



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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PRODUCT NUMBER

SEE BELOW AND TABLE ON SHEET 2

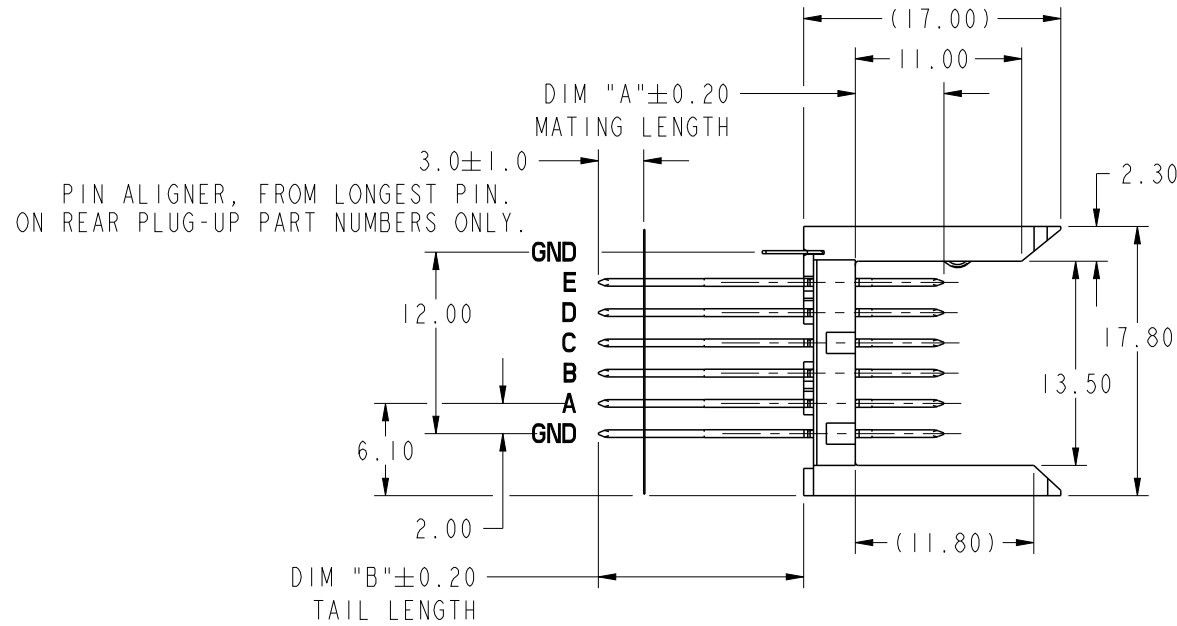
84817-X YY ZZZ LF

BASE NUMBER

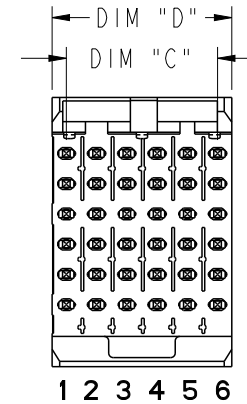
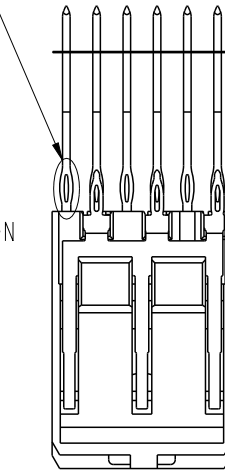
LEAD FREE (OPTIONAL)  
SPECIAL LOAD PATTERN  
SEE SHEETS 7-9

SIZE, SEE SHEET 2

PLATING PERFORMANCE  
LEVEL, SEE SHEET 2

EYE OF NEEDLE  
PRESS FIT SECTIONBABY-H  
PRESS FIT SECTIONDETAIL A  
SCALE 4:1  
SEE NOTE 17

SEE DETAIL A



spec ref		-		dr	P-Mathew Nebu	2011/05/20	projection		mm		size	A4	scale	2:1	
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	B T Varghese	2017/09/09					ecn no	ELX-I-27923-1			
				chr	-	-									
ISO 406				appr	K-Paul Biju	2017/09/13	product family		METRAL 1000		rel level		Released		
ISO 1101				Amphenol FCI		title	VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.				dwg no	84817		rev	AH
surface	linear	0.X	±0.1												
		0.XX	±0.05												
ISO 1302	angular	0°	±2°			cat. no.	Product - Customer Drw				sheet 1 of 7				

