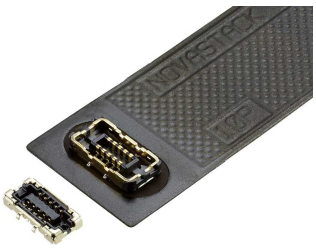
NOVASTACK® 35-HDN

Ideal for 5G mmWave antenna module and devices, fully-shielded and narrow design, Power supply is available with Corson Alloy contact, 0.35 mm pitch, 0.7 mm height



- ✓ Ideal for high frequency applications (5G mmWave, USB4 / Thunderbolt 3, etc.)
- ✓ ZenShield® fully-shielded design, decreases EMI issue caused by 5G applications
- ✓ Narrow depth and low height, fully-shielded board-to-board connector

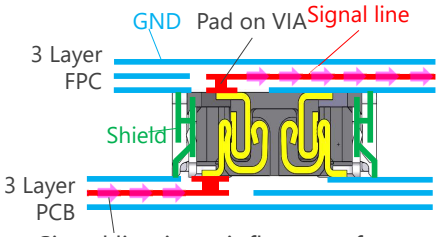
Pin counts:

Range	Up to 60
Available	10, 20, 30

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

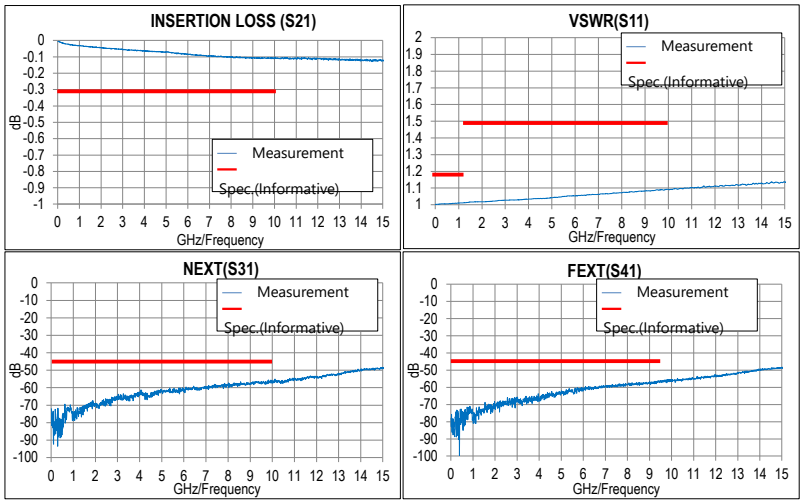
Mating type		Board-to-board (FPC)
Board pitch (mm)		0.35
Mated size (mm)	Height	0.7 +/- 0.05
	Width (mm)	4.15 (10P) 5.90 (20P) 7.90 (30P)
	Depth	2.15 mm
Current Rating	Signal Pin	1.0A / Pin (Max. 10P) (12 pin and over : 12.0 A AC/DC (Total))
Performance (Reference only)		USB® 3.1 (10 Gbps) Thunderbolt 3 (20 Gbps) mmWave for 5G (15 GHz)

Ideal for high frequency applications (5G mmWave, USB4 / Thunderbolt 3, etc.)



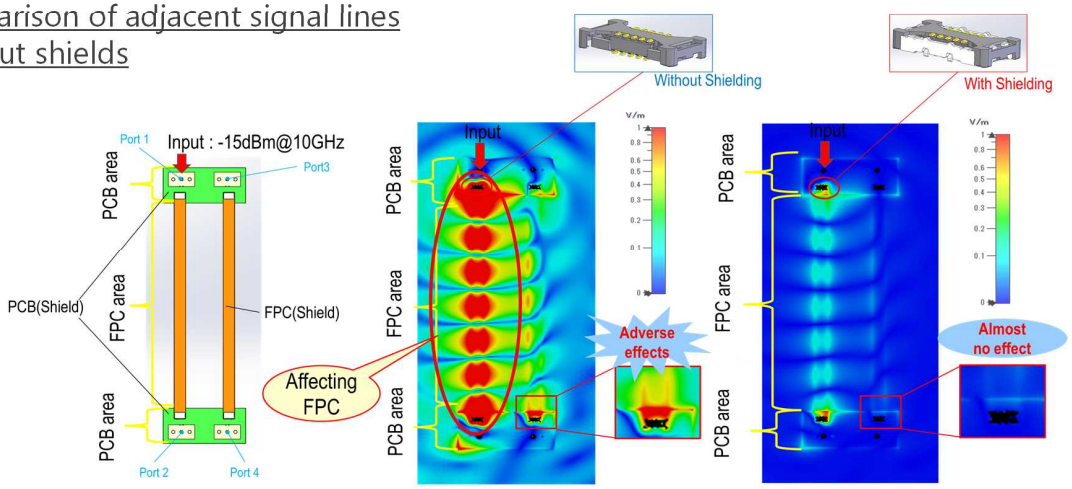
Signal line is no influence of external noise.

