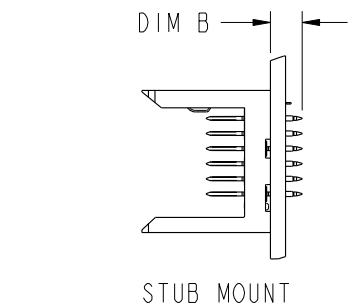




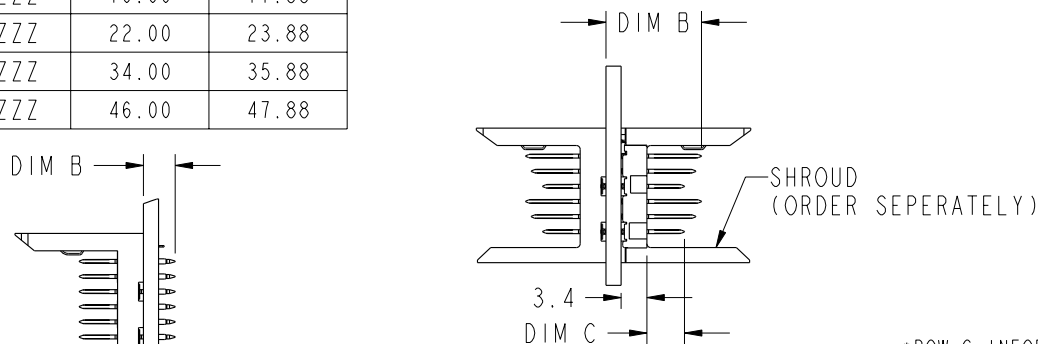
PRODUCT NUMBER	DIM C	DIM D
74977-X01ZZZLF	10.00	11.88
74977-X02ZZZLF	22.00	23.88
74977-X03ZZZLF	34.00	35.88
74977-X04ZZZLF	46.00	47.88

PRODUCT NUMBER	DIM C	DIM D
74977-X01ZZZ	10.00	11.88
74977-X02ZZZ	22.00	23.88
74977-X03ZZZ	34.00	35.88
74977-X04ZZZ	46.00	47.88



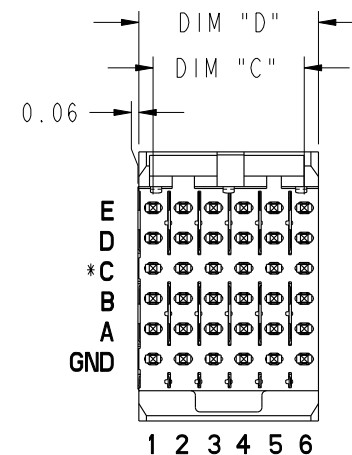
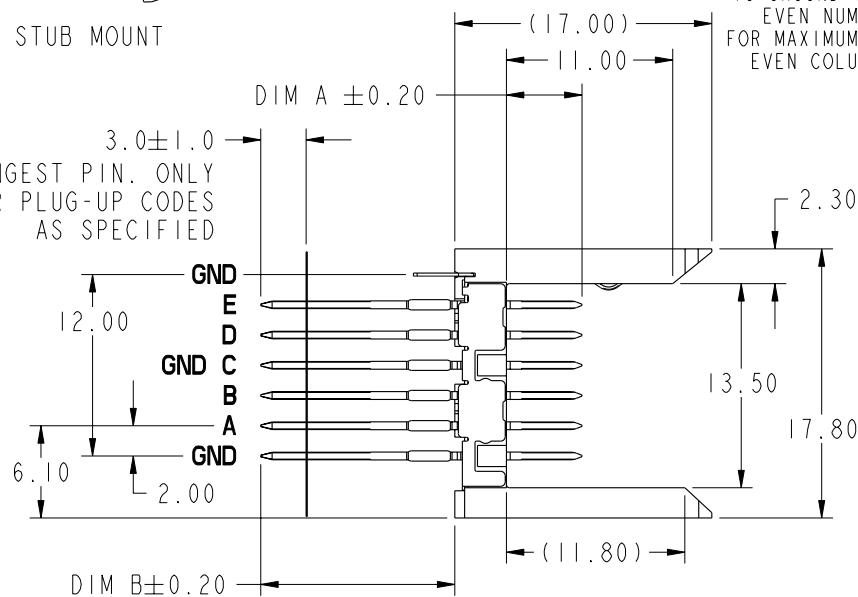
STUB MOUNT