A

B

C

D

A

B

C

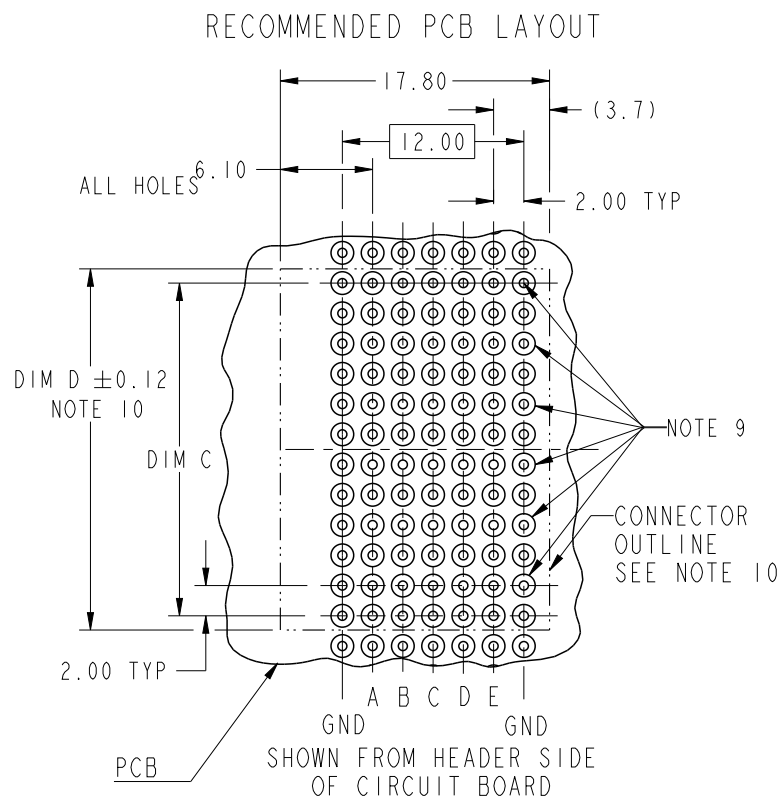
D

PRODUCT NO.	PLATING PERFORM- ANCE LEVEL	SHROUD TO USE FOR REAR-PLUG-UP APPLICATIONS	LENGTH DIM D	PIN FIELD DIM C	CONNECTOR SIZE
84817-101ZZZLF	TELCORDIA CO	84818-101LF	11.88	10.00	1 MOD
84817-102ZZZLF		84818-102LF	23.88	22.00	2 MOD
84817-103ZZZLF		84818-103LF	35.88	34.00	3 MOD
84817-104ZZZLF		84818-104LF	47.88	46.00	4 MOD
84817-301ZZZLF	CUSTOMER SPECIAL	84818-301LF	11.88	10.00	1 MOD
84817-302ZZZLF		84818-302LF	23.88	22.00	2 MOD
84817-303ZZZLF		84818-303LF	35.88	34.00	3 MOD
84817-304ZZZLF		84818-304LF	47.88	46.00	4 MOD
84817-501ZZZLF	TELCORDIA UE	84818-501LF	11.88	10.00	1 MOD
84817-502ZZZLF		84818-502LF	23.88	22.00	2 MOD
84817-503ZZZLF		84818-503LF	35.88	34.00	3 MOD
84817-504ZZZLF		84818-504LF	47.88	46.00	4 MOD

