

# 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:**

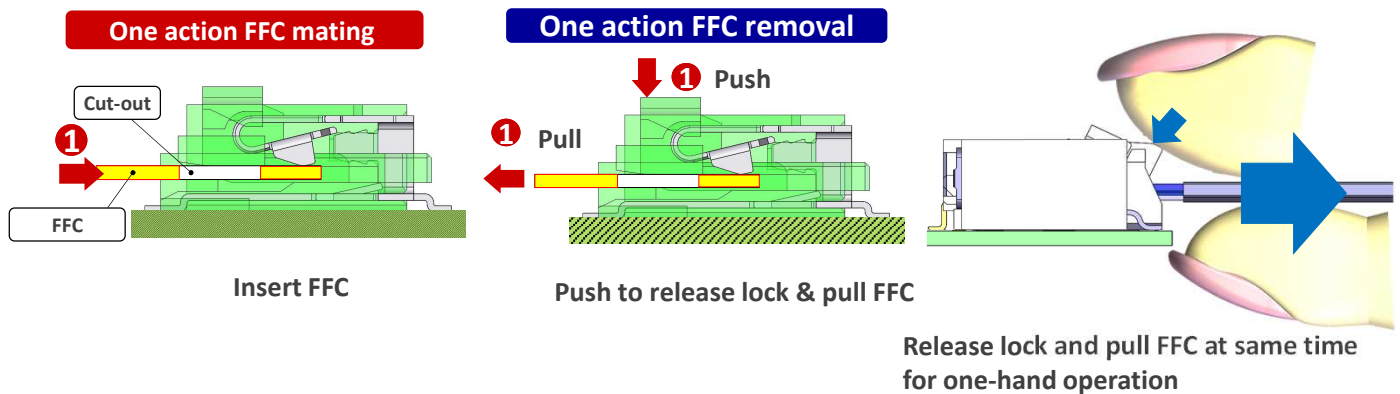
Board Pitch (mm)	0.5	
Wiping Length (mm)	1.2	
Size (mm)	Height	3.65 +/- 0.20
	Width	Formula: 8.00 + (0.5*p)
	Depth	7.00 +/- 0.30
Pin counts	Range	20 - 60
	Available	30, 50

**Applicable FPC/FFC:**

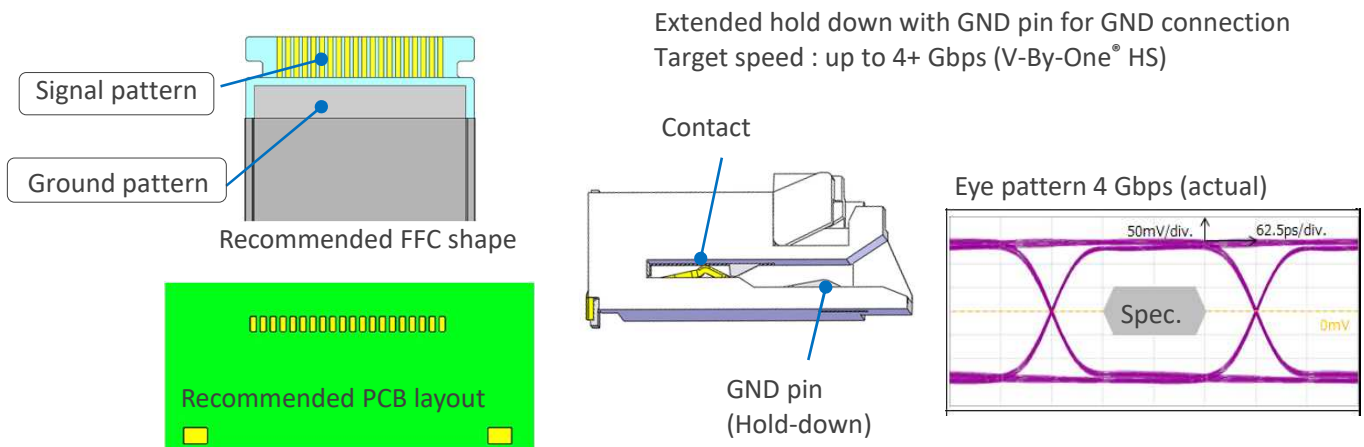
FPC/FFC Type	Shielded FFC, Non-shielded FFC/FPC
FPC/FFC Contact Point	Bottom
FPC/FFC Thickness (mm)	0.30 +/- 0.03
<b>Applicable Standards (Reference Only):</b>	
eDP (2.7 Gbps) V-By-One HS 1.4 (4 Gbps)	

