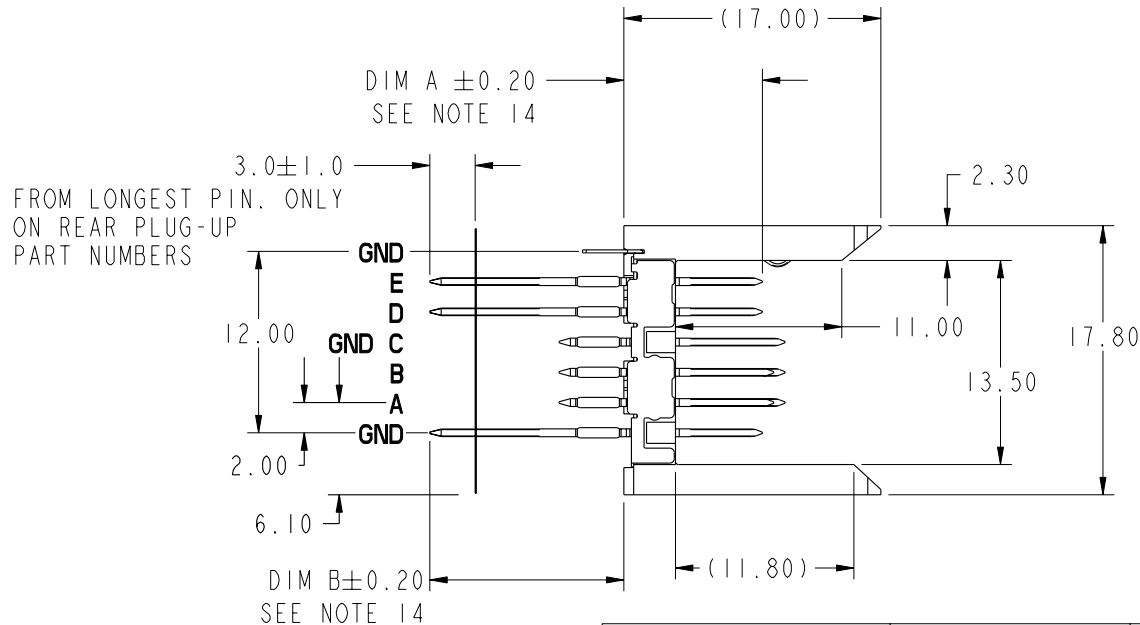




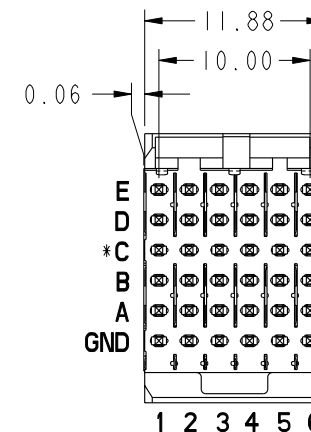
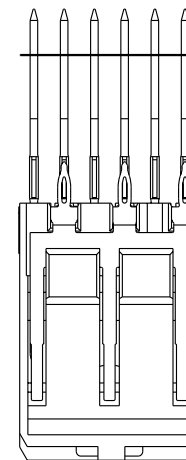
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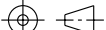
REV E - 2008-04-18

PRODUCT NUMBER	CONTACT PLATING PERFORMANCE LEVEL	PRESS-FIT TAIL PLATING
10043968-1YYY	TELCORDIA CO	STANDARD (SnPb)
10043968-1YYLFL	TELCORDIA CO	LEAD FREE (Sn)
10043968-5YYY	TELCORDIA UE	STANDARD (SnPb)
10043968-5YYLFL	TELCORDIA UE	LEAD FREE (Sn)



***ROW C INFORMATION**
ODD NUMBER COLUMNS WITHIN ROW C ARE COMMONED
TO GROUND INTERNALLY WITHIN THE HOUSING
WHEN A U-SHAPED STRIPLINE SHIELD IS PRESENT.



mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		 www.fciconnect.com			
ltr	ecn no.	dr	date	linear	0.X ± 0.3	projection 	COPY	title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD			
A	V04-0815	TAB	2004-08-12		0.XX ± 0.10			product family METRAL 1000/4000			
B	V04-0879	TAB	2004-11-02		0.XXX ± .050			code 213			
C	V05-0535	DAI	2005-06-02	angles	0° ± 2°	 MM scale 1:1	size A	dwg no 10043968		sheet 1 of 7	
D	V06-0573	DCH	2006-06-15	dr	T. BRUNGARD 2004-08-12						
E	V06-0868	DCH	2006-08-29	enrg	J. VOLSTORF 2004-08-12						
F	V07-0541	DCH	2007-08-14	chr	J. VOLSTORF 2004-08-12	G	G	G	G	G	
G	V08-0118	HTB	2008-03-10	appd	J. VOLSTORF 2004-08-12						
sheet index	revision sheet	G	G	G	G	G	G	G	G	G	
		1	2	3	4	5	6	7			

Pro/E

3

cage code 22526

4

PDM: Rev:G

STATUS: Released

Printed: May 13, 2011

A

B

REV E - 2006-04-18

** THE GREATEST RANGE OCCURS WHEN THE
 B DIMENSION OF PIN 'GND' IS ONE
 SIZE SHORTER THAN THE OTHER PINS.

1

LE



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,D, E	ROW C	GROUND ROW
04*	7.25	4.30	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN
57*		11.55	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
58*		11.55	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

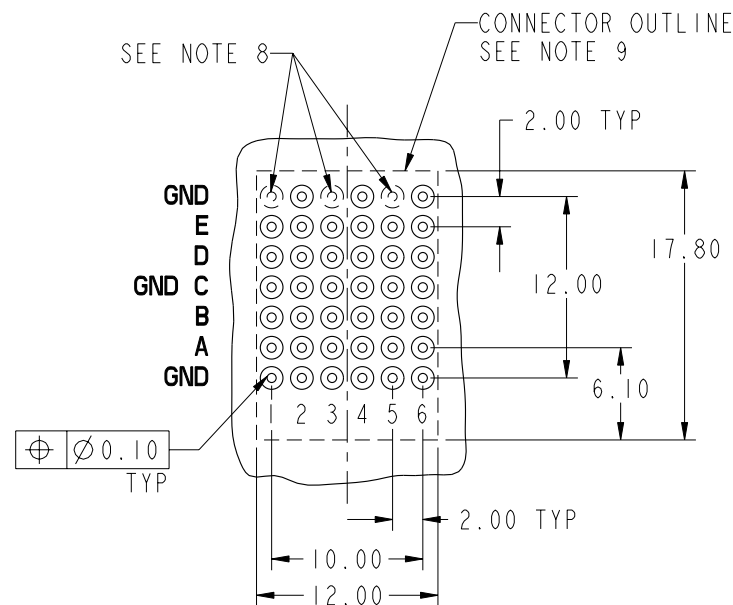
* STUB PINS - NO REAR PLUG-UP

** THE GREATEST RANGE OCCURS WHEN THE
B DIMENSION OF PIN 'GND' IS ONE
SIZE SHORTER THAN THE OTHER PINS.

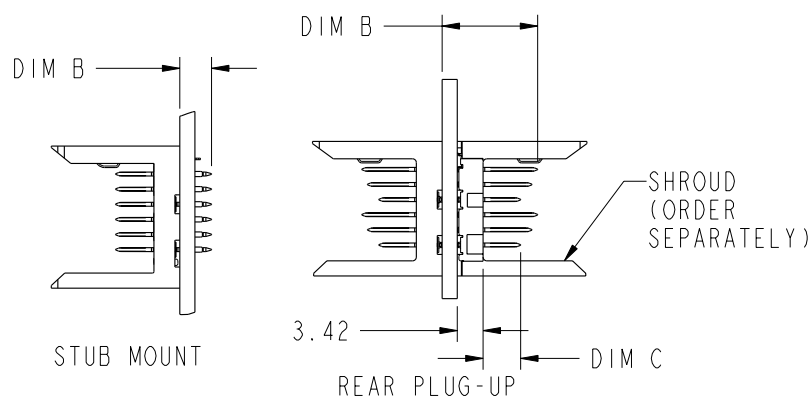
mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		FCI www.fciconnect.com				
ltr	ecn no.	dr	date	linear	0.X ±0.3	projection	COPY	title	VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.			
G					0.XX ±0.10							
					0.XXX ±.050							
				angles	0° ±2°	 MM 1:1	product family	METRAL 1000/4000	code			
			dr	T. BRUNGARD	2004-08-12					size	dwg no	213
			enrg	J. VOLSTORF	2004-08-12							
			chr	J. VOLSTORF	2004-08-12							
				appd	J. VOLSTORF	2004-08-12			sheet			
									3			
sheet	revision											
index	sheet											

