

# EVAFLEX® 5-SE-G VT

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



**Product Specifications:**

Board Pitch (mm)	0.5	
Wiping Length (mm)	1.2	
Size (mm)	Height	6.6 +/- 0.30
	Width	Formula: 8.00 + (0.5*?p)
	Depth	3.90 +/- 0.20
Pin counts	Range	20 - 60
	Available	20, 30, 40, 50, 60

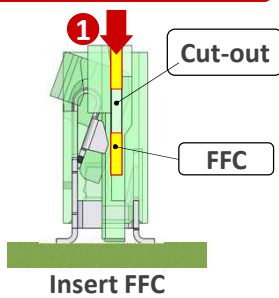
**Applicable FPC/FFC:**

FPC/FFC Type	Shielded FFC, Non-shielded FFC/FPC
FPC/FFC Contact Point	Signal contact tail side
FPC/FFC Thickness (mm)	0.30 +/- 0.03
<b>Applicable Standards (Reference Only):</b>	
eDP (2.7 Gbps) V-By-One HS 1.4 (4 Gbps)	
USCAR II Vibration & Shock V1	

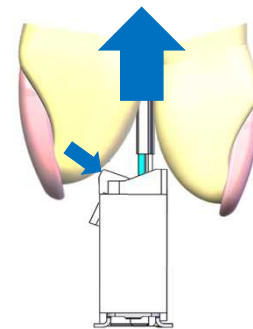
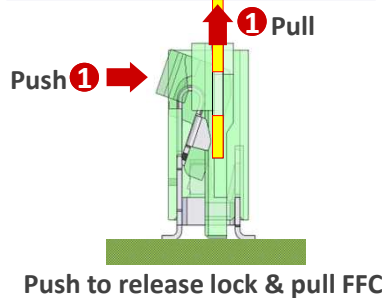
\* Please inquire for pin counts not listed or outside of the pin count range.

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

**One action FFC mating**



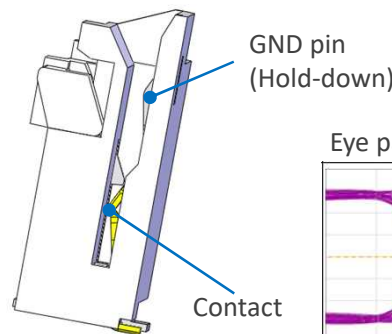
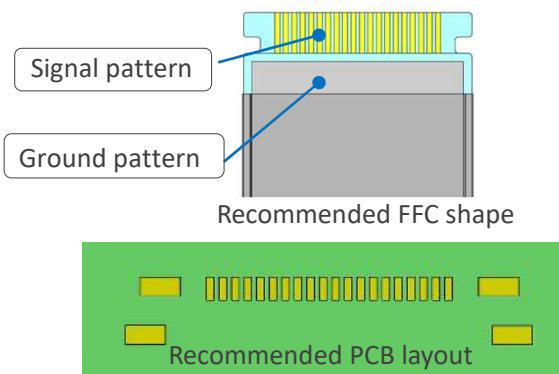
**One action FFC removal**



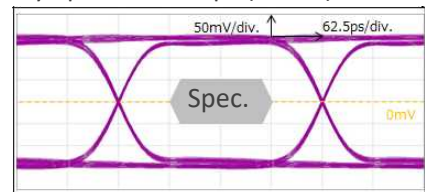
Release lock and pull FFC at same time for one-hand operation.

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

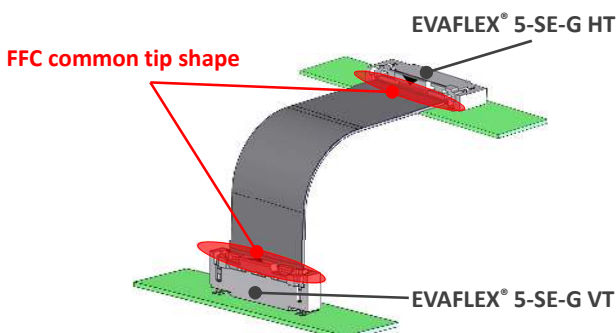
Extended hold down with GND pin for GND connection  
Target speed : up to 4+ Gbps (V-By-One® HS)



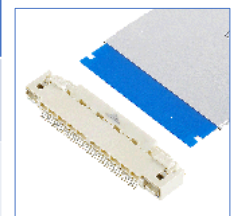
Eye pattern 4 Gbps (actual)



