

CABLINE®-CAP

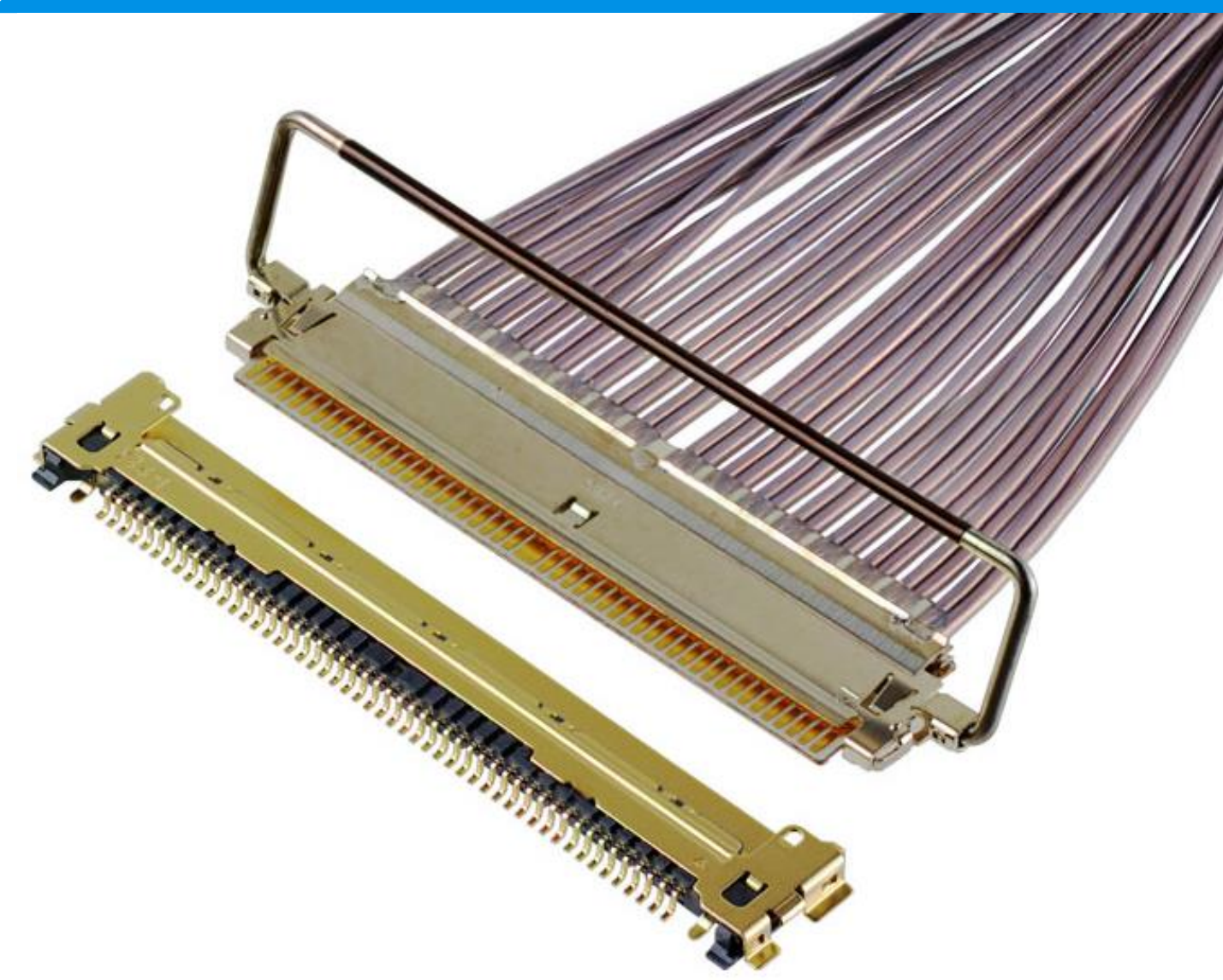
64 Gbps PAM4,
0.4 mm pitch, horizontal mating type micro-coaxial cable assembly

Product Specifications:

Mating type	Horizontal	
Board Pitch (mm)	0.4	
Wiping Length (mm)	0.54	
Mated size (mm)	Height	1.15 ± 0.2
	Width	Formula: 5.75mm + (0.4mm * # of pins)
	Depth	6.86
Pin Counts	Range	Up to 60
	Available	50 (16 differential pair Max)

Applicable Cable Size:

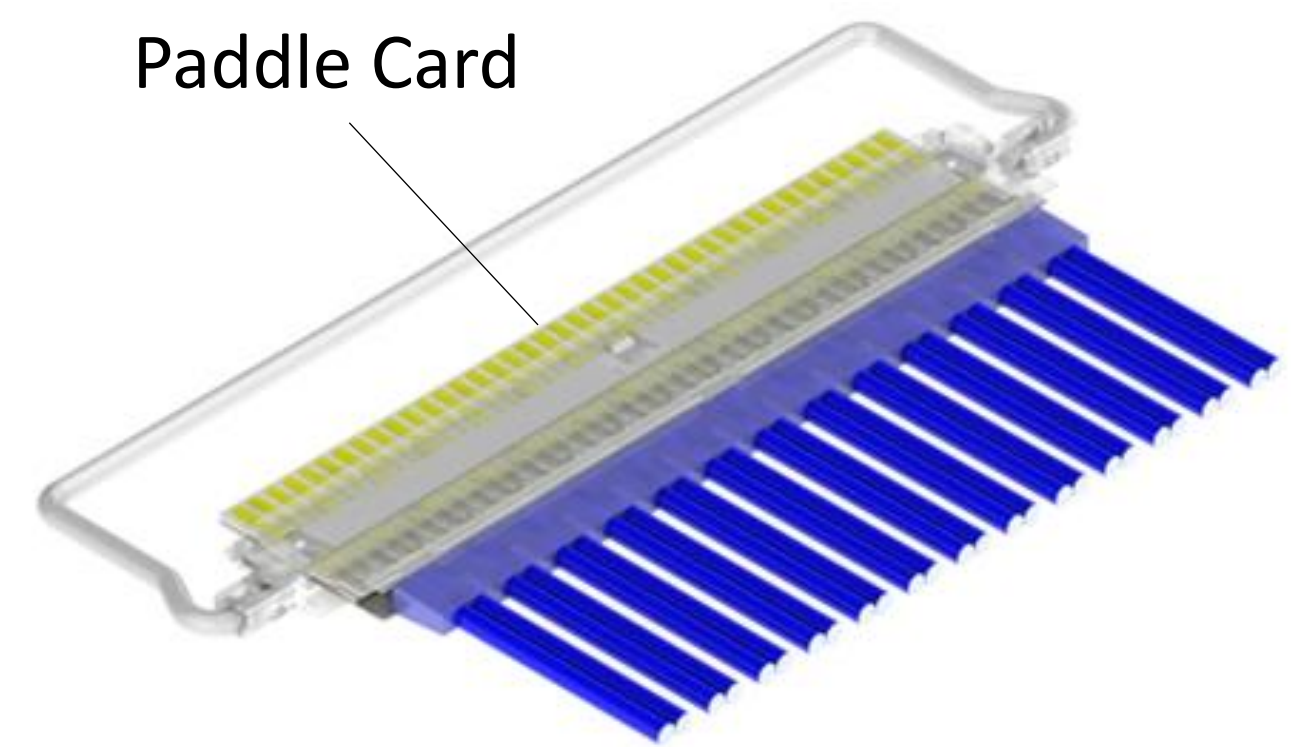
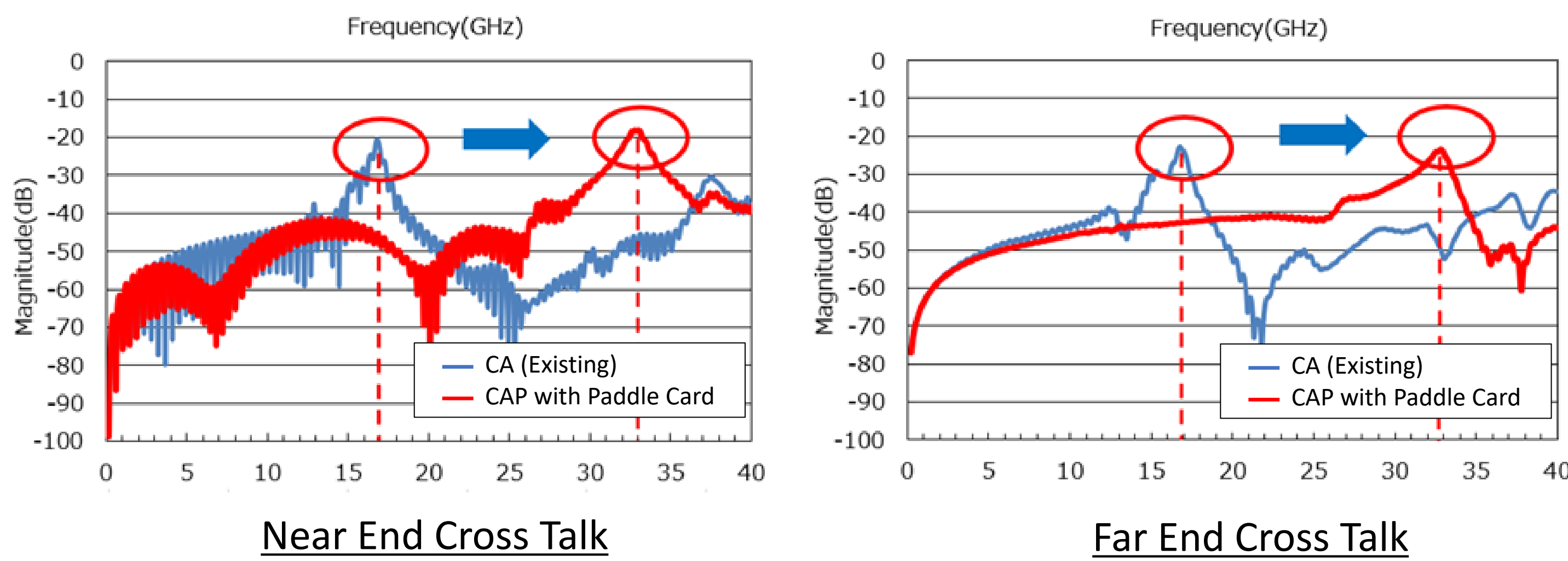
Maximum O.D. (mm)	0.47
Micro-Coaxial For Signal (AWG)	Diff 90 ohm: #38



*CABLINE®-CAP is the name of the harness product. Receptacle is CABLINE®-CA (PN 20525-#50E-02).
*Please inquire for pin counts not listed or outside of the pin count range.
*PLUG is supplied as a harnessed product. Cable length can be customized as desired.

