

NOVASTACK® 35-HDP

High-speed (20+ Gbps/lane) fully-shielded with power contacts, 0.35 mm pitch, 0.7 mm height

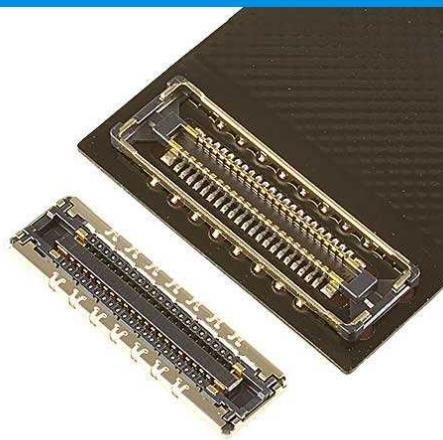
Product Specifications:

Board Pitch (mm)	0.35
Wiping Length (mm)	Signal contact : 0.11, Power contact : 0.13
Mated Size (mm)	Height 0.7 +/- 0.05 Width Formula: $4.89 + (0.35 * ?p/2)$ Depth 3.7
Current Rating	Signal 0.3 A/pin Power 2.2 A/pin x 4
Pin Counts	Range 6 - 76 (signal) + 4 (power) Available 28,34,42,56,62 +/- 4

Applicable Standards (Reference Only):

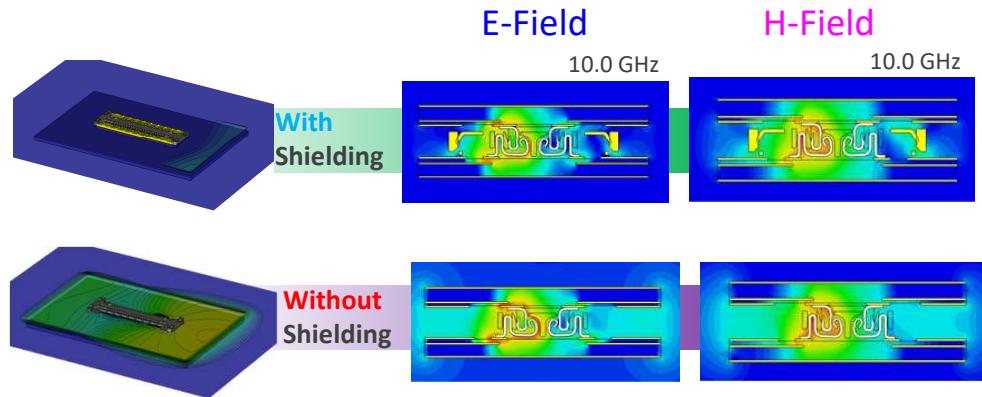
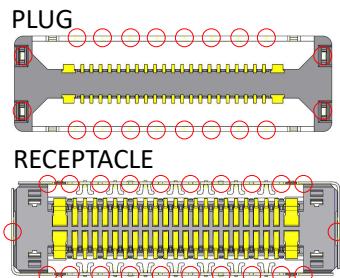
USB4 (20 Gbps/lane) USB 3.1 Gen 2 (10 Gbps)
eDP HBR 3 (8.1 Gbps) eDP HBR 2 (5.4 Gbps)
HDMI 2.0 (6 Gbps) V-By-One HS 1.4 (4 Gbps)
MiPi standards

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

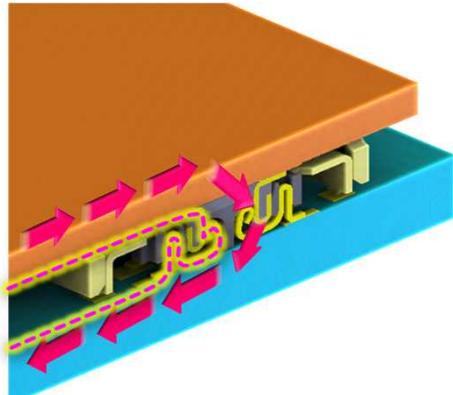


► ZenShield® fully-shielded with multi-point grounds to prevent EMI leakage

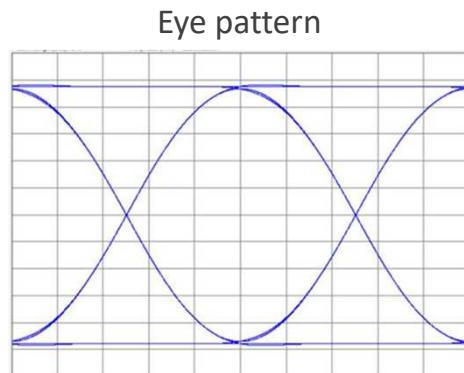
○ Ground SMT points



► Ideal for high-speed transmission e.g. USB4 / Thunderbolt 4 (20+ Gbps / lane)

