

Stacking Height Guide for Parallel Board-to-Board Applications

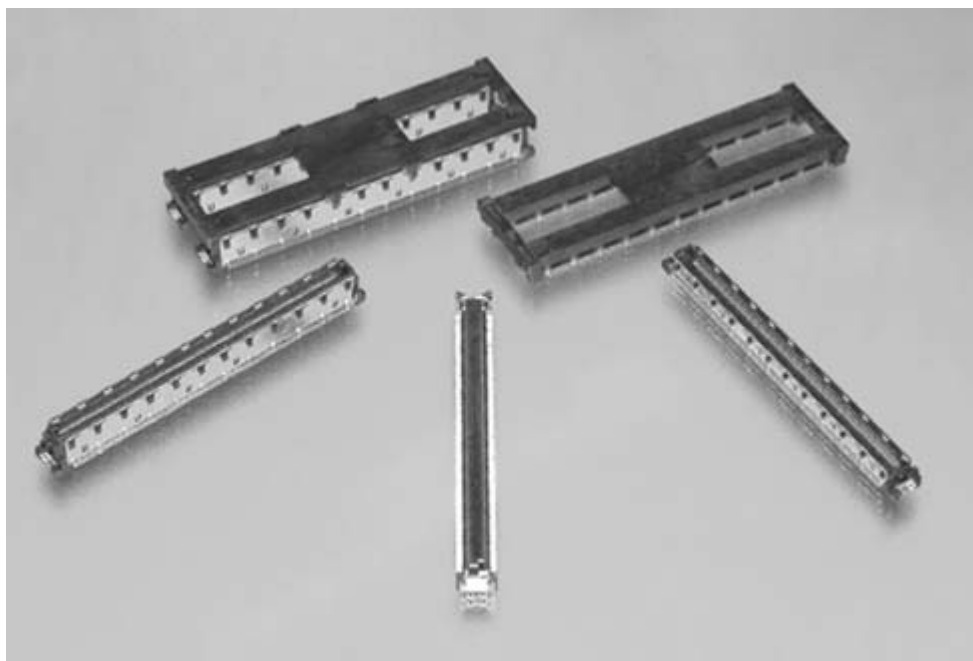
Stacking Height Guide for Parallel Board-to-Board Applications (Continued)

Stacking Height mm inch		Connector Description	Pitch	Connector Sizes (No. of Positions)																Connector Sizes (No. of Positions) <i>Continued</i>																			
				10	12	14	16	20	22	24	30	34	38	40	46	50	54	56	60	64	70	76	80	84	100	114	120	140	152	160	180	190	200	220	228	240	266	280	320
1.00	0.039	.4mm Fine Stack	.4mm																																				
1.50	0.059	.4mm Fine Stack	.4mm																																				
1.50	0.059	.5mm Fine Stack	.5mm																																				
3.00	0.118	.8mm Fine Stack	.8mm																																				
3.90	0.154	.8mm Fine Stack	.8mm																																				
4.00	0.157	.5mm Fine Mate	.5mm																																				
4.00	0.157	.6mm Free Height	.6mm																																				
4.00	0.157	.8mm Fine Mate	.8mm																																				
4.20	0.165	.8mm Fine Stack	.8mm																																				
4.50	0.177	.5mm Fine Mate	.5mm																																				
4.50	0.177	.8mm Fine Mate	.8mm																																				
4.70	0.185	.8mm Fine Stack	.8mm																																				
5.00	0.197	.5mm Free Height	.5mm																																				
5.00	0.197	.6mm Free Height	.6mm																																				
5.00	0.197	.8mm Fine Stack	.8mm																																				
5.00	0.197	.8mm Free Height	.8mm																																				
5.50	0.217	.5mm Fine Mate	.5mm																																				
5.90	0.232	.8mm Fine Stack	.8mm																																				
6.00	0.236	.5mm Fine Mate	.5mm																																				
6.00	0.236	.5mm Free Height	.5mm																																				
6.00	0.236	.6mm Free Height	.6mm																																				
6.00	0.236	.8mm Free Height	.8mm																																				
6.35	0.250	AMPMODU 50/50	.050"																																				
6.60	0.260	MICTOR	.025"																																				
7.00	0.276	.5mm Free Height	.5mm																																				
7.00	0.276	.6mm Free Height	.6mm																																				
7.00	0.276	.8mm Fine Stack	.8mm																																				
7.00	0.276	.8mm Free Height	.8mm																																				
8.00	0.315	.5mm Free Height	.5mm																																				
8.00	0.315	.6mm Free Height	.6mm																																				
8.00	0.315	.8mm Free Height	.8mm																																				
8.00	0.315	1mm Free Height	1mm																																				
8.13	0.320	AMPMODU 50/50	.050"																																				