► **Horizontal mate type using same FFC option as EVAFLEX® 5-SE-G HT**



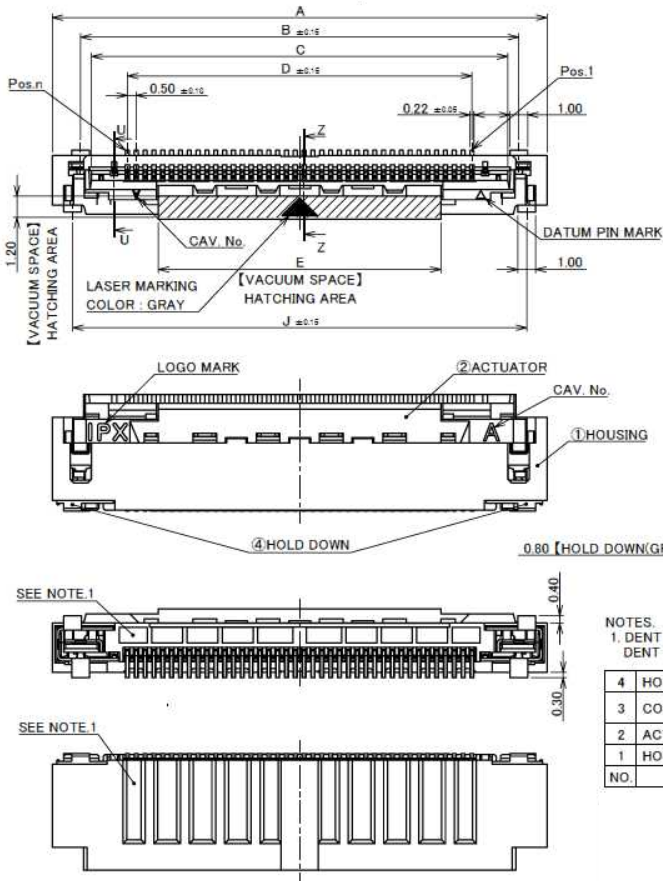
	EVAFLEX® 5-SE-G HT
Height (mm)	3.65 +/- 0.1
Depth (mm)	7.0



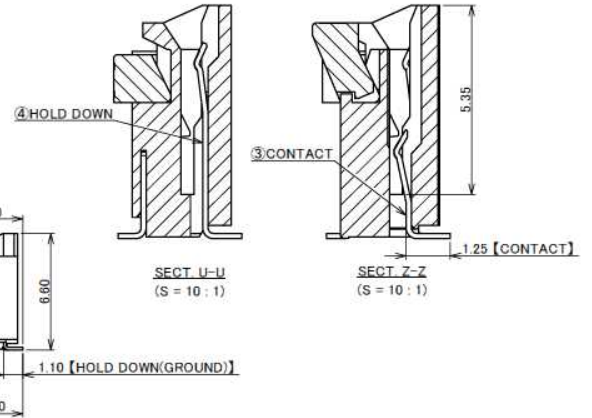
# Component Parts Details

## Connector Assembly

Recommended P/N 20799-0\*\*E-01



PART No.	A	B	C	D	E	J
20799-020E-01	18.00	14.80	13.56	9.50	6.00	15.70
20799-030E-01	23.00	19.80	18.56	14.50	11.00	20.70
20799-040E-01	28.00	24.80	23.56	19.50	16.00	25.70
20799-050E-01	33.00	29.80	28.56	24.50	21.00	30.70
20799-060E-01	38.00	34.80	33.56	29.50	26.00	35.70