▶ High-speed transmission for 64 Gbps/lane PAM4 with Paddle Card Technology

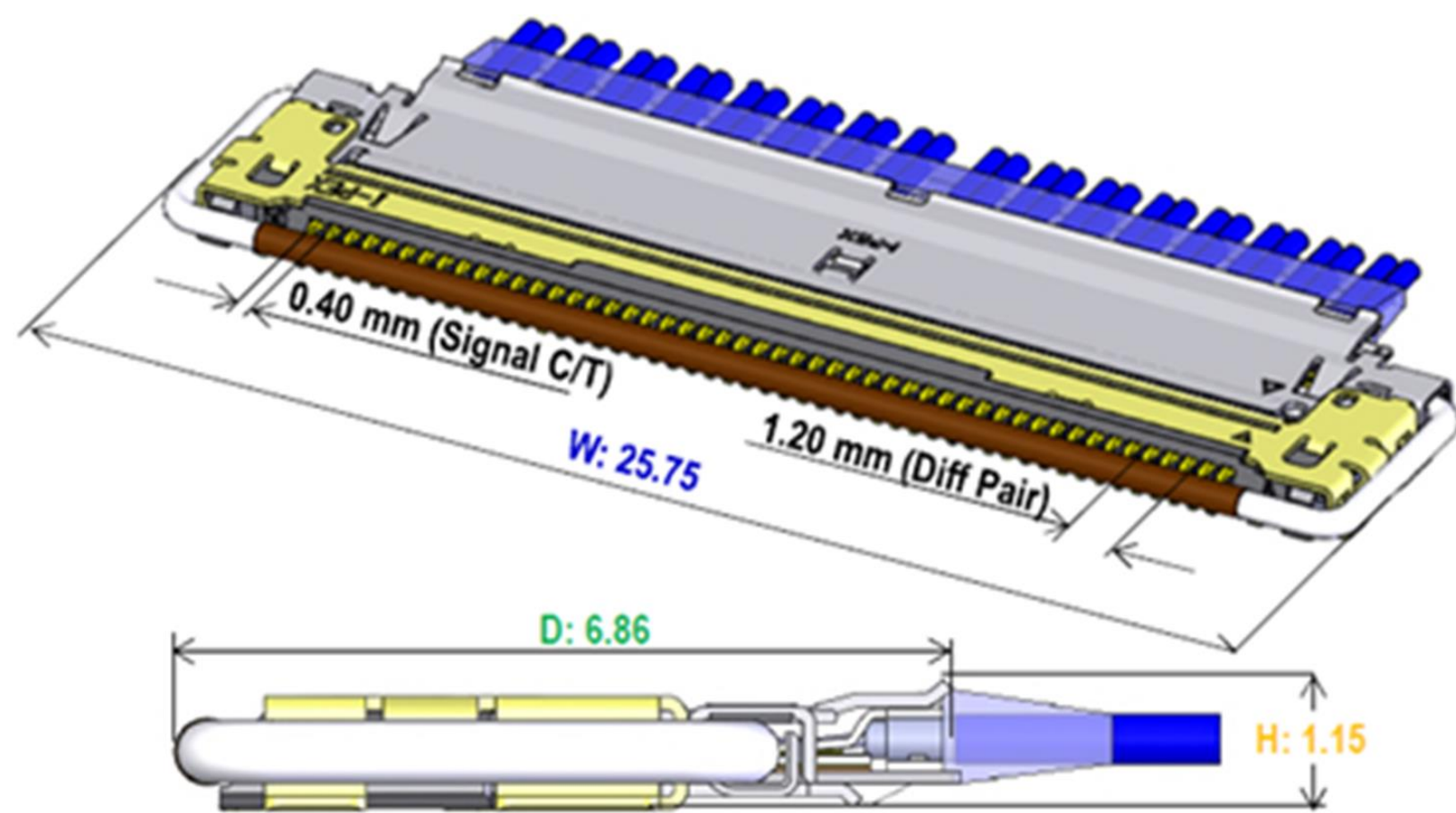
Signal quality is improved by adopting a paddle card in the cable plug section. This enables even faster transmission from the existing CABLINE series.



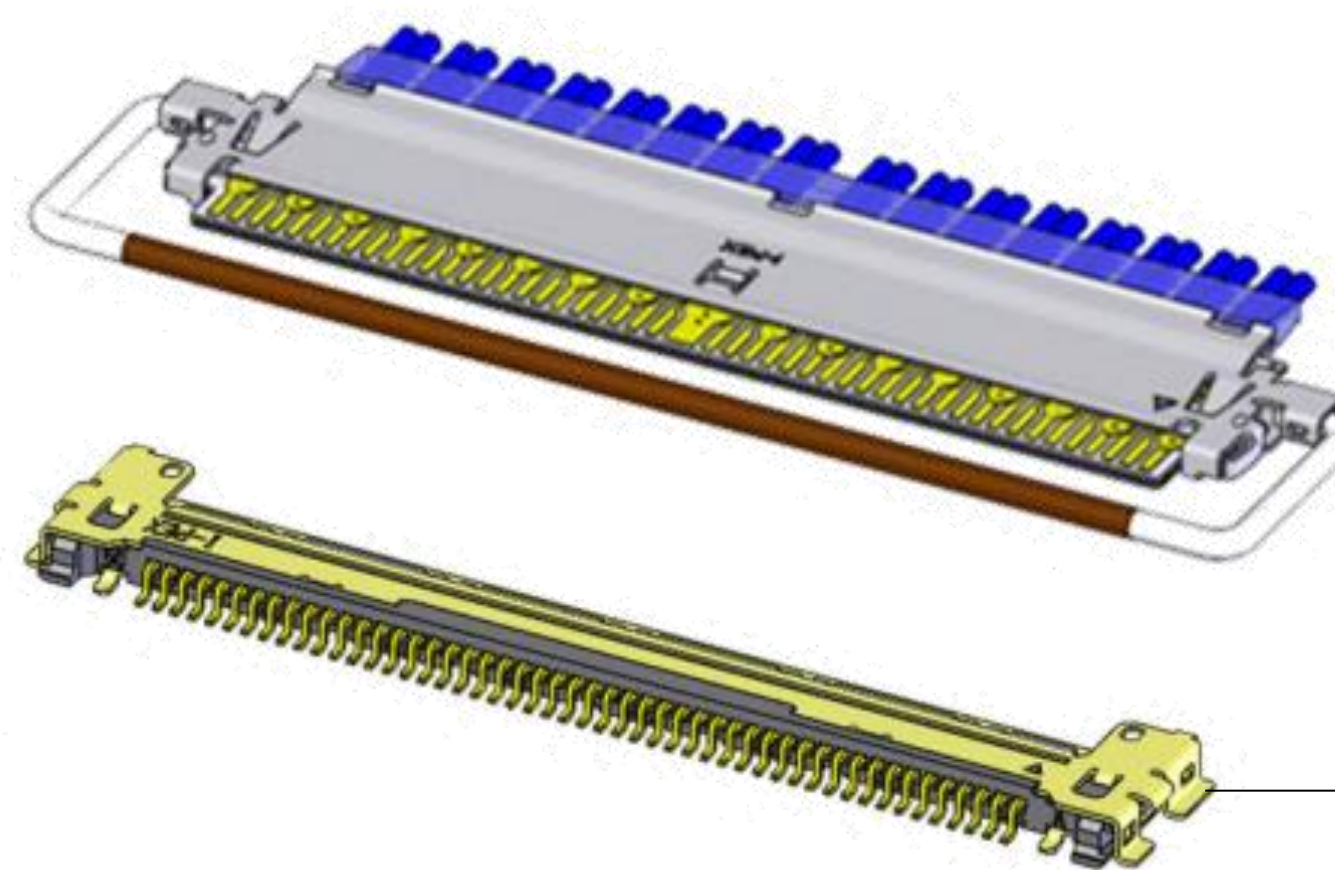
Technical page of paddle card

<https://www.i-pex.com/library/white-papers/paddle-card-technology>

▶ Low profile, ideal for space-constrained applications H=1.15 mm



Mating condition



Un-Mating condition

Plug:
CABLINE®-CAP harness

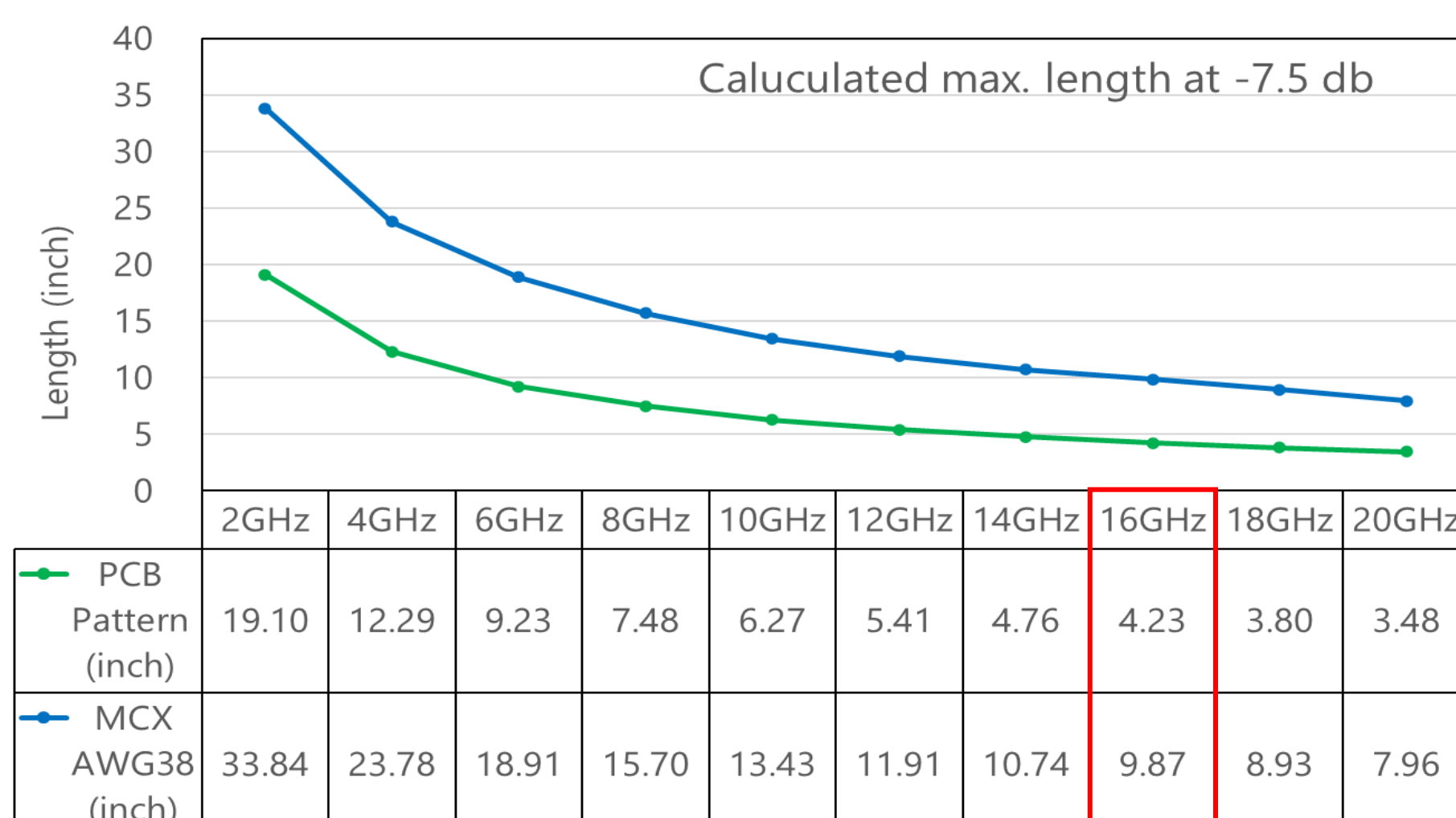
Receptacle:
CABLINE®-CA receptacle
(PN 20525-#50E-02)

▶ LEAPWIRE® jumper solution for micro-coaxial cable

Cable jumper harnesses are more advantageous than PCB in terms of transmission.