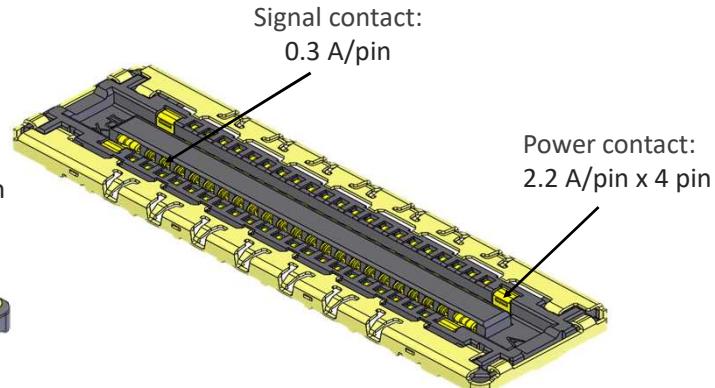
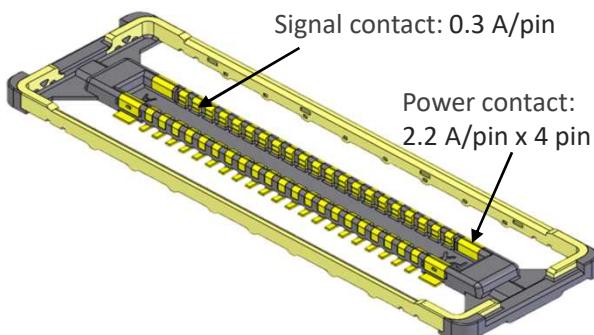


*Please contact I-PEX for more test details.



Bit rate : 25 Gbps
Rise time : 20 ps (10-90%)
Input voltage : 800 mVp-p

► 2.2 A power pin x 4 for power delivery

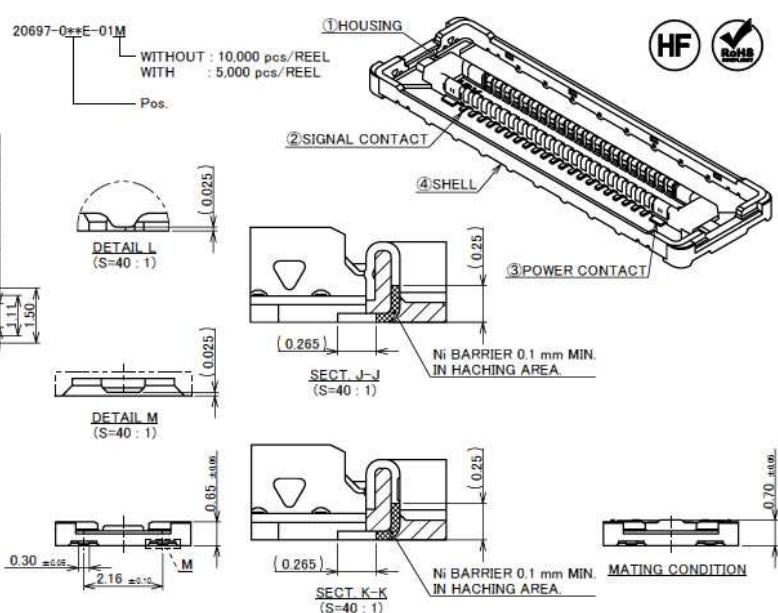
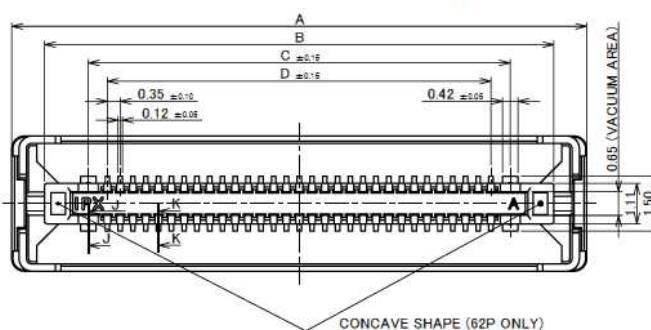


Component Parts Detail

Plug Assembly

Recommended P/N 20697-0**E-01#

PART No.	SIGNAL POS.	POWER POS.	A	B	C	D	E
20697-028E-01	28P	4P	9.79	7.99	5.60	4.55	9.19
20697-034E-01	34P	4P	10.84	9.04	6.65	5.60	10.24
20697-042E-01#	42P	4P	12.24	10.44	8.05	7.00	11.64
20697-056E-01#	56P	4P	14.69	12.89	10.50	9.45	14.09
20697-062E-01#	62P	4P	15.74	13.94	11.55	10.50	15.14

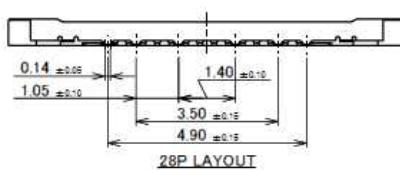


4	SHELL	PHOSPHOR BRONZE	ALL OVER Ni 1.27 μ m MIN. Au 0.01 μ m MIN.
3	POWER CONTACT	CORSON ALLOY	ALL OVER Ni 1.27 μ m MIN. CONTACT PART Au 0.05 μ m MIN. SOLDERING PART Au 0.02 μ m MIN.
2	SIGNAL CONTACT	CORSON ALLOY	ALL OVER Ni 1.27 μ m MIN. CONTACT PART Au 0.05 μ m MIN. SOLDERING PART Au 0.02 μ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK
NO.	DESCRIPTION	MATERIAL	FINISH, REMARKS

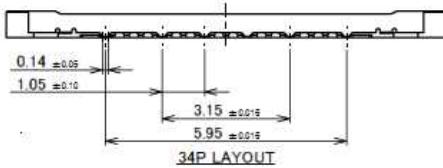
Plug Assembly

PART No.	SIGNAL POS.	POWER POS.
20697-028E-01	28P	4P
20697-034E-01	34P	4P
20697-042E-01#	42P	4P
20697-056E-01#	56P	4P
20697-062E-01#	62P	4P

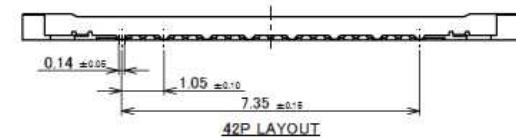
20697-0**E-01M
WITHOUT : 10,000 pcs/REEL
WITH : 5,000 pcs/REEL
Pos.