3.0±1.0
FROM LONGEST PIN. ONLY
ON REAR PLUG-UP CODES
AS SPECIFIED



REAR PLUG-UP

***ROW C INFORMATION**
ODD NUMBER COLUMNS WITHIN ROW C ARE COMMONED
TO GROUND INTERNALLY WITHIN THE HOUSING. THE
EVEN NUMBER COLUMNS WITHIN ROW C ARE NOT.
FOR MAXIMUM PERFORMANCE IT IS RECOMMENDED THESE
EVEN COLUMNS BE GROUND COMMONED WITHIN PCB.
SEE NOTE 18



mat'l code				tolerances unless otherwise specified				CUSTOMER		FCI	
ltr	ecn no.	dr	date	linear	0.X ±0.1	projection	0.XX ±.05	COPY		www.fciconnect.com	
Y	V06-0544	DCH	2006-06-09		.XXX ±.020	MM		title		HEADER ASS'Y	
T	V04-0243	LP	3/18/04	angles	0° ±2°	scale		STR. P.F. STD. 5-ROW		product family	
U	V04-0195	LP	4/12/04	dr	K.BELL	3/29/00		METRAL 2000		code	
V	V04-0716	TAB	07/13/04	enrg	M. HAHN	3/29/00		size		213	
W	V05-0814	VS	09/19/05	chr	M. HAHN	3/29/00		dwg no		sheet	
X	V06-0048	DAI	02/08/06	appd	M. HAHN	3/29/00		A		1 of 6	
sheet index	revision	Y	Y	Y	Y	Y	Y				
	sheet	1	2	3	4	5	6				



PIN CODES										
		DIM B								
		4.30	12.20	12.95	13.70	14.45	15.20	15.70	16.40	17.10
DIM A	5.00	1*	22	30	5	35	48	40	65	9
	5.75	2*	44	31	6	36	49	25	66	10
	6.50	3*	45	32	7	37	50	41	24	11
	7.25	4*	46	33	8	38	51	42	67	12
	8.00	19*	47	34	20	39	52	43	68	21
RESTRICTION ON CURCUIT BOARD THICKNESS RANGE FOR PIN POSITIONS A, B, C, D & E										
		DIM B								
		4.30	12.20	12.95	13.70	14.45	15.20	15.70	16.40	17.10
	MIN THICKNESS	1.60	2.95	2.95	2.95	3.05	3.80	4.30	5.00	5.70
	MAX THICKNESS	NONE	3.80	4.55	5.30	6.05	6.80	7.30	8.00	8.70
RESTRICTION ON CURCUIT BOARD THICKNESS RANGE FOR PIN POSITION 'GND' **										
		DIM B								
		4.30	12.20	12.95	13.70	14.45	15.20	15.70	16.40	17.10
	MIN THICKNESS	1.60	2.95	3.25	4.00	4.75	5.50	6.00	6.70	7.40
	MAX THICKNESS	NONE	4.20	4.95	5.70	6.45	7.20	7.70	8.40	9.10

* STUB PINS - NO REAR PLUG-UP
 ** THE GREATEST RANGE OCCURS WHEN THE B DIMENSION OF
 PIN 'GND' IS ONE SIZE SHORTER THEN THE OTHER PINS.