PRODUCT NO.	PLATING PERFORM- ANCE LEVEL	SHROUD TO USE FOR REAR-PLUG-UP APPLICATIONS	LENGTH DIM D	PIN FIELD DIM C	CONNECTOR SIZE
84817-901ZZZLF	TELCORDIA CO	84818-101LF	11.88	10.00	1 MOD
84817-902ZZZLF		84818-102LF	23.88	22.00	2 MOD
84817-903ZZZLF		84818-103LF	35.88	34.00	3 MOD
84817-904ZZZLF		84818-104LF	47.88	46.00	4 MOD

spec ref -		dr P-Mathew Nebu		2011/05/20		projection 	mm 	size A4	scale 2:1	
tolerance std ISO 406 ISO 1101	TOLERANCES UNLESS OTHERWISE SPECIFIED		eng B T Varghese	2017/09/09				ecn no ELX-I-27923-1		
			chr -	-				rel level Released		
		appr K-Paul Biju		2017/09/13		product family METRAL 1000				
surface  ISO 1302	linear	0.X	±0.1	Amphenol FCi	title VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.	dwg no 84817	rev AH			
		0.XX	±0.05							
	0.XXX	±0.020								
angular	0°	±2°		cat. no.	Product - Customer Drw		sheet 2 of 7			



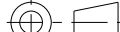
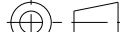




PRESS-FIT HOLES	OPTION 1
HOLE DIAMETER AFTER PLATING	0.65-0.80
DRILLED HOLE	0.81-0.86 (0.85 DRILL)
COPPER PLATING	0.025 MIN
SnPb PLATING	0.005-0.015

SEE PRINT 58351 FOR ADDITIONAL  
PCB INFORMATION

NOTES:

1. SEE APPLICATION SPECIFICATION GS-20-010, FOR INFORMATION ON AVAILABLE TOOLING, CIRCUIT BOARD DESIGN CONSIDERATIONS, REPAIR PROCEDURES AND PRODUCT OFFERINGS.
2. SEE FCI PUBLICATION 950511-028 FOR "ELECTRICAL PERFORMANCE DATA FOR DIFFERENTIAL APPLICATIONS."
3. SEE FCI PUBLICATION 950511-029 FOR "ELECTRICAL PERFORMANCE DATA FOR SINGLE-ENDED APPLICATION."
4. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS AND TOLERANCES ARE IN ACCORDANCE WITH ASME Y14.5, 1994
- ⑤ HOUSING MATERIAL: LCP, 30% GLASS FILLED, FLAME RETARDANT PER UL 94-V0.  
PIN MATERIAL: PHOSPHOR BRONZE  
GROUND SPRING MATERIAL: PHOSPHOR BRONZE
6. PLATING INFORMATION: PLATING ON CONTACT AREA MEETS THE PERFORMANCE LEVELS AS SHOWN IN TABLE ON SHEET I. PLATING ON "LF" TAILS IS Sn. PLATING ON ALL OTHER TAILS IS SnPb.
7. DIMENSIONAL RESTRICTIONS OF PINS IN HEADERS.  
FOR MATING WITH METRAL 1000 RECEPTACLES  
DIM A : 5.00mm MIN, 8.00mm MAX FOR ROWS A-E  
DIM A : 5.00mm MIN, 5.75mm MAX FOR ROW GND NEXT TO ROW A  
DIM C : 5.00mm MIN, 8.00mm MAX FOR ROWS A-E  
DIM C : 4.60mm MIN, 6.30mm MAX FOR ROW GND NEXT TO ROW A  
FOR MATING WITH METRAL 4000 RECEPTACLES  
DIM A : 5.00mm MIN, 6.50mm MAX FOR ROWS A, B, D & E  
DIM A : 5.00mm MIN, 8.00mm MAX FOR ROW C  
DIM A : 5.00mm MIN, 5.75mm MAX FOR ROW GND NEXT TO ROW A  
DIM C : 5.00mm MIN, 7.00mm MAX FOR ROWS A, B, D & E  
DIM C : 5.00mm MIN, 8.00mm MAX FOR ROW C  
DIM C : 4.60mm MIN, 6.30mm MAX FOR ROW GND NEXT TO ROW A
8. 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.
- ⑨ THESE HOLES ARE NEEDED FOR REAR PLUG-UP DESIGNS USING A SHROUD AND MAY BE OMITTED FOR FRONT PLUG-UP ONLY DESIGNS.
- ⑩ 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.
11. CURRENT RATING : 1 AMP PER PIN
12. TEMPERATURE RANGE : -55°C TO +105°C
13. P/N 84817-X01ZZZ SHOWN ON SHEET I.
14. THE PRODUCTS WHERE THE PART NUMBERS END IN "LF" MEET EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-47-0004. ALL PRODUCTS WILL WITHSTAND EXPOSURE TO 260°C FOR 60 SECONDS IN A CONVECTION INFRA-RED OR VAPOR PHASE REFLOW OVEN.
- ⑮ FOR LEAD FREE PART NUMBERS, ADD "LF" SUFFIX. EXAMPLE: 84817-XXXXLF.
16. SEE PRODUCT SPEC GS-12-110 FOR PERFORMANCE, TEST, AND SIGNAL INTEGRITY INFORMATION.
- ⑪ PIN TYPE IS AT THE MANUFACTURERS OPTION AND CAN BE EITHER BABY-H OR EYE OF THE NEEDLE STYLE

