

51741-10002406CCLF -
PwrBlade® : 24S 6P PF
Vertical Receptacle



www.fci.com

Specifications

General	
First Make Last Break (FMLB)	Request Select Load Worksheet 51698 for FMLB Options
Gender	Receptacle
Guided Mating	Guide Pin
Number of contacts (Total - Power)	6
Number of contacts (Total - Signal)	24
Orientation	Vertical
Polarization	Yes
Receptacle Pin Pattern (Right to Left)	Signal/Power
Tail Options	0.135 in. Press-Fit
Mating half	PwrBlade® Right Angle Headers
Number of rows (Power)	1
Number of rows (Signal)	4
Dimensional	
Spacing (Center line - Power)	6.35 mm (0.25 in.)
Spacing (Center line - Signal)	2.54 mm (0.1 in.)
Electrical	
Current rating	48A max. for One Powered Contact, 30A max. for Ten Contacts Powered
Resistance (Contact)	Maximum for mated pair is 2 milli ohms
Resistance (Insulation)	>= 10,000 M-ohms after Environmental Test Conditions
Voltage rating	1000V per Signal Contact, 2500V per Power Contact
Mechanical	
Durability (Mating cycles)	200
Insertion force	Maximum 25 oz. per Power Contact and 3.5 oz. per Signal Contact
Wipe (Power)	0.227 in. min., Post mate 0.177 in. min.
Wipe (Signal)	0.152 in. min., Post mate 0.102 in. min.
Mounting	
Retention feature (Board)	No Board Lock
Solder process	High Temp Solder Process
Footprint note	Ordering data shown is for our standard product offering. For non-standard or custom products, contact your Authorized FCI Representative.
Physical	
Color (Housing)	Black
Material (Housing)	Glass - Filled High - Temp Thermoplastic (UL-94 V-0)

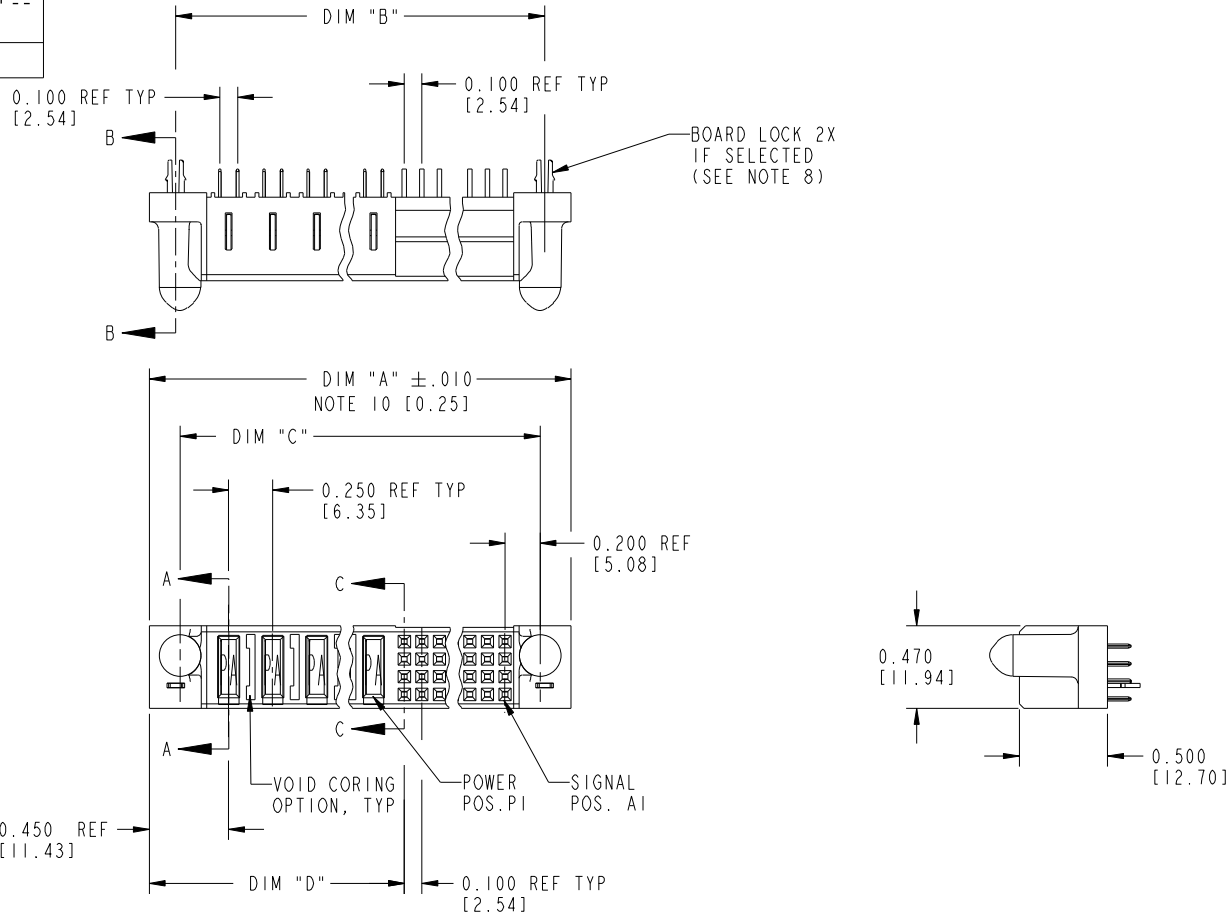
Plating (Contact area)	0.76 µm (30 µin.) Precious metal
Plating (Tail - Power)	1.98 µm (78 µin.) Tin
Plating (Tail - Signal)	1.98 µm (78 µin.) Tin
Temperature (Operating - range)	-20°C to +105°C
Approvals / Certifications	
Approvals / Certifications	UL and CSA Approved
Other Features	
Packaging (Type)	Trays
System Application	Standard Product
Comments	In order to complete the Part Number selection process you will need the product drawing. To download the drawing click on the "View Drawing" button at the top of this page.