0.5mm Free Height (FH) Connectors

Product Facts

- Available position sizes:
 - For single connector: 120, 160, 200, 220, and 240 positions
 - For bridged connectors: 240, 320, and 440 positions
- Available stacking heights:
 - 5mm, 6mm, 7mm, 8mm, 9mm, 11mm, 12mm, 15mm, and 16mm (limited by position sizes)
- Giga ground shielding options on all parts
- RoHS Compliant part numbers available
- Polarized locating posts



0.5mm Free Height is a two-piece connector system designed for parallel board-to-board stacking applications. The contact system is identical to our popular 0.6mm FH product. The 0.5mm FH product has been chosen by the PICMG COM Express working group as the interface between embedded modules and carrier cards.

Applications

Parallel board-to-board for stacking applications that require high density. **The .5mm FH product is specified by the PICMG COM Express standard as the module to carrier card interface.** All stacking applications including Computer, Telecommunications, and Industrial industries.

Mechanical Properties

Operating Temperature — -40°C to +85°C
Durability — 30 cycles
Current Rating — 0.5A
Voltage Rating — 50 VAC
Dielectric Withstanding Voltage — 200 VAC

Technical Documents

Product Specification

108-5560

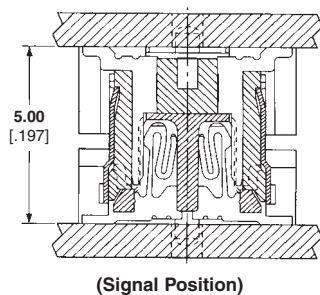
Test Reports

501-5226

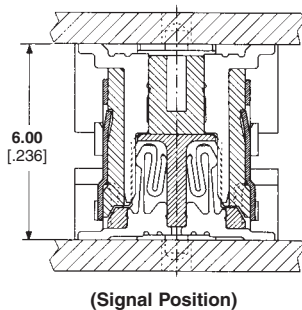
0.5mm Free Height (FH) Connectors (Continued)