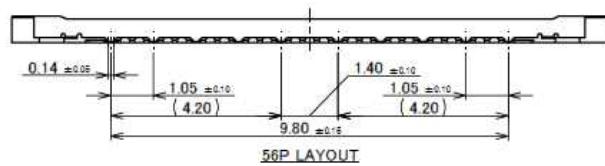
28P LAYOUT



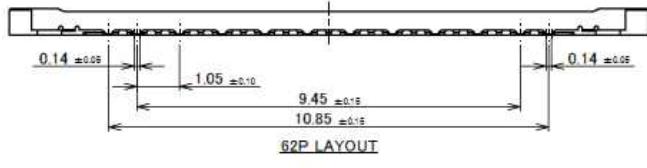
34P LAYOUT



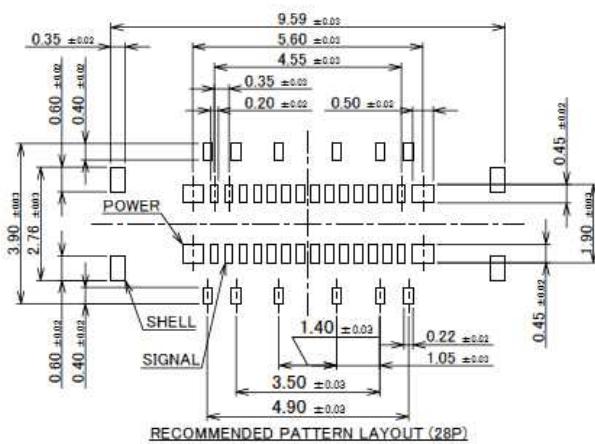
42P LAYOUT



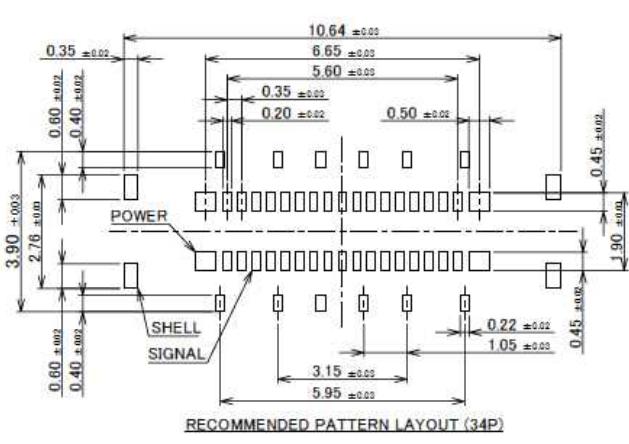
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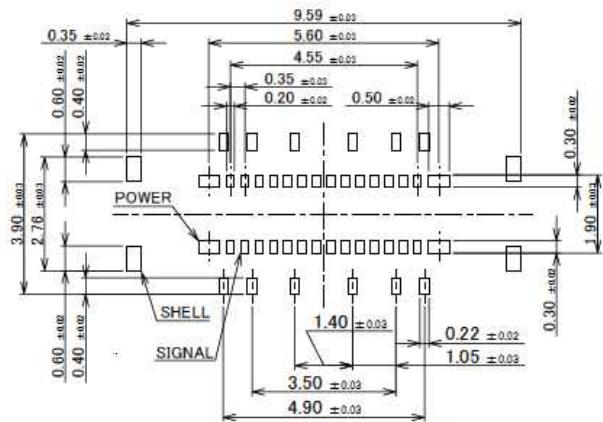
62P LAYOUT



RECOMMENDED PATTERN LAYOUT (28P)

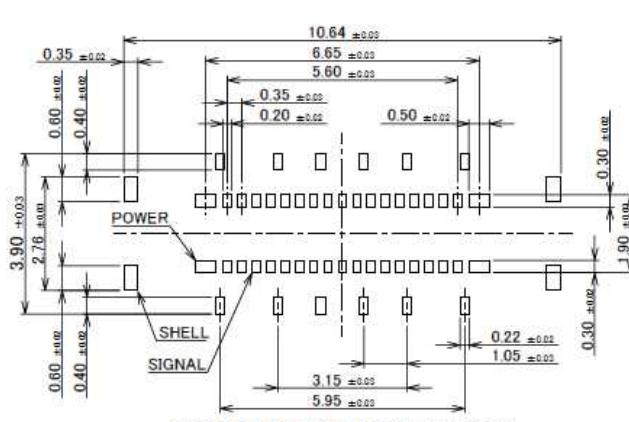


RECOMMENDED PATTERN LAYOUT (34P)



RECOMMENDED METAL MASK LAYOUT (28P)