◆**Pin assignment**



ZenShield® fully-shielded design, decreases EMI issue caused by 5G applications

E-Field comparison of adjacent signal lines with or without shields



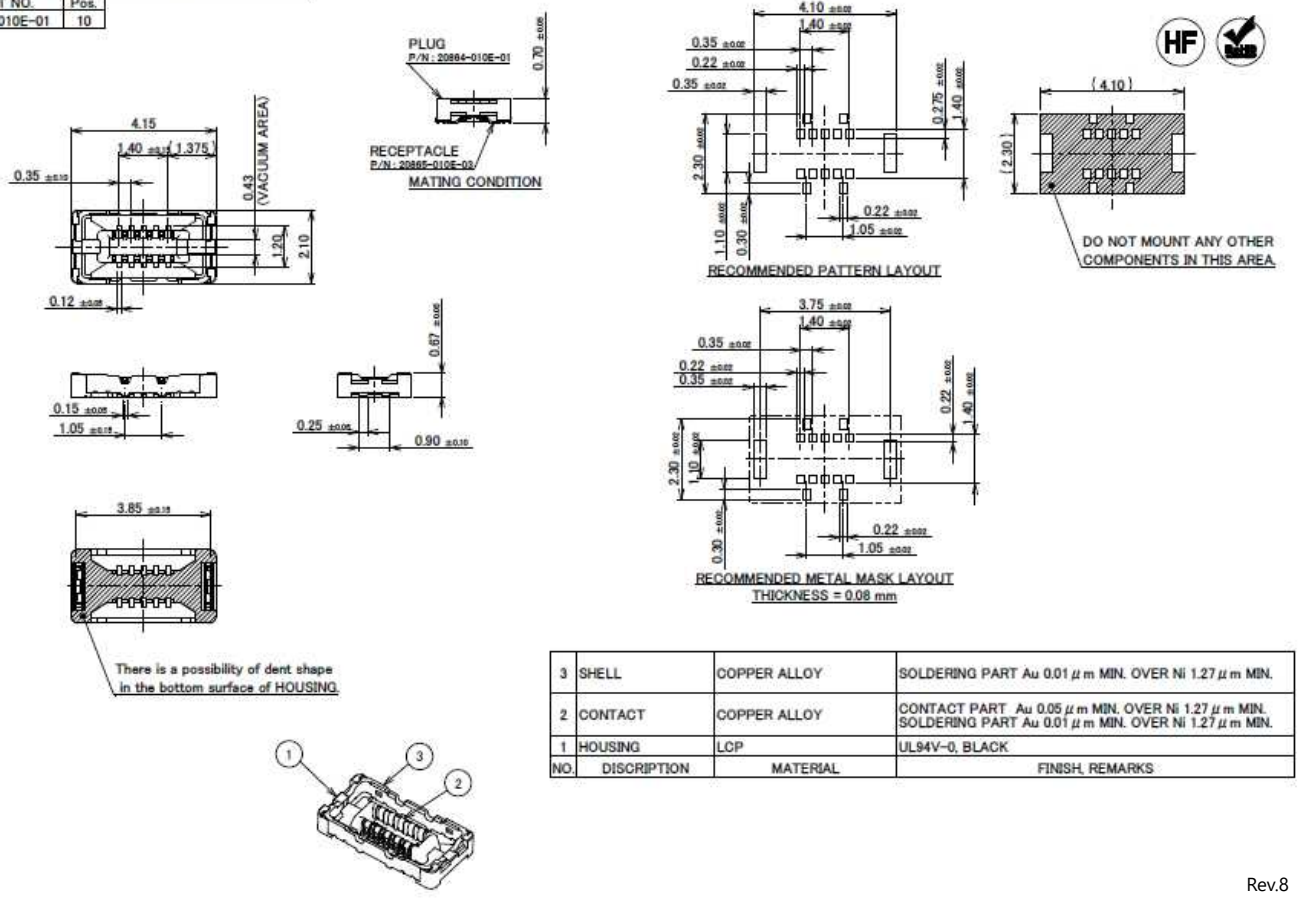
Narrow depth and low height, fully-shielded board-to-board connector