**Board Stacking Spacing by
Combined Receptacle and
Plug Assemblies**

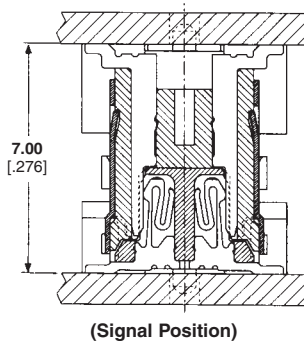
5mm Height



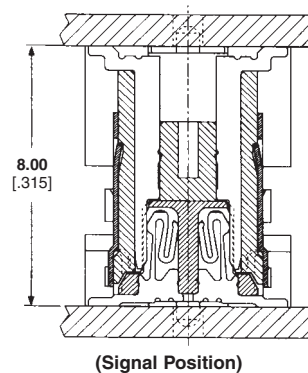
6mm Height



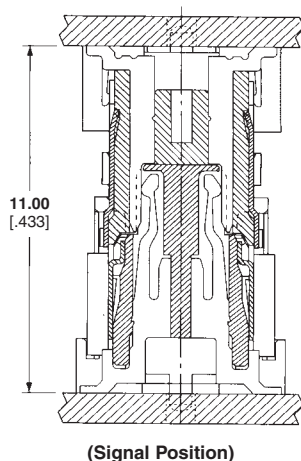
7mm Height



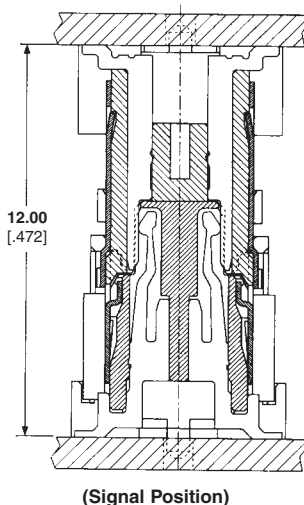
8mm Height



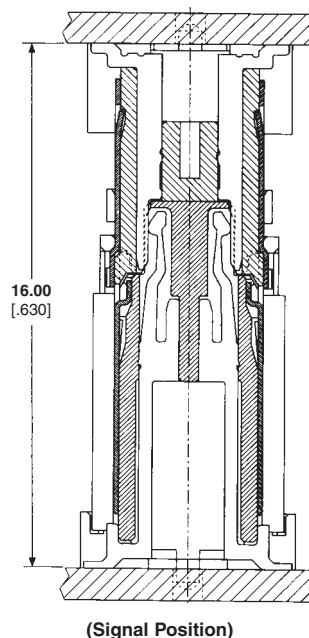
11mm Height



12mm Height



16mm Height



0.5mm Free Height (FH) Connectors (Continued)

0.5 FH Height Lists

										PLUG												
										Remarks						Saleable Part No.	Packaging					
																3-6612148-5	3-1827263-6					
																5-6123672-9	Emboss					
																9-6123672-9	Emboss					
																3-1827233-6	Hard Tray					
																3-6473868-7	Hard Tray					
																3-5353614-7	Hard Tray					
																2-6473530-9	Emboss					
																6-6123766-5	Hard Tray					
																6376622-1	Hard Tray					
																6-5353706-2	Hard Tray					
																3-6565779-5	Semi H/T					
																3-6318491-6	Hard Tray					
																6-5353652-2	Hard Tray					
																3-5353652-6	Hard Tray					

0.5mm Free Height (FH) Connectors (Continued)

