

BOTTOM VIEW

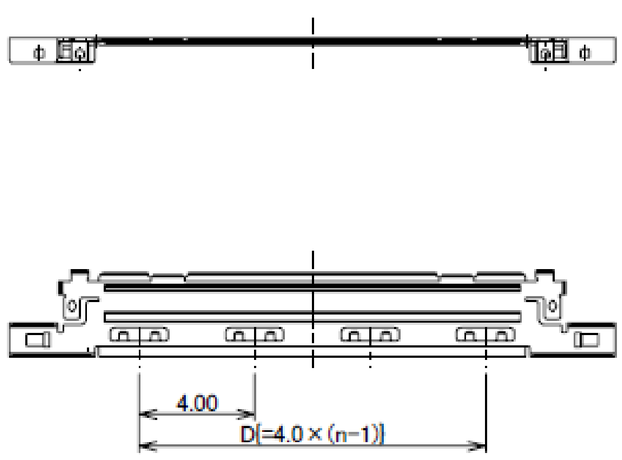


TABLE.1

PART NO.	SHELL-A FINISH
2574-***	TOP SIDE : Au 0.05 μm MIN. OVER Ni 1.00 μm MIN. BOTTOM SIDE : Au 0.015 μm MIN. OVER Ni 1.00 μm MIN.
2574-***2	TOP SIDE : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN. BOTTOM SIDE : Ni 1.00 μm MIN. (THERE IS THE POSSIBILITY THAT Au ATTACHES RANDOMLY)

NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
1	SHELL A	PHOSPHOR BRONZE	SEE ABOVE TABLE.1

Rev.15

Receptacle Assembly

Recommended P/N	20455-0**E-76(30P/40P/50P)	20455-A20E-76(20P)

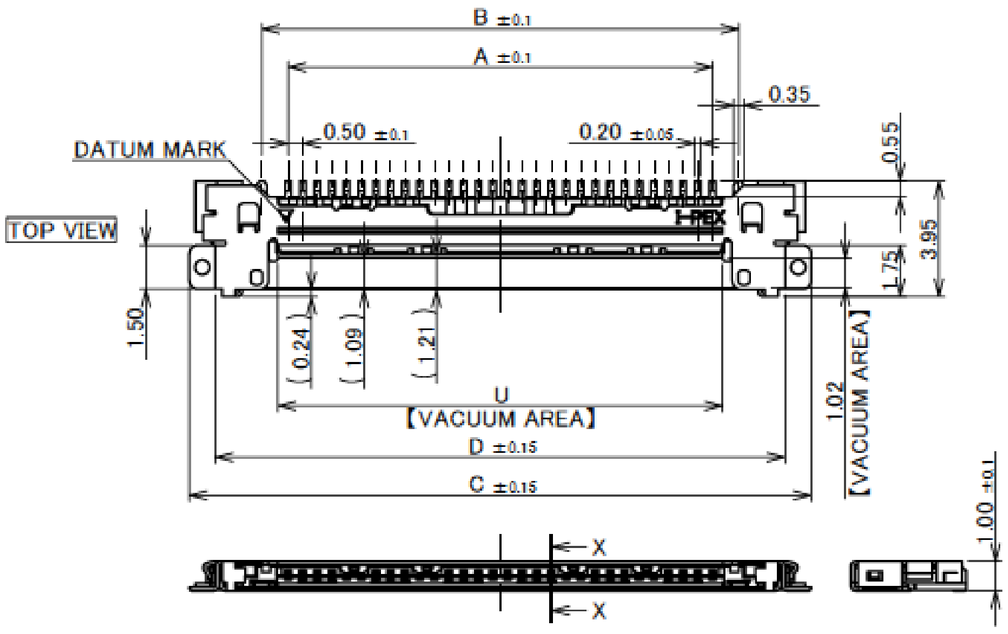
PART NO.	Pos.	A	B	C	D	U
20455-020E-#2	20	9.50	11.30	16.25	14.47	10.20
20455-030E-##	30	14.50	16.30	21.25	19.47	15.20
20455-040E-##	40	19.50	21.30	26.25	24.47	20.20
20455-050E-##	50	24.50	26.30	31.25	29.47	25.20