Tous droits strictement réservés. Reproduction ou communication à des tiers interdite sous quelque forme que ce soit sans autorisation écrite du propriétaire. Propriété de c.FCI. Droits de reproduction FCI.



All rights strictly reserved. Reproduction or issue to third parties in any form whatever is not permitted without written authority from the proprietor. Property of FCI. Copyright FCI.

PRODUCT NUMBER
51741-A00CCDDDEF -- NOTE ①
SEE NOTE 1



mat'l code				SEE NOTE 2		tolerances unless otherwise specified		CUSTOMER		 www.fciconnect.com	
ltr	ecn no.	dr	date	linear	.XX±.01/0.XX±0.3		COPY		title VERTICAL RECEPTACLE W/ GUIDE PIN SIGNAL / POWER		
H	DG05-0076	SW	04/11/05		.XXX±.005/0.XX±0.13		projection				
J	DG05-0153	SJ	06/09/05	angles	.XXX±.0020/.XX±.051				product family PWRBLADE		
K	DG05-0479	CS	11/18/05		0°±2°		INCH/MM scale 1:1				
L	DG08-0239	JC	09/11/08	dr	D. EATON	05-25-99	size A		sheet 1 of 3		
				enrg	J. BROWN	05-24-99	dwg no 51741				
				chr	J. BROWN	05-26-99					
				appd	J. BROWN	05-26-99					
sheet index	revision sheet	L	L	L							
		1	2	3							

cage code 22526

Pro/E

Tous droits strictement réservés. Reproduction ou communication à des tiers interdite sous quelque forme que ce soit sans autorisation écrite du propriétaire. Propriété de c FCI. Droits de reproduction FCI.



All rights strictly reserved. Reproduction or issue to third parties in any form whatever is not permitted without written authority from the proprietor. Property of FCI. Copyright FCI.

PRODUCT NUMBER
51741-A00CCCDDEF -- NOTE ①
SEE NOTE 1

DIM	LENGTH FORMULAS (SEE NOTE 10)
DIM "A"	.250 [6.35] x DD + .100 [2.54] x (CCC/4) + .650 [16.51] (NOTE 10)
DIM "B"	.250 [6.35] x DD + .100 [2.54] x (CCC/4) + .350 [8.89]
DIM "C"	.250 [6.35] x DD + .100 [2.54] x (CCC/4) + .300 [7.62]
DIM "D"	.250 [6.35] x DD + .375 [9.53]
DIM "F"	.250 [6.35] x DD + .100 [2.54] x (CCC/4) + .680 [17.27]
DIM "G"	.250 [6.35] x DD + .225 [5.72]