Transmission distance comparison of Low-Loss PCB (Dk3.7) vs CABLINE-CAP® harness (Micro-coaxial cable)

Micro-coaxial Cable can transmit approximately 2.3 times farther in the 16 GHz band than Low-Loss PCB (Dk3.7) transmission.



Component Parts Details

Component Parts

Connector parts



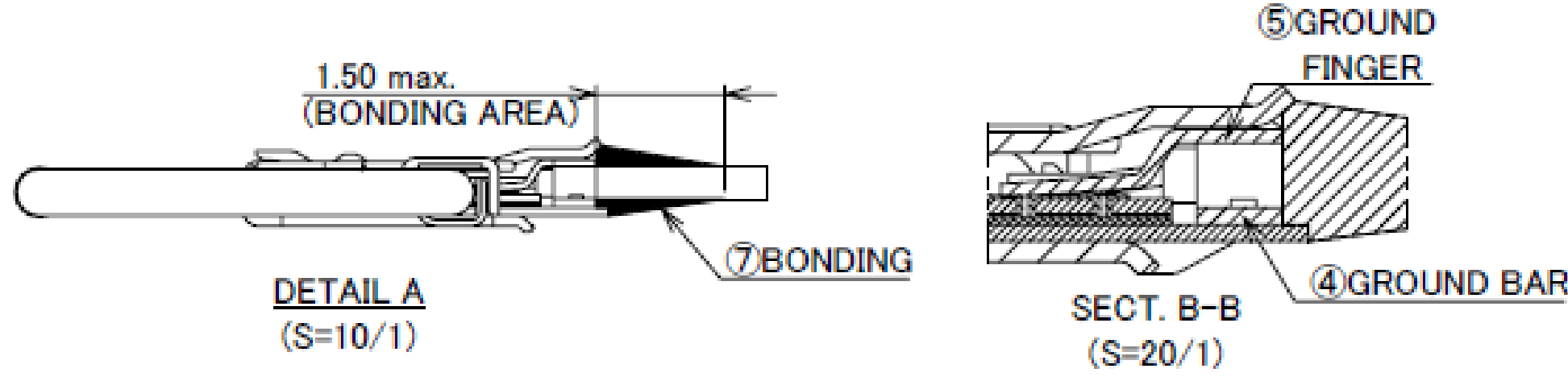
PLUG Harness



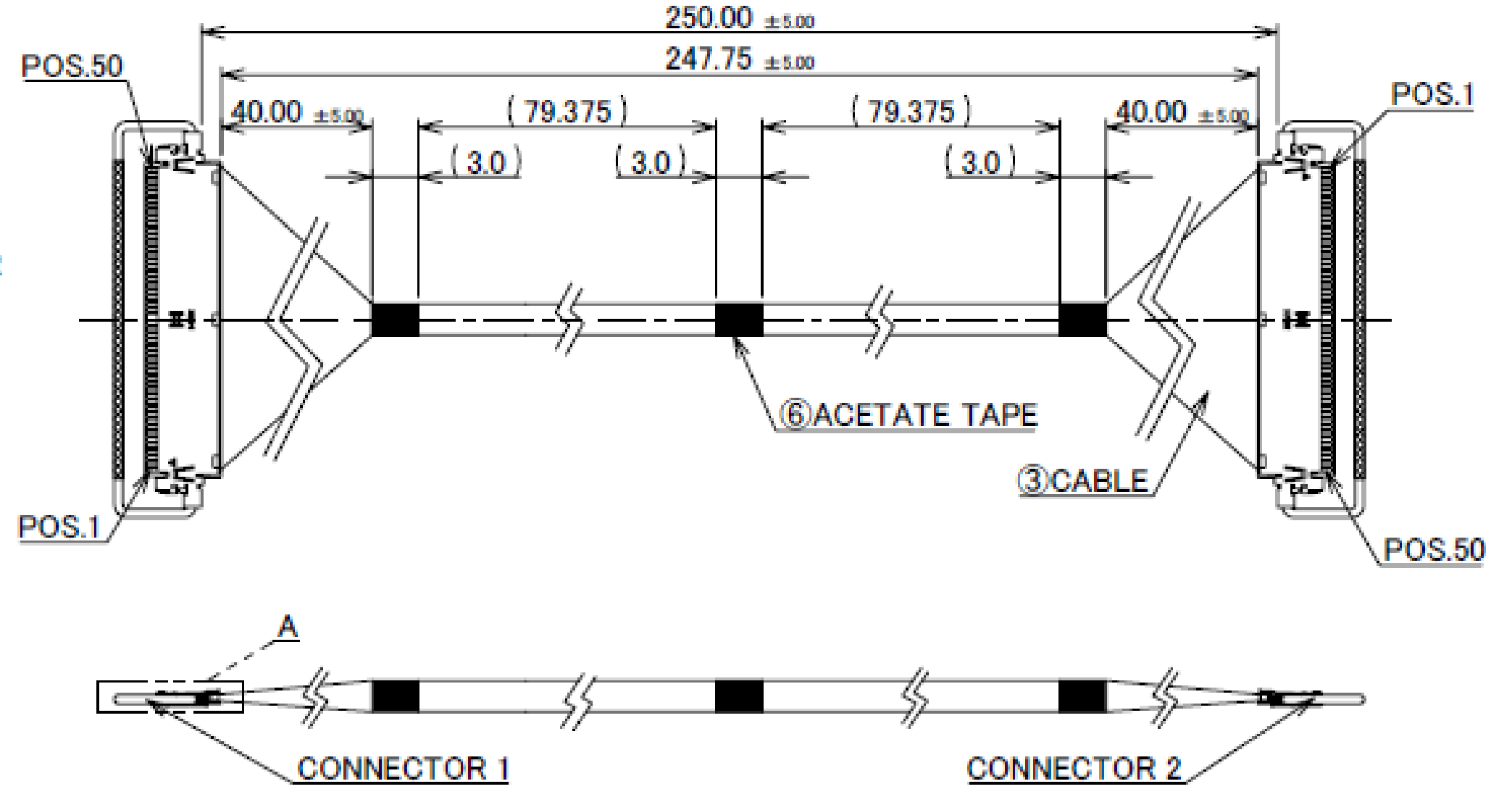
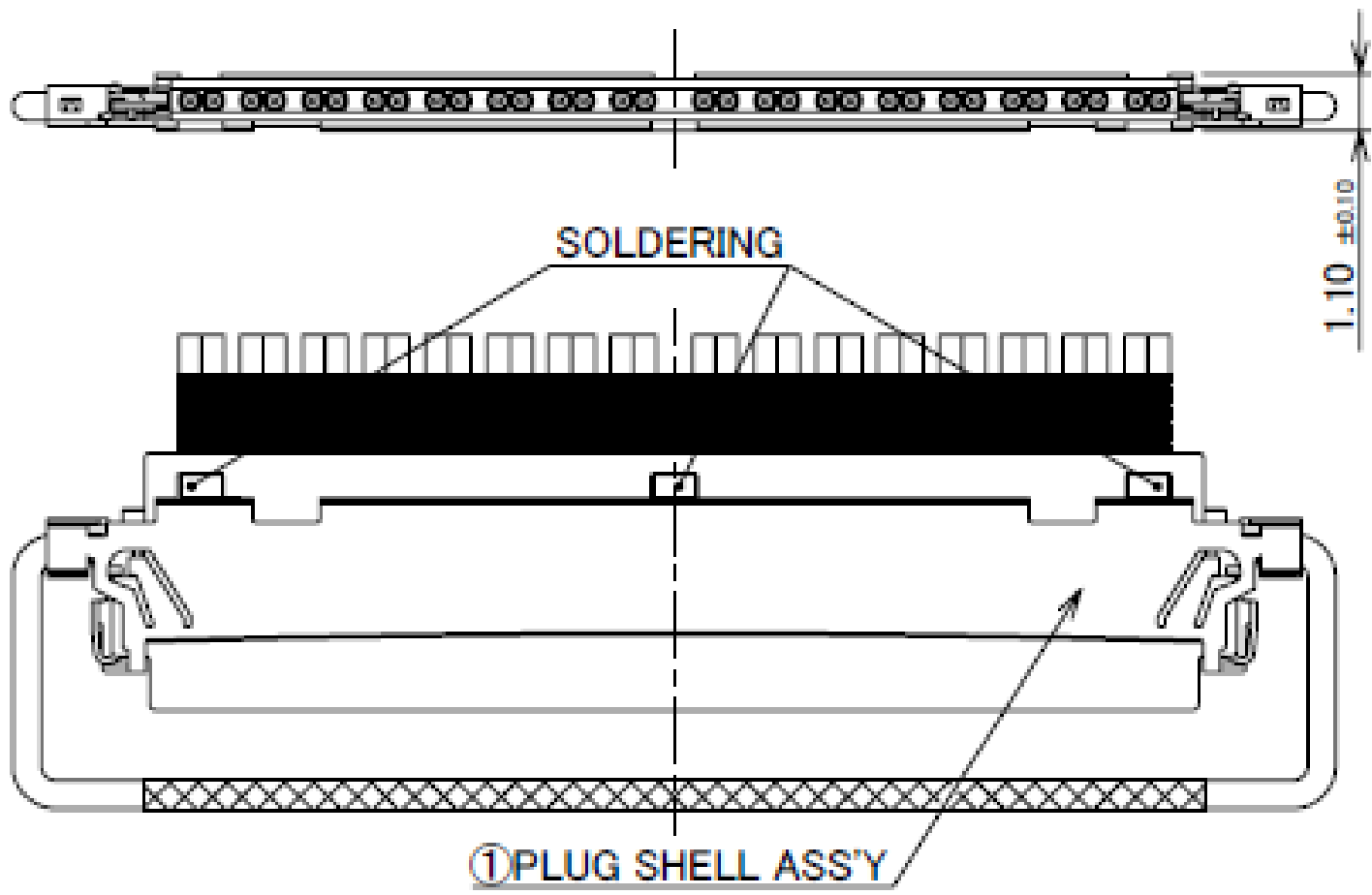
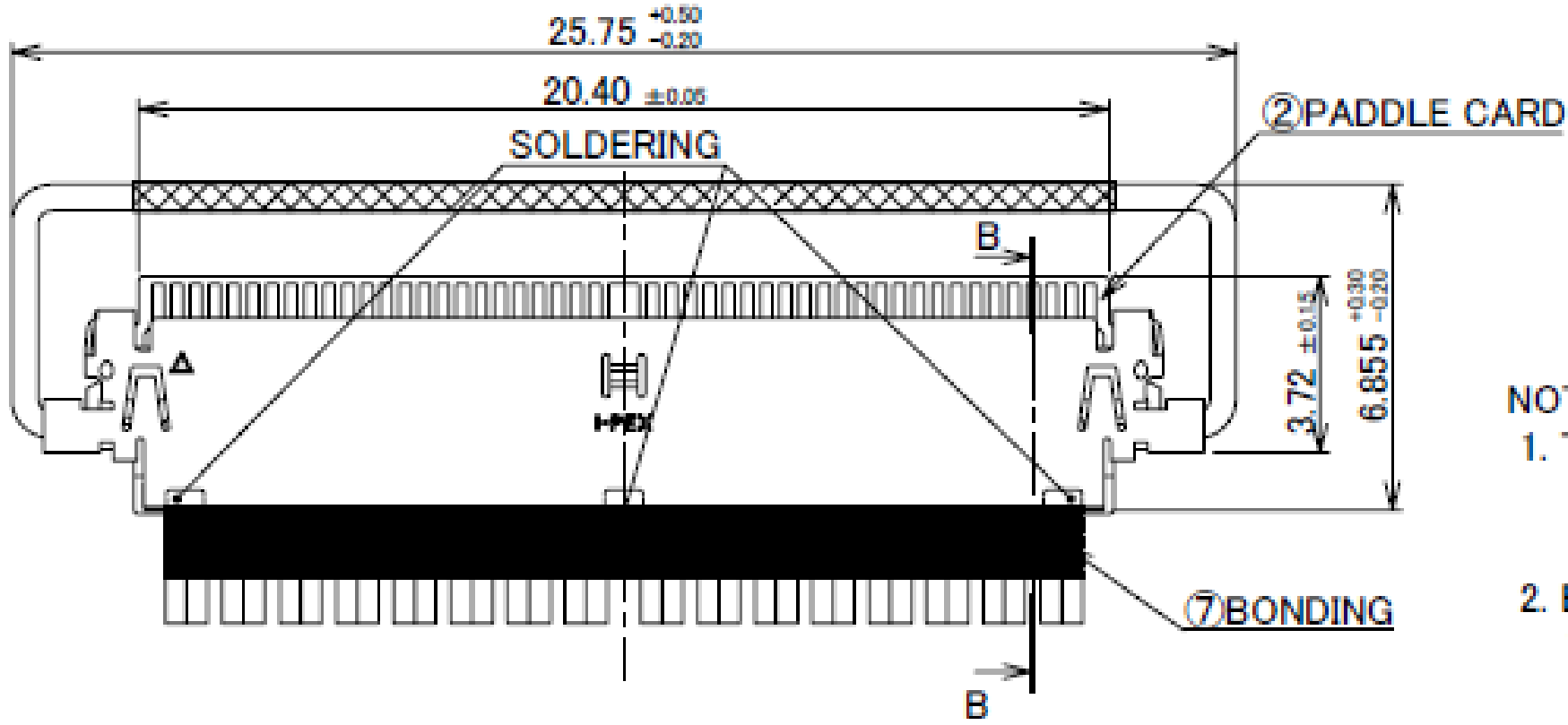
RECEPTACLE