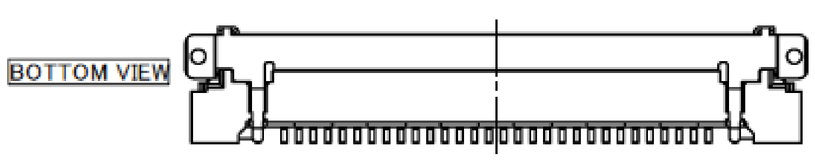
P/N:20455-0 ** E-##

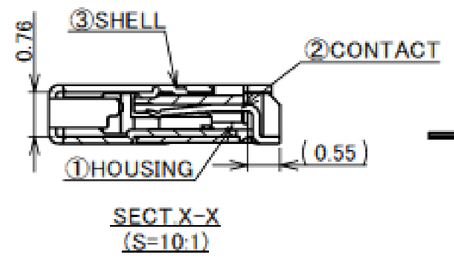
SEE TABLE.1

Pos.

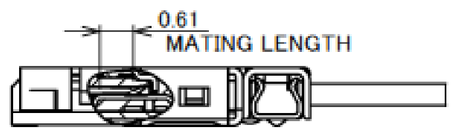
30P



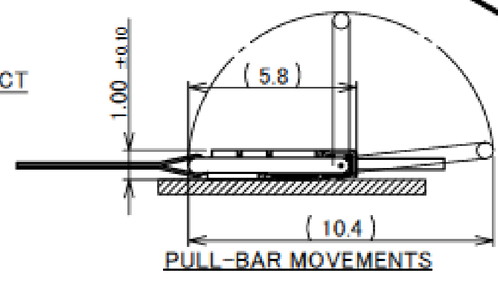




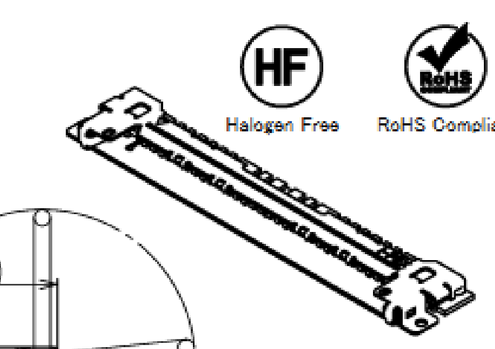
SECT X-X
(S=10:1)



MATING CONDITION



PULL-BAR MOVEMENTS



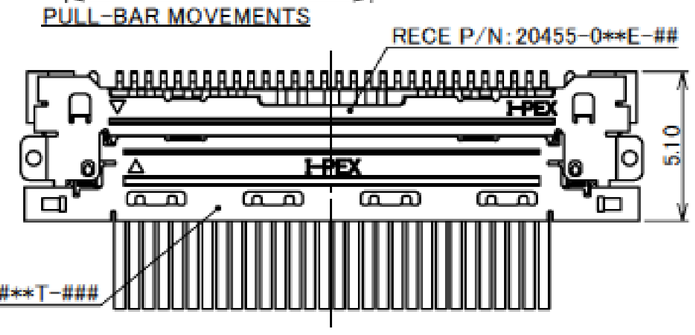


TABLE.1

PART NO.	DATUM MARK	CONTACT FINISH	SHELL FINISH
20455-0**E-02	WITH	CONTACT AREA Au 0.1μm MIN. OVER Ni 1.00μm MIN. SOLDERING AREA Au 0.05μm MIN. OVER Ni 1.00μm MIN.	Au 0.02μm MIN. OVER Ni 1.00μm MIN.
20455-0**E-12	WITHOUT		
20455-0**E-66	WITH	CONTACT AREA Au 0.1μm MIN. OVER Ni 1.00μm MIN. SOLDERING AREA Au 0.05μm MIN. OVER Ni 1.00μm MIN.	Au 0.01μm MIN. OVER Ni 1.00μm MIN.
20455-0**E-76	WITHOUT		