\* 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



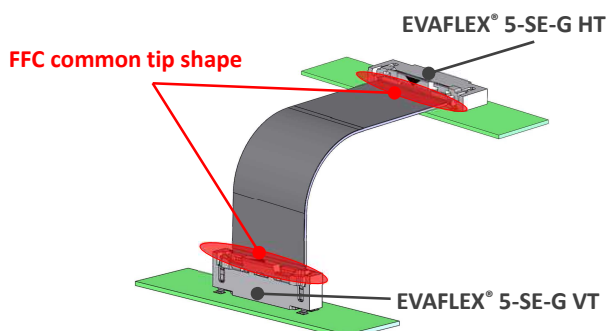
## ▶ Designed for high-speed transmission with grounding contacts (4+ Gbps V-By-One® HS)



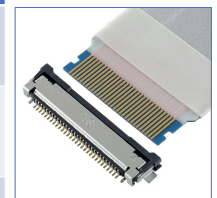
## ▶ Scalable EVAFLEX® family : Auto-lock connector with many other options available

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

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



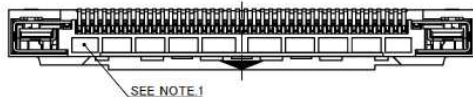
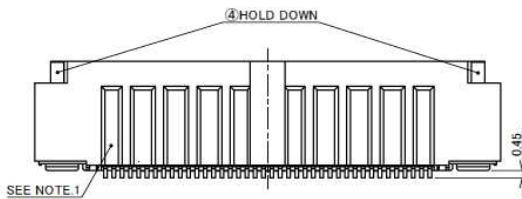
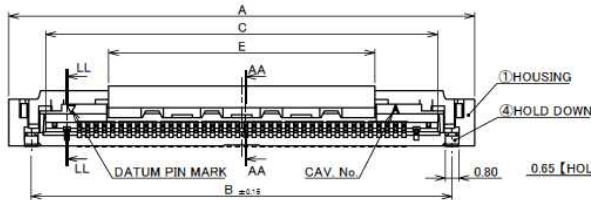
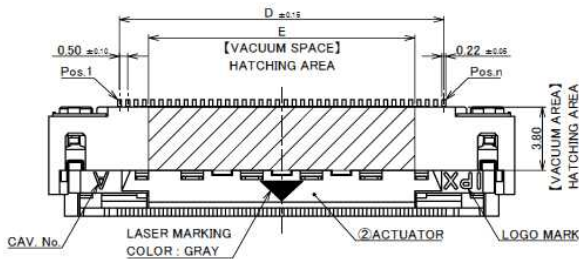
	EVAFLEX® 5-SE-G VT	EVAFLEX® 5-VS
Height (mm)	6.60 +/- 0.1	1.90 +/- 0.1
Operation Temperature	~ 125°C	~ 105°C
Reference Performance	V-by-one HS 1.4 (4+ Gbps)	PCIe Gen 3 (8+ Gbps)



# Component Parts Details

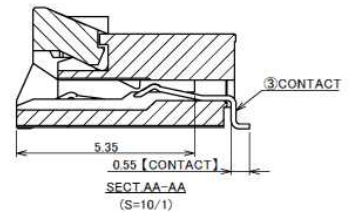
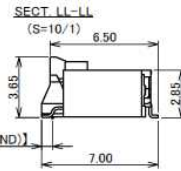
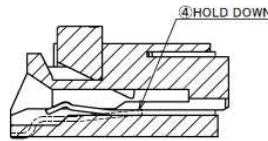
## Connector Assembly

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.



