

EVAFLEX® 5-SE-G HT

One-handed auto-locking feature, high temperature (125°C), high-speed, horizontal mate, 0.5 mm pitch shielded FFC/FPC connector



Product Specifications:

Board Pitch (mm)	0.5	
Wiping Length (mm)	1.2	
Size (mm)	Height	3.65 +/- 0.20
	Width	Formula: 8.00 + (0.5*p)
	Depth	7.00 +/- 0.30
Pin counts	Range	20 - 60
	Available	30, 50

Applicable FPC/FFC:

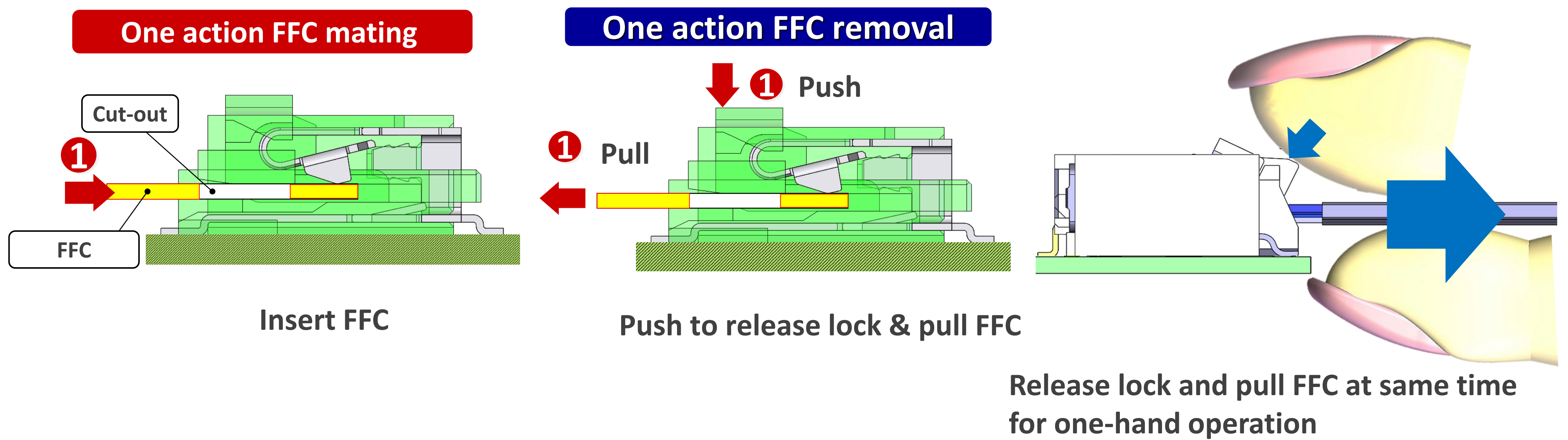
FPC/FFC Type	Shielded FFC, Non-shielded FFC/FPC
FPC/FFC Contact Point	Bottom
FPC/FFC Thickness (mm)	0.30 +/- 0.03

Applicable Standards (Reference Only):

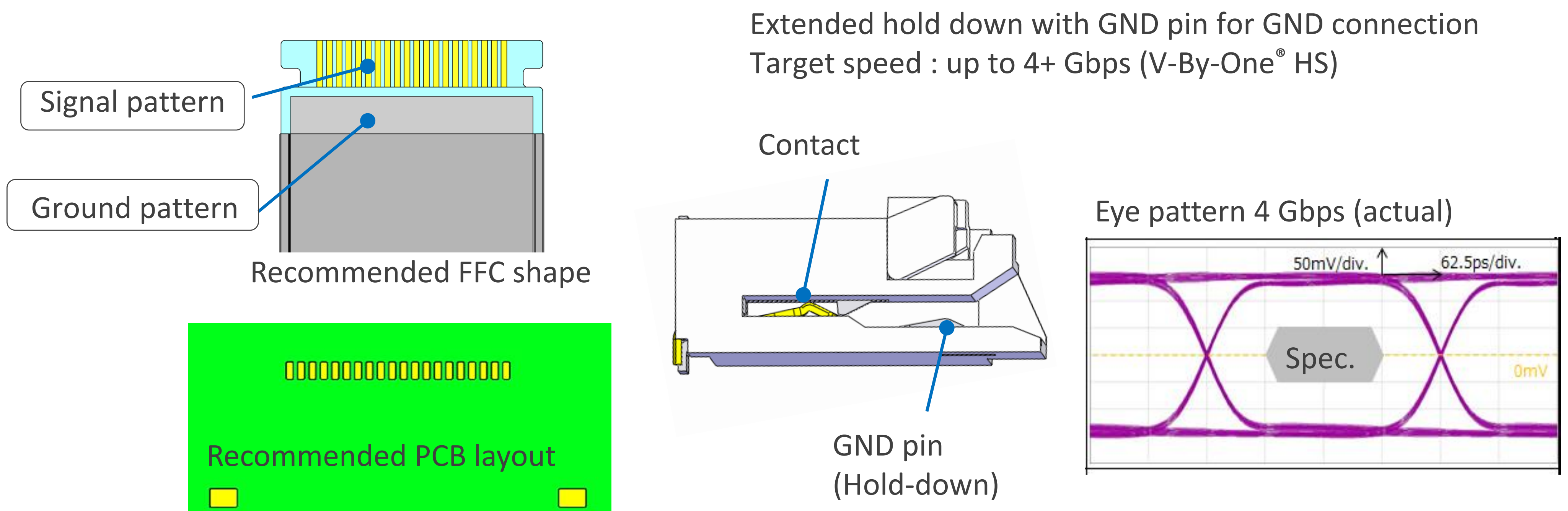
eDP (2.7 Gbps) V-By-One HS 1.4 (4 Gbps)

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

▶ One-handed operational auto-lock design, ideal for hand or robotic assembly



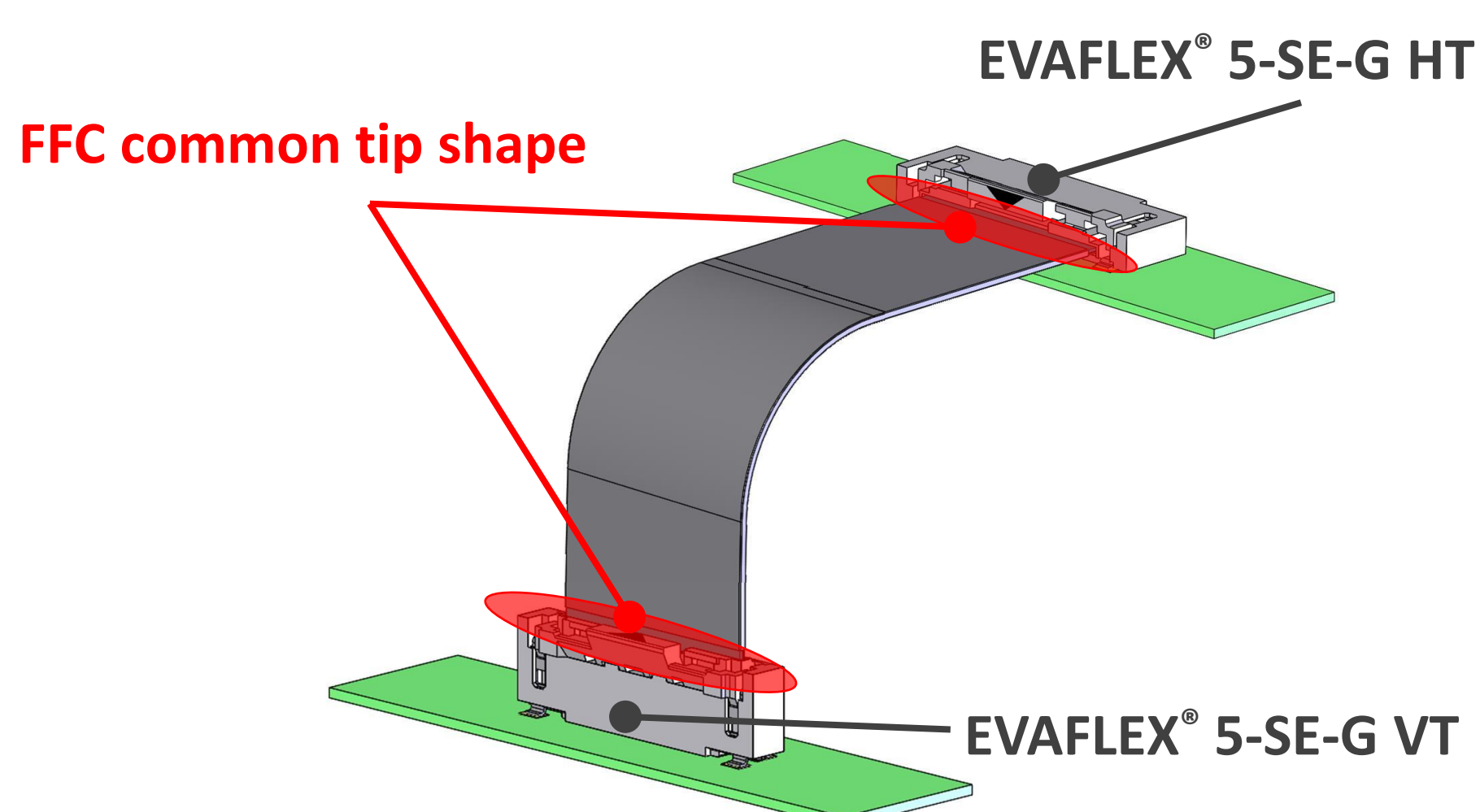
▶ Designed for high-speed transmission with grounding contacts (4+ Gbps V-By-One® HS)