SEE NOTE 20 LEAD FREE OPTION	CIRCUIT BOARD THICKNESS RANGE FOR REAR PLUG-UP CODES	
PRODUCT NUMBER	MIN	MAX
74977-XY002	2.95mm	3.80mm
74977-XY003	3.25mm	4.55mm
74977-XY012	2.95mm	3.80mm
74977-XY013	3.25mm	4.95mm
74977-XY051	5.50mm	7.20mm
74977-XY054	* 4.30mm	7.30mm
74977-XY056	2.95mm	3.80mm
74977-XY055	* 2.95mm	5.30mm

* NOT A STANDARD METRAL 2000
 REAR PLUG-UP APPLICATION.

mat'l code				tolerances unless otherwise specified		CUSTOMER		FCI			
ltr	ecn no.	dr	date	linear	0.X ±0.1	COPY		www.fciconnect.com			
Y	-	-	-		0.XX ±0.05	projection		title			
					.XXX ±.020	MM		STR. P.F. STD. 5-ROW			
				angles	0° ±2°	scale		product family			
				dr	K.BELL	3/29/00	1:1	METRAL 2000			
				enr	M. HAHN	3/29/00		code			
				chr	M. HAHN	3/29/00		213			
				appd	M. HAHN	3/29/00		sheet			
sheet index		revision sheet						A		2	

cage code 22526

Pro/E

PDM: Rev:Y

STATUS:Released

Printed: Jun 20, 2006


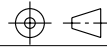
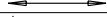


SIGNAL PIN TABLES		
PRODUCT #	ROW	PIN CODES
74977-XY001 SEE NOTE 20 LEAD FREE OPTION	E	1
	D	
	C	
	B	
	A	
	GND	
74977-XY002 *RPU SEE NOTE 20 LEAD FREE OPTION	E	22
	D	
	C	
	B	
	A	
	GND	
74977-XY003 *RPU SEE NOTE 20 LEAD FREE OPTION	E	30
	D	
	C	
	B	
	A	
	GND	
74977-XY011 SEE NOTE 20 LEAD FREE OPTION	E	2
	D	
	C	
	B	
	A	
	GND	1
74977-XY012 *RPU SEE NOTE 20 LEAD FREE OPTION	E	44
	D	
	C	
	B	
	A	
	GND	22

SIGNAL PIN TABLES		
PRODUCT #	ROW	PIN CODES
74977-XY013 *RPU SEE NOTE 20 LEAD FREE OPTION	E	6
	D	
	C	
	B	
	A	
	GND	30
74977-XY021 SEE NOTE 20 LEAD FREE OPTION	E	3
	D	
	C	
	B	
	A	
	GND	2
74977-XY050 SEE NOTE 20 LEAD FREE OPTION	E	2
	D	4
	C	2
	B	
	A	
	GND	
74977-XY051 *RPU SEE NOTE 20 LEAD FREE OPTION	E	25
	D	
	C	
	B	
	A	
	GND	49

SIGNAL PIN TABLES		
PRODUCT #	ROW	PIN CODES
74977-XY052 SEE NOTE 20 LEAD FREE OPTION	E	1
	D	3
	C	1
	B	
	A	
	GND	
74977-XY053 SEE NOTE 20 LEAD FREE OPTION	E	2
	D	
	C	
	B	
	A	
	GND	-
74977-XY054 *RPU SEE NOTE 20 LEAD FREE OPTION	E	25
	D	
	C	
	B	
	A	
	GND	-
74977-XY055 *RPU SEE NOTE 20 LEAD FREE OPTION	E	6
	D	
	C	
	B	
	A	
	GND	2

* REAR PLUG-UP CODE

mat'l code				tolerances unless otherwise specified		CUSTOMER		 www.fciconnect.com	
ltr	ecn no.	dr	date	linear	0.X ±0.1	projection		COPY	
Y	-	-	-		0.XX ±0.05			title	
					.XXX ±.020			HEADER ASS'Y	
				angles	0° ±2°	MM		STR. P.F. STD. 5-ROW	
				dr	K.BELL 3/29/00			product family	
				enrg	M.HAHN 3/29/00			METRAL 2000	
				chr	M.HAHN 3/29/00	scale	A	code	
				appd	M.HAHN 3/29/00			213	
								sheet	
						1:1		4	
sheet	revision								
index	sheet								