spec ref -				dr P-Mathew Nebu		2011/05/20		projection				mm		size A4		scale 2:1	
tolerance std				eng B T Varghese		2017/09/09						ecn no ELX-I-27923-1					
ISO 406 ISO 1101				chr -		-											
TOLERANCES UNLESS OTHERWISE SPECIFIED				appr K-Paul Biju		2017/09/13		product family METRAL 1000				rel level Released					
surface  ISO 1302		linear		0.X ±0.1		Amphenol FCI		VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.				dwg no 84817		rev			
		0.XX ±0.05															
		0.XXX ±0.020															
angular		0° ±2°				cat. no.				Product - Customer Drw				sheet 3 of 7			

PIN NO.	DIM A MATING LENGTH	DIM B TAIL LENGTH	PCB THICKNESS RANGE ACCOMMODATED BY PIN'S TAIL LENGTH				
			WHEN MATING TO A 73981 OR 84688 SERIES RECEPTACLE		WHEN MATING TO A 52057 SERIES METRAL 4000 RECEPTACLE		
			ROWS A,B,C,D,E	GROUND ROW	ROWS:A,B,DE	ROW C	GROUND ROW
01*	5.00	4.30	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN
22		12.20	2.95 - 3.80	2.95 - 4.20	2.95 - 3.80	2.95 - 3.80	2.95 - 4.20
30		12.95	2.95 - 4.55	3.25 - 4.95	2.95 - 4.55	2.95 - 4.55	3.25 - 4.95
05		13.70	2.95 - 5.30	4.00 - 5.70	3.30 - 5.30	2.95 - 5.30	4.00 - 5.70
35		14.45	3.05 - 6.05	4.75 - 6.45	4.05 - 6.05	3.05 - 6.05	4.75 - 6.45
48		15.20	3.80 - 6.80	5.50 - 7.20	4.80 - 6.80	3.80 - 6.80	5.50 - 7.20
40		15.70	4.30 - 7.30	6.00 - 7.70	5.30 - 7.30	4.30 - 7.30	6.00 - 7.70
65		16.40	5.00 - 8.00	6.70 - 8.40	6.00 - 8.00	5.00 - 8.00	6.70 - 8.40
09		17.10	5.70 - 8.70	7.40 - 9.10	6.70 - 8.70	5.70 - 8.70	7.40 - 9.10
02*	5.75	4.30	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN
44		12.20	2.95 - 3.80	2.95 - 4.20	2.95 - 3.80	2.95 - 3.80	2.95 - 4.20
31		12.95	2.95 - 4.55	3.25 - 4.95	2.95 - 4.55	2.95 - 4.55	3.25 - 4.95
06		13.70	2.95 - 5.30	4.00 - 5.70	3.30 - 5.30	2.95 - 5.30	4.00 - 5.70
36		14.45	3.05 - 6.05	4.75 - 6.45	4.05 - 6.05	3.05 - 6.05	4.75 - 6.45
49		15.20	3.80 - 6.80	5.50 - 7.20	4.80 - 6.80	3.80 - 6.80	5.50 - 7.20
25		15.70	4.30 - 7.30	6.00 - 7.70	5.30 - 7.30	4.30 - 7.30	6.00 - 7.70
66		16.40	5.00 - 8.00	6.70 - 8.40	6.00 - 8.00	5.00 - 8.00	6.70 - 8.40
10		17.10	5.70 - 8.70	7.40 - 9.10	6.70 - 8.70	5.70 - 8.70	7.40 - 9.10
03*	6.50	4.30	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN
45		12.20	2.95 - 3.80	2.95 - 4.20	2.95 - 3.80	2.95 - 3.80	2.95 - 4.20
32		12.95	2.95 - 4.55	3.25 - 4.95	2.95 - 4.55	2.95 - 4.55	3.25 - 4.95
07		13.70	2.95 - 5.30	4.00 - 5.70	3.30 - 5.30	2.95 - 5.30	4.00 - 5.70
37		14.45	3.05 - 6.05	4.75 - 6.45	4.05 - 6.05	3.05 - 6.05	4.75 - 6.45
50		15.20	3.80 - 6.80	5.50 - 7.20	4.80 - 6.80	3.80 - 6.80	5.50 - 7.20
41		15.70	4.30 - 7.30	6.00 - 7.70	5.30 - 7.30	4.30 - 7.30	6.00 - 7.70
24		16.40	5.00 - 8.00	6.70 - 8.40	6.00 - 8.00	5.00 - 8.00	6.70 - 8.40
11		17.10	5.70 - 8.70	7.40 - 9.10	6.70 - 8.70	5.70 - 8.70	7.40 - 9.10

