

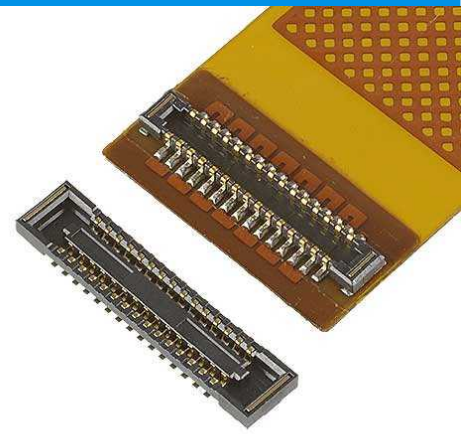
# NOVASTACK® 4

Narrow and low profile, 0.4 mm pitch, 0.6 mm height, 1.88 mm depth

## Product Specifications:

Board Pitch (mm)		0.4
Wiping Length (mm)		0.19 (10~50 P), 0.13 (52~80 P)
Mated Size (mm)	Height	0.6 +/- 0.1
	Width	Formula: $2.50 + (0.4 * p/2)$
	Depth	1.88
Current Rating	Signal	0.3 A/pin
	Power	-
Pin Counts	Range	6 - 80
	Available	6, 10, 24, 30, 34, 40

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

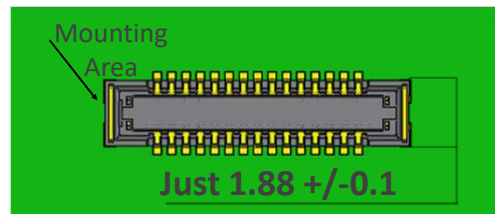


## Contributes to space saving with narrow type (1.88 mm depth)

RED: Under Development

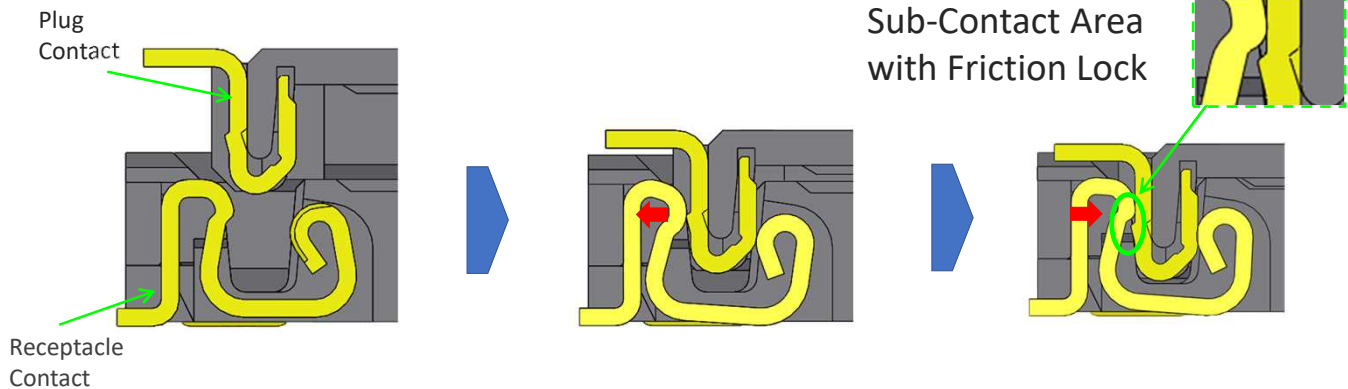
Position	6	10	16	20	24	26	30	34	40	80
Competitor	-	9.5	11.78	13.3	14.82	15.58	17.1	18.62	20.9	36.1
I-PEX	6.96	8.46	10.72	12.22	13.72	14.48	15.98	17.48	19.74	34.78
Decreasing Rate	-	10.9%	9.0%	8.1%	7.4%	7.1%	6.5%	6.1%	5.6%	3.7%

(Unit: mm<sup>2</sup>)