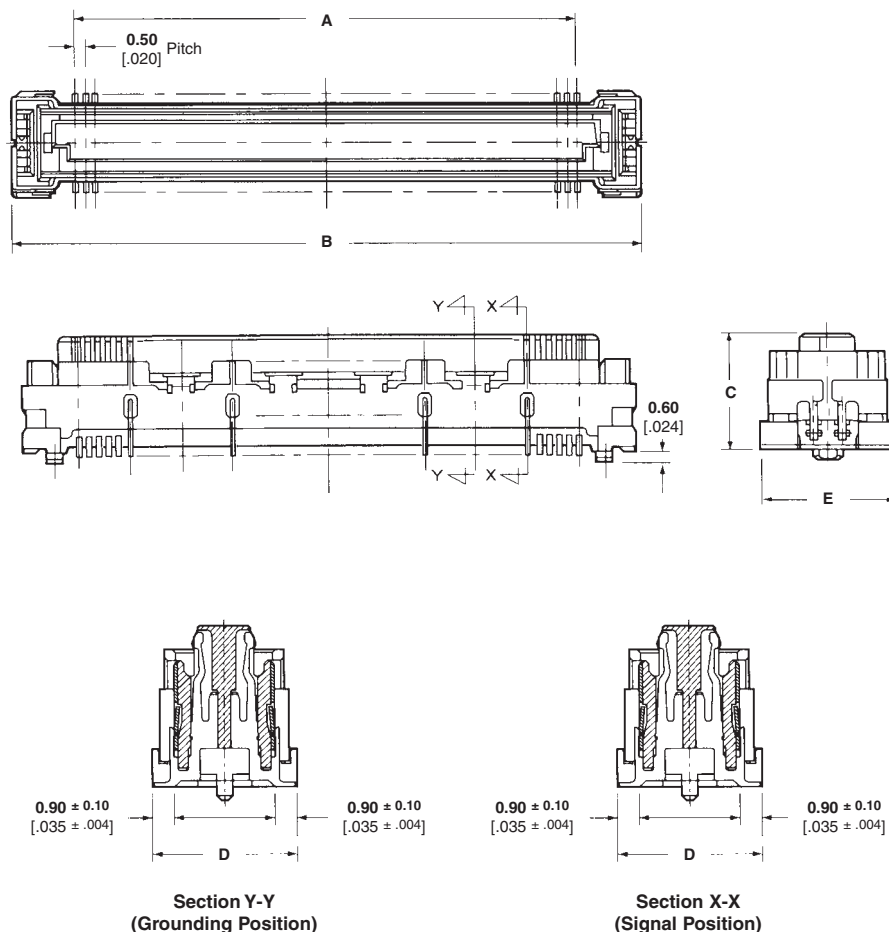
Receptacle Assembly

Acceptable Board Stacking Height = 11mm/12mm

Material and Finish

Housing — UL94V-0, heat resistant resin, natural color

Contact — Copper alloy, 0.2µm min. gold plated on contact area, 0.1µm tin-lead plated or tin plated on soldering area, 1.3µm min. nickel underplated on entire contact, 0.1µm thick tin plated on grounding contact.



.5 mm FH Receptacle Assemblies

Positions	Height	Dimensions					Ground Contact	SIF-200	With Pickup Cap	Packaging Type	Part Number
		A	B	C	D	E					
120	4	29.50 1.161	36.80 1.449	3.25 .128	6.20 .244	6.00 .236	—	—	Yes	Tape	2-6473527-9
	12	29.50 1.161	36.80 1.449	11.25 .443	6.30 .248	6.50 .256	Yes	—	Yes	Hard Tray	6376618-1
160	12	39.50 1.555	46.80 1.843	11.25 .443	6.30 .248	6.50 .256	Yes	—	Yes	Tray	6-5353703-2
200	4	49.50 1.949	56.80 2.236	3.25 .128	6.20 .244	6.00 .236	—	—	Yes	Semi H/T	3-6565778-5
	8	49.50 1.949	56.80 2.236	7.25 .285	6.30 .248	6.50 .256	Yes	—	—	Hard Tray	6-5353699-5
220	4	54.50 2.146	61.80 2.433	3.25 .128	6.20 .244	6.00 .236	Yes	—	—	Hard Tray	3-6318490-6
	4	54.50 2.146	61.80 2.433	3.25 .128	6.20 .244	6.00 .236	Yes	—	Yes	Hard Tray	6-5353606-6
	8	54.50 2.146	61.80 2.433	7.25 .285	6.30 .248	6.50 .256	Yes	Yes	Yes	Hard Tray	6-5353700-5
240	4	59.50 2.343	66.80 2.630	3.25 .128	6.20 .244	6.00 .236	—	—	Yes	Hard Tray	3-6473884-7
	4	59.50 2.343	66.80 2.630	3.25 .128	6.20 .244	6.00 .236	Yes	—	Yes	Hard Tray	3-5353606-7

Note: Part Numbers are RoHS compliant.

0.5mm Free Height (FH) Connectors (Continued)