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

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Recommended P/N	20455-0**E-76(30P/40P/50P)	20455-A20E-76(20P)

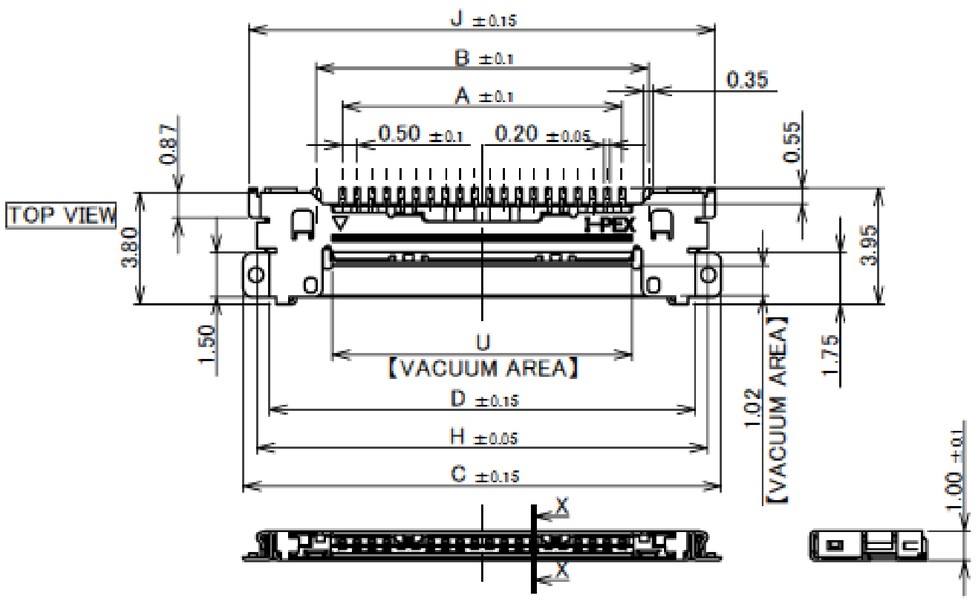
PART NO.	Pos.	A	B	C	D	H	J	U
20455-A20E-##	20	9.50	11.30	16.25	14.47	15.32	15.84	10.20