spec ref		-		dr	P-Mathew Nebu	2011/05/20	projection 	mm 	size	A4	scale	2:1		
tolerance std ISO 406 ISO 1101	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	B T Varghese	2017/09/09			ecn no	ELX-I-27923-1				
				chr	-	-								
				appr	K-Paul Biju	2017/09/13	product family		METRAL 1000		rel level	Released		
surface 	linear	0.X	±0.1	Amphenol FCi	title	VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.				dwg no	84817		rev	AH
		0.XX	±0.05											
		0.XXX	±0.020											
ISO 1302	angular	0°	±2°		cat. no.	Product - Customer Drw				sheet 4 of 7				

PIN NO.	DIM A MATING LENGTH	DIM B TAIL LENGTH	PCB THICKNESS RANGE ACCOMMODATED BY PIN LENGTH				
			WHEN MATING TO A 73981 OR 84688 SERIES RECEPTACLE		WHEN MATING TO A 52057 SERIES METRAL 4000 RECEPTACLE		
			ROWS A,B,C,D,E	GROUND ROW	ROWS:A,B,DE	ROW C	GROUND ROW
04*	7.25	4.30	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN
46		12.20	2.95 - 3.80	2.95 - 4.20	2.95 - 3.80	2.95 - 3.80	2.95 - 4.20
33		12.95	2.95 - 4.55	3.25 - 4.95	2.95 - 4.55	2.95 - 4.55	3.25 - 4.95
08		13.70	2.95 - 5.30	4.00 - 5.70	3.30 - 5.30	2.95 - 5.30	4.00 - 5.70
38		14.45	3.05 - 6.05	4.75 - 6.45	4.05 - 6.05	3.05 - 6.05	4.75 - 6.45
51		15.20	3.80 - 6.80	5.50 - 7.20	4.80 - 6.80	3.80 - 6.80	5.50 - 7.20
42		15.70	4.30 - 7.30	6.00 - 7.70	5.30 - 7.30	4.30 - 7.30	6.00 - 7.70
67		16.40	5.00 - 8.00	6.70 - 8.40	6.00 - 8.00	5.00 - 8.00	6.70 - 8.40
12		17.10	5.70 - 8.70	7.40 - 9.10	6.70 - 8.70	5.70 - 8.70	7.40 - 9.10
19*	8.00	4.30	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN
47		12.20	2.95 - 3.80	2.95 - 4.20	2.95 - 3.80	2.95 - 3.80	2.95 - 4.20
34		12.95	2.95 - 4.55	3.25 - 4.95	2.95 - 4.55	2.95 - 4.55	3.25 - 4.95
20		13.70	2.95 - 5.30	4.00 - 5.70	3.30 - 5.30	2.95 - 5.30	4.00 - 5.70
39		14.45	3.05 - 6.05	4.75 - 6.45	4.05 - 6.05	3.05 - 6.05	4.75 - 6.45