▶ Scalable EVAFLEX® family : Auto-lock connector with many other options available

Vertical mate type using same FFC : EVAFLEX® 5-SE-G VT

Higher speed and smaller size: EVAFLEX® 5-VS Type CH



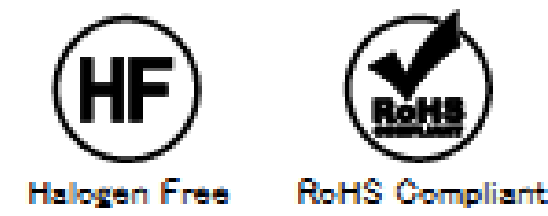
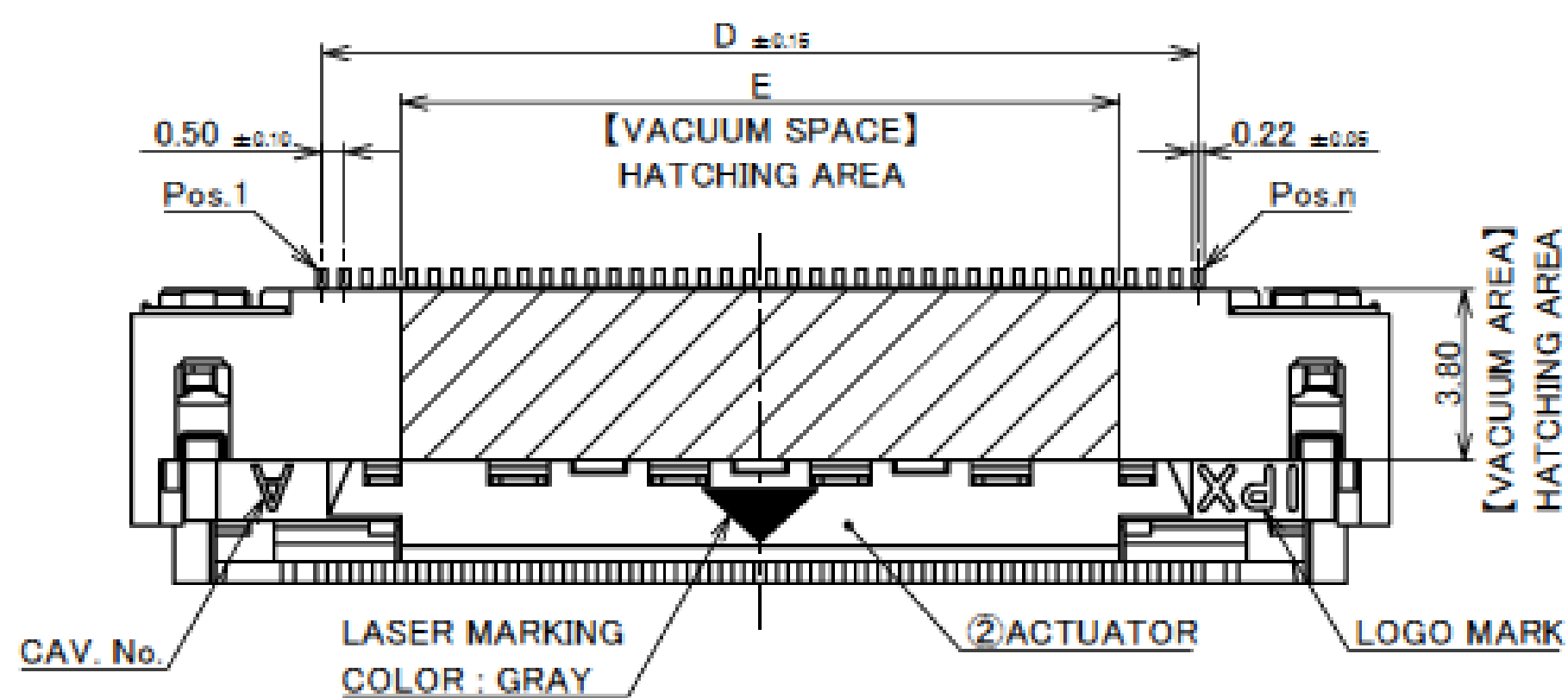
	EVAFLEX® 5-SE-G VT	EVAFLEX® 5-VS
Height (mm)	6.60 +/- 0.1	1.90 +/- 0.1
Operation Temperature	~ 125°C	~ 105°C
Reference Performance	V-by-one HS 1.4 (4+ Gbps)	PCIe Gen 3 (8+ Gbps)