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

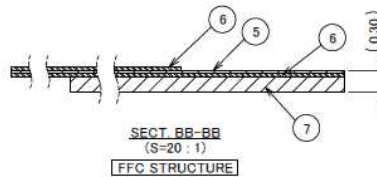
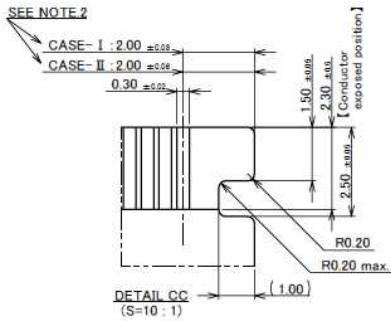
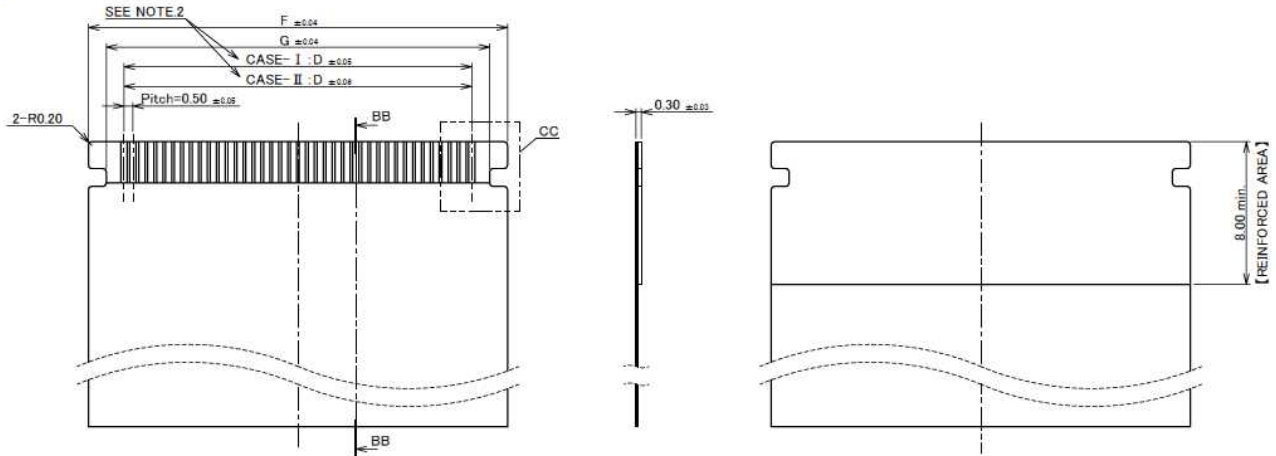
4	HOLD DOWN	CORSON ALLOY	SOLDERING AREA : Au 0.03μm MIN. OVER Ni 1.00μm MIN.
3	CONTACT	CORSON ALLOY	CONTACT AREA AND SOLDERING AREA : Au 0.03μm MIN. OVER Ni 1.00μm MIN.
2	ACTUATOR	LCP	UL94V-0, BEIGE
1	HOUSING	LCP	UL94V-0, BEIGE
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

# 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

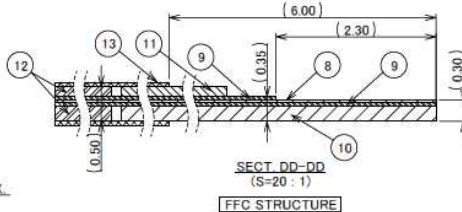
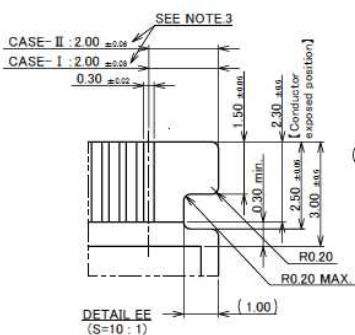
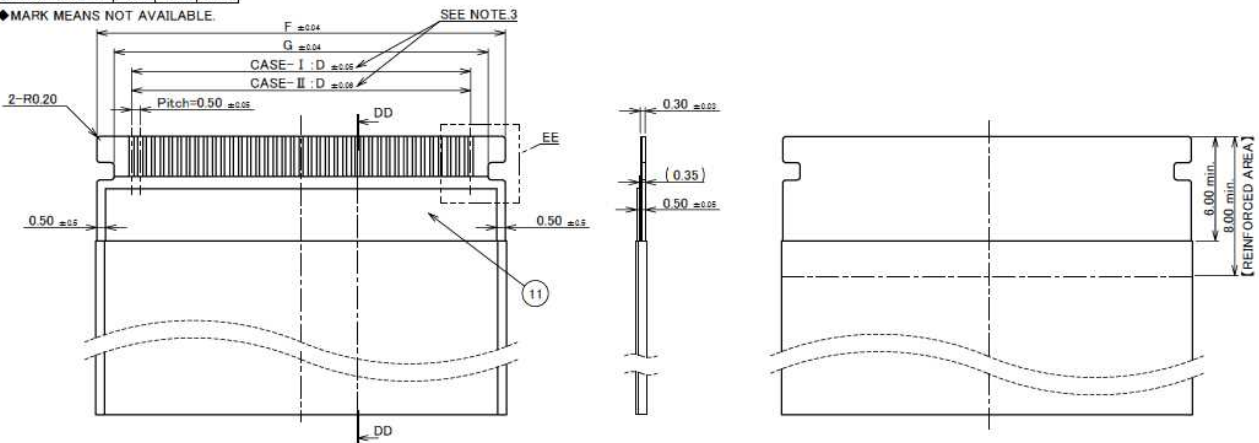
NO	COMPONENTS	MATERIAL	FINISH
7	REINFORCED TAPE	ARBITRARY	
6	INSULATION FILM	ARBITRARY	
5	CONDUCTOR	COPPER ALLOY	CONTACT AREA : Au 0.05 μm MIN. OVER Ni 0.5 μm MIN.