THICKNESS : t=0.10 mm



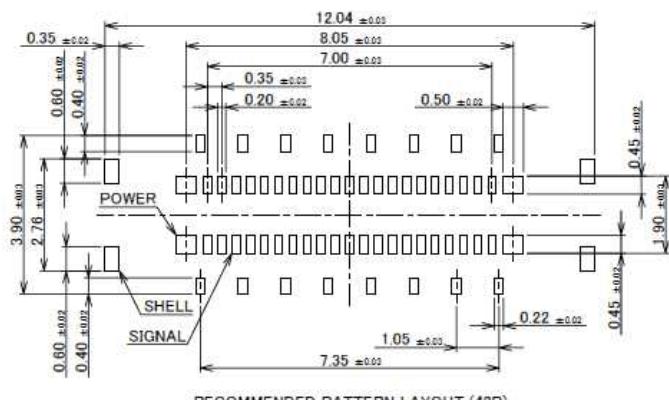
RECOMMENDED METAL MASK LAYOUT (34P)

THICKNESS : t=0.10 mm

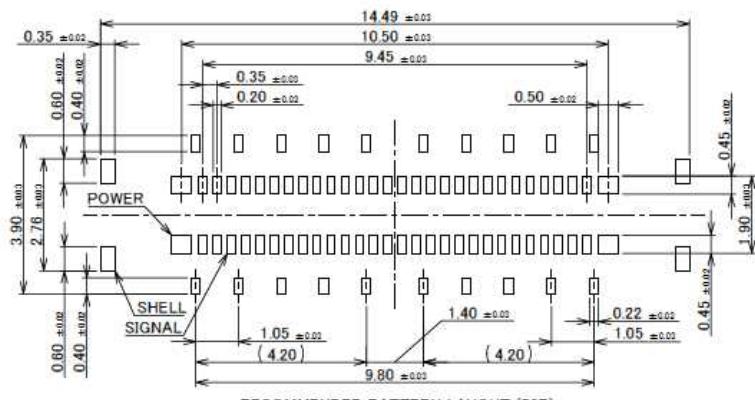
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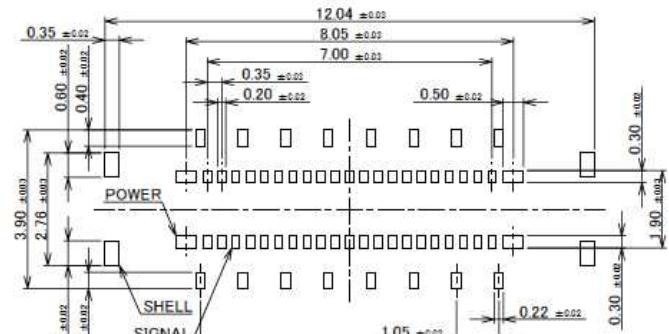
Plug Assembly



RECOMMENDED PATTERN LAYOUT (42P)

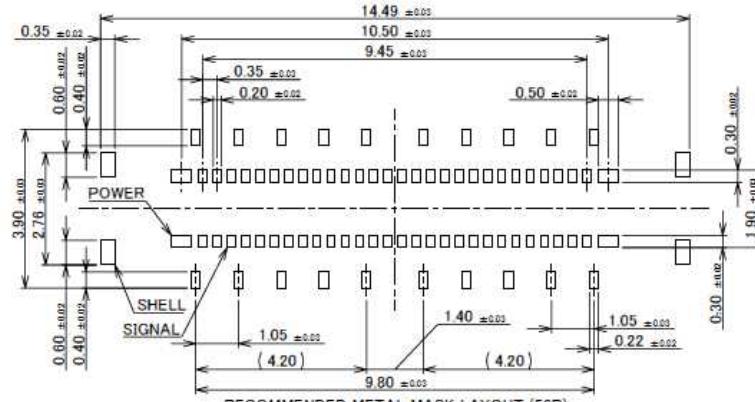


RECOMMENDED PATTERN LAYOUT (56P)



RECOMMENDED METAL MASK LAYOUT (42P)

THICKNESS : t=0.10 mm

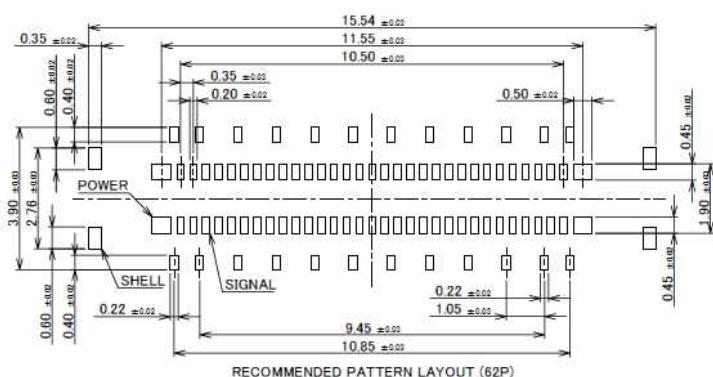


RECOMMENDED METAL MASK LAYOUT (56P)

