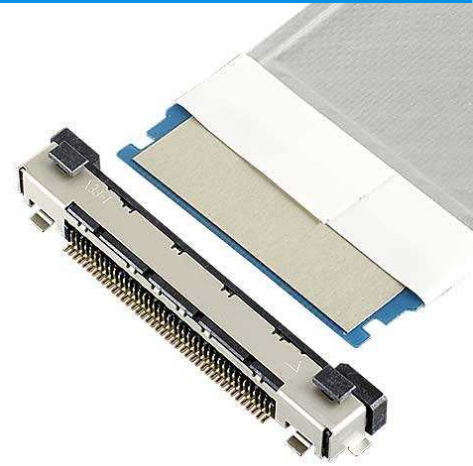


EVAFLEX® 5

Auto-locking, high-speed, horizontal mate, 0.5 mm pitch shielded FFC/FFC connector



Product Specifications:

Board Pitch (mm)	0.5	
Wiping Length (mm)	1.75	
Size (mm)	Height	4.75 +/- 0.15
	Width	Formula: 12.35 + (0.5*?)*p
	Depth	5.95 +/- 0.20
Pin counts	Range	21 – 51
	Available	41, 51

Applicable FPC/FFC:

FPC/FFC Type	Shielded FFC
FPC/FFC Contact Point	Lower
FPC/FFC Thickness (mm)	0.33 +/- 0.03

Applicable Standards (Reference Only):

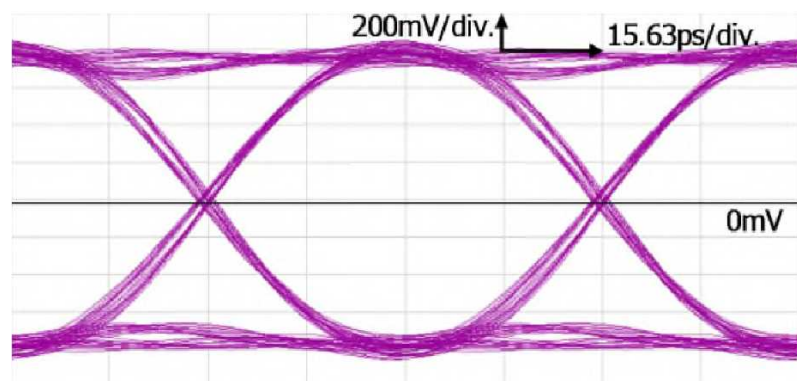
eDP HBR2 (5.4 Gbps) V-By-One US (16 Gbps)

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

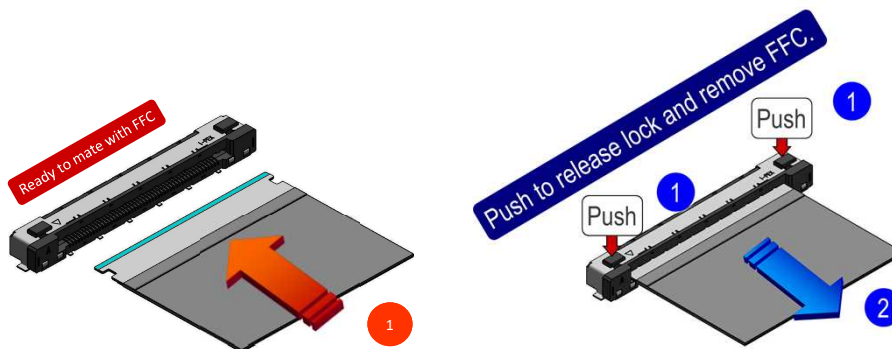
► Designed for high-speed transmission (16+ Gbps V-By-One® US)

Eye pattern (Differential)
 Bit rate : 16 Gbps
 Rise time : 24 ps (10% - 90%)
 Input Voltage : 800 mVp-p

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



► Operator friendly auto-lock design, ideal for hand or robotic assembly



One action mating with auto lock mechanism to improve productivity

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

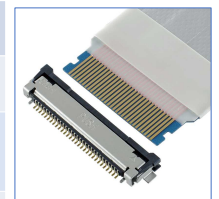
Full EMI shield and smaller size

	EVAFLEX® 5-HD
Height (mm)	2.00 +/- 02
Reference Performance	USB 3.1 Gen2 (10+ Gbps)
Special Feature	360-degree fully-shielded with multi-point grounds to prevent EMI leakage



Smaller size and durable to high temp (105°C)