52		15.20	3.80 - 6.80	5.50 - 7.20	4.80 - 6.80	3.80 - 6.80	5.50 - 7.20
43		15.70	4.30 - 7.30	6.00 - 7.70	5.30 - 7.30	4.30 - 7.30	6.00 - 7.70
68		16.40	5.00 - 8.00	6.70 - 8.40	6.00 - 8.00	5.00 - 8.00	6.70 - 8.40
21		17.10	5.70 - 8.70	7.40 - 9.10	6.70 - 8.70	5.70 - 8.70	7.40 - 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.

spec ref		-		dr	P-Mathew Nebu	2011/05/20	projection		mm		size	A4	scale	2:1	
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	B T Varghese	2017/09/09					ecn no	ELX-I-27923-1			
				chr	-	-					rel level			Released	
ISO 406				appr	K-Paul Biju	2017/09/13	product family			METRAL 1000					
ISO 1101															
surface		linear	0.X	±0.1	Amphenol FCI	title	VERTICAL SIGNAL HDR 5 ROW				dwg no	84817		rev	AH
			0.XX	±0.05											
			0.XXX	±0.020											
ISO 1302		angular	0°	±2°			cat. no.		Product - Customer Drw				sheet 5 of 7		

A

B

C

D

SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
84817-XY001LF	E	01
	D	
	C	
	B	
	A	
84817-XY002LF *RPU	GND	22
	E	
	D	
	C	
	B	
84817-XY011LF	A	02
	GND	
	E	
	D	
	C	
84817-XY021LF	B	02
	A	
	GND	
	E	
	D	


PCB THICKNESS  
RANGE FOR REAR  
PLUG UP  
APPLICATIONS:  
2.95 TO 3.80mm

SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
84817-XY022LF	E	02
	D	
	C	
	B	
	A	
84817-XY023LF	GND	02
	E	
	D	
	C	
	B	
84817-XY024LF *RPU	A	06
	GND	
	E	
	D	
	C	
84817-XY025LF *RPU	B	06
	A	
	GND	
	E	
	D	

PCB THICKNESS  
RANGE FOR REAR  
PLUG UP  
APPLICATIONS:  
4.00 TO 5.30mmPCB THICKNESS  
RANGE FOR REAR  
PLUG UP  
APPLICATIONS:  
\*2.30-3.30 TO 5.30mm

SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
84817-XY026LF *RPU	E	22
	D	
	C	
	B	
	A	
84817-XY027LF *RPU	GND	01
	E	
	D	
	C	
	B	
84817-XY028LF	A	01
	GND	
	E	
	D	
	C	
84817-XY029LF	B	02
	A	
	GND	
	E	
	D	
84817-XY030LF *RPU	C	07
	B	
	A	
	GND	
	E	
84817-XY031LF *RPU	D	25
	C	
	B	
	A	
	GND	