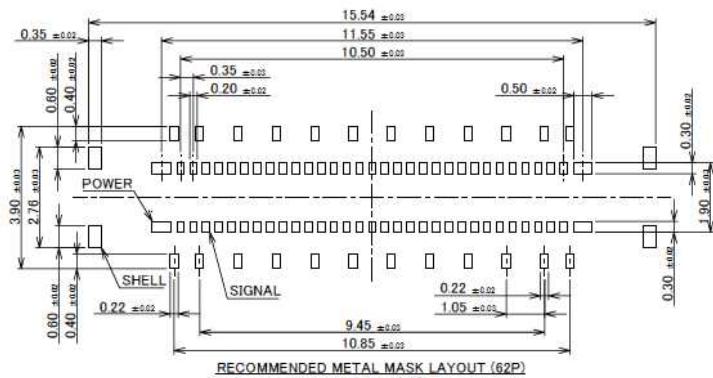
THICKNESS : t=0.10 mm

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PART No.	SIGNAL POS.	POWER POS.	A
20697-028E-01	28P	4P	9.79
20697-034E-01	34P	4P	10.84
20697-042E-01#	42P	4P	12.24
20697-056E-01#	56P	4P	14.69
20697-062E-01#	62P	4P	15.74

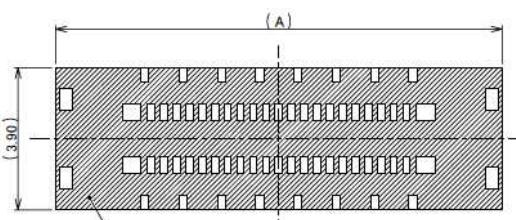


RECOMMENDED PATTERN LAYOUT (62P)



RECOMMENDED METAL MASK LAYOUT (62P)

THICKNESS : t=0.10 mm

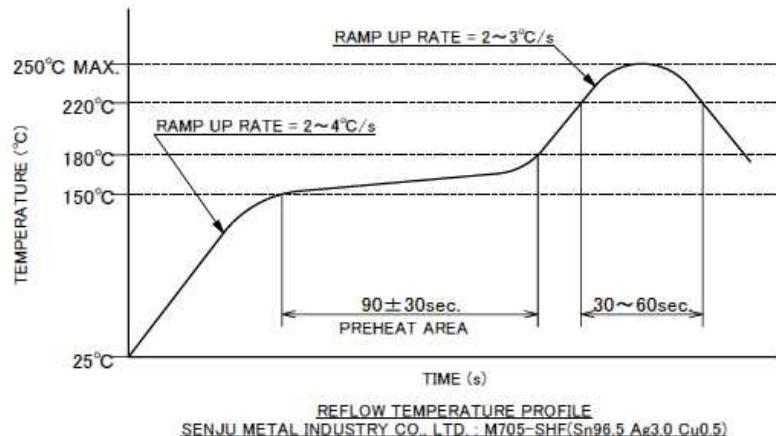
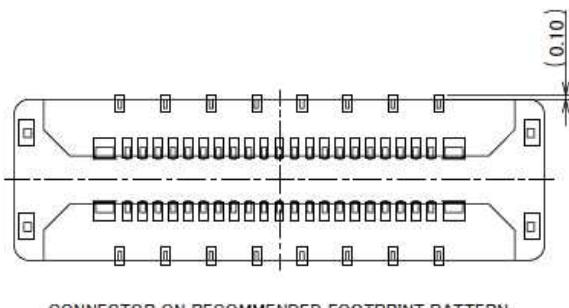


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NOTES.

1. THIS AREA CANNOT MOUNT ANOTHER COMPONENTS.

Plug Assembly



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ITEMS	SPECIFICATION
RATING VOLTAGE	60V AC (PER A CONTACT)
RATING AMPERAGE (FOR SIGNAL CONTACT)	0.3A AC/DC (PER A CONTACT)/ 12.0A AC/DC(TOTAL)
RATING AMPERAGE (FOR POWER CONTACT)	2.2A AC/DC (PER A CONTACT)/ 8.8A AC/DC(TOTAL)
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 40mohm MAX. / AFTER TEST : 140mohm MAX.
CONTACT RESISTANCE (FOR POWER CONTACT)	INITIAL : 20mohm MAX. / AFTER TEST : 120mohm MAX.
CONTACT RESISTANCE (FOR GROUND)	INITIAL : 20mohm MAX. / AFTER TEST : 120mohm MAX.
INSULATION RESISTANCE	INITIAL : 1,000Mohm MIN. / AFTER TEST : 500Mohm MIN.
Dielectric Withstanding Voltage	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL)	1.0N × n ± 4.0N MAX.
UNMATING FORCE (AFTER TEST)	0.1N × n ± 0.4N MIN.
COPLANARITY	CONTACT AND POWER CONTACT: 0.08 MAX. SHELL: 0.105 MAX.
PRODUCT SPECIFICATION	PRS-2187
TEST REPORT	TR-16014
PACKING STANDARD	PST-15083 (10K/REEL) PST-16125 (5K/REEL)
INSTRUCTION MANUAL	HIM-15020
APPEARANCE CRITERIA No.	QLS-A***