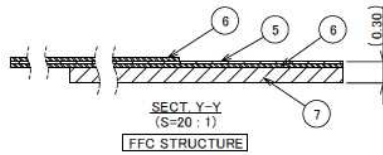
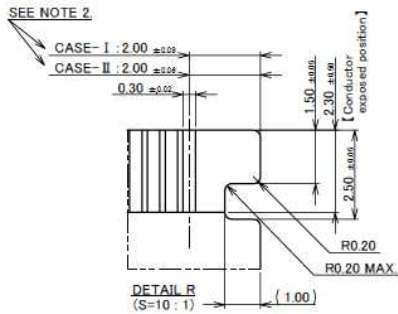
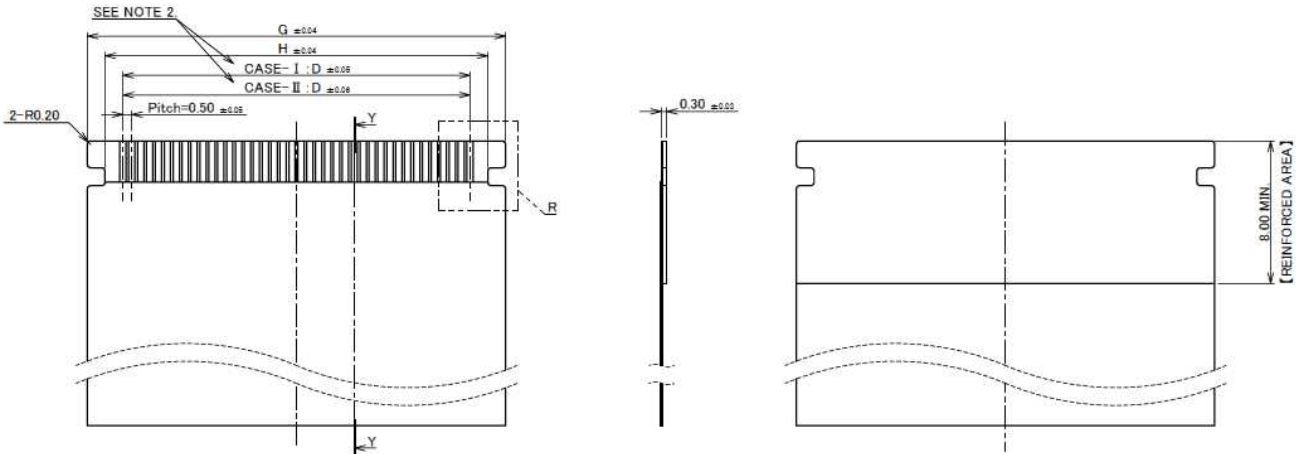
NOTES.  
1. DENT SHAPE SHOWN ON DRAWING IS JUST FOR REFERENCE.  
DENT SHAPE AND QUANTITY MIGHT CHANGE FROM DIFFERENT PIN COUNT AND DIFFERENT TOOLING.

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	G	H
20799-020E-01	9.50	13.50	11.50
20799-030E-01	14.50	18.50	16.50
20799-040E-01	19.50	23.50	21.50
20799-050E-01	24.50	28.50	26.50
20799-060E-01	29.50	33.50	31.50

## RECOMMENDED FFC LAYOUT [NON SHIELDED TYPE]



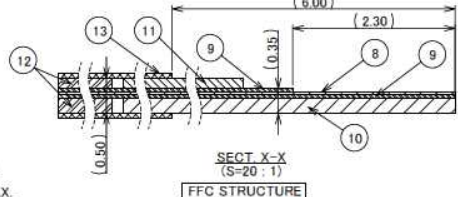
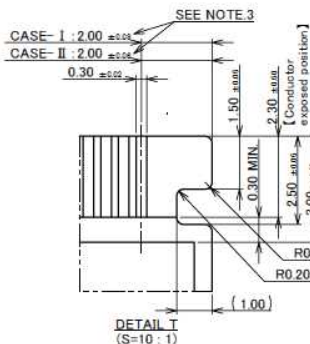
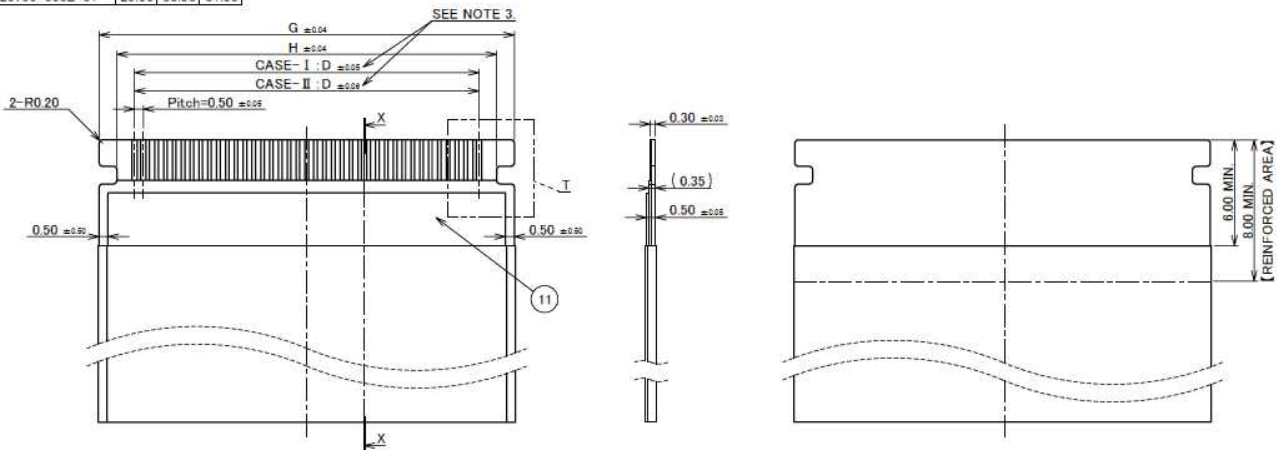
- NOTES:  
 2. MANUFACTURE CASE- I or II  
 3. SELECT A MATERIAL WITH A SOFTENING TEMPERATURE OF 85°C OR HIGHER FOR THE PATTERN ADHESIVE PART OF FFC.