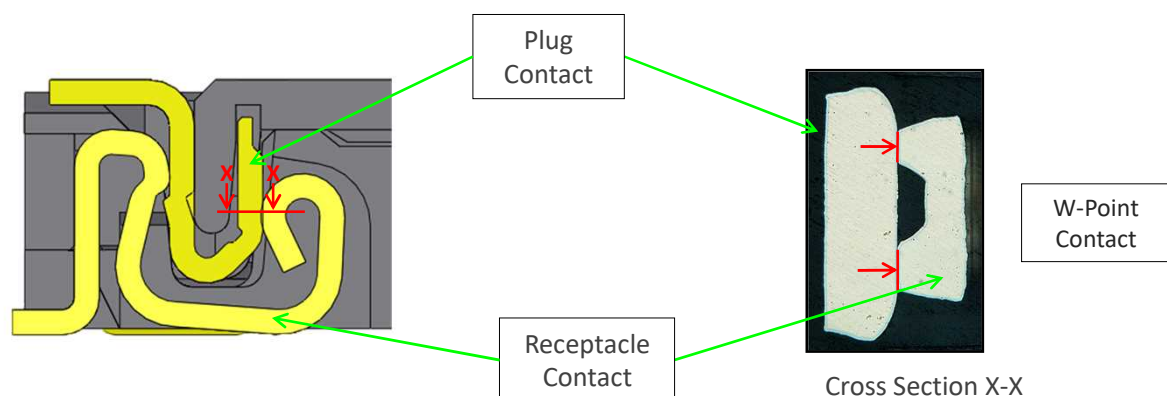


Reduce Mounting Area  
4 ~ 11%

## Stable retention force and mating click feeling



## W-point contact provides reliable contact

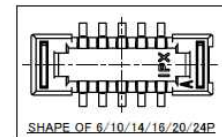
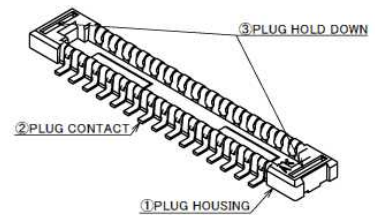
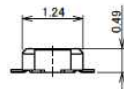
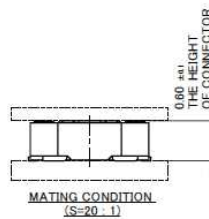
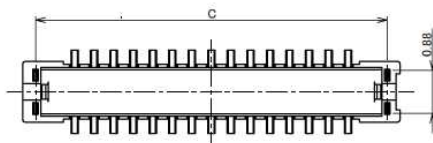
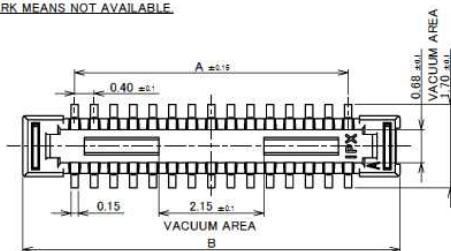


# Component Parts Details

## Plug Assembly

Recommended P/N		20641-0**E				
PART No.	Pos.	A	B	C	D	E
20641-006E	6	0.80	2.92	2.40	2.47	3.38
20641-010E	10	1.60	3.72	3.20	3.27	4.18
◆ 20641-014E	14	2.40	4.52	4.00	4.07	4.98
◆ 20641-016E	16	2.80	4.92	4.40	4.47	5.38
◆ 20641-020E	20	3.60	5.72	5.20	5.27	6.18
20641-024E	24	4.40	6.52	6.00	6.07	6.98
20641-030E	30	5.60	7.72	7.20	7.27	8.18
20641-034E	34	6.40	8.52	8.00	8.07	8.98
20641-040E	40	7.60	9.72	9.20	9.27	10.18
◆ 20641-080E	80	15.60	17.72	17.20	17.27	18.18

◆ MARK MEANS NOT AVAILABLE



NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
3	HOLD DOWN	BRASS	ALL OVER Ni 1.27 $\mu$ m MIN. SOLDERING PART Au 0.02 $\mu$ m MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.27 $\mu$ m MIN. CONTACT PART Au 0.02 $\mu$ m MIN. SOLDERING PART Au 0.02 $\mu$ m MIN.
1	HOUSING	LCP	UL94V-0 BLACK