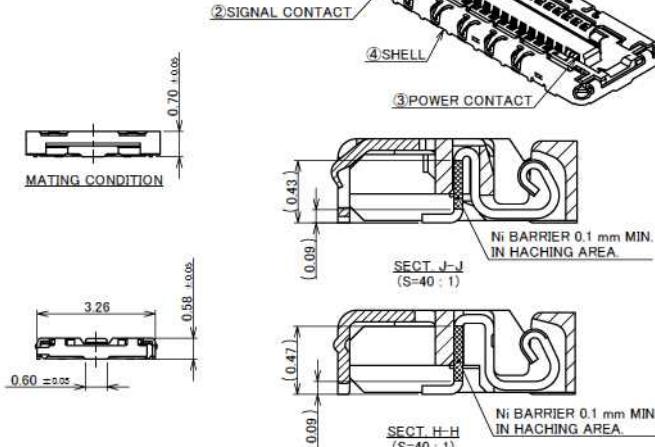
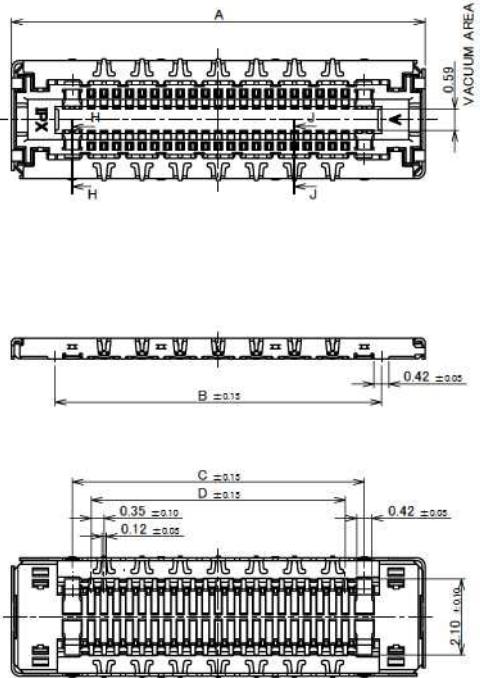
Rev.6

Receptacle Assembly

Recommended P/N 20698-0**E-01#

PART No.	SIGNAL POS.	POWER POS.	A	B	C	D
20698-028E-01	28P	4P	8.95	6.54	5.60	4.55
20698-034E-01	34P	4P	10.00	7.59	6.65	5.60
20698-042E-01#	42P	4P	11.40	8.99	8.05	7.00
20698-056E-01#	56P	4P	13.85	11.44	10.50	9.45
20698-062E-01#	62P	4P	14.90	12.49	11.55	10.50

20698-0**E-01M
Pos.
WITHOUT : 10,000 pcs/REEL
WITH : 5,000 pcs/REEL



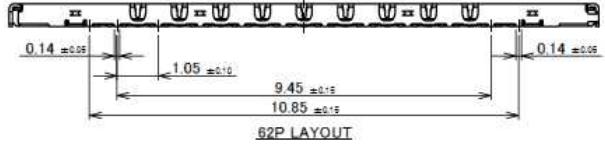
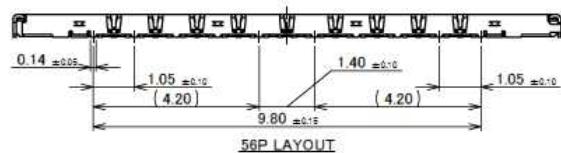
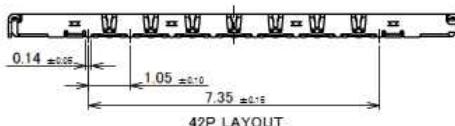
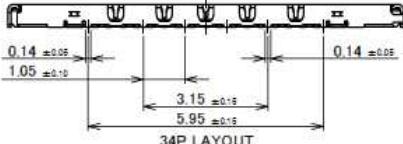
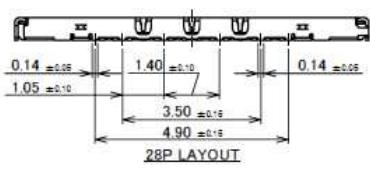
NO	DESCRIPTION	MATERIAL	FINISH, REMARKS
4	SHELL	PHOSPHOR BRONZE	ALL OVER Ni 1.27 μ m MIN. Au 0.01 μ m MIN.
3	POWER CONTACT	CORSON ALLOY	ALL OVER Ni 1.27 μ m MIN. CONTACT PART Au 0.05 μ m MIN. SOLDERING PART Au 0.02 μ m MIN.
2	SIGNAL CONTACT	CORSON ALLOY	ALL OVER Ni 1.27 μ m MIN. CONTACT PART Au 0.10 μ m MIN. SOLDERING PART Au 0.02 μ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK

1 R 7511990 43 01 000 1/01 V14/Jan/01 149 2000 05 MAY 14:12 PROJECTION SERIES No.

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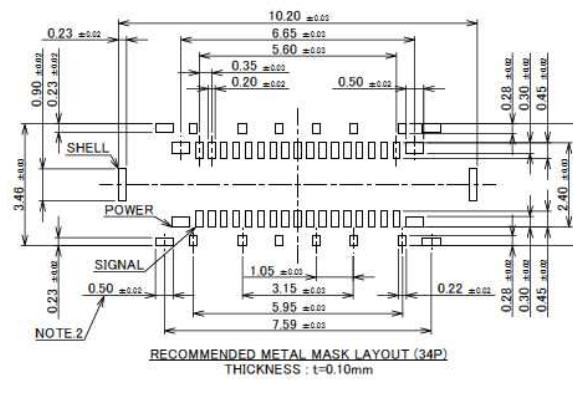
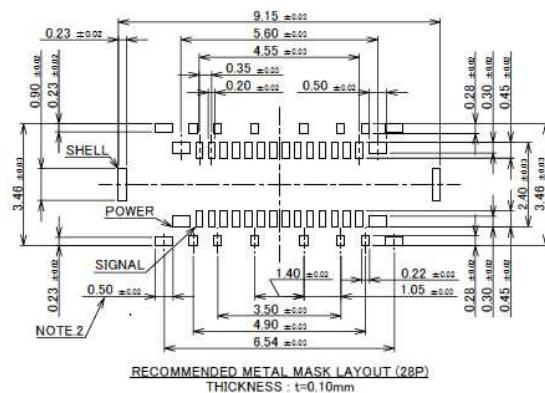
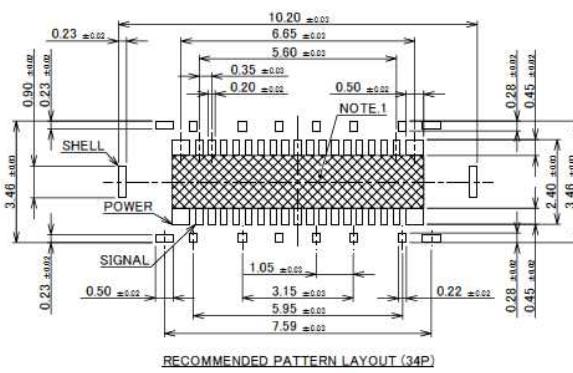
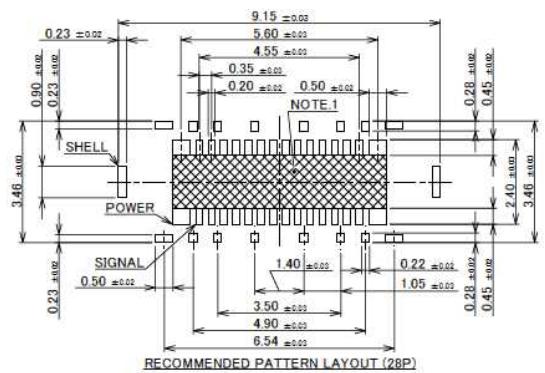
PART No.	SIGNAL POS.	POWER POS.
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20698-034E-01	34P	4P
20698-042E-01#	42P	4P
20698-056E-01#	56P	4P
20698-062E-01#	62P	4P

20698-0**E-01M
Pos.
WITHOUT : 10,000 pcs/REEL
WITH : 5,000 pcs/REEL



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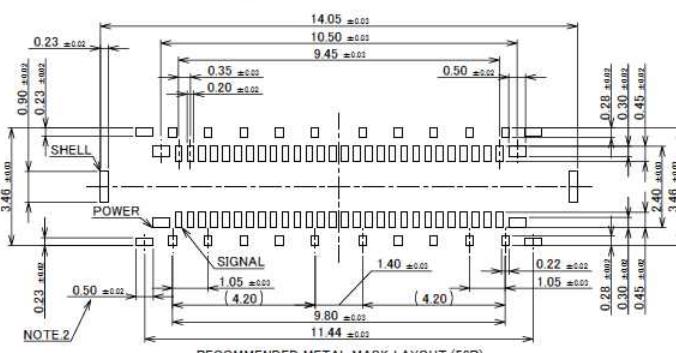
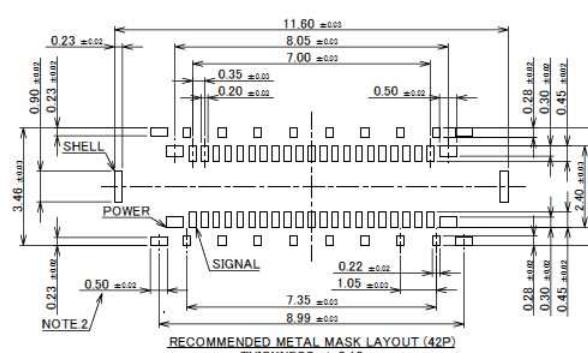
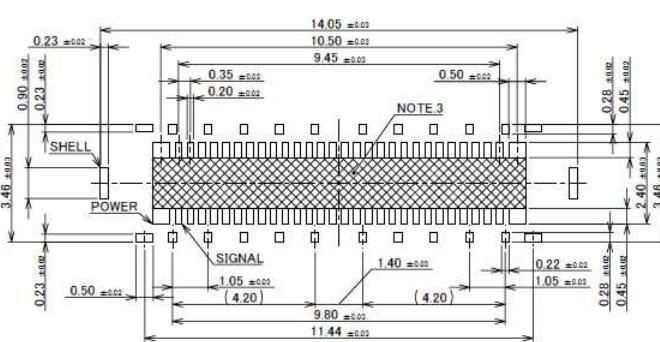
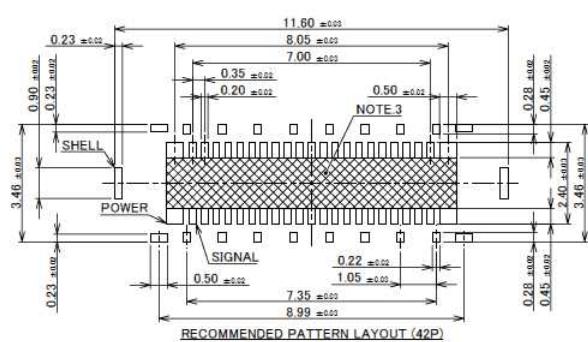
Receptacle Assembly



NOTES.

1. SOLDER RESIST SHALL BE COATED IN CASE OF RUNNING TRACES ON THIS FOOT PRINT PATTERN PROHIBITION AREA.
2. WHEN THE THICKNESS OF THE METAL MASK IS 0.12 mm, PLEASE SET IT TO 0.41 mm.

