

EVAFLEX® 5-HD

Fully-shielded, high-speed, auto-locking, horizontal mate, 0.5 mm pitch shielded FFC/FPC connector



Product Specifications:

Board Pitch (mm)	0.5	
Wiping Length (mm)	1	
Size (mm)	Height	2.00 +/- 0.20
	Width	Formula: 5.2 + (0.5*?p)
	Depth	8.43 +/- 0.30
Pin counts	Range	10 - 40
	Available	24

Applicable FPC/FFC:

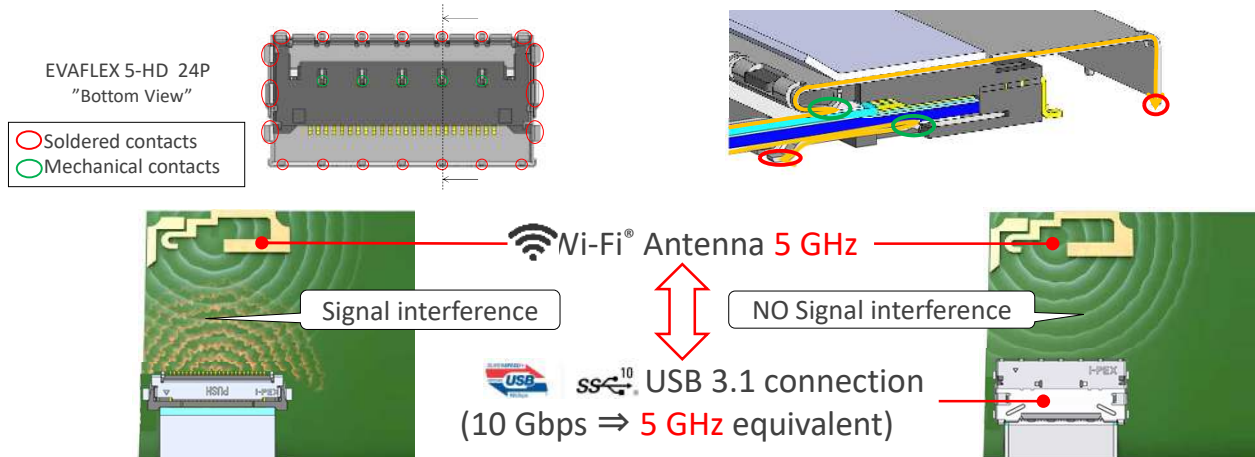
FPC/FFC Type	Shielded FFC & FPC
FPC/FFC Contact Point	Top
FPC/FFC Thickness (mm)	0.3 +/- 0.03 Contact 0.5 +/- 0.03 Ground

Applicable Standards (Reference Only):

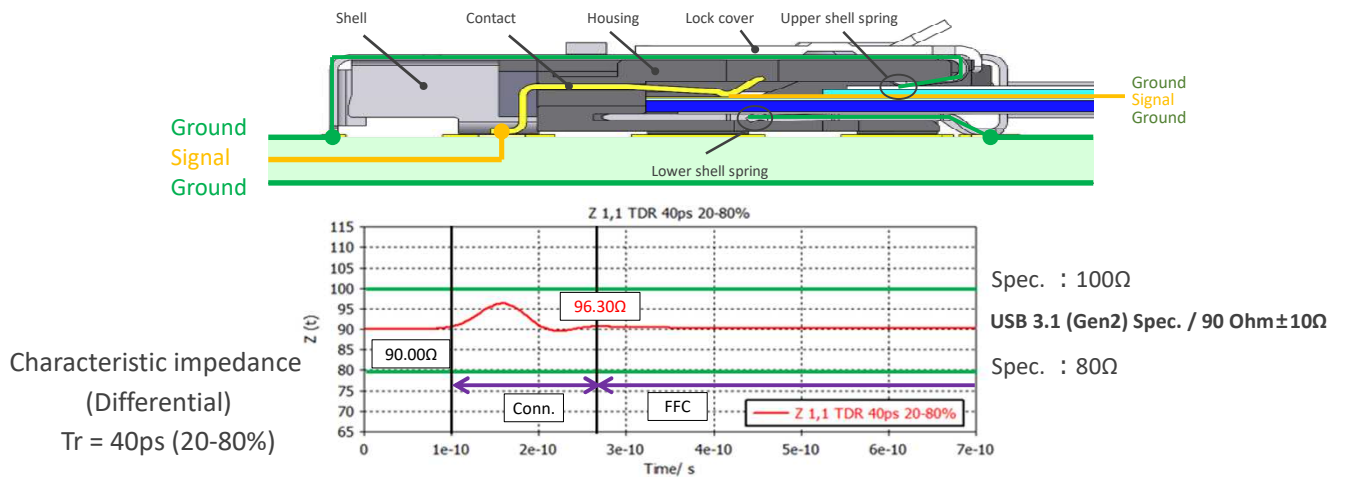
USB4 (20 Gbps/lane) USB 3.1 Gen 2 (10 Gbps) USB 3.1 Gen 1 (5 Gbps) V-By-One HS 1.4 (4 Gbps)