Component Parts Details

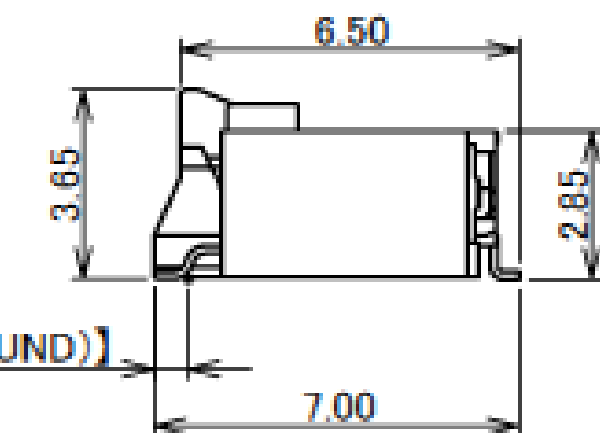
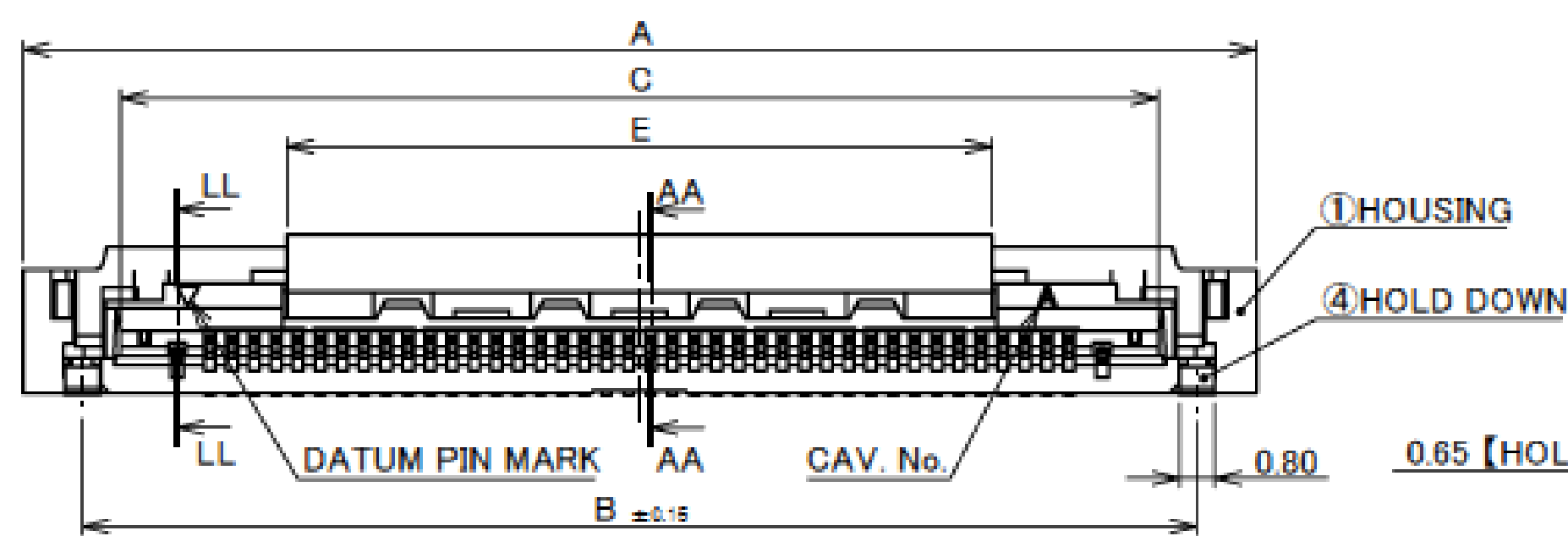
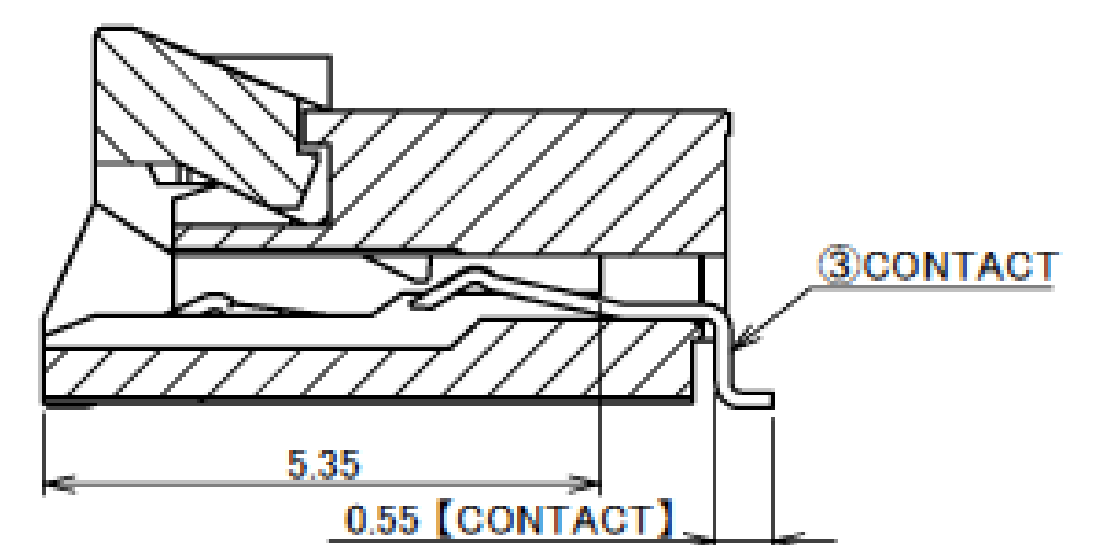
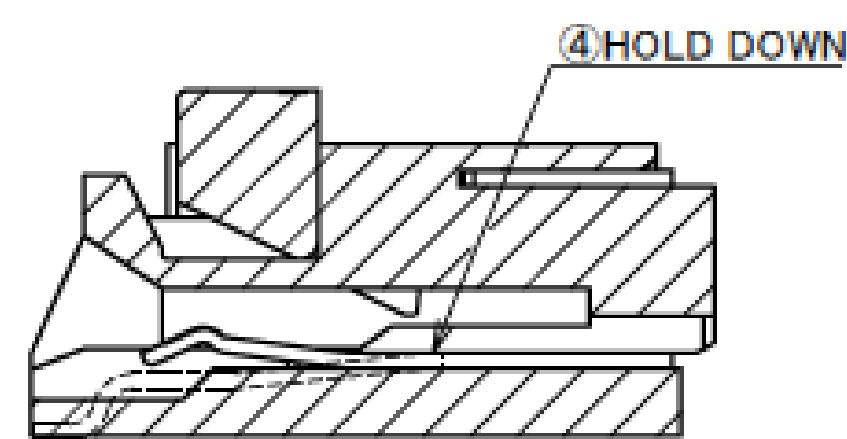
Connector Assembly

Recommended P/N 20899-0**E-01

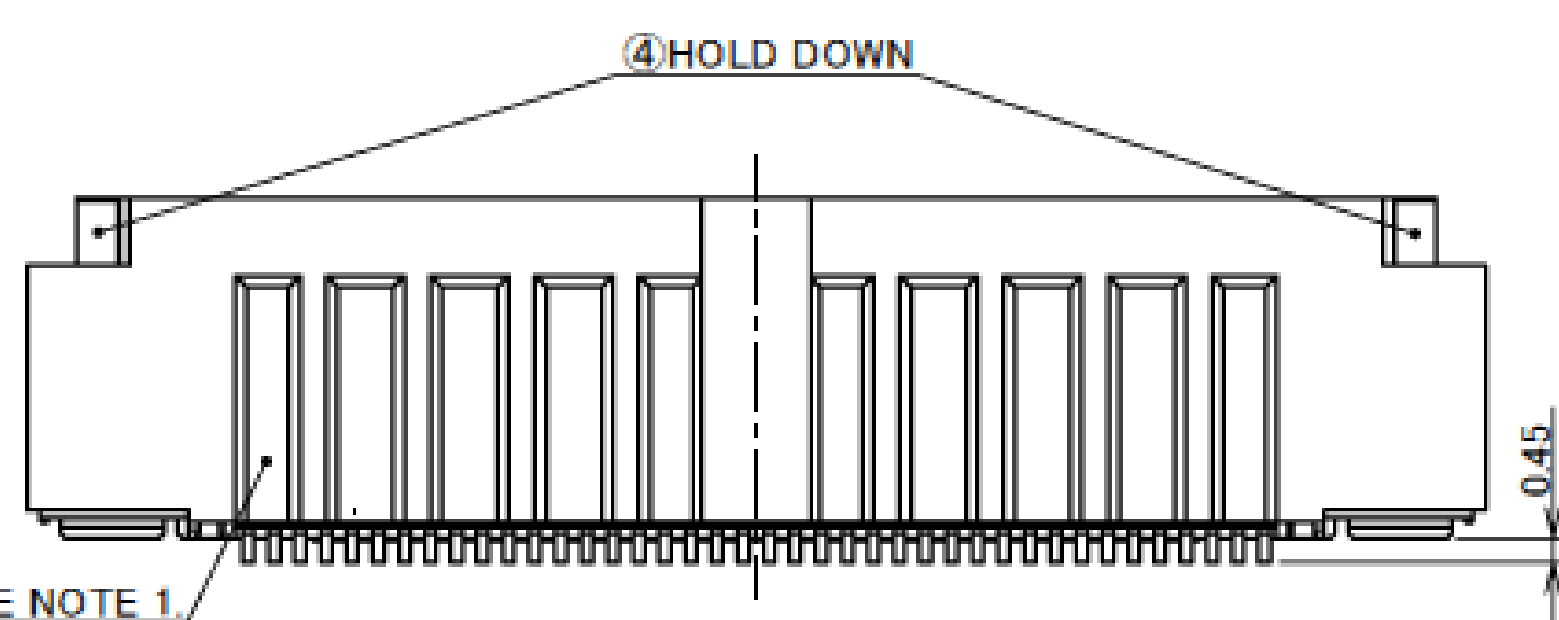


PART No.	A	B	C	D	E
◆20899-020E-01	18.00	15.30	13.56	9.50	6.00
20899-030E-01	23.00	20.30	18.56	14.50	11.00
◆20899-040E-01	28.00	25.30	23.56	19.50	16.00
20899-050E-01	33.00	30.30	28.56	24.50	21.00
◆20899-060E-01	38.00	35.30	33.56	29.50	26.00

◆MARK MEANS NOT AVAILABLE.