CONNECTOR NOTES

- ①. PRODUCT NUMBER CODE:
51741 - A 00 CCC DD E F LF
 - NO THIS SUFFIX: 100u"/2.54um SnPb ON PCB INTERFACE
 - ADD THIS SUFFIX: 78u"/2.00um Sn ON PCB INTERFACE
 - RETENTION TO PCB (NOTE 8)
 - TAIL OPTIONS (NOTE 7)
 - NUMBER OF LEFT END POWER CONTACTS (NOTE 6)
 - NUMBER OF SIGNAL CONTACTS (NOTE 5)
 - ALWAYS "00" (ZERO, ZERO) (NOTE 4)
 - PLATING (NOTE 3)
 - BASE NUMBER
- ②. HOUSING MATERIAL: GLASS FILLED V-O HIGH TEMP THERMO PLASTIC.
SIGNAL CONTACT MATERIAL: COPPER ALLOY
POWER CONTACT MATERIAL: COPPER ALLOY
- ③. PLATING OPTION:
1 = SEE PRINT 10064183 FOR PLATING SPEC OF 51741-100CCCDDEF; 51741-100CCCDDEFLF
- ④. THIS PART NOT AVAILABLE WITH RIGHT SIDE POWER CONTACTS.
- ⑤. SIGNAL CONTACTS, 004 TO 148 AVAILABLE.
- ⑥. LEFT END POWER CONTACTS, 01 TO 20 AVAILABLE.
MAXIMUM OF 20 POWER CONTACTS PER CONNECTOR.
- ⑦. TAIL OPTIONS:
A = .135±.010 [3.43±.25] SOLDER TO BOARD
C = .135±.010 [3.43±.25] PRESS FIT

- ⑧. RETENTION TO PCB OPTIONS:
A = BOARD LOCK (REQUIRES .098 + .002, -.001 [2.49 +0.05, -0.03] THRU HOLE IN PCB)
BOARD LOCK TO BE USED IN CONJUNCTION WITH AN .092 PCB OR THICKER.
C = NO RETENTION FEATURE (ALL PRESS FIT).
 - ⑨. MANUFACTURE'S NAME, P/N, AND DATE CODE TO APPEAR ON THIS SURFACE.
 - ⑩. THE MAXIMUM OVERALL LENGTH (DIM A) OF A PART IS 8.00 [203.2].
 11. PRODUCT SPECIFICATION GS-12-149.
 12. REFERENCE 51698 FOR SPECIALS WORKSHEET.
- PCB NOTES:
13. ALL DIMENSIONS ARE BASIC UNLESS OTHERWISE SPECIFIED.
 14. ALL THROUGH HOLES ARE LOCATED WITH A TRUE POSITION OF .004 [0.01]
 15. ALL HOLE DIAMETERS ARE FINISHED HOLE SIZE.
 16. 0.0453±.001 [1.151±.02] DRILLED HOLES PLATED WITH 0.0003 [0.007] MIN SnPb OVER 0.001 [1.03] TO .003 [0.08] PLATING TO ACHIEVE A .040 ±.003 [1.02 ±.08] HOLE.
 17. A SYMBOL WILL BE NEXT TO ANY DIMENSION, VIEW, OR NOTE WHICH HAS BEEN MODIFIED WITH THE CURRENT DRAWING REVISION.

mat'l code SEE NOTE 2				tolerances unless otherwise specified		CUSTOMER			
ltr	ecn no.	dr	date	linear	.XX±.01/0.XX±0.3	COPY		www.fciconnect.com	
L				linear	.XXX±.005/0.XX±0.13	projection		title	
				angles	.XXX±.0020/.XX±.051			VERTICAL RECEPTACLE W/ GUIDE PIN SIGNAL / POWER	
				dr	0°±2°	INCH/MM		product family	
				enrg	D. EATON 05-25-99	scale		PWRBLADE	
				chr	J. BROWN 05-24-99	1:1		size	
				appd	J. BROWN 05-26-99	A		dwg no	
sheet index	revision sheet							51741	
								code	
								213	
								sheet	
								2	

cage code 22526

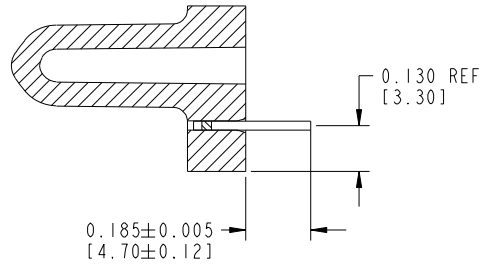
Pro/E

Tous droits strictement réservés. Reproduction ou communication à des tiers interdite sous quelque forme que ce soit sans autorisation écrite du propriétaire. Propriété de c.FCI. Droits de reproduction FCI.