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

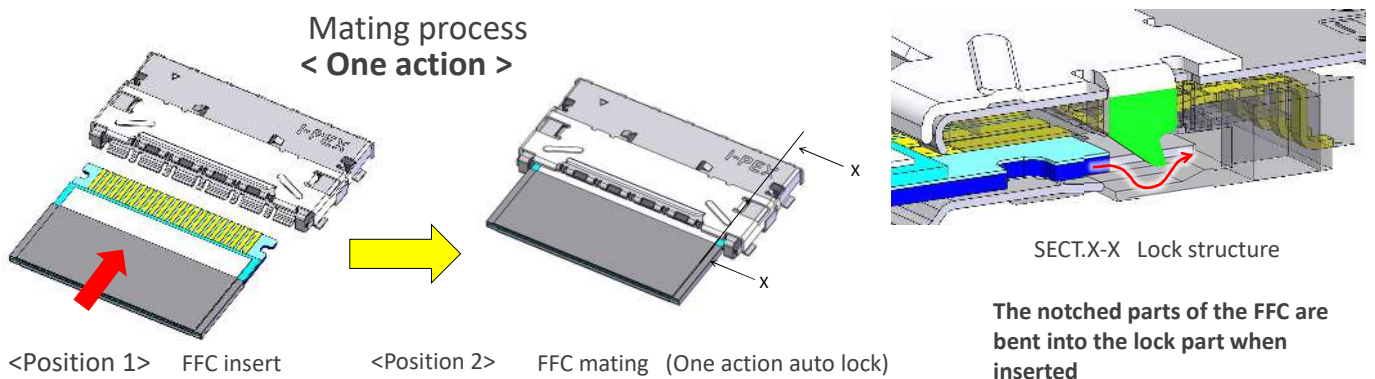
ZenShield® fully-shielded with multi-point grounds to prevent EMI leakage



Designed for high-speed transmission (10+ Gbps USB® 3.1 Gen 2)



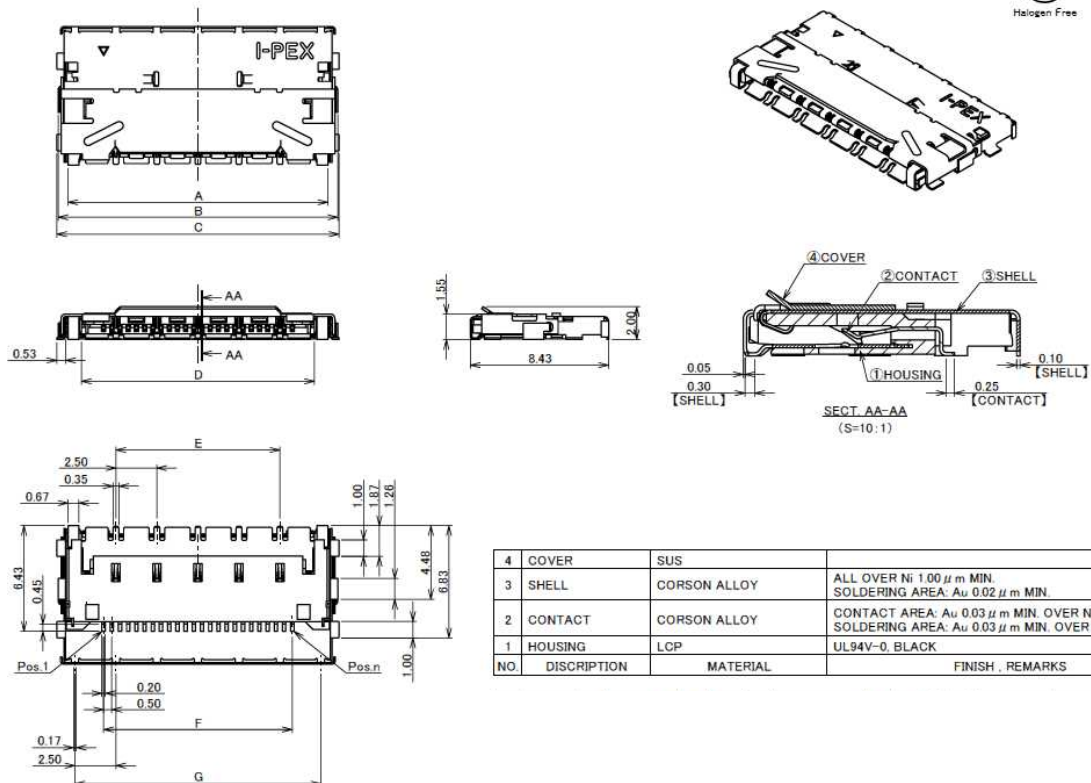
Operator friendly auto-locking design, ideal for hand or robotic assembly