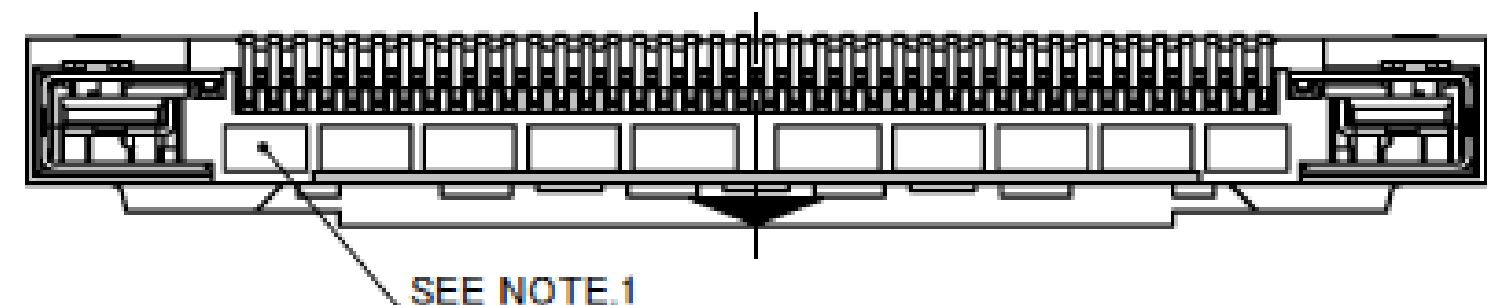


0.65 [HOLD DOWN(GROUND)]



NOTES.
1. DENT SHAPE SHOWN ON DRAWING IS JUST FOR REFERENCE.
DENT SHAPE AND QUANTITY MIGHT CHANGE FROM DIFFERENT PIN COUNT AND DIFFERENT TOOLING.

NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
4	HOLD DOWN	CORSON ALLOY	SOLDERING AREA : Au 0.03μm MIN. OVER Ni 1.00μm MIN.
3	CONTACT	CORSON ALLOY	CONTACT AREA AND SOLDERING AREA : Au 0.03μm MIN. OVER Ni 1.00μm MIN.
2	ACTUATOR	LCP	UL94V-0, BEIGE
1	HOUSING	LCP	UL94V-0, BEIGE

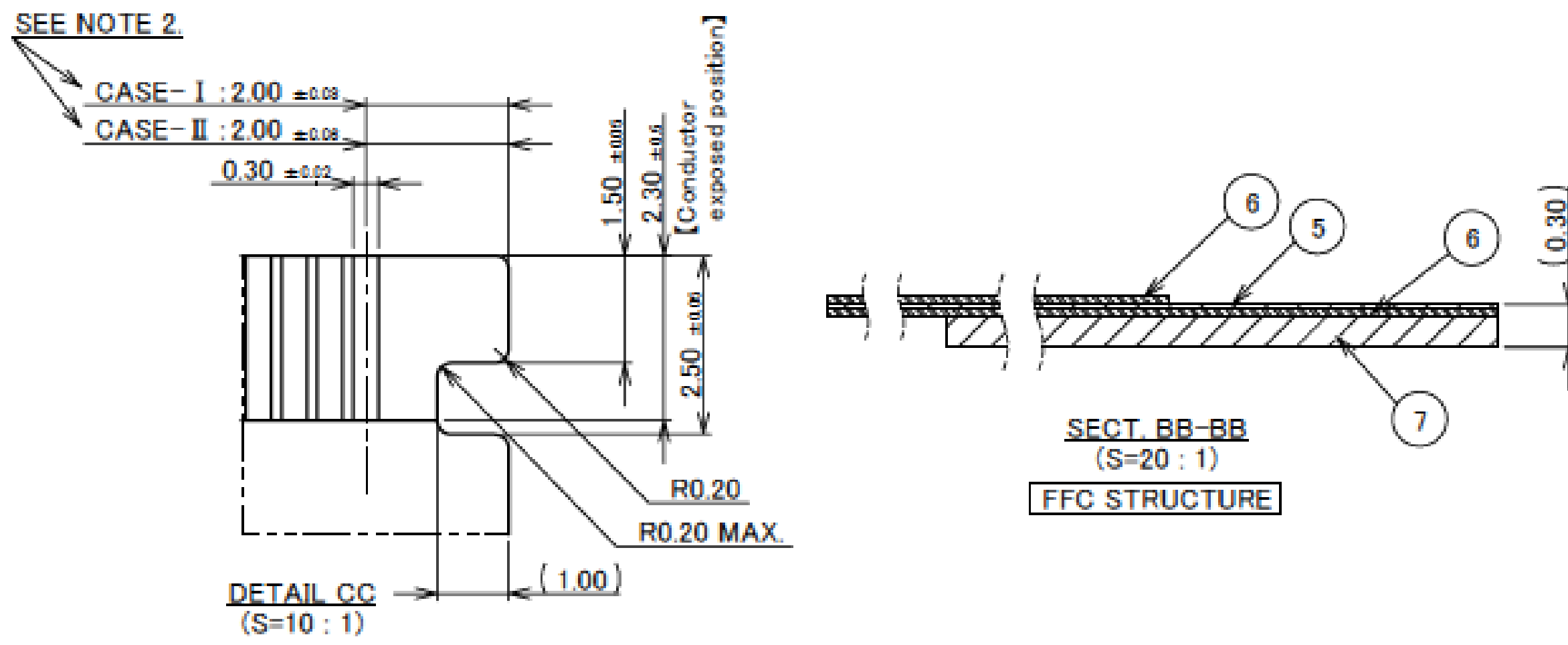
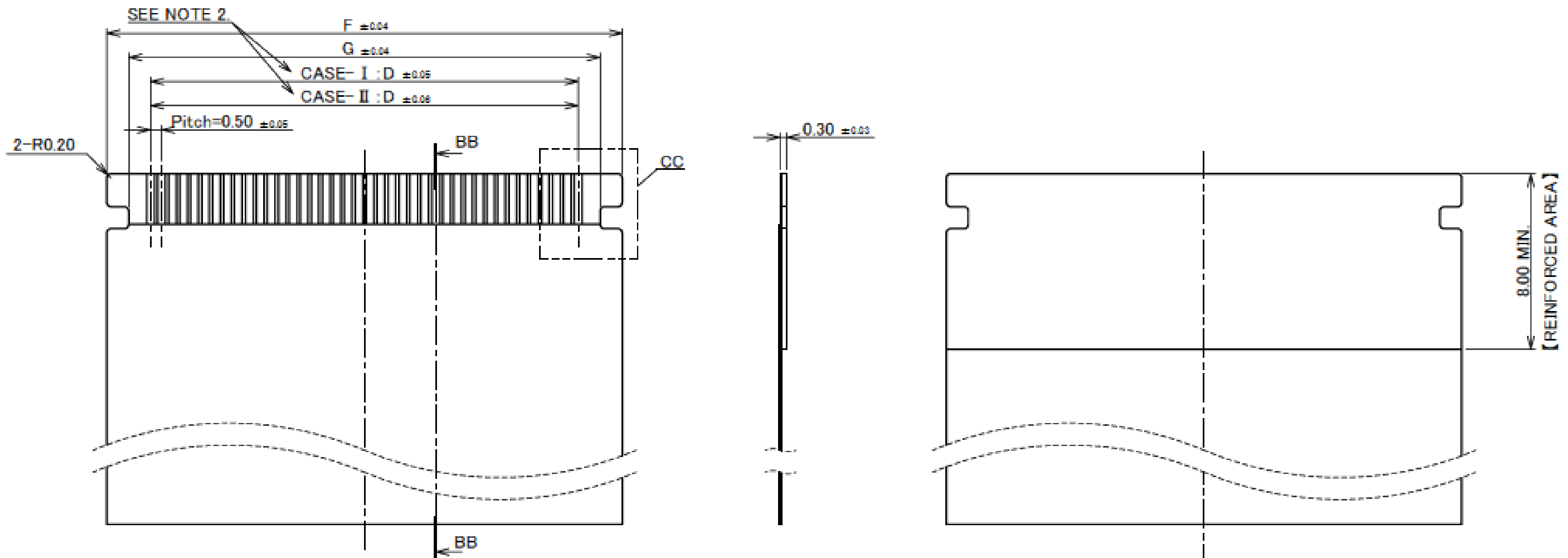


Connector Assembly

PART No.	D	F	G
◆20899-020E-01	9.50	13.50	11.50
20899-030E-01	14.50	18.50	16.50
◆20899-040E-01	19.50	23.50	21.50
20899-050E-01	24.50	28.50	26.50
◆20899-060E-01	29.50	33.50	31.50

◆MARK MEANS NOT AVAILABLE.