NOVASTACK® 35-HDN

Component Parts Detail

Plug Assembly :

Recommended P/N	20864-010E-01
PART NO.	Pos.
20864-010E-01	10

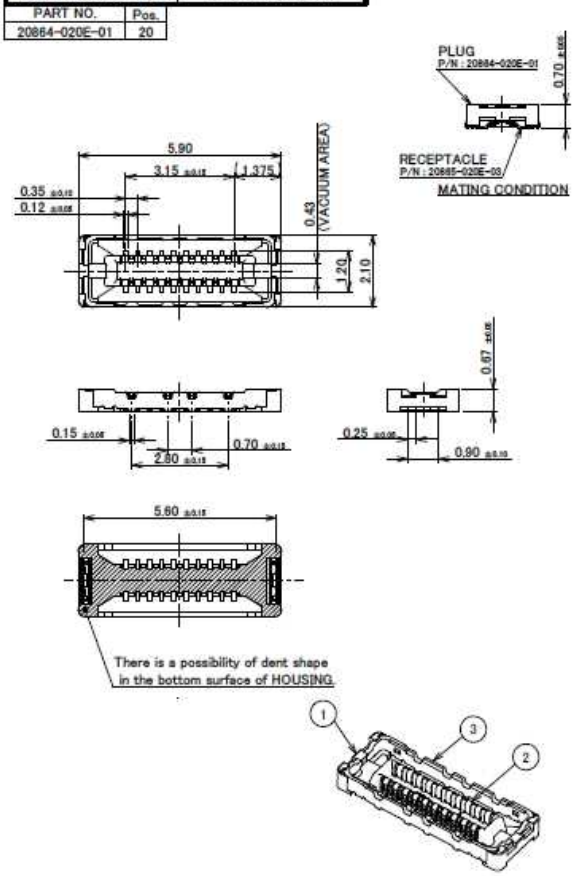


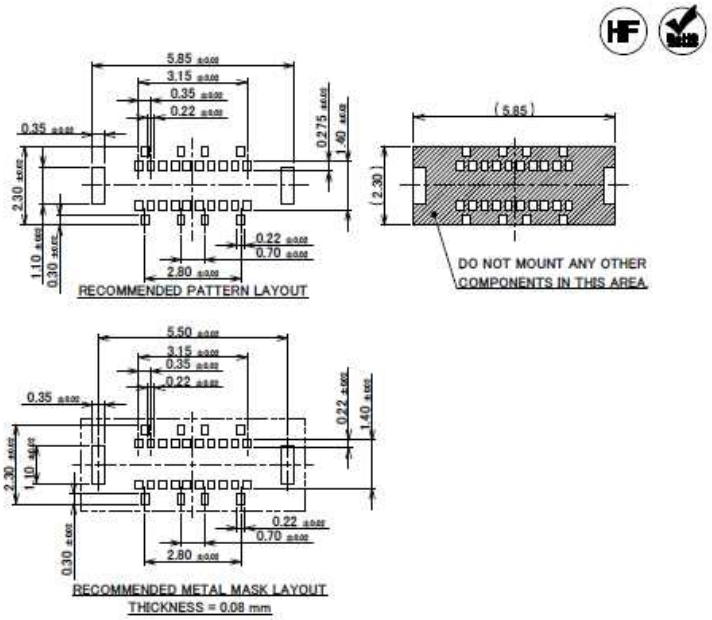
NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
3	SHELL	COPPER ALLOY	SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
2	CONTACT	COPPER ALLOY	CONTACT PART Au 0.05 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK

Rev.8

Plug Assembly :

Recommended P/N	20864-020E-01
PART NO.	Pos.
20864-020E-01	20



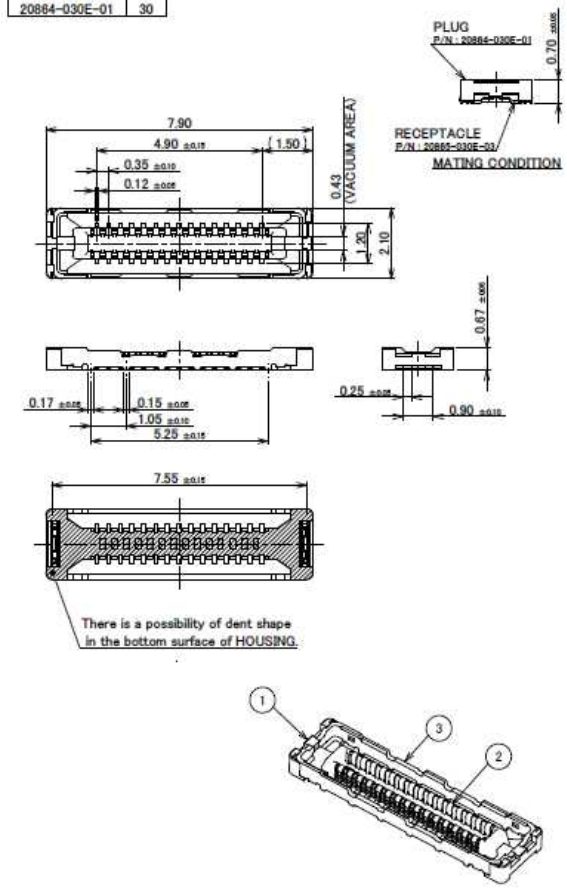


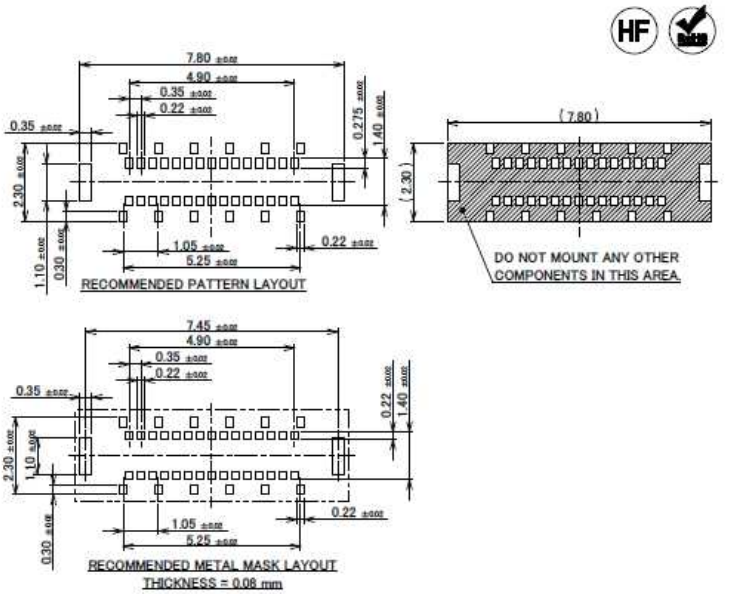
NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
3	SHELL	COPPER ALLOY	SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
2	CONTACT	COPPER ALLOY	CONTACT PART Au 0.05 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK

Rev.8

Plug Assembly :