Component Parts Details

Connector Assembly

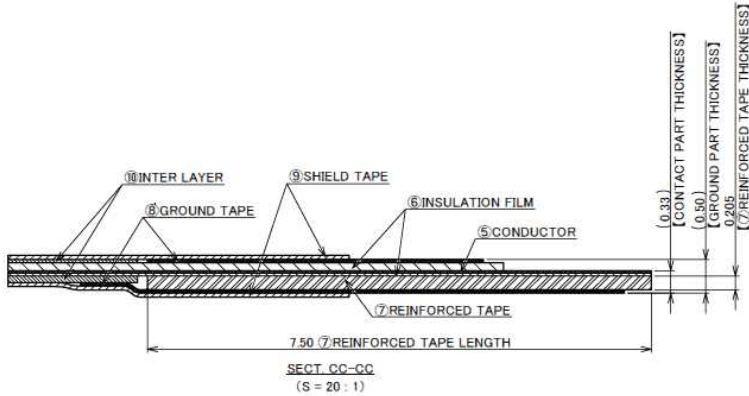
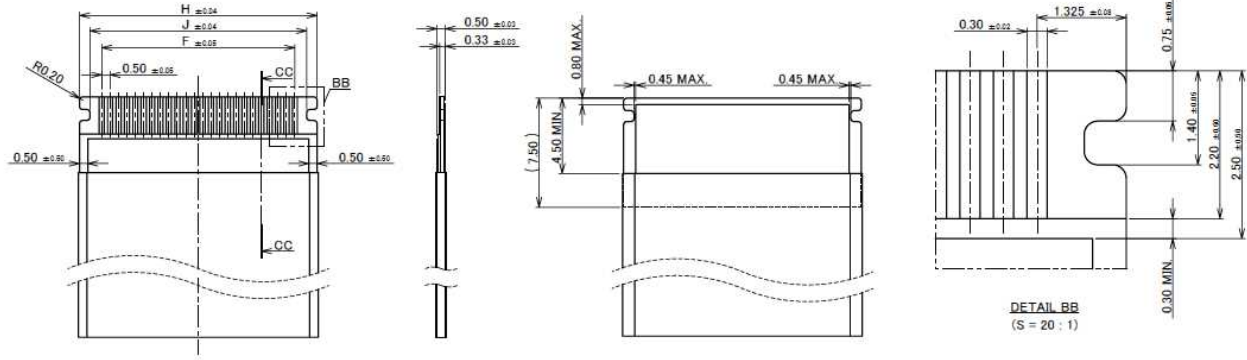
Recommended P/N		20952-0**E-02						
PART NO.	Pos.	A	B	C	D	E	F	G
20952-024E-02	24	15.84	17.04	17.20	14.20	10.00	11.50	15.00



NO.	DISCRIPTION	MATERIAL	FINISH	REMARKS
4	COVER	SUS		
3	SHELL	CORSON ALLOY	ALL OVER Ni: 1.00 μ m MIN. SOLDERING AREA: Au: 0.02 μ m MIN.	
2	CONTACT	CORSON ALLOY	CONTACT AREA: Au: 0.03 μ m MIN. OVER Ni: 1.00 μ m MIN. SOLDERING AREA: Au: 0.03 μ m MIN. OVER Ni: 1.00 μ m MIN.	
1	HOUSING	LCP	UL94V-0. BLACK	