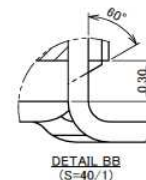
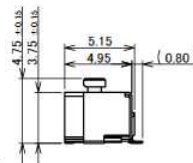
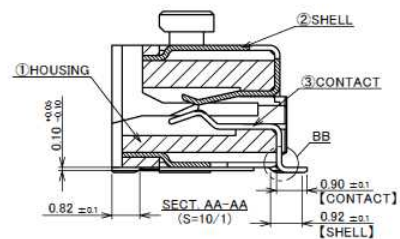
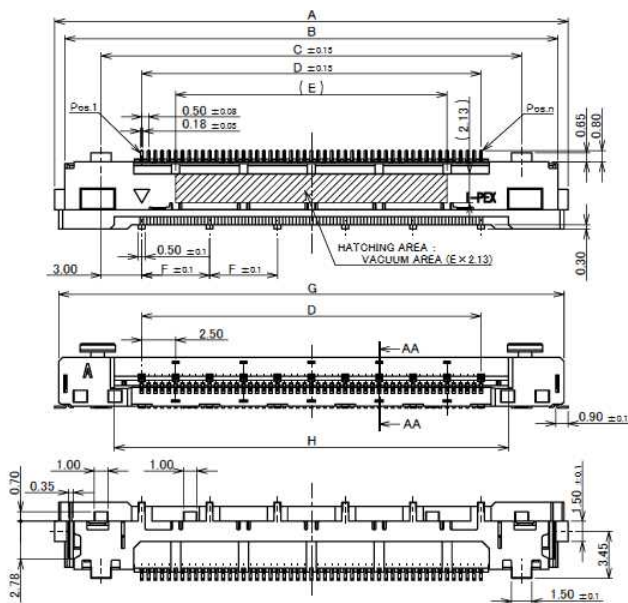
	EVAFLEX® 5-VS
Height (mm)	1.90 +/- 01
Depth (mm)	4.95
Reference Performance	PCIe Gen 3 (8+ Gbps)
Operation Temperature	~ 105°C



Component Parts Details

Connector Assembly

Recommended P/N		20818-0**E							
PART NO.	Pos.	A	B	C	D	E	F	G	H
20818-041E	41P	32.85	31.35	26.00	20.00	15.00	4.00	32.25	24.06
20818-051E	51P	37.85	36.35	31.00	25.00	20.00	5.00	37.25	29.06

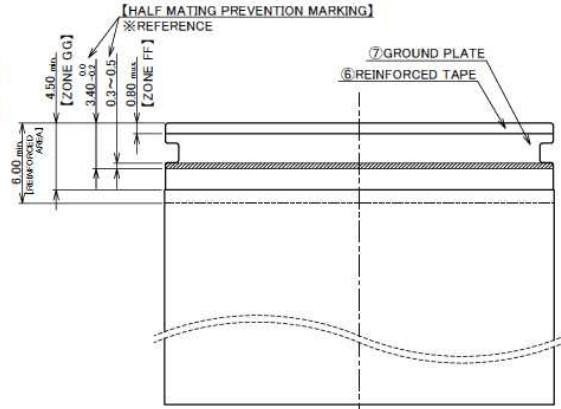
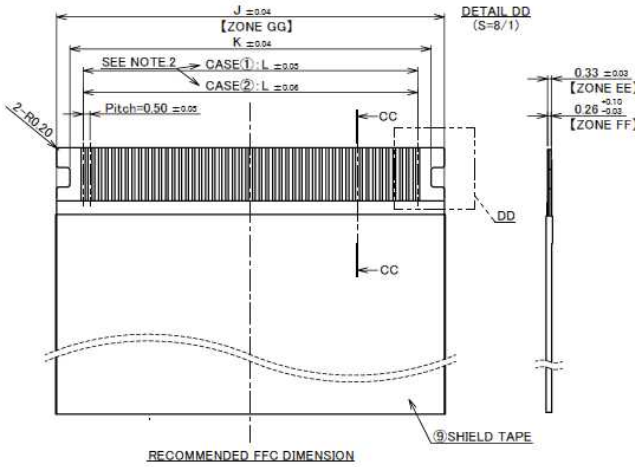
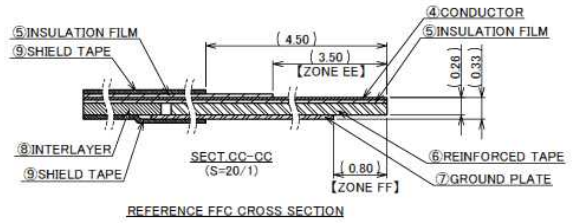
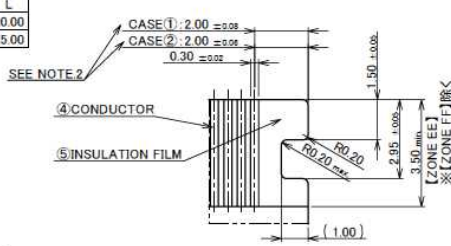