RECOMMENDED FFC LAYOUT 【NON SHIELDED TYPE】



NOTES.
2. MANUFACTURE CASE- I or II
3. SELECT A MATERIAL WITH A SOFTENING TEMPERATURE OF 85°C OR HIGHER FOR THE PATTERN ADHESIVE PART OF FFC.

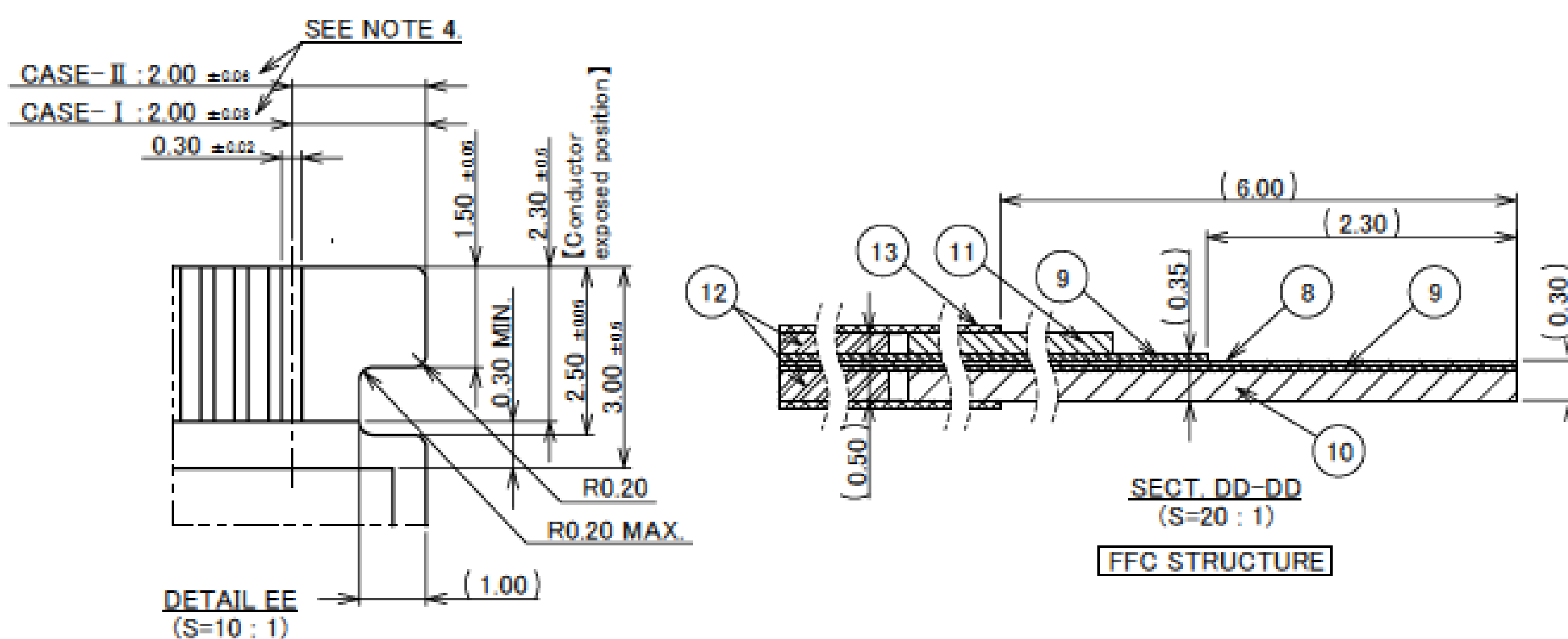
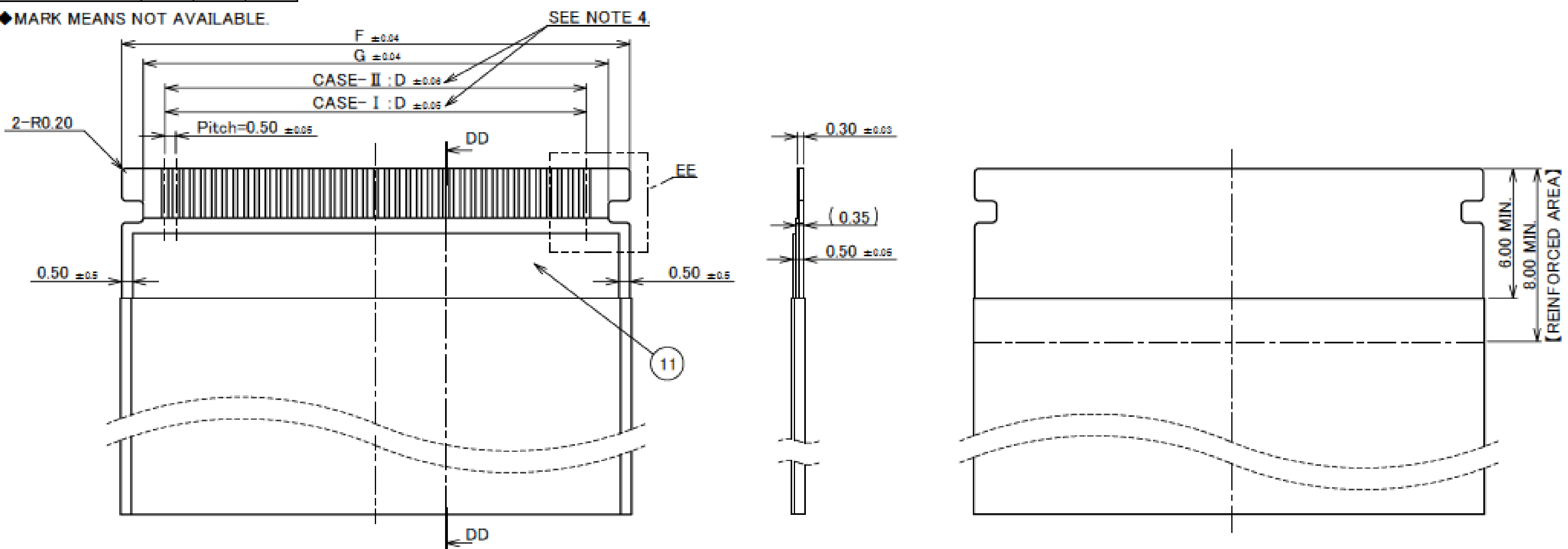
NO.	COMPONENTS	MATERIAL	FINISH
7	REINFORCED TAPE	ARBITRARY	
6	INSULATION FILM	ARBITRARY	
5	CONDUCTOR	COPPER ALLOY	CONTACT AREA : Au 0.05 μm MIN. OVER Ni 0.5 μm MIN.

Rev.5

PART No.	D	F	G
◆20899-020E-01	9.50	13.50	11.50
20899-030E-01	14.50	18.50	16.50
◆20899-040E-01	19.50	23.50	21.50
20899-050E-01	24.50	28.50	26.50
◆20899-060E-01	29.50	33.50	31.50

◆MARK MEANS NOT AVAILABLE.

RECOMMENDED FFC LAYOUT 【SHIELDED TYPE】



NOTES.
4. MANUFACTURE CASE- I or II
5. DIFFERENTIAL IMPEDANCE : 100±10 Ω
6. SELECT A MATERIAL WITH A SOFTENING TEMPERATURE OF 85°C OR HIGHER FOR THE PATTERN ADHESIVE PART OF FFC.