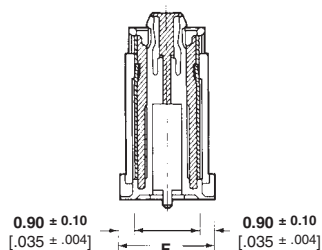
Receptacle Assembly with Bridge

**Acceptable Board Stacking
Height = 16mm**

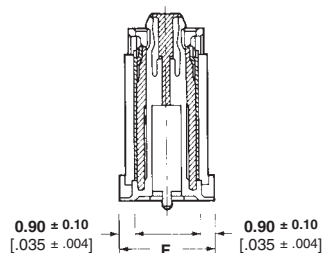
Material and Finish

Housing — UL94V-0, heat resistant resin, natural color

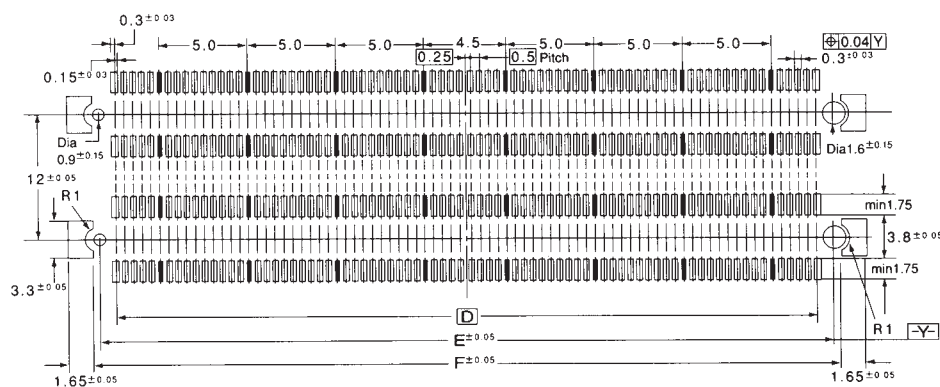
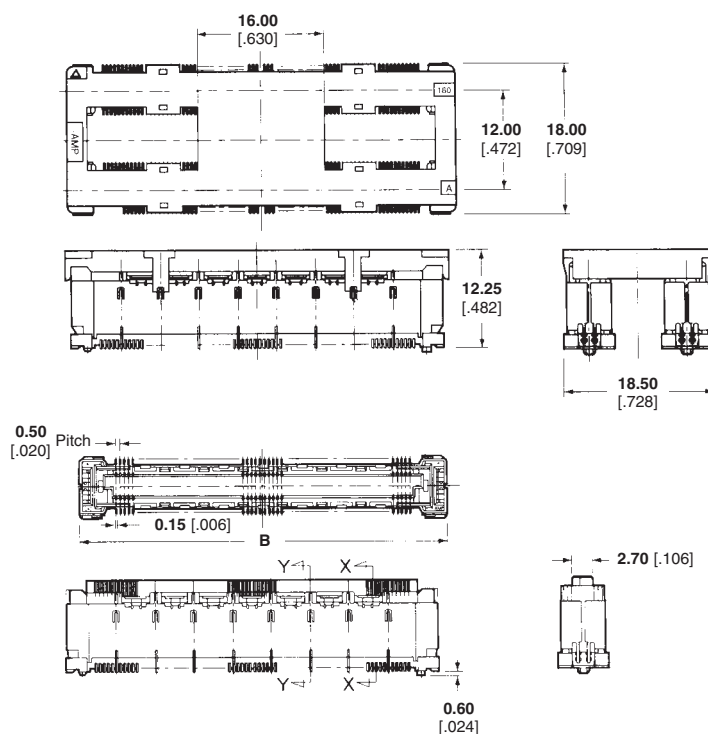
Contact — Copper alloy, 0.2µm min. gold plated on contact area, 0.1µm tin-lead plated or tin plated on soldering area, 1.3µm min. nickel underplated on entire contact, 0.1µm thick tin plated on grounding contact.



Section Y-Y
(Grounding Position)



**Section X-X
(Signal Position)**



**PC Board Layout
(I = For Grounding Contact)**

.5 mm FH Receptacle Assemblies with Bridge

Positions	Height	Dimensions						Ground Contact	SIF-200	With Pickup Cap	Packaging Type	Part Number
		A	B	C	D	E	F					
240	4	29.50	36.80	3.25	37.80	6.20	6.00	Yes	—	Yes	Tape	5-6123675-9
		1.161	1.449	.128	1.488	.244	.236					
320	12	39.50	46.80	11.25	47.80	6.50	6.30	Yes	—	Yes	Hard Tray	6-5353649-2
		1.555	1.843	.443	1.882	.256	.248					
440	4	54.50	61.80	3.25	62.80	6.20	6.00	Yes	—	Yes	Hard Tray	3-1827231-6
		2.146	2.433	.128	2.472	.244	.236					

Note: Part Numbers are RoHS compliant.