3	CONTACT	PHOSPHOR BRONZE	Au 0.03 μmMIN. OVER Ni 1.00 μmMIN.
2	SHELL	PHOSPHOR BRONZE	Sn 1.00 μmMIN. OVER Ni 1.00 μmMIN.
1	HOUSING	LCP	UL94V-0, BLACK
NO	DISCRIPTION	MATERIAL	FINISH, REMARKS



Connector Assembly

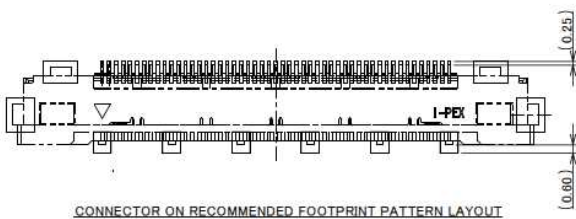
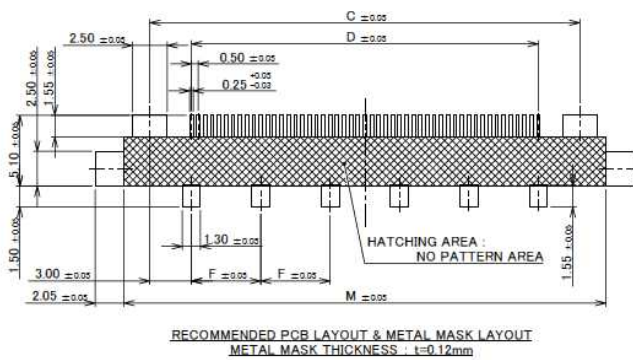
PART NO.	Pos.	J	K	L
20818-041E	41P	24.00	22.00	20.00
20818-051E	51P	29.00	27.00	25.00



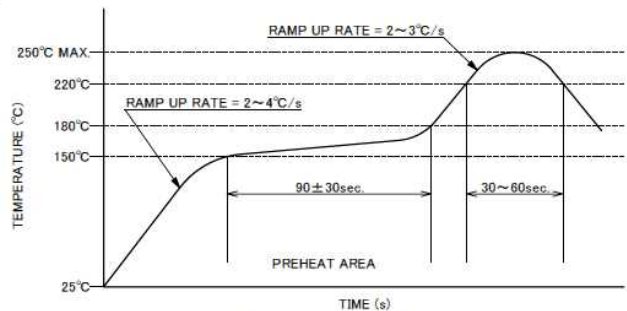
- NOTES
1. DIFFERENTIAL IMPEDANCE : 100 ± 10 Ω
 2. MANUFACTURE CASE ① or CASE ②
 3. SELECT A MATERIAL WITH A SOFTENING TEMPERATURE OF 85°C OR HIGHER FOR THE PATTERN ADHESIVE PART OF FFC.

9	SHIELD TAPE	METALIC FILM	
8	INTERLAYER	ARBITRARY	
7	GROUND PLATE	METALIC FILM	POLISH or HALF POLISH Sn PLATING
6	REINFORCED TAPE	ARBITRARY	
5	INSULATION FILM	ARBITRARY	
4	CONDUCTOR	COPPER ALLOY	CONTACT AREA: Au 0.05 μm MIN. OVER Ni 0.5 μm MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

PART NO.	Pos.	C	D	F	M
20818-041E	41P	26.00	20.00	4.00	29.75
20818-051E	51P	31.00	25.00	5.00	34.75



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



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

Connector Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	200V AC/DC (PER CONTACT PIN)
RATING AMPERAGE	0.3A AC/DC (PER CONTACT PIN)
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : \triangle 40mohm MAX.
INSULATION RESISTANCE	100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / 30 CYCLES)	41P : 29.2N MAX. / 51P : 30.0N MAX.
UNMATING FORCE (INITIAL / 30 CYCLES)	41P : 4.25N MIN. / 51P : 5.00N MIN.
FFC RETENTION FORCE	41P : 22N MIN. / 51P : 25N MIN.
COPLANARITY	0.10mm MAX.
PRODUCT SPECIFICATION	PRS-2671
TEST REPORT	TR-20035
PACKING STANDARD	300-980
INSTRUCTION MANUAL	HIM-12001
APPEARANCE CRITERIA No.	QLS-A***

Rev.1

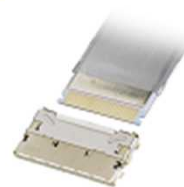
Board to Board



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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