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.

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PART No.	D	G	H
20799-020E-01	9.50	13.50	11.50
20799-030E-01	14.50	18.50	16.50
20799-040E-01	19.50	23.50	21.50
20799-050E-01	24.50	28.50	26.50
20799-060E-01	29.50	33.50	31.50

## RECOMMENDED FFC LAYOUT [SHIELDED TYPE]



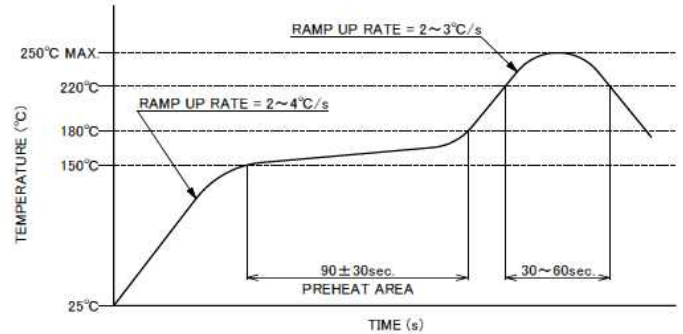
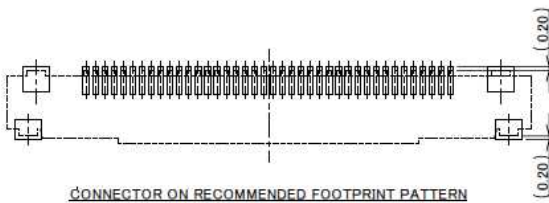
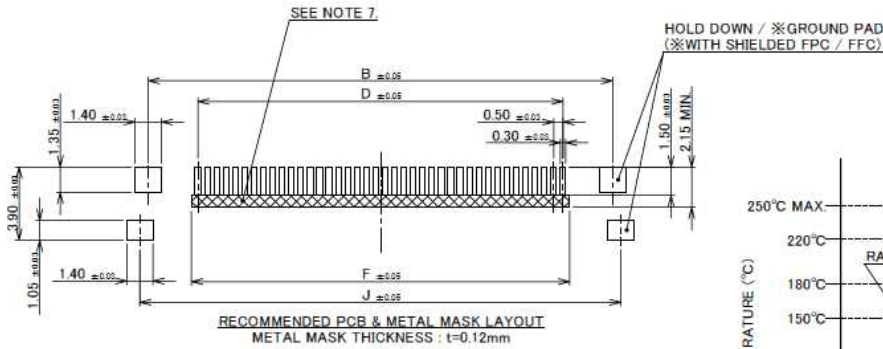
- NOTES:  
 4. MANUFACTURE CASE- I or II  
 5. DIFFERENTIAL IMPEDANCE : 100 ± 10 Ω  
 6. SELECT A MATERIAL WITH A SOFTENING TEMPERATURE OF 85°C OR HIGHER FOR THE PATTERN ADHESIVE PART OF FFC.

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.10

# Connector Assembly

PART No.	B	D	F	J
20799-020E-01	14.80	9.50	10.20	15.70
20799-030E-01	19.80	14.50	15.20	20.70
20799-040E-01	24.80	19.50	20.20	25.70
20799-050E-01	29.80	24.50	25.20	30.70
20799-060E-01	34.80	29.50	30.20	35.70



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.

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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 : 80mohm MAX. / AFTER TEST : 140mohm 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-2305
TEST REPORT	TR-17100
PACKING STANDARD	PST-18002
INSTRUCTION MANUAL	HIM-16039
APPEARANCE CRITERIA No.	QLS-A***

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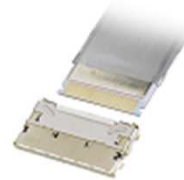
Board to Board



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



Custom Connectors Available

Inquiry



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