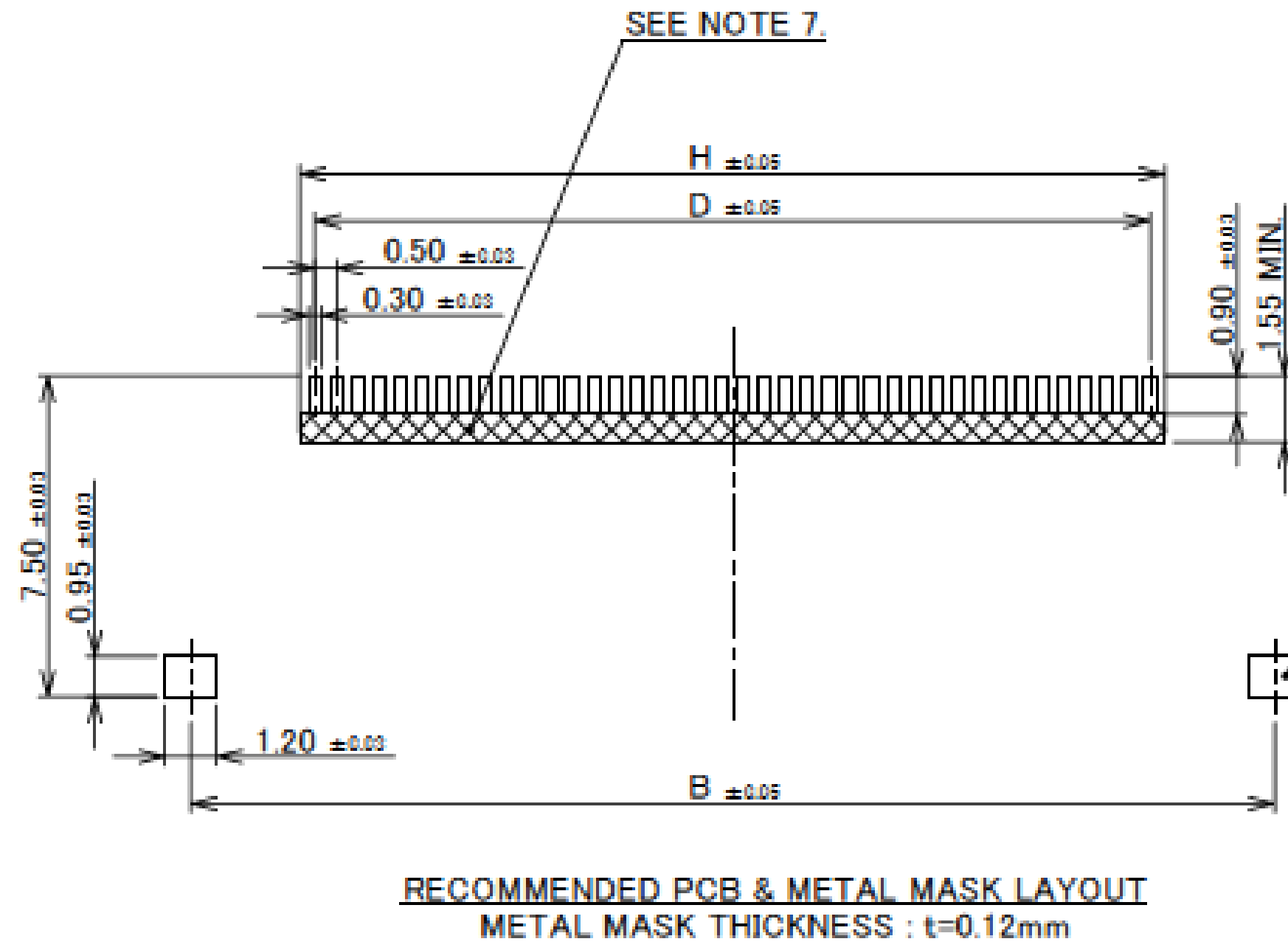
NO.	COMPONENTS	MATERIAL	FINISH
13	SHIELD TAPE	METALLIC FILM	
12	INTERLAYER	ARBITRARY	
11	GROUND PLATE	METALLIC FILM	POLISH or HALF POLISH Sn PLATING
10	REINFORCED TAPE	ARBITRARY	
9	INSULATION FILM	ARBITRARY	
8	CONDUCTOR	COPPER ALLOY	CONTACT AREA : Au 0.05 μm MIN. OVER Ni 0.5 μm MIN.

Rev.5

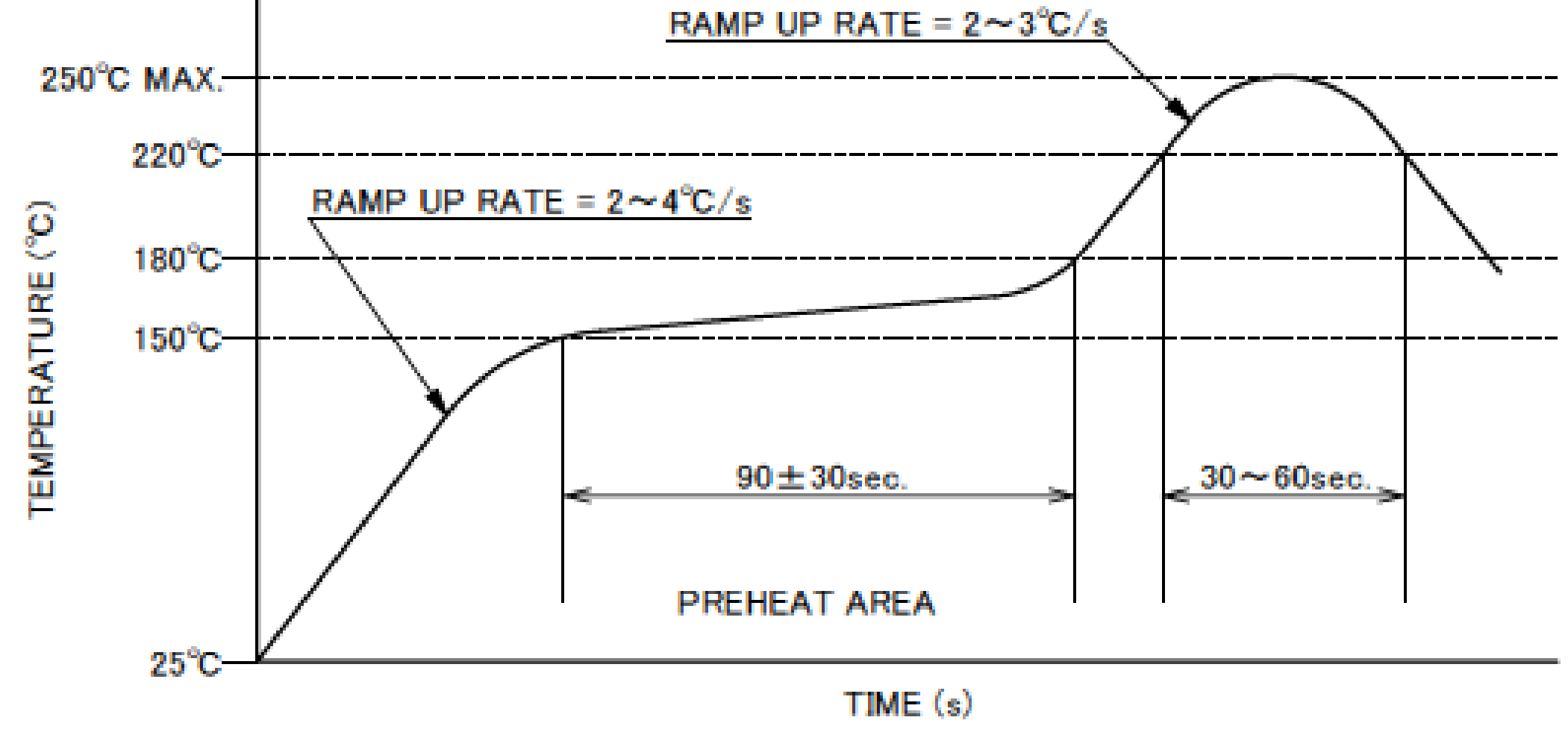
Connector Assembly

PART No.	B	D	H
◆20899-020E-01	15.30	9.50	10.20
20899-030E-01	20.30	14.50	15.20
◆20899-040E-01	25.30	19.50	20.20
20899-050E-01	30.30	24.50	25.20
◆20899-060E-01	35.30	29.50	30.20

◆MARK MEANS NOT AVAILABLE.