*REAR PLUG-UP CODE WITH PIN ALIGNER
***REAR PLUG-UP CODE WITHOUT PIN ALIGNER

SIGNAL PIN TABLES

PRODUCT #	ROW	PIN CODES
74977-XY056 *RPU SEE NOTE 20 LEAD FREE OPTION	E	22
	D	
	C	45
	B	22
	A	
	GND	
74977-XY057 SEE NOTE 20 LEAD FREE OPTION	E	2
	D	
	C	
	B	1
	A	
	GND	
74977-XY058 ***RPU SEE NOTE 20 LEAD FREE OPTION	E	22
	D	
	C	45
	B	22
	A	
	GND	
74977-XY059 SEE NOTE 20 LEAD FREE OPTION	E	3
	D	
	C	19
	B	3
	A	
	GND	2

NOTES:

- SEE APPLICATION SPECIFICATION GS-20-010 FOR INFORMATION ON AVAILABLE TOOLING, CIRCUIT BOARD DESIGN CONSIDERATIONS, REPAIR PROCEDURES AND PRODUCT OFFERINGS.
- SEE FCI PUBLICATION 950511-028 FOR "ELECTRICAL PERFORMANCE DATA FOR DIFFERENTIAL APPLICATIONS."
- SEE FCI PUBLICATION 950511-029 FOR "ELECTRICAL PERFORMANCE DATA FOR SINGLE-ENDED APPLICATION."
- UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS AND TOLERANCES ARE IN ACCORDANCE WITH ASME Y14.5, 1994
- HOUSING MATERIAL: LIQUID CRYSTAL POLYMER, 30% GLASS FILLED, FLAME RETARDANT PER UL 94-V0.
- PIN MATERIAL: PHOSPHOR BRONZE
- GROUND SPRING MATERIAL: PHOSPHOR BRONZE
- STRIPLINE SHIELD MATERIAL: PHOSPHOR BRONZE
- PLATING INFORMATION: SEE TABLE
- DIMENSIONAL RESTRICTIONS OF PINS IN HEADERS.
DIM A : 5.0mm MIN, 8.0mm MAX FOR ROWS A-E
DIM A : 5.0mm MIN, 6.3mm MAX FOR ROW GND NEXT TO ROW A
DIM C : 5.0mm MIN, 8.0mm MAX FOR ROWS A-E
DIM C : 4.6mm MIN, 6.3mm MAX FOR ROW GND NEXT TO ROW A
- THE MIN PCB THICKNESS FOR REAR PLUG-UP APPLICATIONS IS 2.9mm SINCE THE COMPLAINT SECTIONS OF THE GROUND SPRING OF THE HEADER DIRECTLY OPPOSE THE GROUND SPRING OF THE SHROUD. THE MIN PCB THICKNESS FOR FRONT PLUG-UP ONLY APPLICATIONS IS 1.6mm.
- THESE HOLES ARE NEEDED FOR REAR PLUG-UP DESIGNS USING A SHROUD AND MAY BE OMITTED FOR FRONT PLUG-UP ONLY DESIGNS.
- THE 'CONNECTOR OUTLINE' IS THE MIN OUTLINE REQUIRED. TO DETERMINE THE OUTLINE NECESSARY TO PERMIT THE VARIOUS TYPES OF REPAIR OPERATIONS, SEE APPLICATION SPECIFICATION GS-20-010.
- CURRENT RATING : 1 AMP PER PIN
- TEMPERATURE RANGE : -55°C TO +105°C
- P/N 74977-X YY ZZZ



17. P/N 74977-X01ZZZ SHOWN.

- FOR FRONT PLUG-UP APPLICATIONS, THE EVEN NUMBERED PINS IN ROW 'C' CAN BE USED FOR POWER AS WELL AS FOR GROUND. IF THE SURROUNDING PINS ARE NOT USED FOR POWER, THEN EACH PIN CAN CARRY 3 AMPS. IF THE SURROUNDING PINS ARE USED FOR POWER, THEN EACH PIN CAN CARRY 1 AMP. WHEN THE SURROUNDING PINS ARE USED ONLY FOR LOW SPEED SIGNALS, THEN THE EVEN NUMBERED 'C' ROW PINS CAN ALSO BE USED FOR LOW SPEED SIGNALS. THIS IS NOT TRUE FOR REAR PLUG-UP APPLICATIONS USING METRAL 2000 SHROUD AS IN THIS CASE ALL 'C' ROW PINS ARE COMMON TO GROUND.