# Plug Assembly

## Cautions for Handling the Component

### 1. Using for PCB to FPC connection.

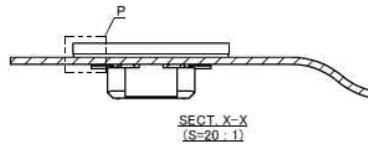
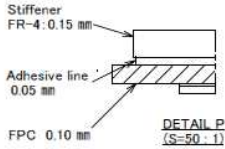
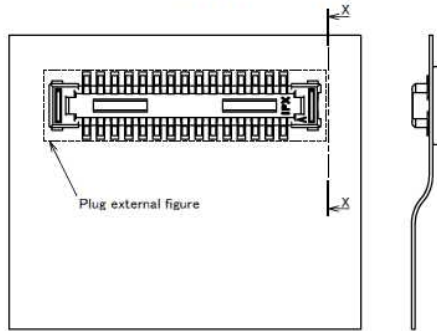
Usage of a FPC stiffener is recommended to prevent plug from damages during insertion and extraction of a FPC.

Recommended stiffener size :

Larger than plug external figure including footprint patterns. (See below)  
Recommended FPC and stiffener thickness:

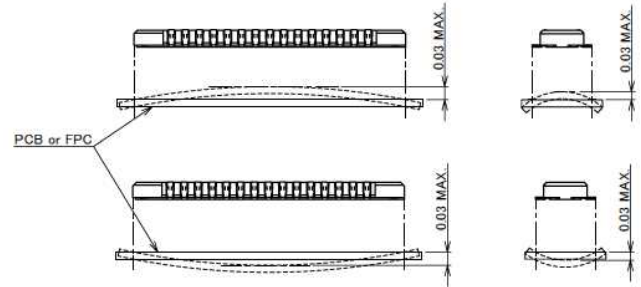
Minimum 0.3 mm

[Thickness example: 0.1 mm FPC + 0.05 mm adhesive bond + 0.15 mm Stiffener (FR-4) = total 0.3 mm]

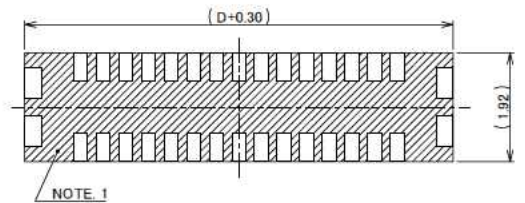
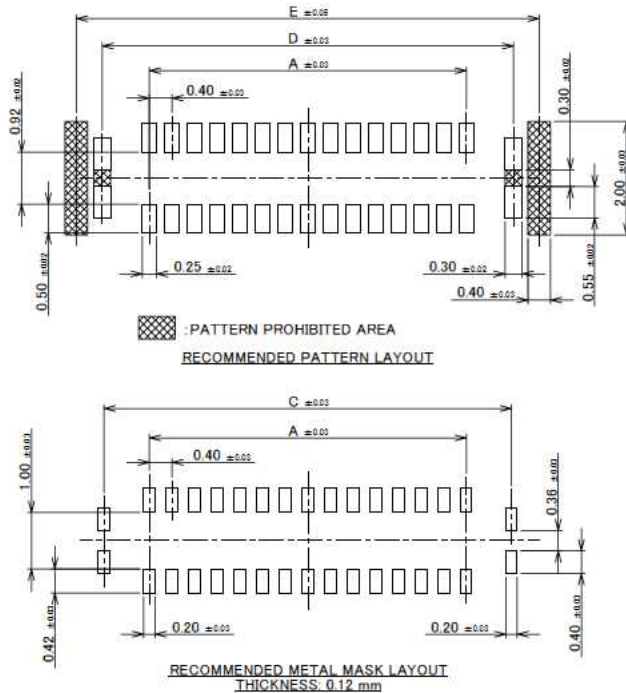


### 2. Warp of PCB or FPC

PCB /FPC warping is maximum 0.03 mm, with both ends of the plug.



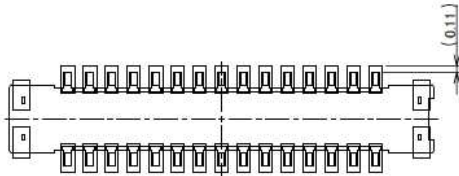
Rev.11



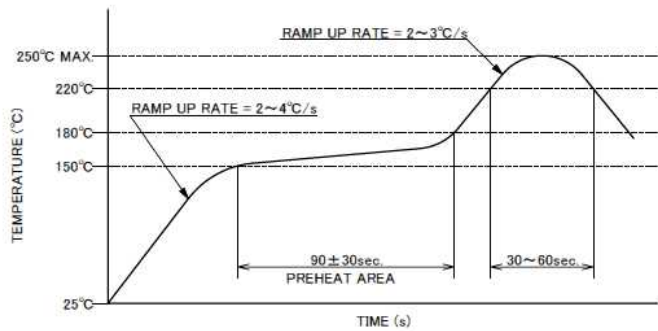
NOTES:  
1. THIS AREA CANNOT MOUNT ANOTHER COMPONENTS.