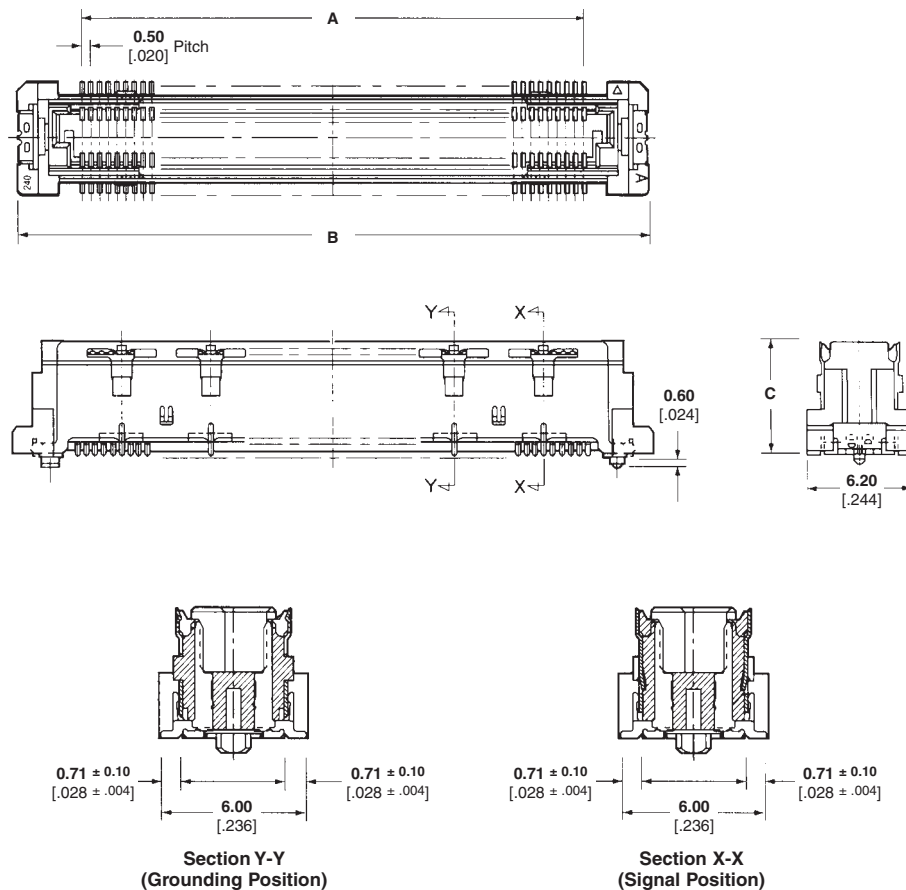
0.5mm Free Height (FH) Connectors (Continued)

Plug Assembly

Material and Finish

Housing — UL94V-0, heat resistant resin, natural color

Contact — Copper alloy, 0.2µm min. gold plated on contact area, 0.1µm tin-lead plated or tin plated on soldering area, 1.3µm min. nickel underplated on entire contact, 0.1µm thick tin plated on grounding contact.



.5 mm FH Plug Assemblies

Positions	Height	Dimensions			Giga Ground Shield	SIF-200	With Pickup Cap	Packaging Type	Part Number
		A	B	C					
120	7	29.50 1.161	36.80 1.449	6.45 .254	—	—	Yes	Tape	2-6473530-9
	8	29.50 1.161	36.80 1.449	7.45 .293	—	—	—	Hard Tray	6376622-1
160	8	39.50 1.555	46.80 1.843	7.45 .293	Yes	Yes	Yes	Hard Tray	6-5353706-2
200	5	49.50 1.949	56.80 2.236	4.45 .1175	Yes	—	Yes	Semi H/T	3-6612148-5
	7	49.50 1.949	56.80 2.236	6.45 .254	Yes	—	—	Hard Tray	6-6123766-5
	8	49.50 1.949	56.80 2.236	7.45 .293	Yes	—	Yes	Semi H/T	3-6565779-5
220	5	54.50 2.146	61.80 2.433	4.45 .1175	Yes	—	—	Hard Tray	3-1827253-6
	8	54.50 2.146	61.80 2.433	7.45 .293	Yes	—	—	Hard Tray	3-6318491-6
240	6	59.50 2.343	66.80 2.630	5.45 .215	Yes	—	Yes	Hard Tray	3-5353614-7
	6	59.50 2.343	66.80 2.630	5.45 .215	—	—	Yes	Hard Tray	3-6473868-7

Note: Part Numbers are RoHS compliant.