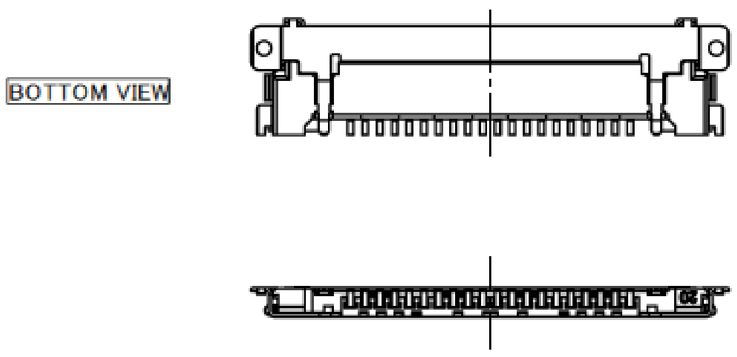
P/N:20455-A20E-##

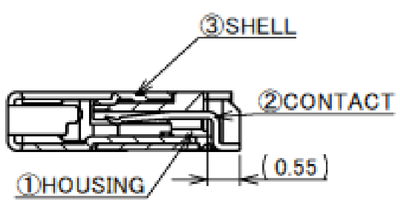
A : TYPE-A

SEE TABLE.2

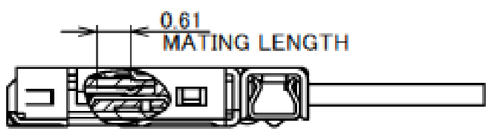
TYPE-A



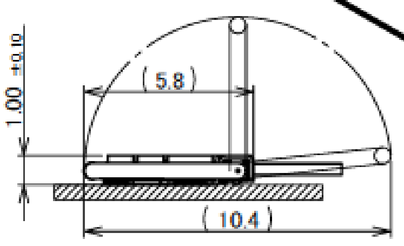




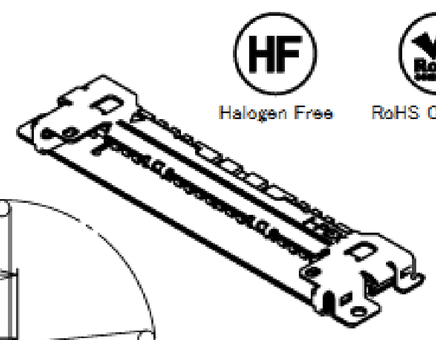
SECT X-X
S= 10 : 1



MATING CONDITION



PULL-BAR MOVEMENTS



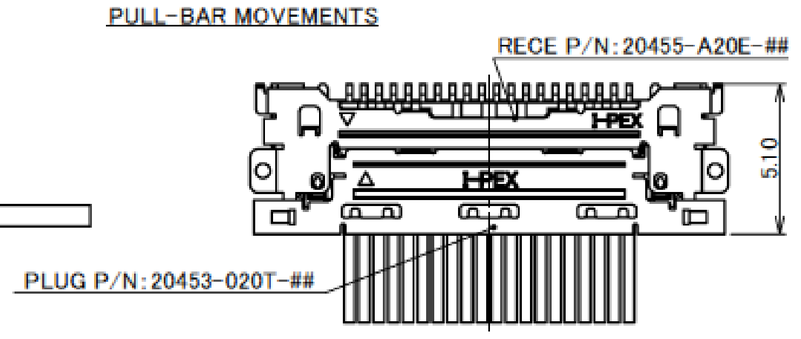


TABLE.2

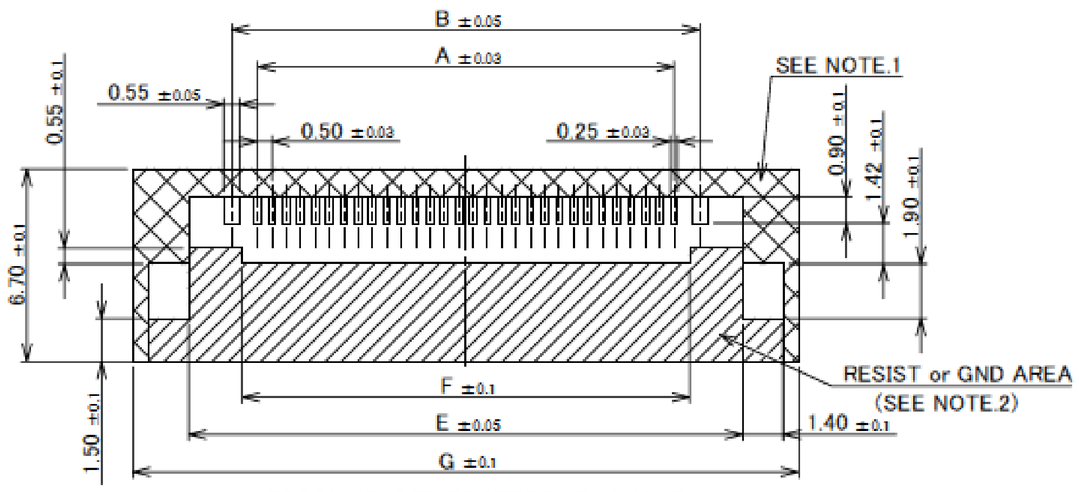
PART NO.	DATUM MARK	CONTACT FINISH	SHELL FINISH
20455-A20E-02	WITH	CONTACT AREA Au 0.1μm MIN. OVER Ni 1.00μm MIN. SOLDERING AREA Au 0.05μm MIN. OVER Ni 1.00μm MIN.	Au 0.02μm MIN. OVER Ni 1.00μm MIN.
20455-A20E-12	WITHOUT		
20455-A20E-66	WITH	CONTACT AREA Au 0.1μm MIN. OVER Ni 1.00μm MIN. SOLDERING AREA Au 0.05μm MIN. OVER Ni 1.00μm MIN.	Au 0.01μm MIN. OVER Ni 1.00μm MIN.
20455-A20E-76	WITHOUT		