Rev.11

# Plug Assembly



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

Rev.11

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20642-0**1E
RATING VOLTAGE	60V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR SIGNAL CONTACT)	0.3A AC/DC (PER CONTACT PIN)
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 80mohm MAX. / AFTER TEST : <math>\leq 120\text{mohm}</math> MAX.
INSULATION RESISTANCE	INITIAL : 1,500Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL)	6P : 10.0N MAX.      30P : 36.0N MAX. 10P : 12.0N MAX.    34P : 40.8N MAX. 24P : 28.8N MAX.    40P : 48.0N MAX.
UNMATING FORCE (AFTER TEST)	6P : 1.2N MIN.      30P : 6.0N MIN. 10P : 2.0N MIN.    34P : 6.8N MIN. 24P : 4.8N MIN.    40P : 8.0N MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-1998
TEST REPORT	TR-14088
PACKING STANDARD	PST-14060
INSTRUCTION MANUAL	HIM-14018
APPEARANCE CRITERIA No.	QLS-A***

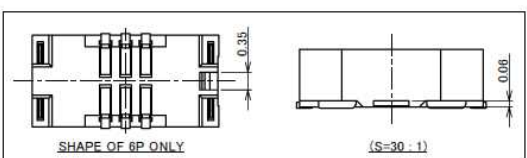
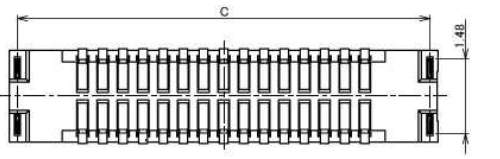
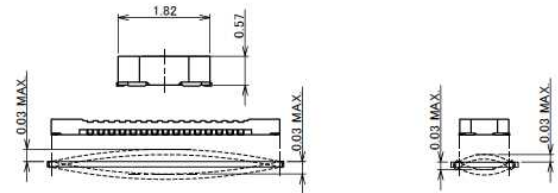
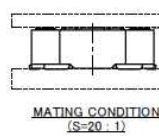
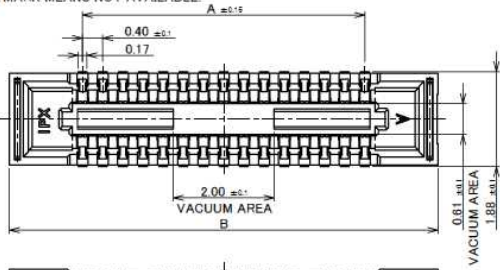
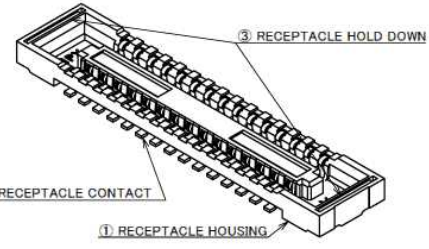
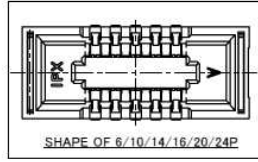
Rev.11