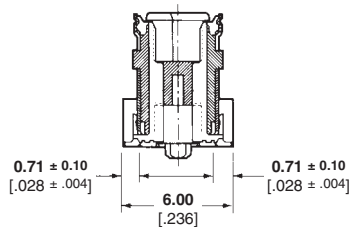
0.5mm Free Height (FH) Connectors (Continued)

Plug Assembly with Bridge

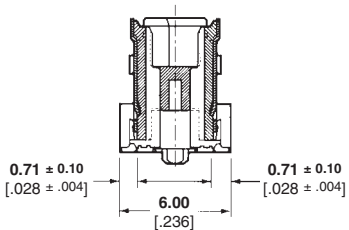
Material and Finish

Housing — UL94V-0, heat resistant resin, natural color

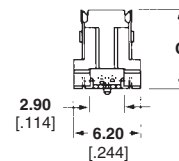
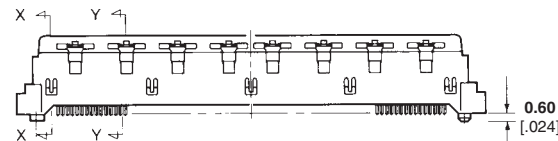
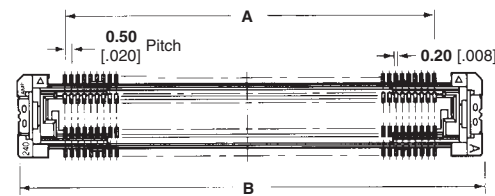
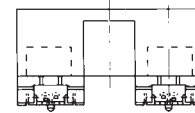
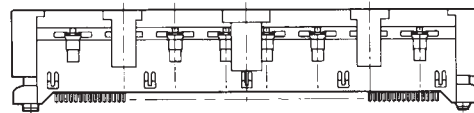
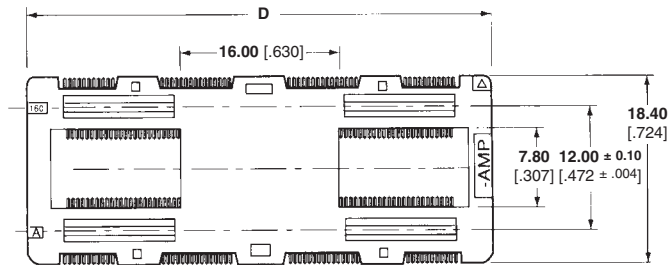
Contact — Copper alloy, 0.2µm min. gold plated on contact area, 0.1µm tin-lead plated or tin plated on soldering area, 1.3µm min. nickel underplated on entire contact, 0.1µm thick tin plated on grounding contact.