Plug Harness Assembly

I-PEX PART NO.	HARNESS LENGTH
81863-100B-01	250



CONNECTOR 1&2 (S=5/1)

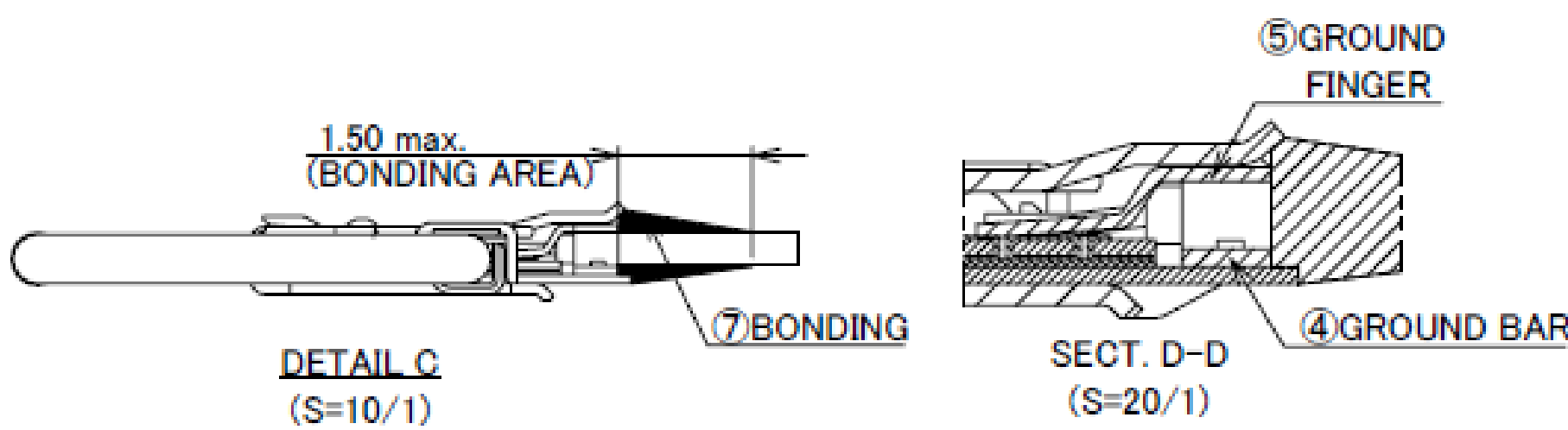


- NOTE.
- TO HANDLE THIS CONNECTOR :
YOU MUST READ AND FOLLOW THE INSTRUCTION MANUAL BELOW.
I-PEX INSTRUCTION MANUAL No.HIM-23013.
 - ELECTRIC CHARACTERISTICS
WITHSTANDING VOLTAGE: AC 250V LEAKAGE CURRENT 2.0mA MAX.
INSULATION RESISTANCE: 50MΩ MIN. DC 100V
 - THE OPERATING TEMPERATURE OF THE HARNESS: 80°C MAX.
 - MINIMUM HARNESS LENGTH: 85mm