# Receptacle Assembly

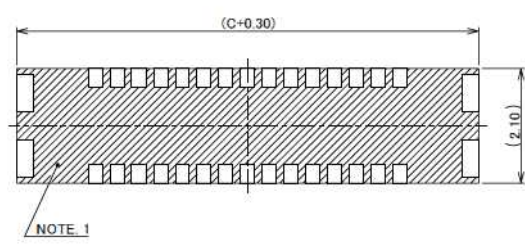
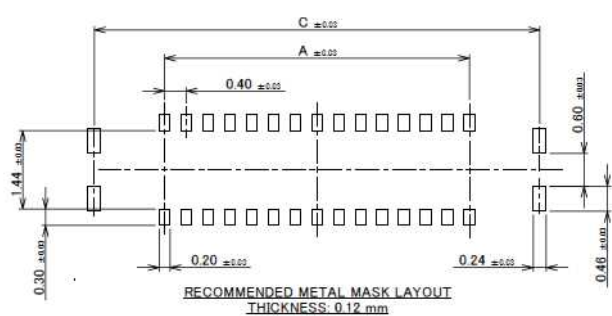
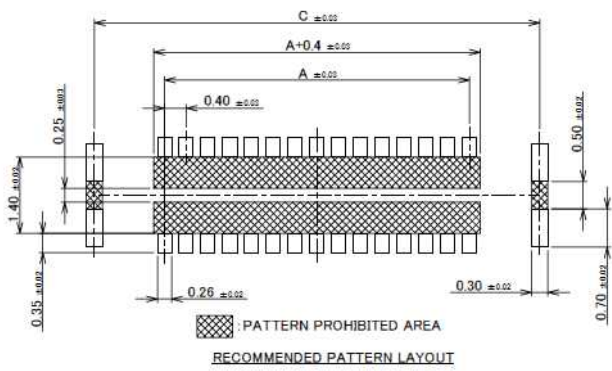
Recommended P/N		20642-0**E		
PART No.	Pos.	A	B	C
20642-006E	6	0.80	3.70	3.38
20642-010E	10	1.60	4.50	4.18
◆ 20642-014E	14	2.40	5.30	4.98
◆ 20642-018E	16	2.80	5.70	5.38
◆ 20642-020E	20	3.60	6.50	6.18
20642-024E	24	4.40	7.30	6.98
20642-030E	30	5.60	8.50	8.18
20642-034E	34	6.40	9.30	8.98
20642-040E	40	7.60	10.50	10.18
◆ 20642-080E	80	15.60	18.50	18.18

◆ MARK MEANS NOT AVAILABLE.



NO.	DISCRIPTION	MATERIAL	FINISH . REMARKS
3	HOLD DOWN	BRASS	ALL OVER Ni 1.27 μm MIN SOLDERING PART Au 0.02 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.27 μm MIN. CONTACT PART Au 0.03 μm MIN. SOLDERING PART Au 0.02 μm MIN.
1	HOUSING	LCP	UL94V-0 BLACK

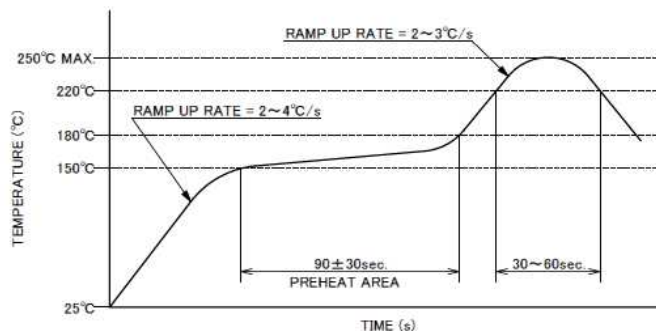
Rev.10



NOTES  
1. THIS AREA CANNOT MOUNT ANOTHER COMPONENTS.

Rev.10

# Receptacle Assembly



Rev.10

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	20641-0**E
RATING VOLTAGE	60V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR SIGNAL CONTACT)	0.3A AC/DC (PER CONTACT PIN)
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 80mohm MAX. / AFTER TEST : $\Delta$ 20mohm MAX.
INSULATION RESISTANCE	INITIAL : 1,500Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL)	6P : 10.0N MAX.      30P : 36.0N MAX. 10P : 12.0N MAX.    34P : 40.8N MAX. 24P : 28.8N MAX.    40P : 48.0N MAX.
UNMATING FORCE (AFTER TEST)	6P : 1.2N MIN.      30P : 6.0N MIN. 10P : 2.0N MIN.    34P : 6.8N MIN. 24P : 4.8N MIN.    40P : 8.0N MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-1998
TEST REPORT	TR-14088
PACKING STANDARD	PST-14061
INSTRUCTION MANUAL	HIM-14018
APPEARANCE CRITERIA No.	QLS-A***

Rev.10

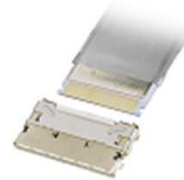
Board to Board



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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