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

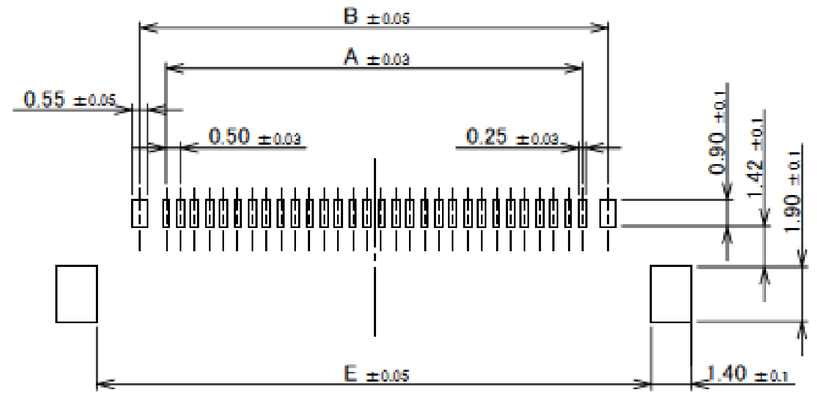
Rev.34

Receptacle Assembly

PART NO.	Pos.	A	B	E	F	G	H	J	K
20455-#20E-##	20	9.50	11.30	14.30	10.60	18.20	15.32	15.84	14.84
20455-030E-##	30	14.50	16.30	19.30	15.60	23.20	–	–	–
20455-040E-##	40	19.50	21.30	24.30	20.60	28.20	–	–	–
20455-050E-##	50	24.50	26.30	29.30	25.60	33.20	–	–	–