Recommended P/N	20864-030E-01
PART NO.	Pos.
20864-030E-01	30





NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
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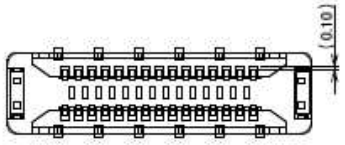
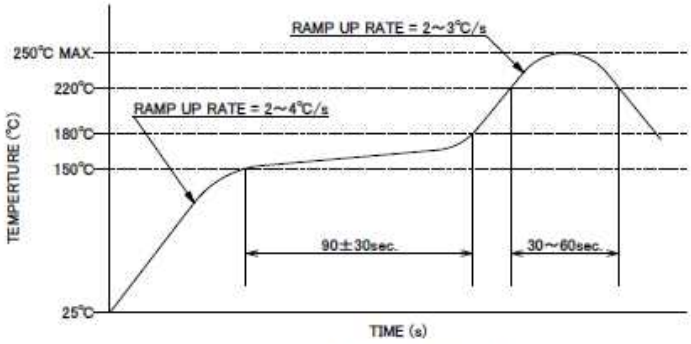
2	CONTACT	COPPER ALLOY	CONTACT PART Au 0.05 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING PART Au 0.01 μm MIN. OVER Ni 1.27 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK

Rev.8

Plug Assembly :



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

Rev.8

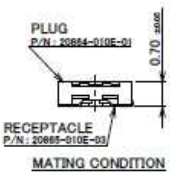
Plug Assembly :

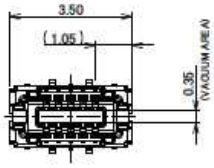
ITEMS	SPECIFICATION
RATING VOLTAGE	60V AC(r.m.s) / DC (PER A CONTACT)
RATING AMPERAGE (FOR SIGNAL CONTACT)	10P:1.0 A MAX. AC/DC x PIN COUNTS = 10.0 A (TOTAL) 12P AND OVER : 12.0 A AC/DC (TOTAL)
OPERARING TEMPERATURE	233~358K(-40℃~85℃)
OPERATING HUMIDITY	85% MAX.(NON-CONDENDING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 40mohm MAX. / AFTER TEST : ⊿40mohm MAX.
CONTACT RESISTANCE (FOR GROUND)	INITIAL : 20mohm MAX. / AFTER TEST : ⊿20mohm MAX.
INSULATION RESISTAMCE	INITIAL : 1,000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	10 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	INITIAL 2.0N/Pin MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	10 CYCLES 0.15N/Pin MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-2607
TEST REPORT	TR-19055
PACKING STANDARD	PST-18022
INSTRUCTION MANUAL	HIM-18019
APPEARANCE CRITERIA No.	QLS-A***

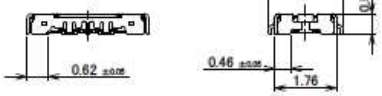
Rev.8

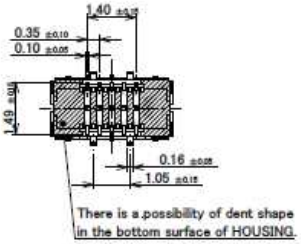
Receptacle Assembly :

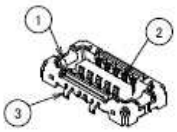
Recommended P/N	20865-010E-03
PART NO.	Pos.
20865-010E-03	10

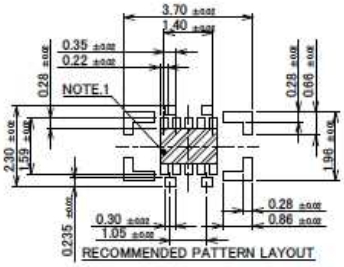


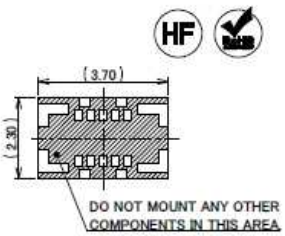


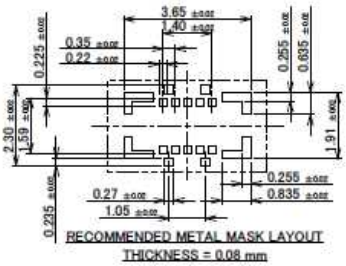












NOTES.
1. FOOT PRINT PATTERN PROHIBITION AREA :
SOLDER RESIST MUST BE APPLIED TO THIS HATCHED AREA
IF SURFACE TRACES ARE ROUNTED.

NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
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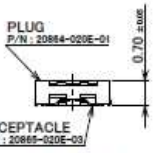
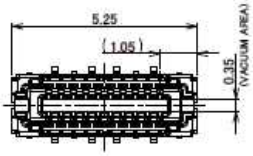
1	HOUSING	LCP	UL94V-0 BLACK

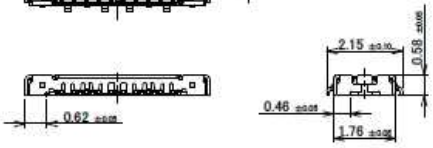
Rev.8

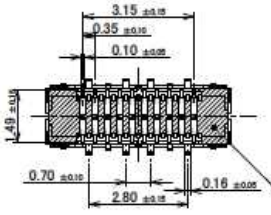
Receptacle Assembly :

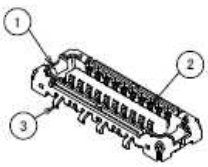
Recommended P/N	20865-020E-03
PART NO.	Pos.
20865-020E-03	20

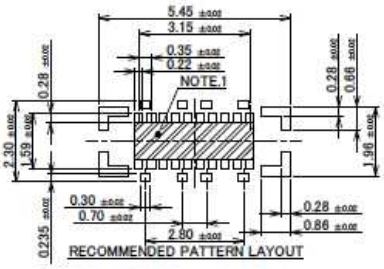


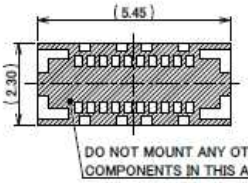


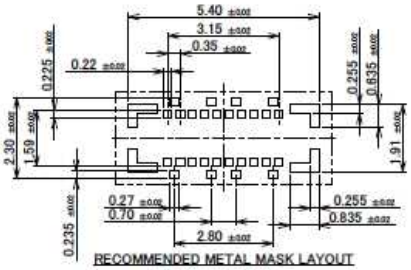












NOTES.
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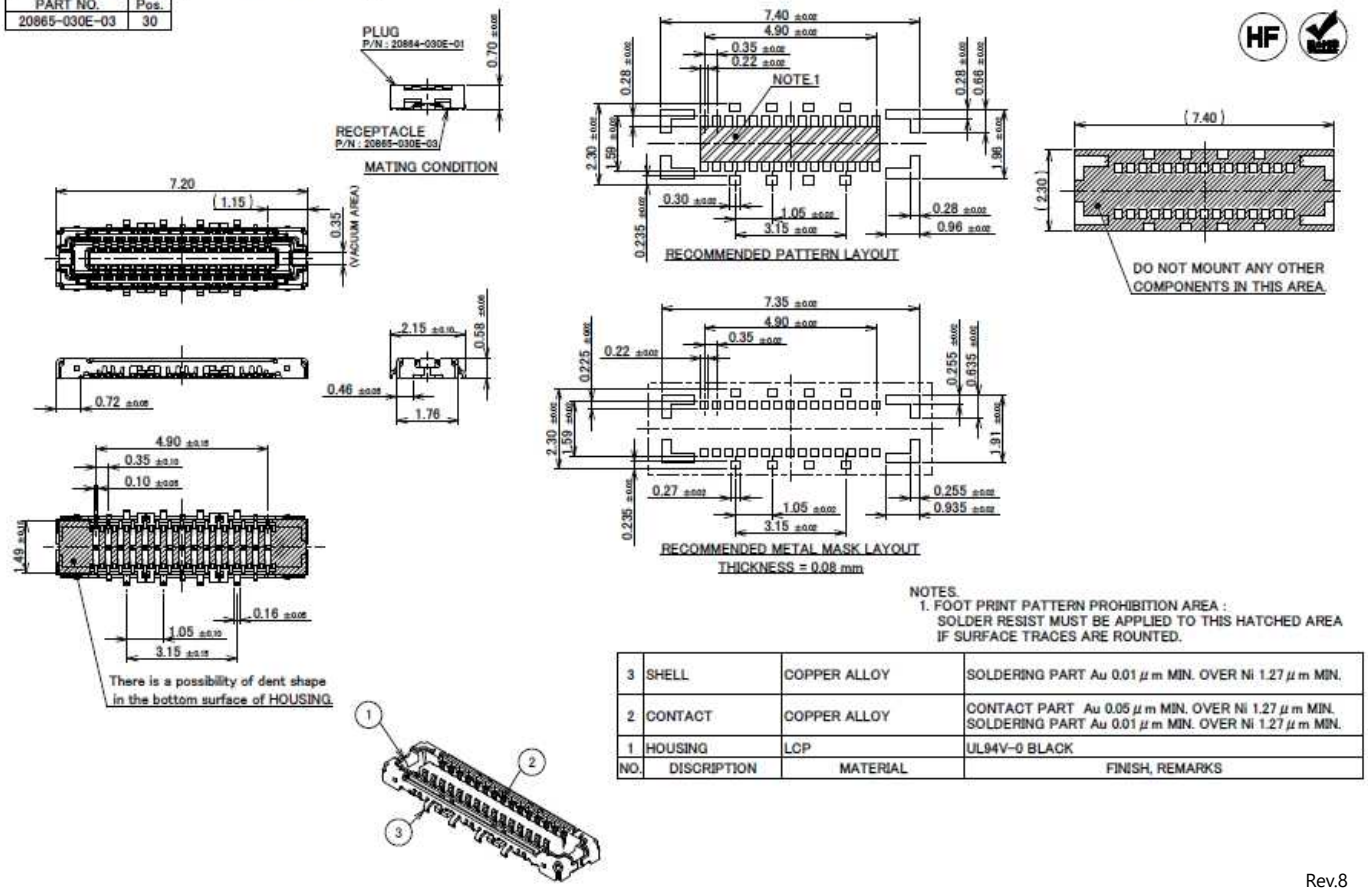
Rev.8