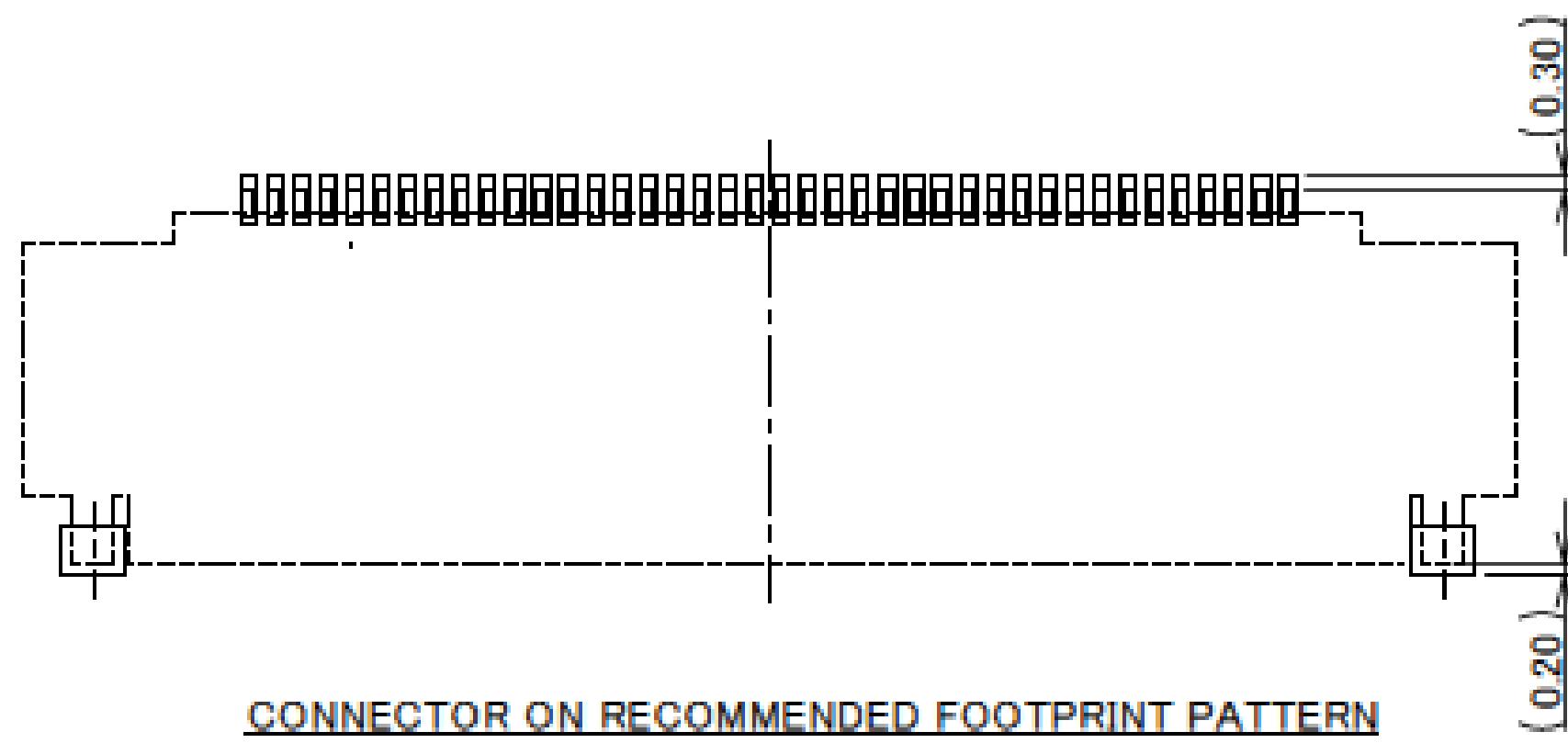


HOLD DOWN / ※GROUND PAD
(※WITH SHIELDED FPC / FFC)



REFLOW TEMPERATURE PROFILE

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



NOTES

7. SOLDER RESIST MUST BE APPLIED TO THIS AREA.

Rev.5

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC/DC (PER CONTACT PIN)
RATING AMPERAGE	0.35A AC/DC (PER CONTACT PIN) AVAILABLE FOR ALL CONTACTS 0.5A AC/DC (PER CONTACT PIN) AVAILABLE UP TO 15 CONTACTS
OPERATING TEMPERATURE	233~398K(-40°C~+125°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : \triangle40mohm MAX.
INSULATION RESISTANCE	500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	50TH CYCLES
FPC/FFC MATING FORCE (INITIAL / 50TH CYCLES)	20P : 15.00 N MAX. 30P : 22.00 N MAX. 40P : 29.00 N MAX. 50P : 36.00 N MAX. 60P : 43.00 N MAX.
FPC/FFC UNMATING FORCE (INITIAL / 50TH CYCLES)	20P : 2.00 N MIN. 30P : 2.70 N MIN. 40P : 3.40 N MIN. 50P : 4.10 N MIN. 60P : 4.80 N MIN.
FPC/FFC RETENTION FORCE (INITIAL / AFTER TEST)	20P : 11.00 N MIN. 30P : 11.70 N MIN. 40P : 12.40 N MIN. 50P : 13.10 N MIN. 60P : 13.80 N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2470
TEST REPORT	TR-18020
PACKING STANDARD	PST-19019
INSTRUCTION MANUAL	HIM-18018
APPEARANCE CRITERIA No.	QLS-A***