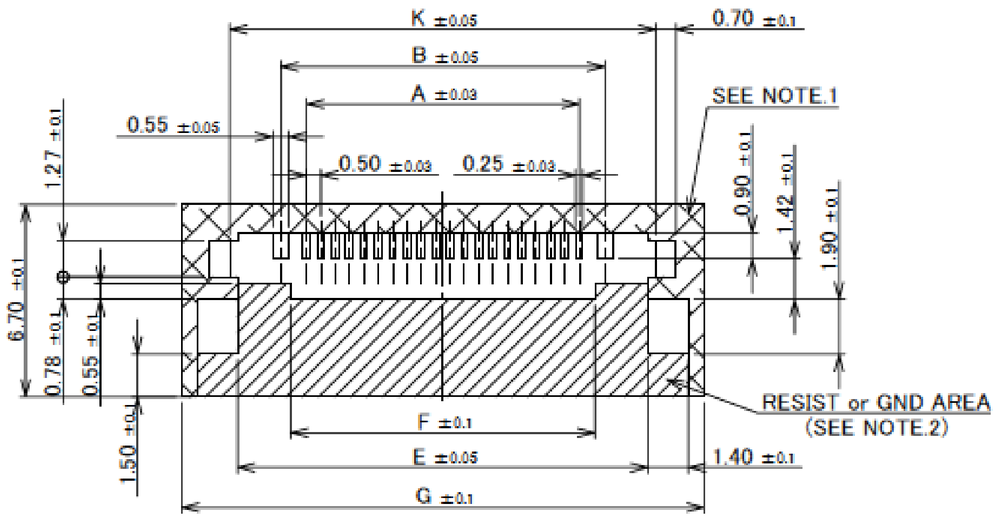


RECOMMENDED FOOTPRONT LAYOUT

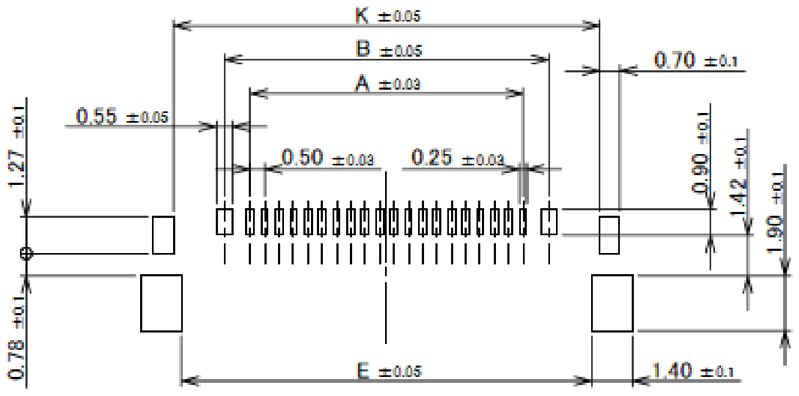


RECOMMENDED METAL MASK LAYOUT
METAL MASK THICKNESS : t = 0.12mm
P/N : 20455-0**E-##

TYPE-A



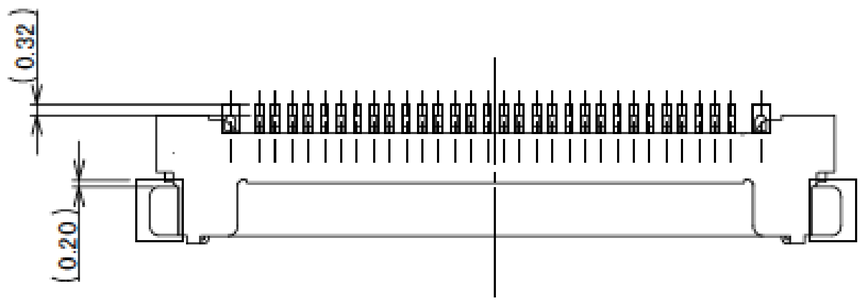
RECOMMENDED FOOTPRINT LAYOUT
P/N : 20455-A20E-##



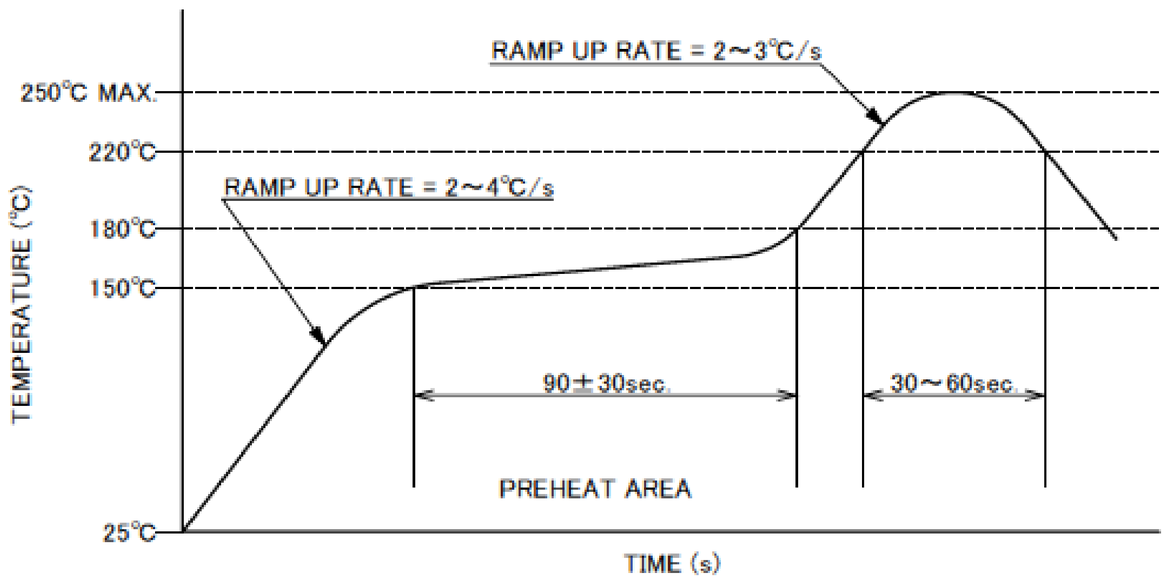
RECOMMENDED METAL MASK LAYOUT
METAL MASK THICKNESS : t = 0.12mm

NOTES.
1. IN CASE OF PLUG WITH PULL-BAR, DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.
2. SOLDER RESIST MUST BE APPLIED TO THIS AREA.