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PART No.	D	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  
3. MANUFACTURE CASE - I or II  
4. DIFFERENTIAL IMPEDANCE : 100 ± 10 Ω

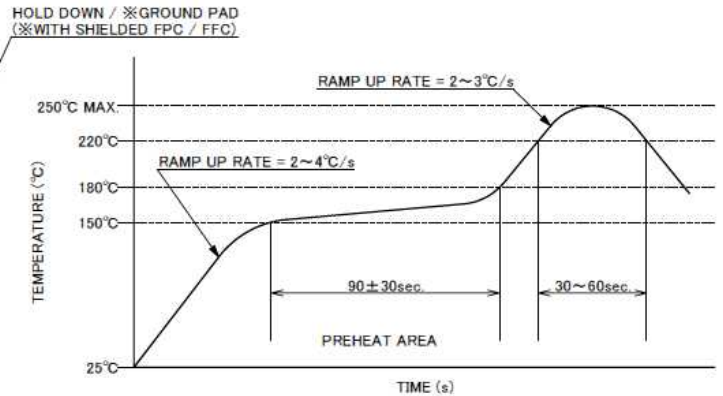
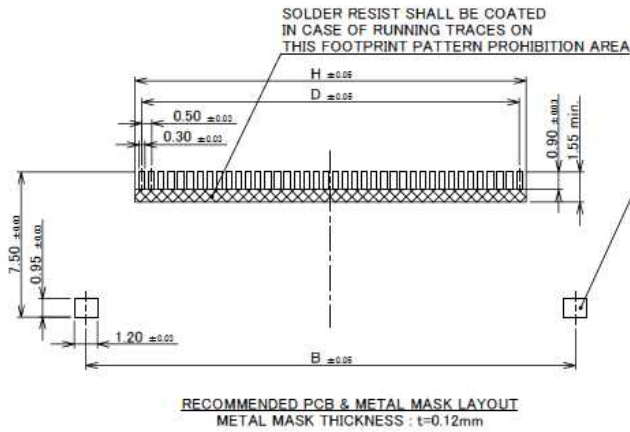
NO	COMPONENTS	MATERIAL	FINISH
13	SHIELD TAPE	METALLIC FILM	
12	INTERLAYER	ARBITRARY	
11	GROUND PLATE	METALLIC FILM	POLISH or HALF POLISH Sn PLATING
10	REINFORCED TAPE	ARBITRARY	
9	INSULATION FILM	ARBITRARY	
8	CONDUCTOR	COPPER ALLOY	CONTACT AREA : Au 0.05 μm MIN. OVER Ni 0.5 μm MIN.

Rev.3

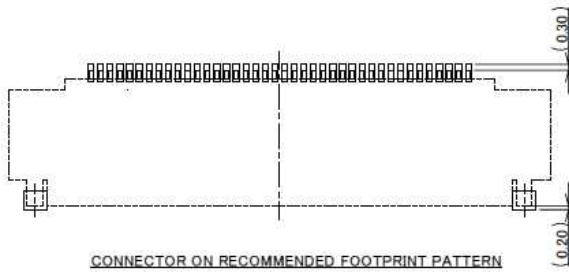
# Connector Assembly

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.



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



Rev.3

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC/DC (PER CONTACT)
RATING AMPERAGE	0.35A AC/DC (PER CONTACT) AVAILABLE FOR ALL CONTACTS 0.5A AC/DC (PER CONTACT) 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 : <math>\sphericalangle</math>40mohm 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.3



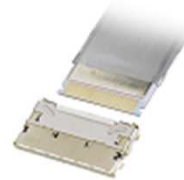
Board to Board



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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