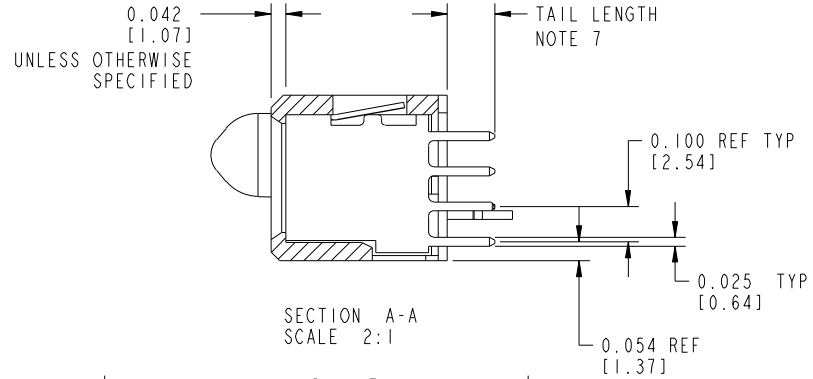


All rights strictly reserved. Reproduction or issue to third parties in any form whatever is not permitted without written authority from the proprietor. Property of FCI. Copyright FCI.

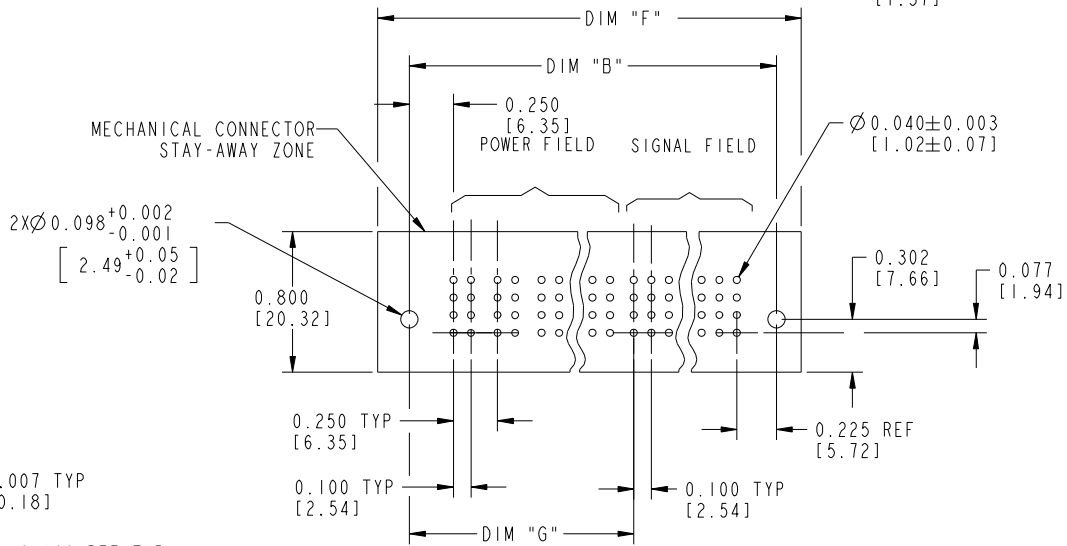
PRODUCT NUMBER
51741-A00CCDDDEF -- NOTE ①
SEE NOTE 1



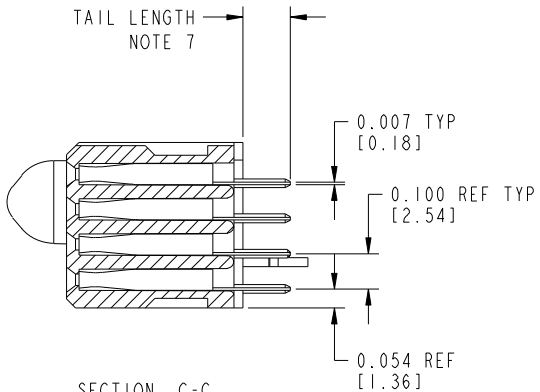
SECTION B-B
SCALE 2:1



SECTION A-A
SCALE 2:1



RECOMMENDED PCB LAYOUT



SECTION C-C
SCALE 2:1

mat'l code		SEE NOTE 2		tolerances unless otherwise specified		CUSTOMER		 www.fciconnect.com	
ltr	ecn no.	dr	date	linear	.XX±.01/0.XX±0.3	COPY		title	
L					.XXX±.005/0.XX±0.13	projection		VERTICAL RECEPTACLE W/ GUIDE PIN SIGNAL / POWER	
				angles	.XXX±.0020/.XX±.051			product family	
				dr	D. EATON 05-25-99	INCH/MM		PWRBLADE	
				enr	J. BROWN 05-24-99	scale		code	
				chr	J. BROWN 05-26-99	1:1		213	
				appd	J. BROWN 05-26-99	A		sheet	
sheet index		revision sheet						3	
								cage code	
								22526	
								4	

Pro/E

cage code 22526