Rev.34

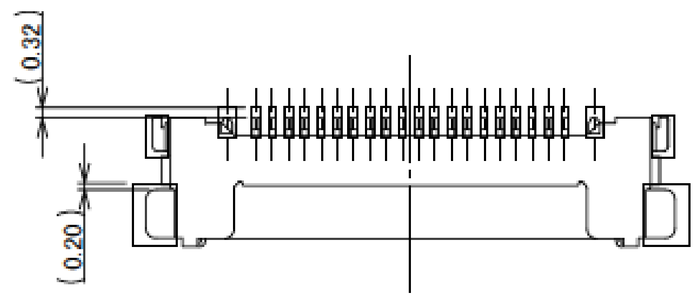


CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN
P/N : 20455-0**E-##



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

TYPE-A



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN
P/N : 20455-A20E-##

Rev.34

Receptacle Assembly

FOR CABLINE-VS PLUG CABLE ASSEMBLY (DWG NO. 20453)

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG #44, 42, 40, 38, 36 DISCRETE WIRE : AWG #36, 34, 32 TWINAXIAL CABLE : AWG #40
RATED 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.
RATED CURRENT (FOR CONTACT)	0.1A AC/DC [AWG #44] PER CONTACT PIN/UP TO 50 CONTACTS 0.24A AC/DC [AWG #42] PER CONTACT PIN/UP TO 50 CONTACTS 0.3A AC/DC [AWG #40] PER CONTACT PIN/UP TO 50 CONTACTS 0.5A AC/DC [AWG #38] PER CONTACT PIN/UP TO 14 CONTACTS 0.8A AC/DC [AWG #36] PER CONTACT PIN/UP TO 10 CONTACTS 1.0A AC/DC [AWG #34] PER CONTACT PIN/UP TO 6 CONTACTS 1.0A AC/DC [AWG #32] PER CONTACT PIN/UP TO 6 CONTACTS TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPURECHER RISE MAY AFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233 TO 358K(-40℃ TO +85℃)
OPERATING HUMIDITY	85% R.H. MAX.
CONTACT RESISTANCE	INITIAL : 140mohm MAX.(AWG #32) / AFTER TEST : ⊿40mohm MAX. 180mohm MAX.(AWG #34) 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 TEST)	20P : 9.45N MAX. 30P : 12.15N MAX. 40P : 16.20N MAX. 50P : 20.25N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	20P : 2.0N MIN. 30P : 3.0N MIN. 40P : 4.0N MIN. 50P : 5.0N MIN.
CABLE RETENTION FORCE	20P : 9.80N MIN. 30P : 14.70N MIN. 40P : 19.60N MIN. 50P : 24.50N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-1427
TEST REPORT	TR-08047 (20455-#**E-#2) TR-13084 (20455-#**E-#6, 20455-0**E-#8)
PACKING STANDARD	300-643
INSTRUCTION MANUAL	HIM-08004
APPEARANCE CRITERIA NO.	QLS-A***