PCB THICKNESS  
RANGE FOR REAR  
PLUG UP  
APPLICATIONS:  
2.95 TO 3.80mmPCB THICKNESS  
RANGE FOR REAR  
PLUG UP  
APPLICATIONS:  
2.95 TO 3.80mmPCB THICKNESS  
RANGE FOR REAR  
PLUG UP  
APPLICATIONS:  
2.95 TO 3.80mmPCB THICKNESS  
RANGE FOR REAR  
PLUG UP  
APPLICATIONS:  
2.95 TO 3.80mm

spec ref -		dr P-Mathew Nebu		2011/05/20		projection 	mm 	size A4	scale 2:1
tolerance std ISO 406 ISO 1101	TOLERANCES UNLESS OTHERWISE SPECIFIED		eng B T Varghese	2017/09/09				ecn no ELX-I-27923-1	
			chr -	-				rel level Released	
		appr K-Paul Biju		2017/09/13		product family METRAL 1000			
surface  ISO 1302	linear	0.X	±0.1	Amphenol FCi	title VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.	dwg no 84817	rev AH		
		0.XX	±0.05						
		0.XXX	±0.020						
	angular	0°	±2°		cat. no.	Product - Customer Drw		sheet 6 of 7	

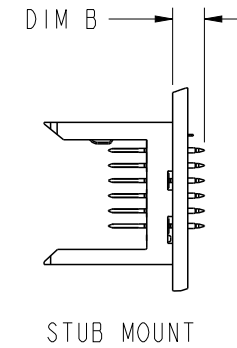
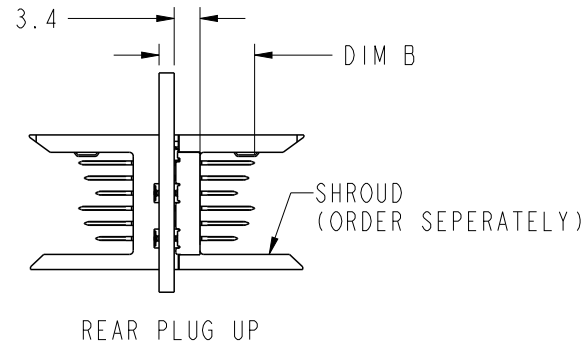
## SPECIAL LOAD PATTERNS

PRODUCT #	ROW	PIN CODES
84817-XY032LF	E	22
	D	
	C	
	B	22
	A	
	GND	
84817-XY033LF *RPU	E	06
	D	
	C	
	B	
	A	30
	GND	
84817-XY034LF	E	03
	D	
	C	
	B	
	A	02
	GND	
84817-XY035LF	E	01
	D	
	C	
	B	-
	A	
	GND	
84817-XY036LF *RPU	E	22
	D	
	C	
	B	01
	A	
	GND	
84817-XY037LF	E	01
	D	
	C	
	B	
	A	02
	GND	

## SPECIAL LOAD PATTERNS

PRODUCT #	ROW	PIN CODES
84817-XY038LF *RPU	E	49
	D	
	C	
	B	
	A	
	GND	
84817-XY039LF *RPU	E	36
	D	
	C	
	B	
	A	06
	GND	

PCB THICKNESS  
RANGE FOR REAR  
PLUG UP  
APPLICATIONS:  
4.80 TO 6.80mm



PCB THICKNESS  
RANGE FOR REAR  
PLUG UP  
APPLICATIONS:  
2.95 TO 3.80mm

spec ref		-		dr		P-Mathew Nebu		2011/05/20		projection				size		A4		scale		2:1			
tolerance std		TOLERANCES UNLESS OTHERWISE SPECIFIED		eng		B T Varghese		2017/09/09						ecn no		ELX-I-27923-1							
ISO 406				chr		-		-						rel level		Released							
ISO 1101				appr		K-Paul Biju		2017/09/13						product family		METRAL 1000							
surface		linear		0.X		±0.1		Amphenol FCI		title		VERTICAL SIGNAL HDR 5 ROW		dwg no		84817		rev		AH			
ISO 1302				0.XX		±0.05																PRESS-FIT, SPECIAL LOAD, STD.	
				0.XXX		±0.020																	
angular		0°		±2°				cat. no.		Product - Customer Drw		sheet 7 of 7											