mat'l code				tolerances unless otherwise specified		CUSTOMER		FCI			
ltr	ecn no.	dr	date	linear	0.X ±0.1	projection	COPY	www.fciconnect.com			
Y	-	-	-		0.XX ±0.05			title			
					.XXX ±.020			HEADER ASS'Y			
				angles	0° ±2°	MM	scale	STR. P.F. STD. 5-ROW			
				dr	K.BELL 3/29/00			product family			
				enrg	M.HAHN 3/29/00			METRAL 2000			
				chr	M.HAHN 3/29/00	1:1	A	size			
				appd	M.HAHN 3/29/00			dwg no			
								74977			
sheet index	revision sheet							code			
								213			
								sheet			
								5			

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cage code 22526

4

PDM: Rev:Y

STATUS:Released

Printed: Jun 20, 2006



1 2			3			4
PRODUCT NUMBER	PIN CONTACT AREAS TO RECEPTACLE	PRESS FIT PIN TO PCB	GROUND SPRING CONTACT FINGERS	GROUND SPRING EON PRESS FIT TO PCB	FOR REAR PLUG-UP APPLICATIONS USE SHROUD	
74977-1YYZZZ	0.8μm Au OVER Ni	SnPb OVER Ni	0.8μm Au OVER Ni	SnPb OVER Ni	84621-1YY	
74977-2YYZZZ	2.0μm Au OVER Ni	SnPb OVER Ni	1.3μm Au OVER Ni	SnPb OVER Ni	84621-3YY	
74977-3YYZZZ	1.3μm Au OVER Ni	SnPb OVER Ni	1.3μm Au OVER Ni	SnPb OVER Ni	84621-3YY	
74977-5YYZZZ	1.3μm GXT OVER Ni	SnPb OVER Ni	1.3μm GXT OVER Ni	SnPb OVER Ni	84621-5YY	
74977-9YYZZZ	0.8μm GXT OVER Ni	SnPb OVER Ni	0.8μm Au OVER Ni	SnPb OVER Ni	84621-1YY	
74977-AYYZZZ	0.8μm Au OVER Ni	0.08μm Au OVER Ni	0.8μm Au OVER Ni	SnPb OVER Ni	84621-1YY	
74977-1YYZZZLF	0.8μm Au OVER Ni	Sn OVER Ni	0.8μm Au OVER Ni	Sn OVER Ni	84621-1YYLF	
74977-2YYZZZLF	2.0μm Au OVER Ni	Sn OVER Ni	1.3μm Au OVER Ni	Sn OVER Ni	84621-3YYLF	
74977-3YYZZZLF	1.3μm Au OVER Ni	Sn OVER Ni	1.3μm Au OVER Ni	Sn OVER Ni	84621-3YYLF	
74977-5YYZZZLF	1.3μm GXT OVER Ni	Sn OVER Ni	1.3μm GXT OVER Ni	Sn OVER Ni	84621-5YYLF	
74977-9YYZZZLF	0.8μm GXT OVER Ni	Sn OVER Ni	0.8μm Au OVER Ni	Sn OVER Ni	84621-1YYLF	
74977-AYYZZZLF	0.8μm Au OVER Ni	0.08μm Au OVER Ni	0.8μm Au OVER Ni	Sn OVER Ni	84621-1YYLF	
NOTES CONTINUED						
19. THE PRODUCTS WHERE THE PART NUMBERS ENDS IN LF MEET EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008. ALL PRODUCTS WILL WITHSTAND EXPOSURE TO 260°C FOR 60 SECONDS IN A CONVECTION, INFRA-RED OR VAPOR PHASE REFLOW OVEN						
20. FOR LEAD FREE PART NUMBERS ADD 'LF' SUFFIX. EXAMPLE: 74977-XYZZZLF						

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[74977-301013LF](#) [74977-302057LF](#)