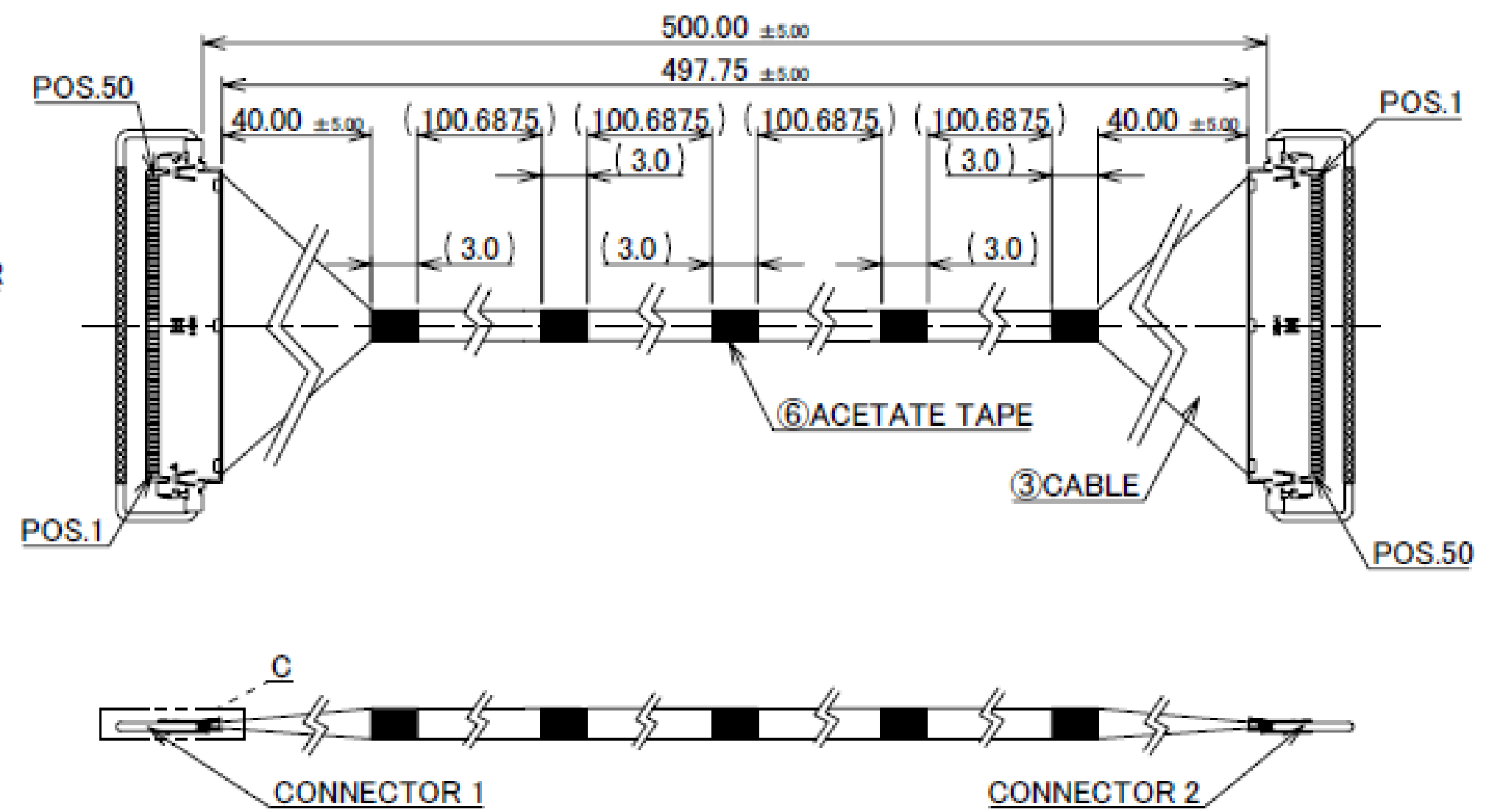
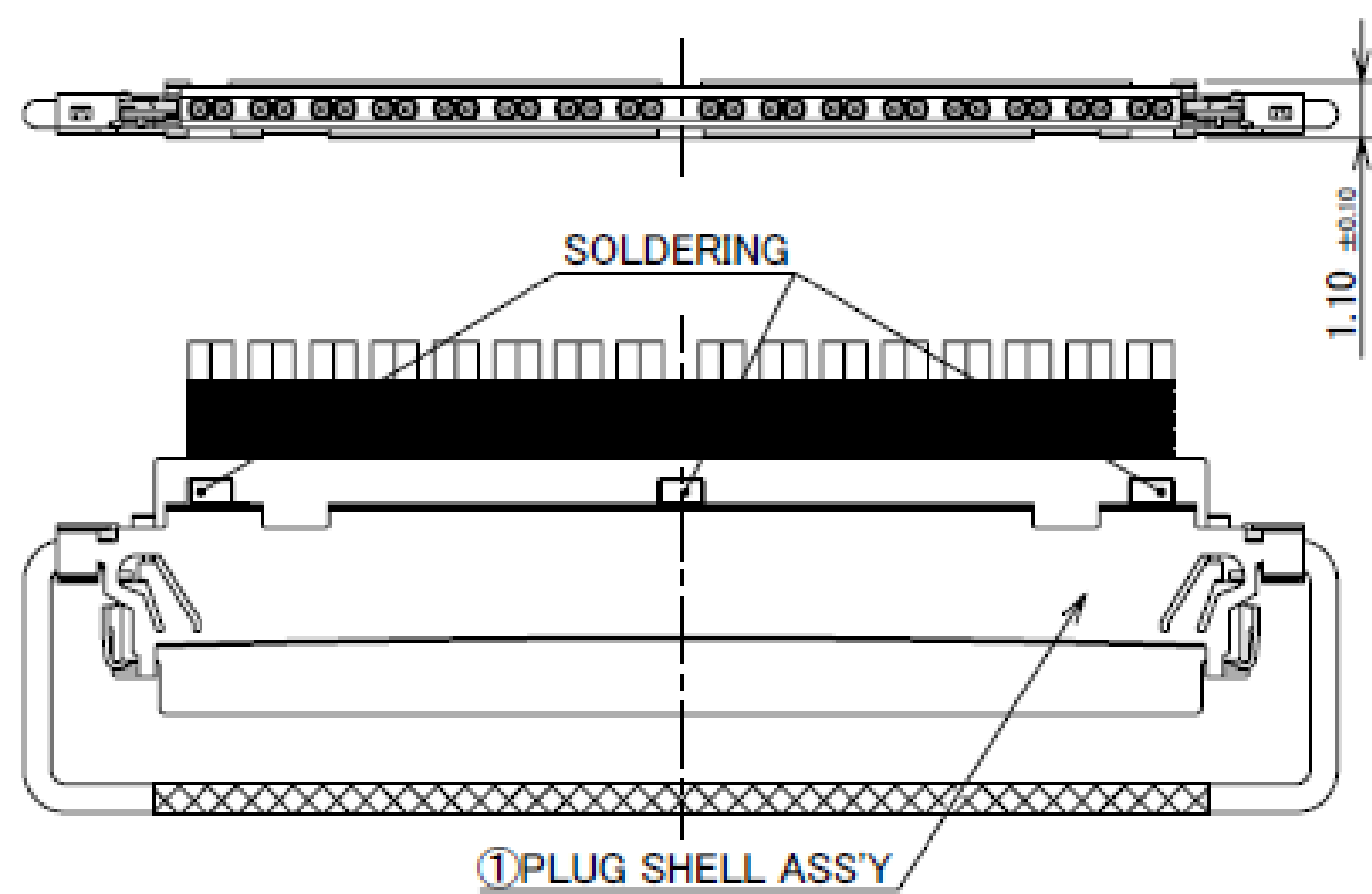
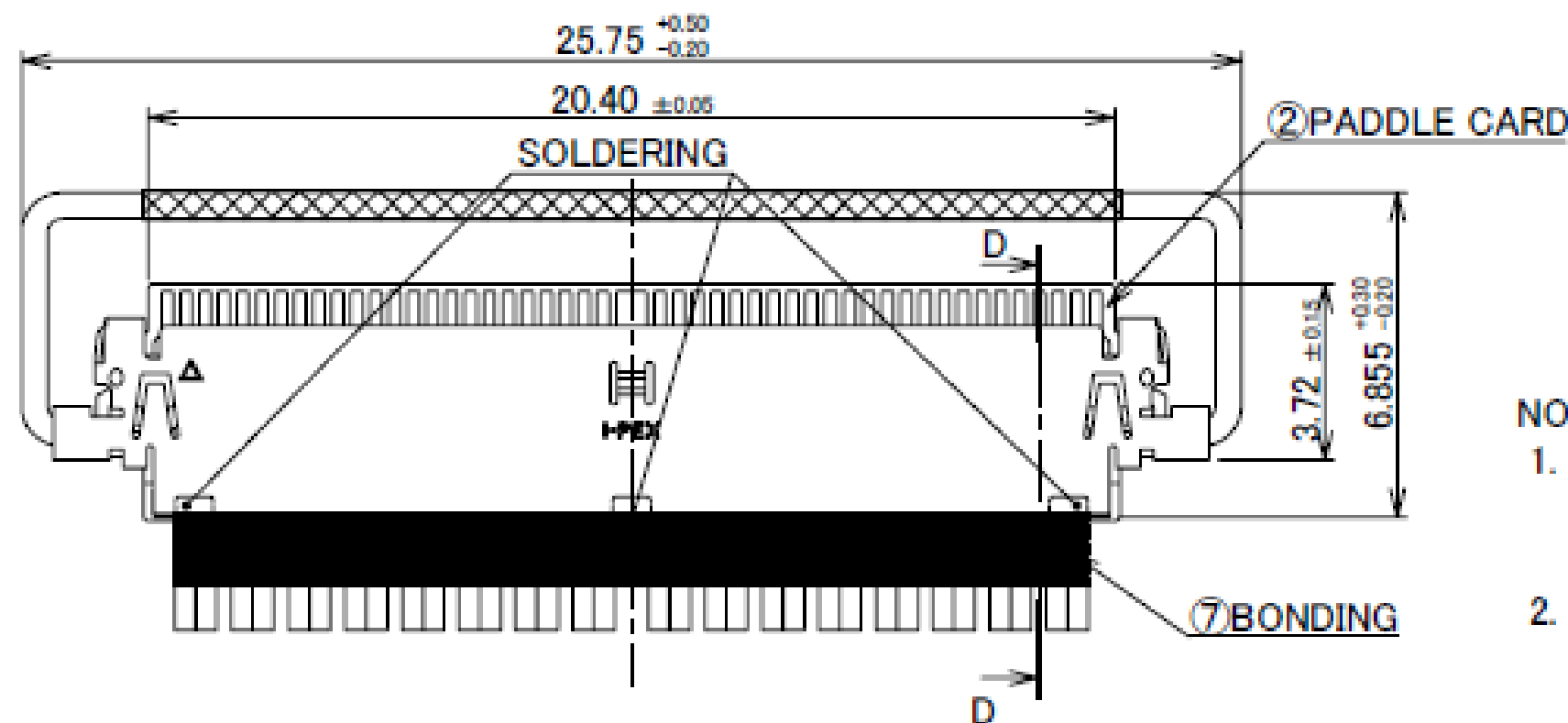
7	BONDING	-	-	UV GLUE
6	ACETATE TAPE	-	3	BLACK
5	GROUND-FINGER	-	2	-
4	GROUND-BAR	-	2	-
3	CABLE	-	32	MICRO-COAXIAL CABLE AWG #38, 45 OHM, BLUE
2	PADDLE CARD	3660-0501	2	CONNECTOR 1&2
1	PLUG SHELL ASS'Y	20993-050T-01	2	CABLIN [®] -CAP PLUG SHELL ASS'Y P/N: 20993-050T-01 CONNECTOR TO BE MATED: 20525-050E-02
NO.	DESCRIPTION	PARTS NO.	QTY	REMARKS

Rev.1

I-PEX PART NO.	HARNESS LENGTH
81863-100B-02	500



CONNECTOR 1&2 (S=5/1)



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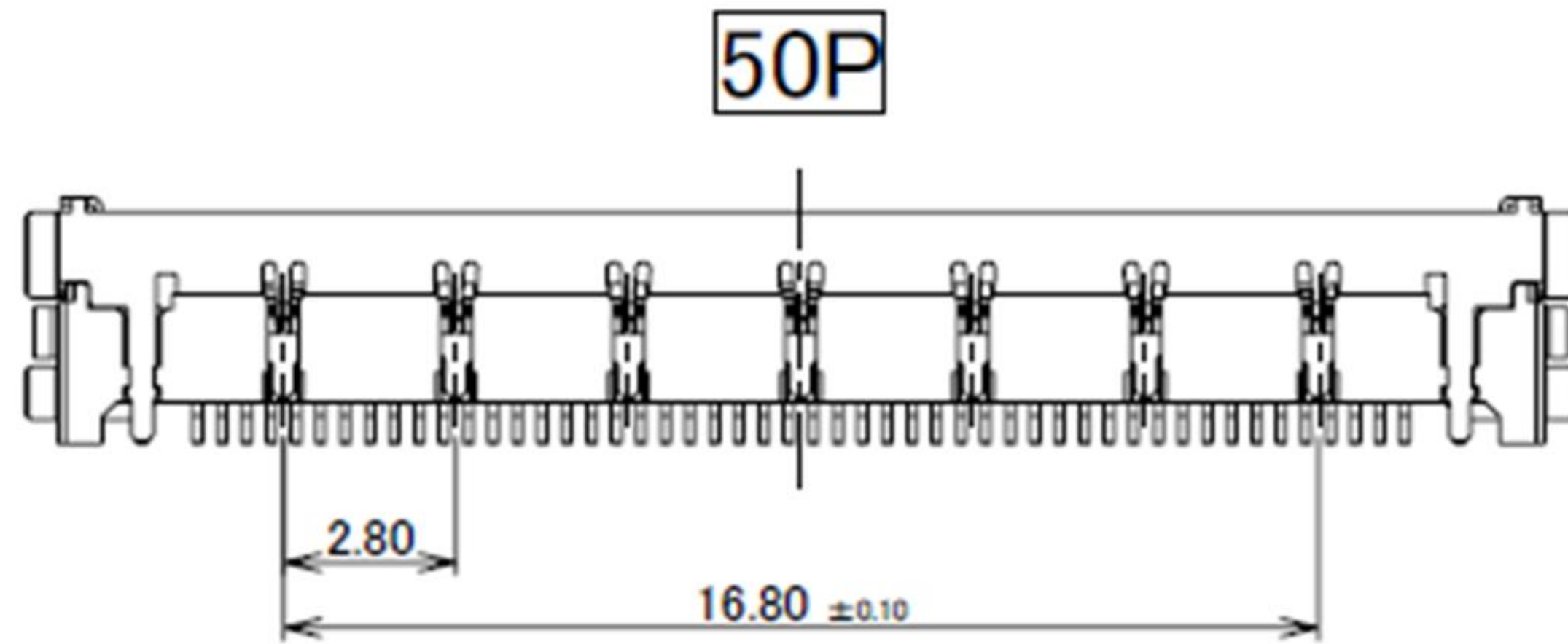
7	BONDING	-	-	UV GLUE
6	ACETATE TAPE	-	5	BLACK
5	GROUND-FINGER	-	2	-
4	GROUND-BAR	-	2	-
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NO.	DESCRIPTION	PARTS NO.	QTY	REMARKS