Rev.5

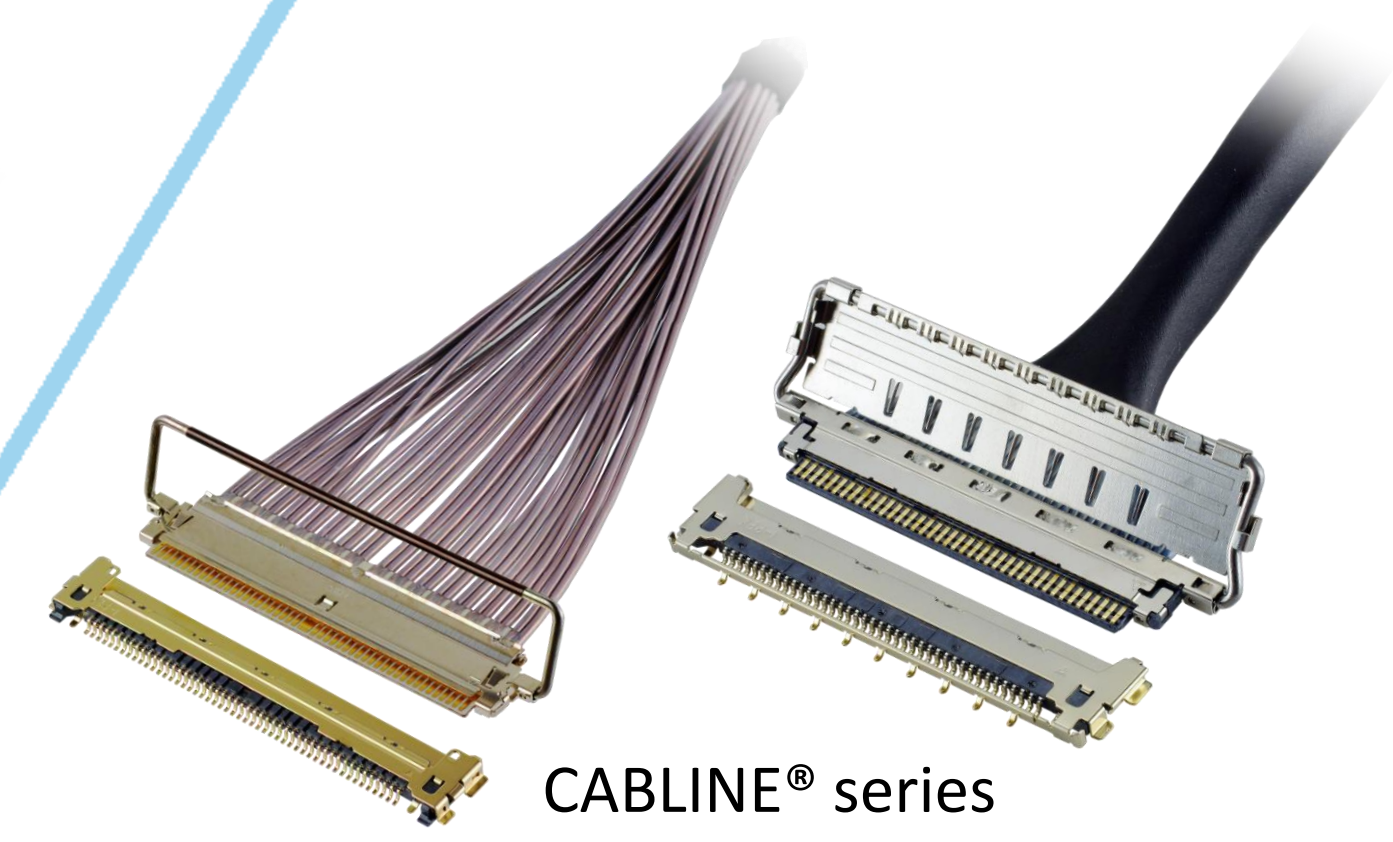
Custom Connectors Available

 RF Connector

MHF® series



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



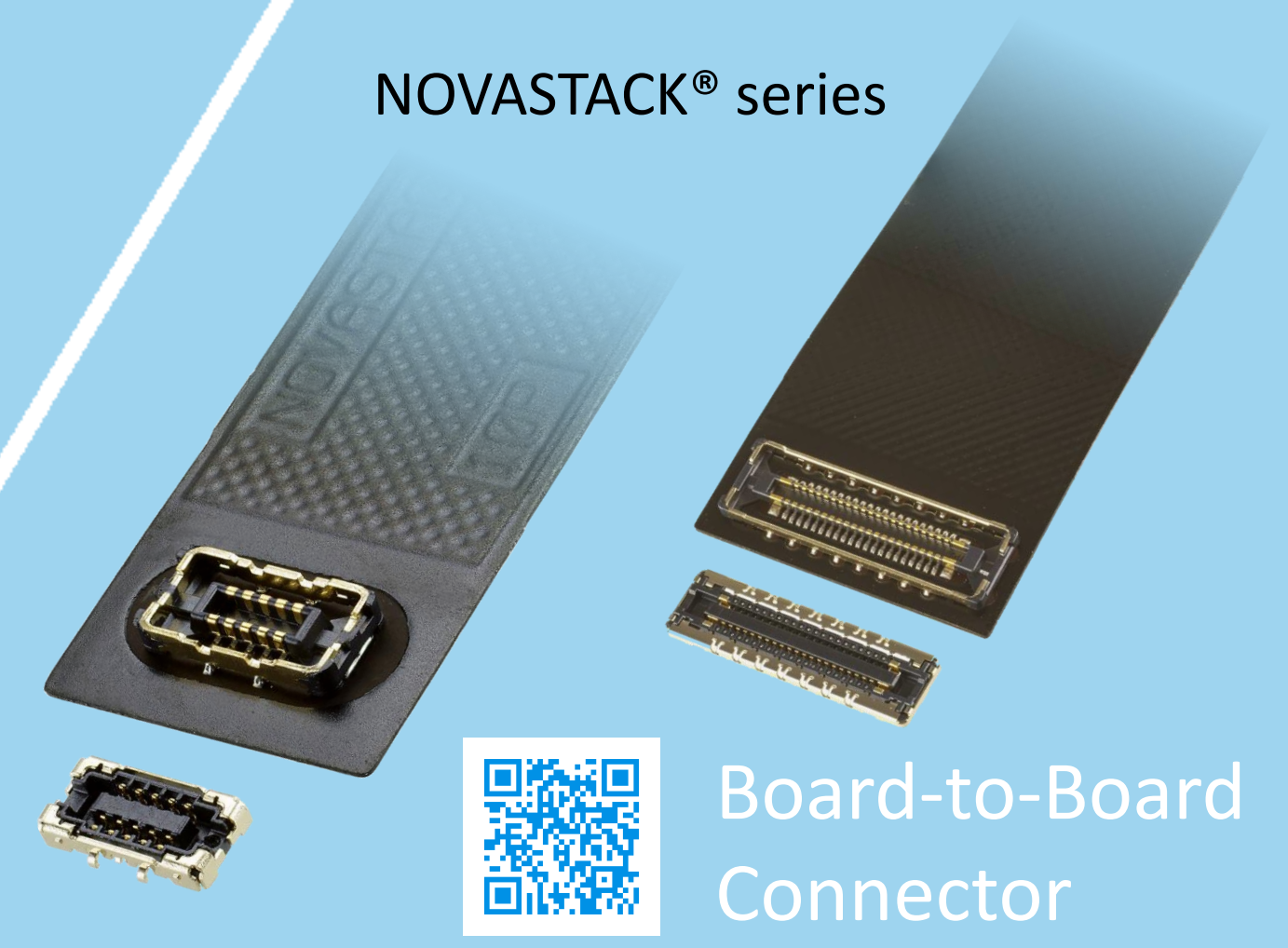
 Optical Module

LIGHTPASS® series



NOVASTACK® series

 Board-to-Board Connector



 Power Connector/
Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series

 FPC FFC Connector

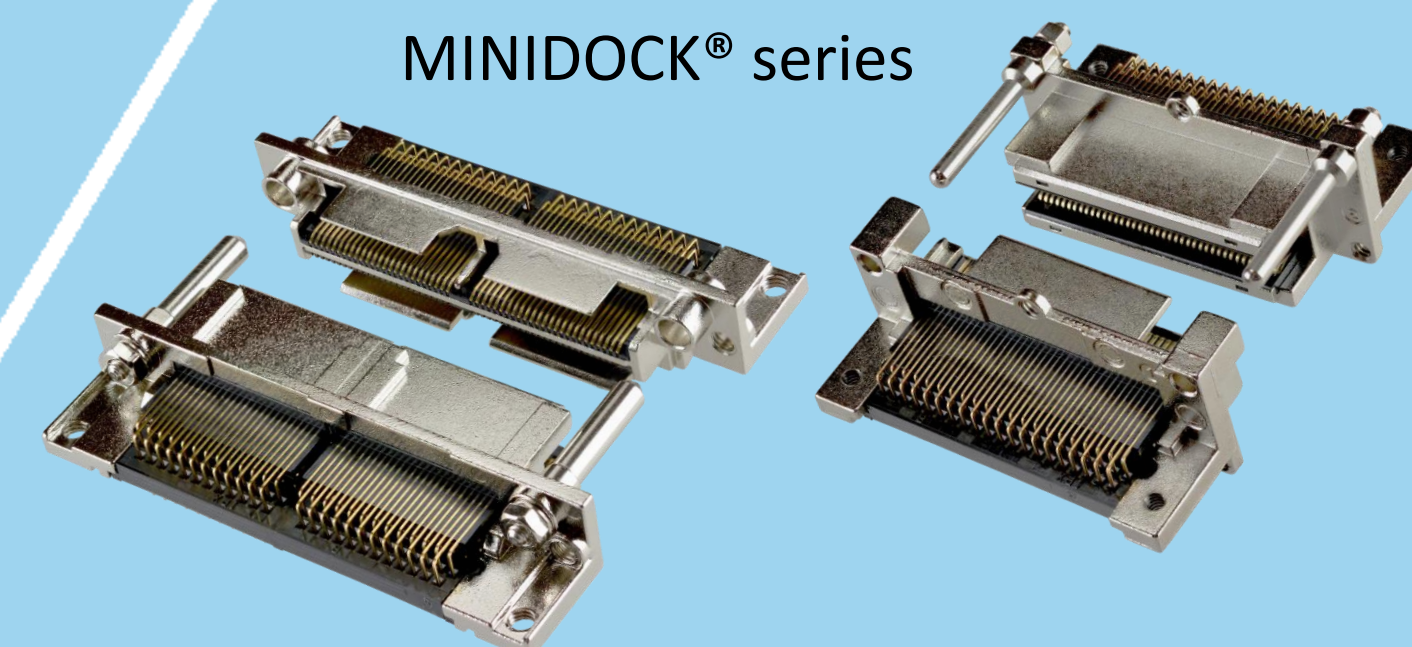


Inquiry



MINIDOCK® series

 I/O Connector



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