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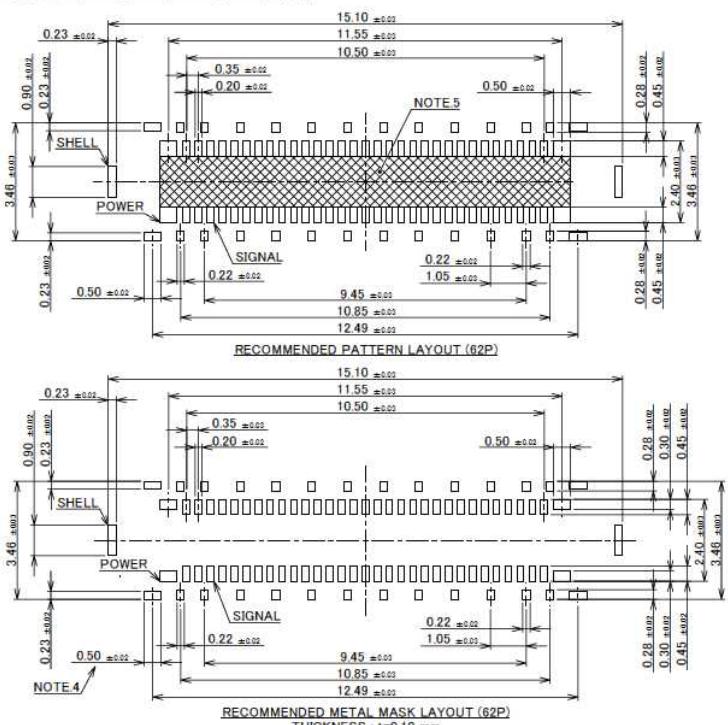
NOTES.

3. SOLDER RESIST SHALL BE COATED IN CASE OF RUNNING TRACES ON THIS FOOT PRINT PATTERN PROHIBITION AREA.
4. WHEN THE THICKNESS OF THE METAL MASK IS 0.12 mm, PLEASE SET IT TO 0.41 mm.

Rev.8

Receptacle Assembly

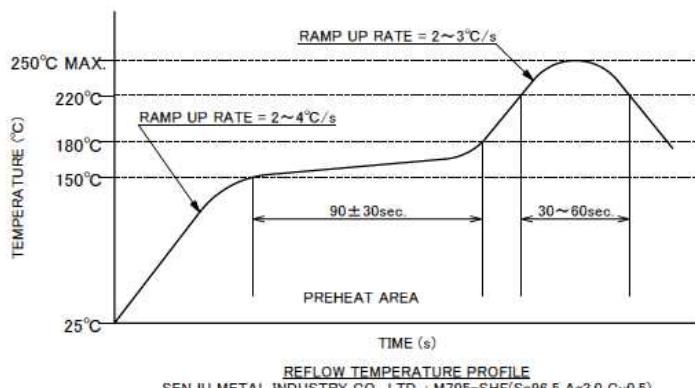
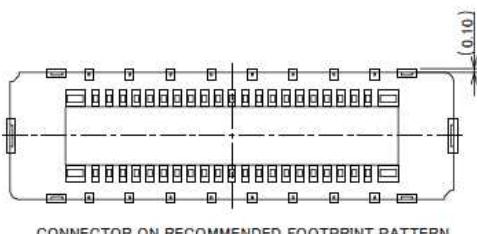
PART No.	SIGNAL POS	POWER POS	E
20698-028E-01	28P	4P	9.15
20698-034E-01	34P	4P	10.20
20698-042E-01#	42P	4P	11.60
20698-056E-01#	56P	4P	14.05
20698-062E-01#	62P	4P	15.10



NOTES.

5. SOLDER RESIST SHALL BE COATED IN CASE OF RUNNING TRACES ON THIS FOOT PRINT PATTERN PROHIBITION AREA.
6. WHEN THE THICKNESS OF THE METAL MASK IS 0.12 mm, PLEASE SET IT TO 0.41 mm.
7. THIS AREA CANNOT MOUNT ANOTHER COMPONENTS.

Rev.8



Receptacle Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	60V AC (PER A CONTACT)
RATING AMPERAGE (FOR SIGNAL CONTACT)	0.3A AC/DC (PER A CONTACT)/ 12.0A AC/DC(TOTAL)
RATING AMPERAGE (FOR POWER CONTACT)	2.2A AC/DC (PER A CONTACT)/ 8.8A AC/DC(TOTAL)
OPERATING TEMPERATURE	233~358K(-40°C ~ +85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 40mohm MAX. / AFTER TEST : △40mohm MAX.
CONTACT RESISTANCE (FOR POWER CONTACT)	INITIAL : 20mohm MAX. / AFTER TEST : △20mohm MAX.
CONTACT RESISTANCE (FOR GROUND)	INITIAL : 20mohm MAX. / AFTER TEST : △20mohm MAX.
INSULATION RESISTANCE	INITIAL : 1,000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL)	1.0N × n + 4.0N MAX.
UNMATING FORCE (AFTER TEST)	0.1N × n + 0.4N MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-2187
TEST REPORT	TR-16014
PACKING STANDARD	PST-15084 (10K/REEL) PST-16126 (5K/REEL)
INSTRUCTION MANUAL	HIM-15020
APPEARANCE CRITERIA No.	QLS-A***

Rev.8



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