Rev.1

Receptacle Assembly

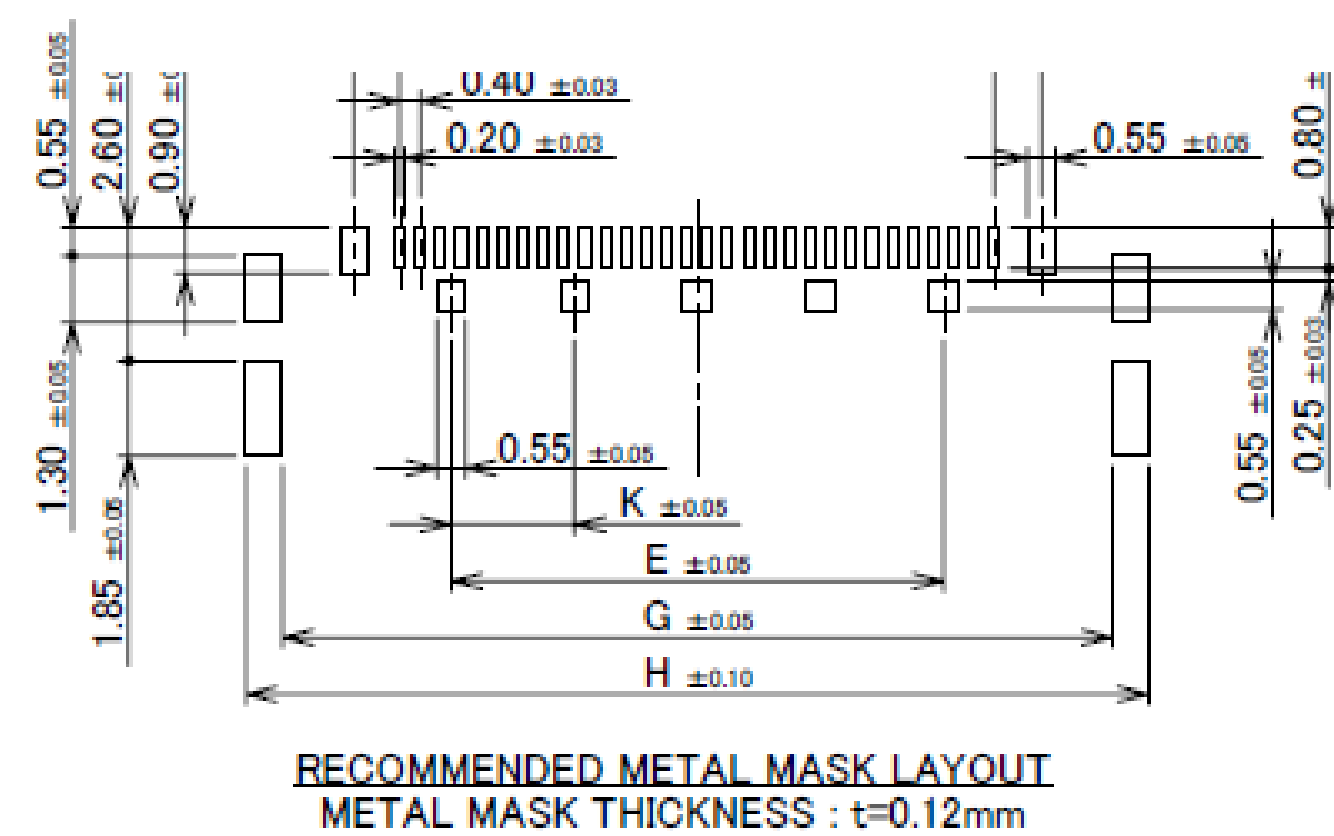
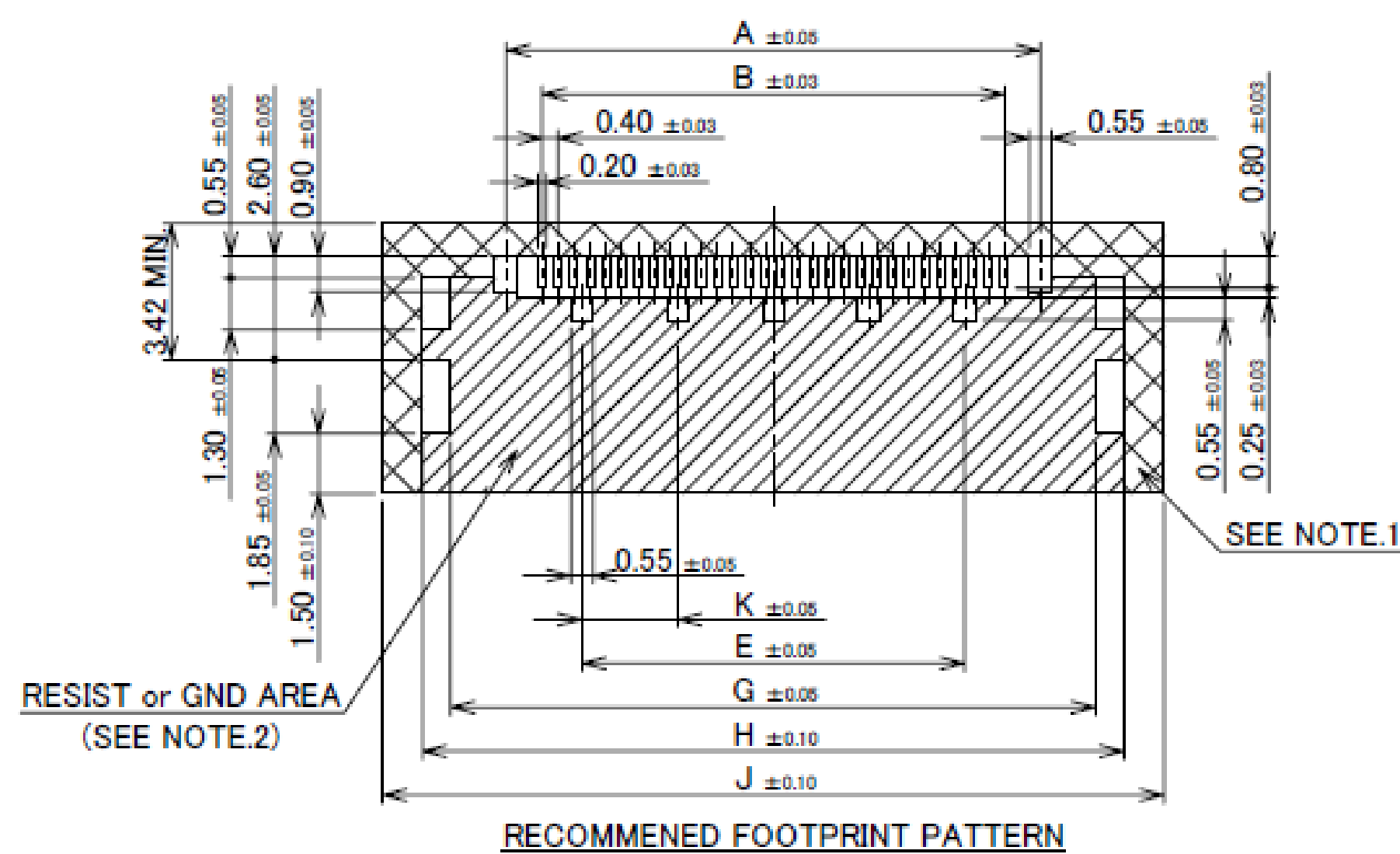
PART NO.
20525-050E-02