Connector Assembly

PART NO.	Pos.	F	H	J
20952-024E-02	24	11.50	14.15	12.90



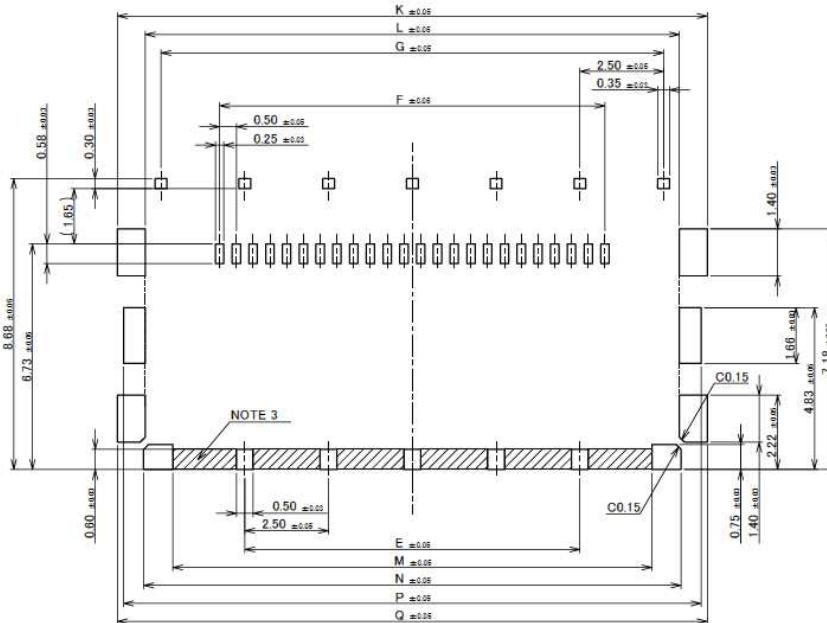
- NOTES
 1. DIFFERENTIAL IMPEDANCE : 90 ± 10 Ω
 2. SELECT A MATERIAL WITH A SOFTENING TEMPERATURE OF 85°C OR HIGHER FOR THE PATTERN ADHESIVE PART OF FFC.

NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
10	INTER LAYER	ARBITRARY	
9	SHIELD TAPE	METALLIC FILM	
8	GROUND TAPE	METALLIC FILM	POLISH or HALF POLISH Sn PLATING
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

Plug Housing Assembly

PART NO.	Pos.	E	F	G	K	L	M	N	P	Q
20952-024E-02	24	10.00	11.50	15.00	17.60	15.94	14.30	16.04	17.24	17.60

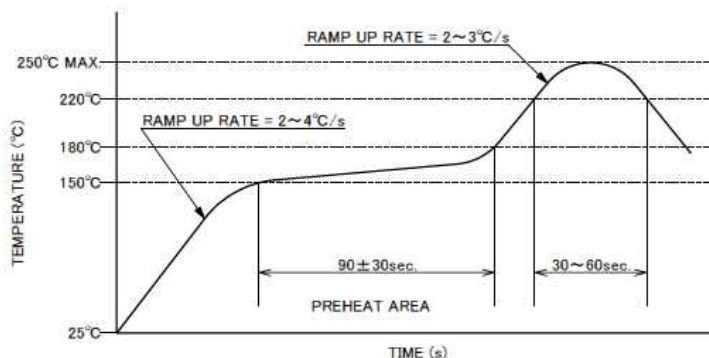
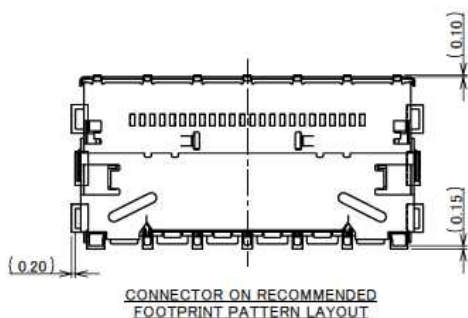


RECOMMENDED PCB & METAL MASK LAYOUT
 THICKNESS t=0.12

- NOTES
 3. SOLDER RESIST MUST BE APPLIED TO THIS AREA.

Rev.5

Connector Assembly



Rev.5

Plug Housing Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC/DC (PER CONTACT PIN)
RATING AMPERAGE (FOR SIGNAL CONTACT)	0.30A AC/DC (PER CONTACT PIN)
OPERATING TEMPERATURE	233~358K (-40°C~+85°C)
OPERATING HUMIDITY	85% RH. MAX. (NON-CONDENSING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 60mohm MAX. / AFTER TEST : $\leq 40\text{mohm}$ MAX.
INSULATION RESISTANCE	INITIAL : 500mohm MIN. / AFTER TEST : 500mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC 250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	24P : 22.00 N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	24P : 2.30 N MIN.
FFC/FPC RETENTION FORCE (INITIAL / AFTER TEST)	24P : 8.50 N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2645
TEST REPORT	TR-20006
PACKING STANDARD	PST-19012
INSTRUCTION MANUAL	HIM-19004
APPEARANCE CRITERIA No.	QLS-A***

Rev.5

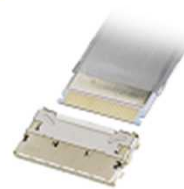
Board to Board



High-Density



Autolocking FPC/FFC



High-Density



FPC/FFC



Micro-Coaxial / Discrete Cable



High-Speed



RF



High-Frequency



Optical Module



High-Speed



Effector



Power



High-Power



I/O (Input/Output)



Quick charge



Inquiry



Custom Connectors Available



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