**Section Y-Y
(Grounding Position)**



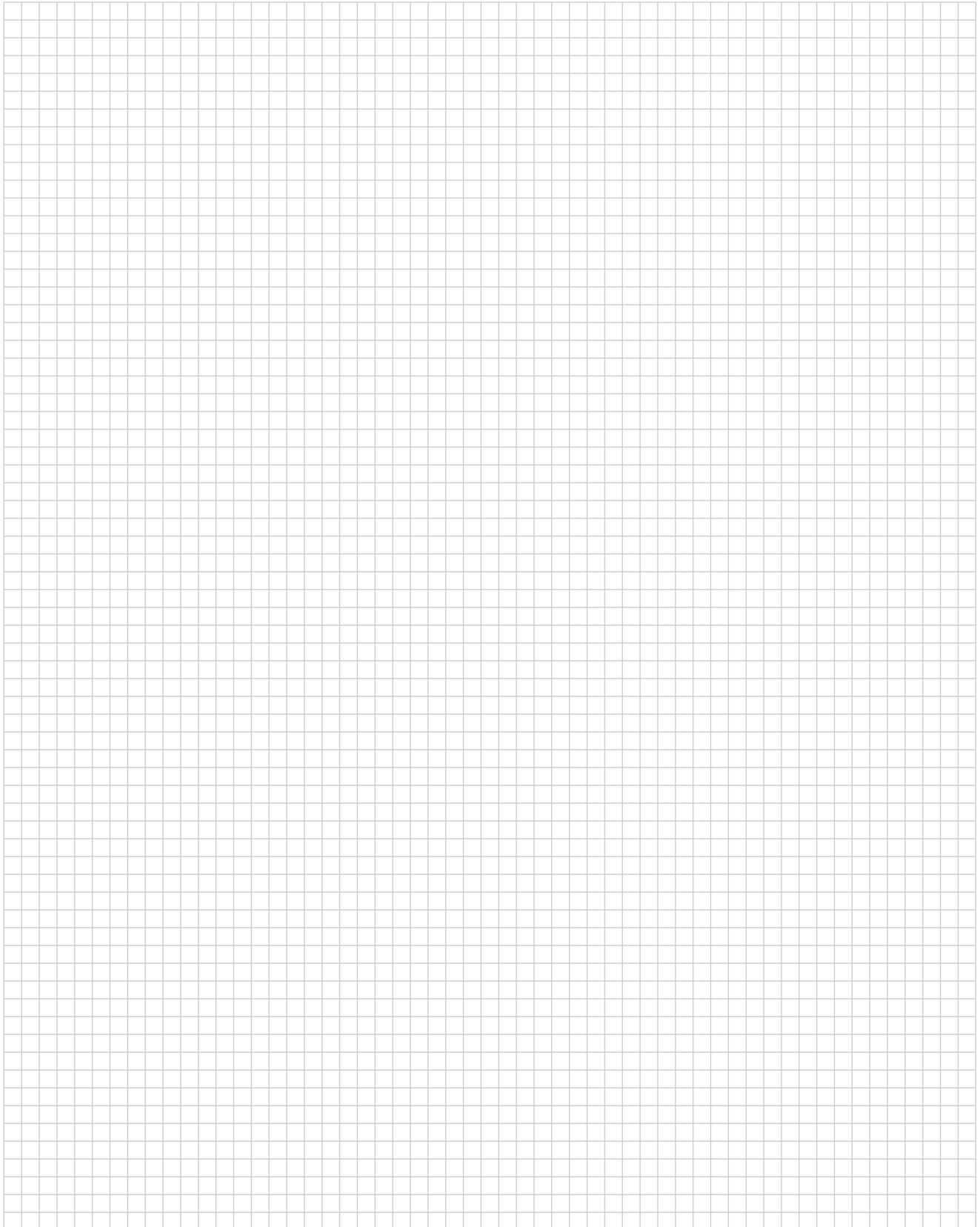
**Section X-X
(Signal Position)**



.5 mm FH Plug Assemblies with Bridge

Positions	Height	Dimensions				Giga Ground Shield	SIF-200	With Pickup Cap	Packaging Type	Part Number
		A	B	C	D					
240	5	29.50 1.161	36.80 1.449	4.45 .175	36.90 1.453	Yes	—	Yes	Tape	9-6123672-9
240	5	29.50 1.161	36.80 1.449	4.45 .175	36.90 1.453	Yes	—	Yes	Tape	5-6123672-9
320	8	39.50 1.555	46.80 1.843	7.45 .293	46.90 1.846	Yes	—	Yes	Hard Tray	6-5353652-2
440	5	54.50 2.146	61.80 2.433	4.45 .175	61.90 2.437	Yes	—	Yes	Hard Tray	3-1827233-6
440	8	54.50 2.146	61.80 2.433	7.45 .293	61.90 2.437	Yes	—	Yes	Hard Tray	3-5353652-6

Note: Part Numbers are RoHS compliant.

Engineering Notes

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

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