BOTTOM VIEW



Rev.27

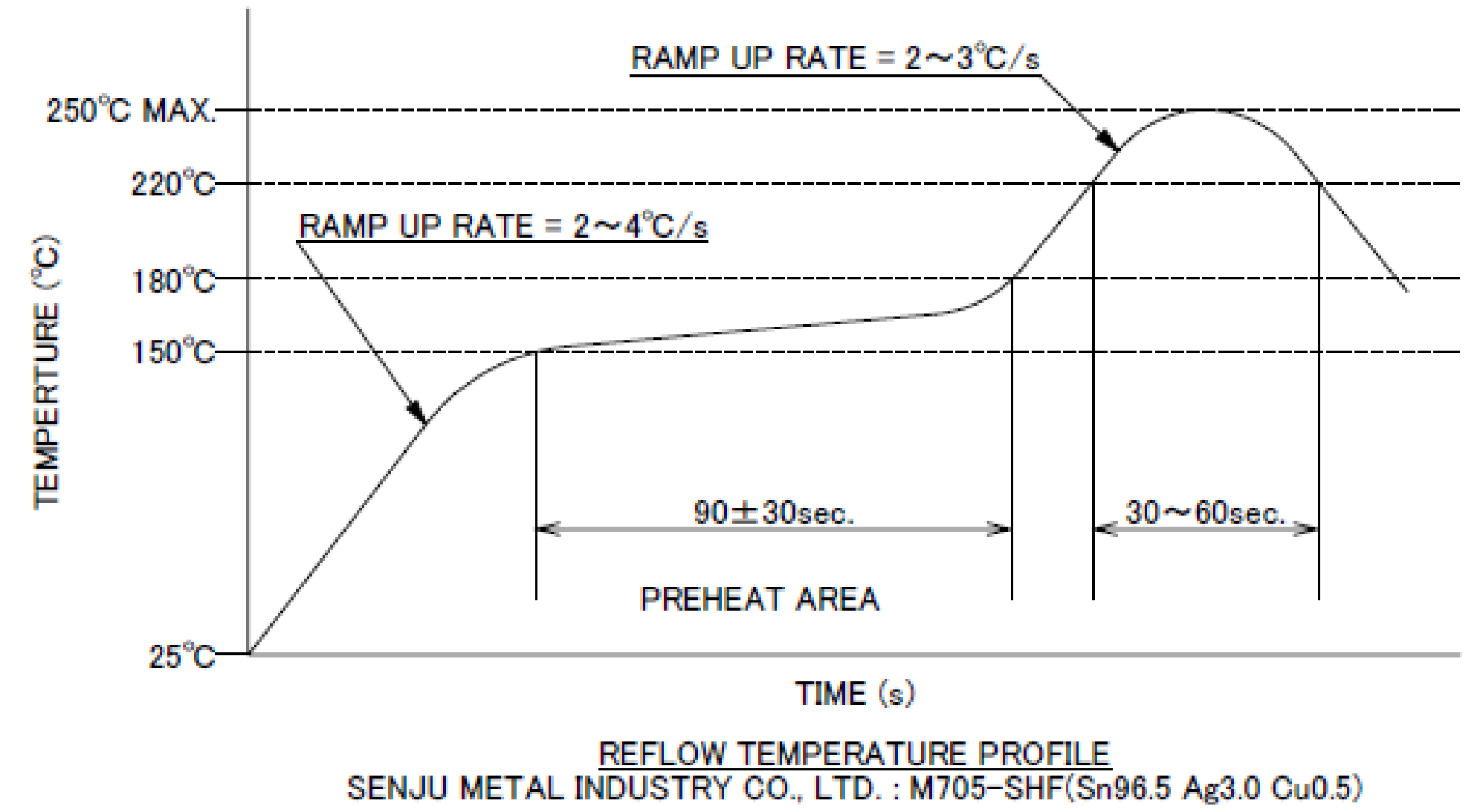
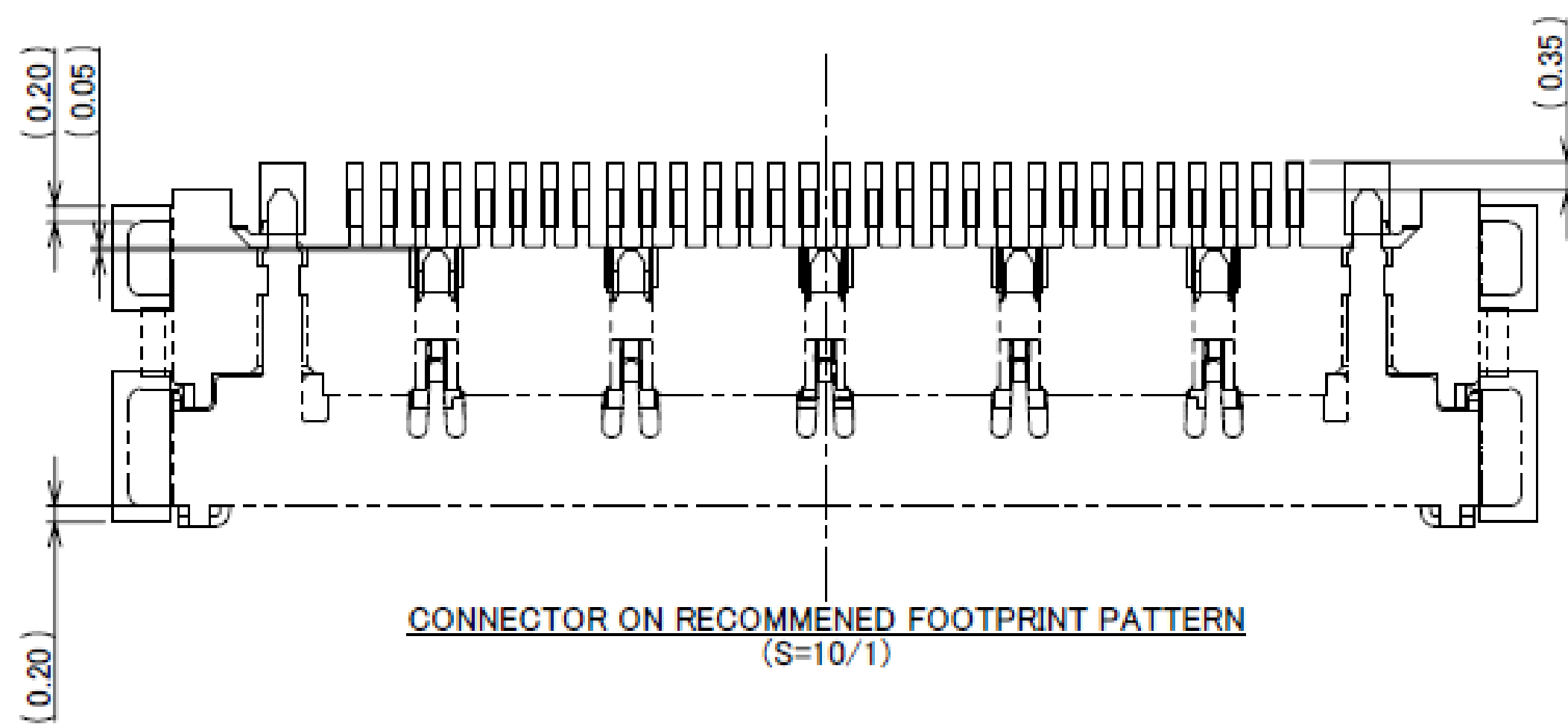
PART NO.	POS.	A	B	E	G	H	J	K
20525-050E-02	50	21.40	19.60	16.80	24.18	25.60	27.60	2.80



- NOTES.
1. IN CASE OF PLUG WITH PULL BAR(20633-##*T-01S), THIS AREA CANNOT MOUNT ANOTHER COMPONENTS.
 2. SOLDER RESIST SHALL BE APPLIED TO PREVENT SHORT CIRCUITS WHEN PLACING SIGNAL LINES ON GROUND AREA.

Rev.27

Receptacle Assembly



Rev.27

ITEMS	SPECIFICATION
APPLICABLE CABLE	Micro Coaxial: AWG#38 Diff 90ohm
RATING AMPERAGE (FOR CONTACT)	0.4A AC/DC (AWG#38)
RATING VOLTAGE	100V AC (PER CONTACT PIN)
OPERATING TEMPERATURE	233~358K (-40°C~85°C)
OPERATING HUMIDITY	85°C MAX. (NON-CONDENDING)
CONTACT RESISTANCE	INITIAL: 270mohm MAX.(AWG#38) / AFTER TEST: Δ40mohm MAX.
GROUND SHELL RESISTANCE	INITIAL : 50mohm MAX. / AFTER TEST : Δ40mohm MAX.
INSULATION RESISTANCE	INITIAL: 1000Mohm MIN. / AFTER TEST: 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30CYCLES
MATING FORCE (INITIAL / AFTER 30 CYCLES)	50P: 18.9N MAX.
UNMATING FORCE (INITIAL / AFTER 30 CYCLES)	50P: 2.5N MIN.
CABLE RETENTION FORCE	50P: 24.5N MIN.
PRODUCT SPECIFICATION	PRS-2832
TEST REPORT	TR-23020
INSTRUCTION MANUAL	HIM-23013