Rev.35

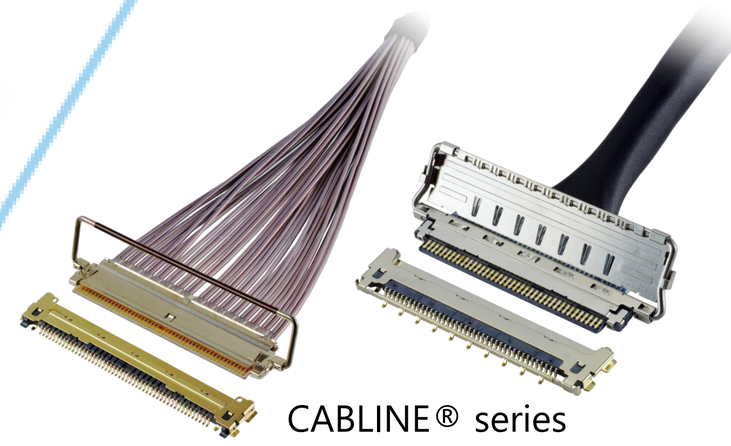
Rev.33

Custom Connectors Available

RF Connectors

MHF® series

Micro-Coaxial/Twinaxial Connectors



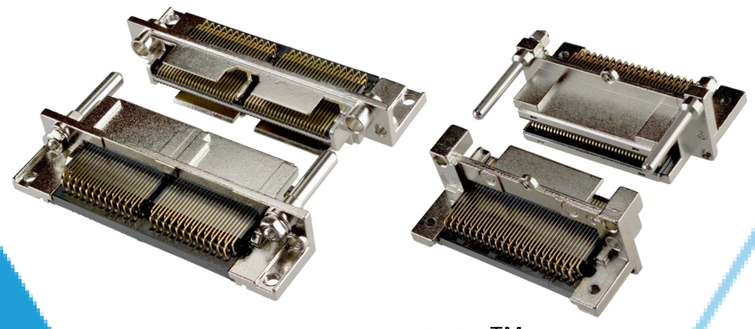
CABLINE® series

Wire-to-Board Connectors/ Terminals

AP series

ISH® series

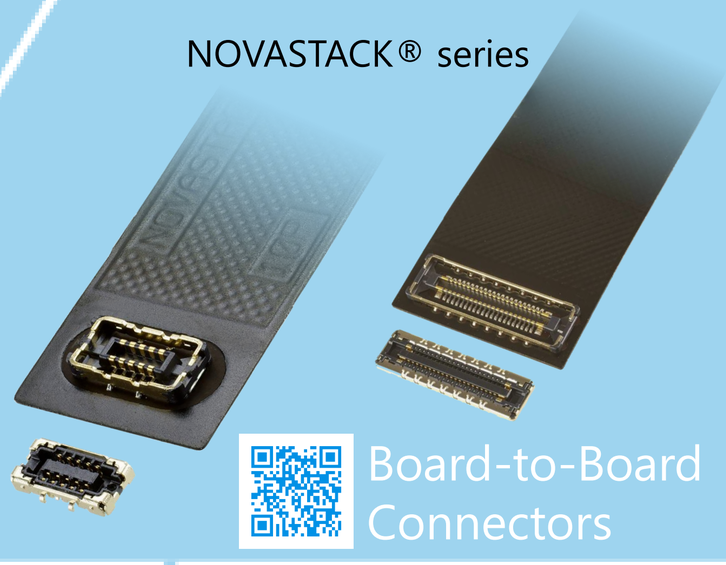
I/O Connectors



MINIDOCK™ series

Board-to-Board Connectors

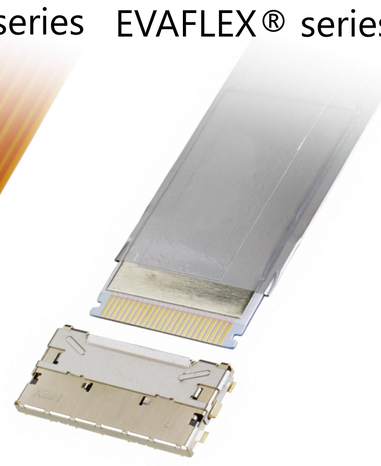
NOVASTACK® series



FPC/FFC Connectors

MINIFLEX® series

EVAFLEX® series



Inquiry

Contact your sales representative or more detailed information.

www.i-pex.com

I-PEX