Receptacle Assembly :

Recommended P/N	20865-030E-03
PART NO.	Pos.
20865-030E-03	30



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NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
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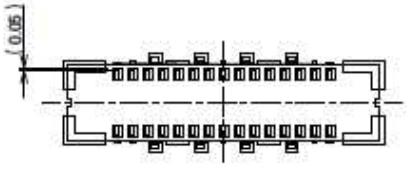
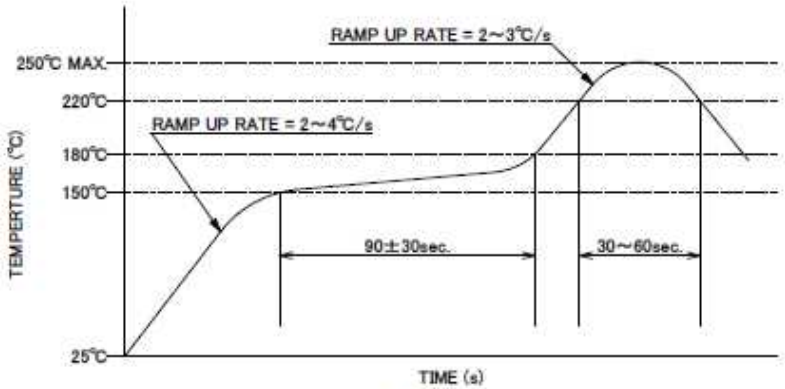
1	HOUSING	LCP	UL94V-0 BLACK

Rev.8

Receptacle Assembly :



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

Rev.8

Receptacle Assembly :

ITEMS	SPECIFICATION
RATING VOLTAGE	60V AC(r.m.s) / DC (PER A CONTACT)
RATING AMPERAGE (FOR SIGNAL CONTACT)	10P:1.0 A MAX. AC/DC x PIN COUNTS = 10.0 A (TOTAL) 12P AND OVER : 12.0 A AC/DC (TOTAL)
OPERARING TEMPERATURE	233~358K(-40℃~85℃)
OPERATING HUMIDITY	85% MAX.(NON-CONDENDING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 40mohm MAX. / AFTER TEST : ⊿40mohm MAX.
CONTACT RESISTANCE (FOR GROUND)	INITIAL : 20mohm MAX. / AFTER TEST : ⊿20mohm MAX.
INSULATION RESISTAMCE	INITIAL : 1,000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	10 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	INITIAL 2.0N/Pin MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	10 CYCLES 0.15N/Pin MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-2607
TEST REPORT	TR-19055
PACKING STANDARD	PST-18023
INSTRUCTION MANUAL	HIM-18019
APPEARANCE CRITERIA No.	QLS-A***

Rev.8