Rev.1

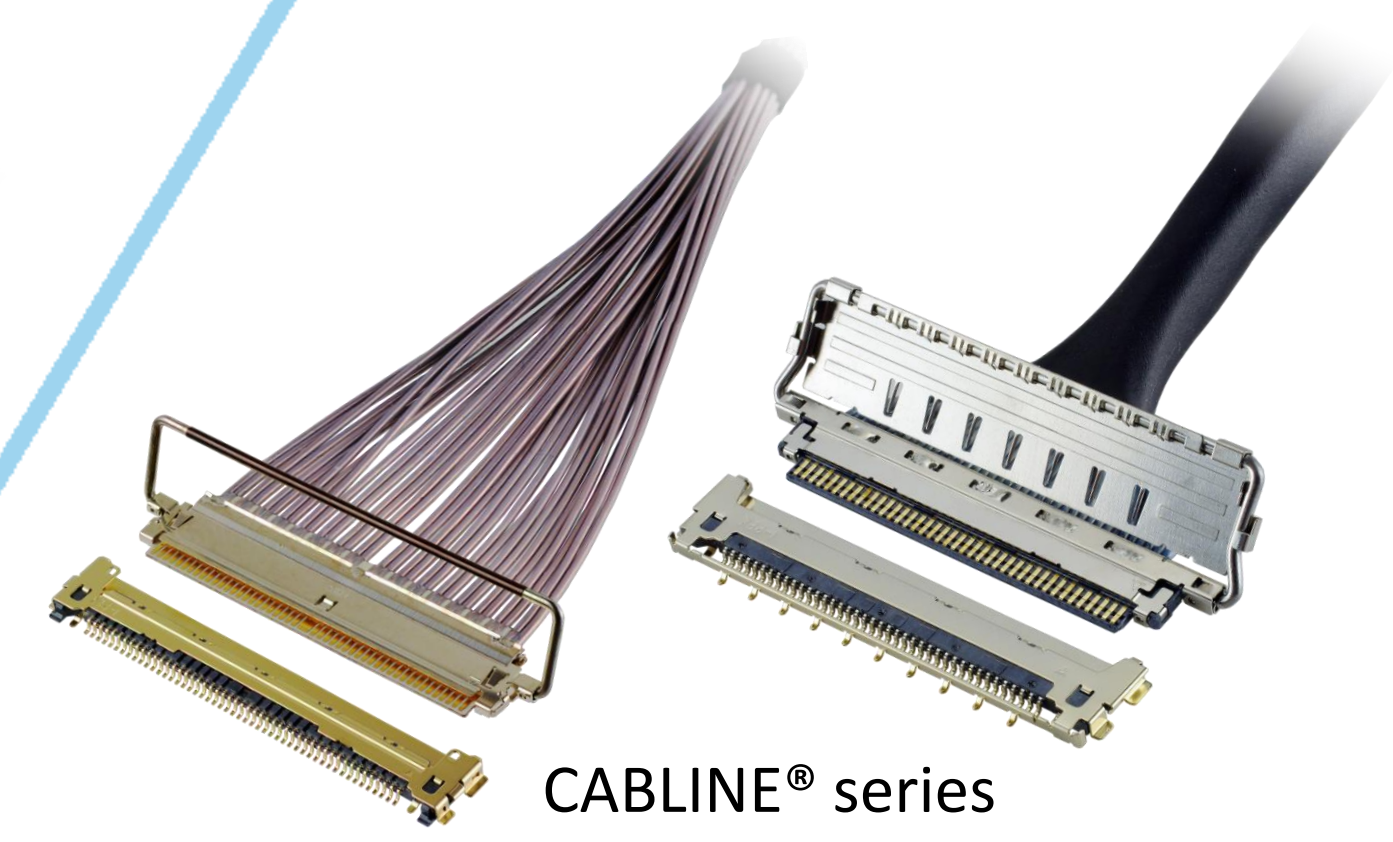
Custom Connectors Available

 RF Connector

MHF® series



 CABLINE® series
Micro-coaxial/Twinax/
Discrete Wire Connector



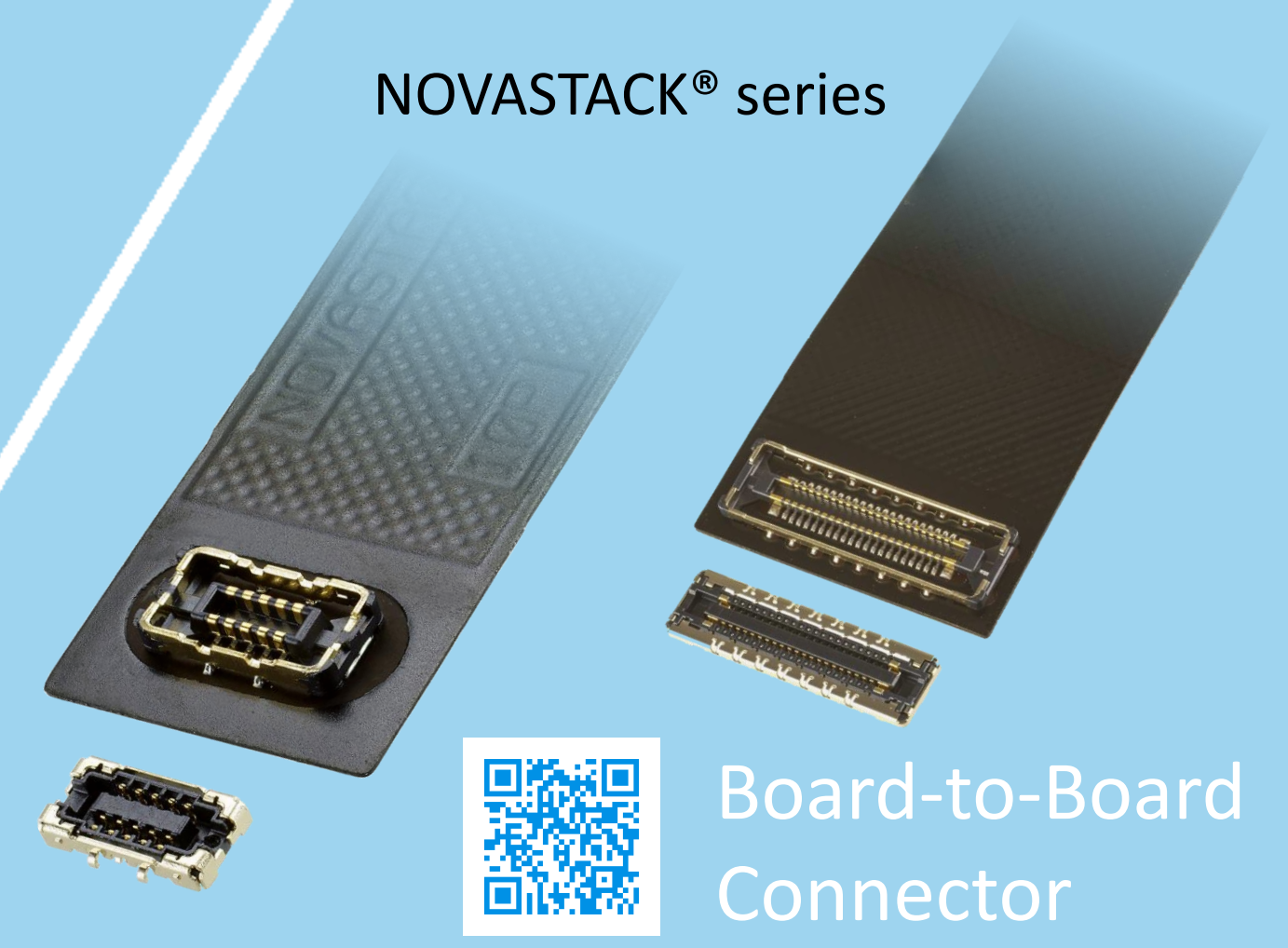
 Optical Module

LIGHTPASS® series



NOVASTACK® series

 Board-to-Board Connector



 Power Connector/
Terminal

AP series

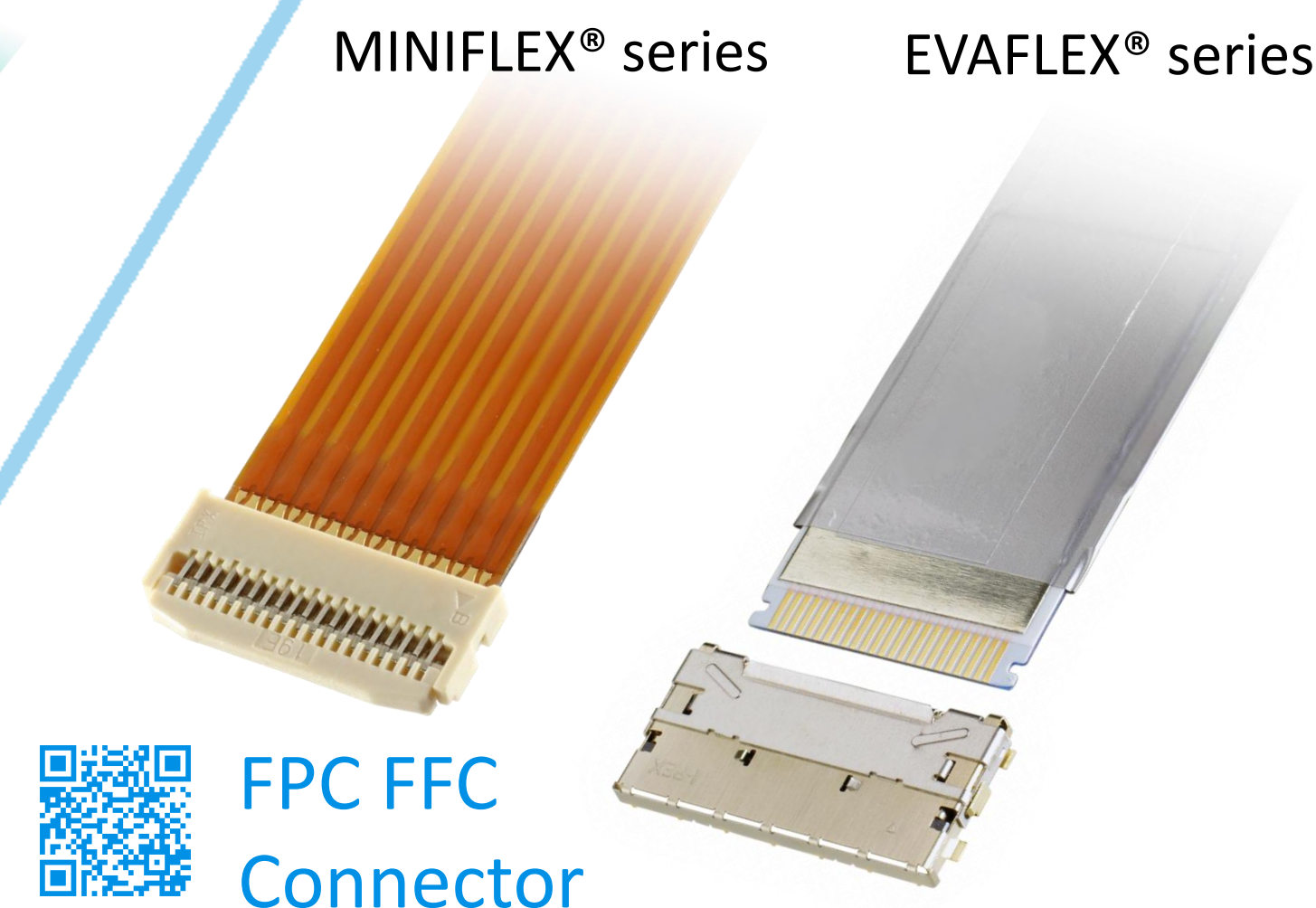
ISH® series



MINIFLEX® series

EVAFLEX® series

 FPC FFC Connector

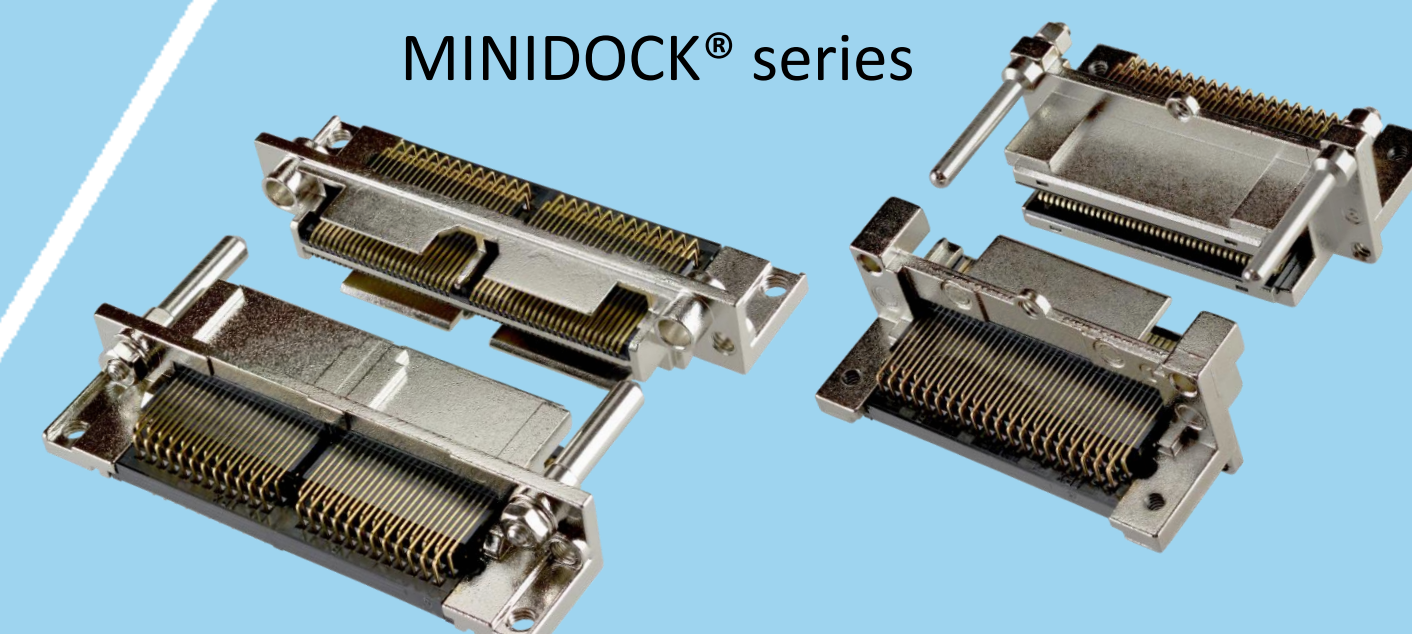


Inquiry



MINIDOCK® series

 I/O Connector



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