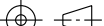
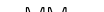
PRODUCT NUMBER
SEE SHEET 1

PRESS-FIT HOLES	TYPE 1	TYPE 2
HOLE DIAMETER AFTER PLATING	0.65-0.80	0.45-0.55
DRILLED HOLE	0.81-0.86 (0.85 DRILL)	0.58-0.62 (0.60 DRILL)
COPPER PLATING	0.025 MIN	0.025 MIN-0.050 MAX
SnPb PLATING	0.005-0.015	0.005-0.015



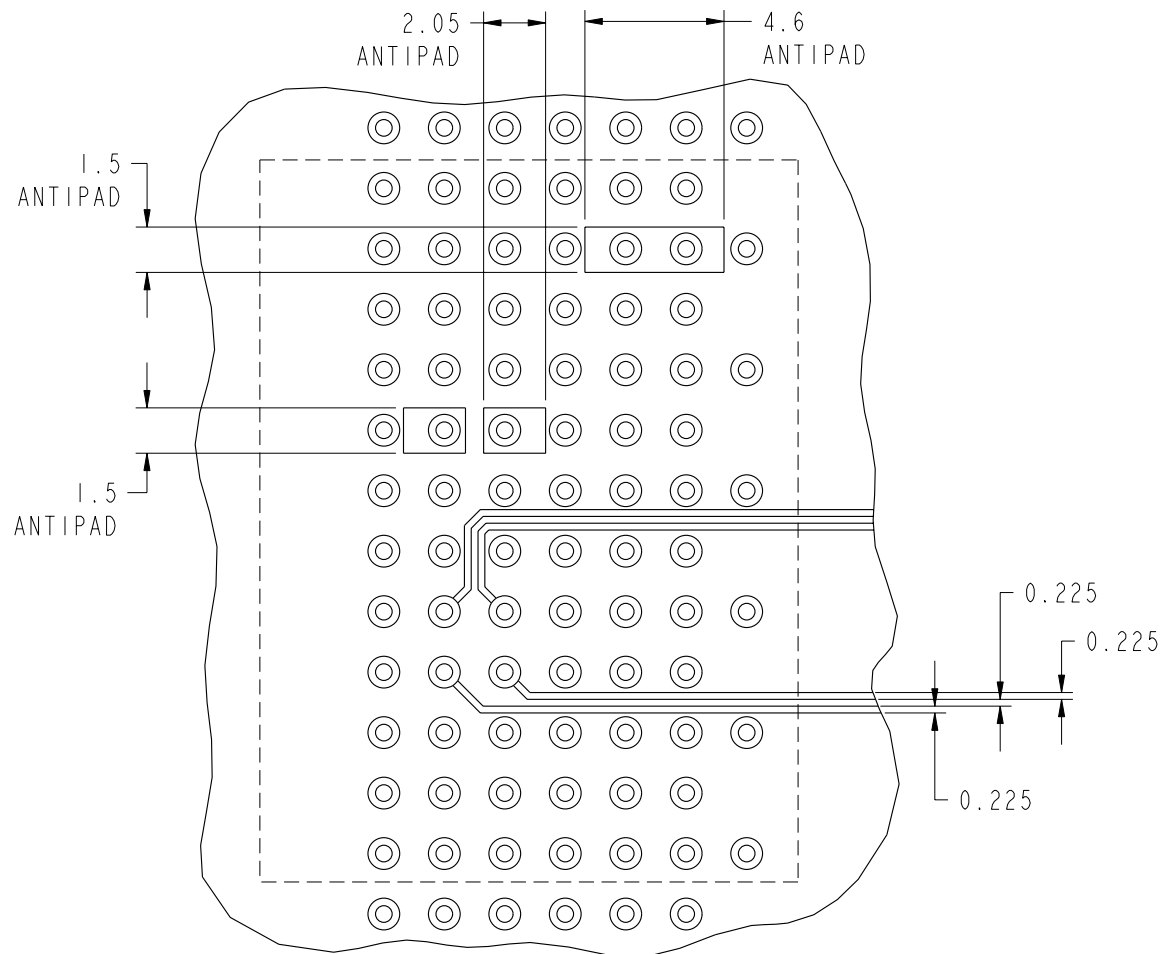
RECOMMENDED PCB HOLE PATTERN
(COMPONENT SIDE)



mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		 www.fciconnect.com		
ltr	ecr no.	dr	date	linear	0.X ±0.3	projection 	COPY			title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD
G					0.XX ±0.10					
					0.XXX ±.050					
				angles	0° ±2°	 MM scale 1:1	product family METRAL 1000/4000		code 213 sheet 4	
				dr	T. BRUNGARD 2004-08-12		size			
				enrg	J. VOLSTORF 2004-08-12		dwg no			
				chr	J. VOLSTORF 2004-08-12	10043968				
				appd	J. VOLSTORF 2004-08-12					
sheet index	revision sheet									

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PRODUCT NUMBER
SEE SHEET 1



RECOMMENDED TRACK AND ANTIPAD DIMENSIONS FOR 4000 PINS
SCALE 4:1

mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		FCj www.fciconnect.com			
ltr	ecr no.	dr	date	linear	0.X ± 0.3	projection	COPY	title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.			
G					0.XX ± 0.10						
					0.XXX ± 0.050						
				angles	0° ± 2°	MM scale 1:1	A	product family METRAL 1000/4000			
				dr	T. BRUNGARD 2004-08-12			code 213			
				enr	J. VOLSTORF 2004-08-12			size			
				chr	J. VOLSTORF 2004-08-12			dwg no 10043968			
				appd	J. VOLSTORF 2004-08-12			sheet 5			
sheet index	revision sheet							cage code 22526			

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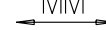


PRODUCT NUMBER	ROW	SELECT LOAD PATTERN					
		1	2	3	4	5	6
10043968-X001 *** SEE NOTE 16 LEAD FREE OPTION	GND	GND	GND	GND	GND	GND	GND
	E	02	02	02	02	55	55
	D	02	02	02	02	55	55
	C	02	02	02	02	55	55
	B	02	02	02	02	55	55
	A	02	02	02	02	55	55
	GND	02	02	02	02	55	55
	STRIPLINE SHIELD	YES	NO	YES	NO	NO	NO

PRODUCT NUMBER	ROW	SELECT LOAD PATTERN					
		1	2	3	4	5	6
10043968-X002 *** SEE NOTE 16 LEAD FREE OPTION	GND	GND	GND	GND	GND	GND	GND
	E	55	55	02	02	02	02
	D	55	55	02	02	02	02
	C	55	55	02	02	02	02
	B	55	55	02	02	02	02
	A	55	55	02	02	02	02
	GND	55	55	02	02	02	02
	STRIPLINE SHIELD	NO	NO	YES	NO	YES	NO

PRODUCT NUMBER	ROW	SELECT LOAD PATTERN					
		1	2	3	4	5	6
10043968-X003 *** SEE NOTE 16 LEAD FREE OPTION	GND	GND	GND	GND	GND	GND	GND
	E	55	02	02	02	02	55
	D	55	02	02	02	02	55
	C	55	02	02	02	02	55
	B	55	02	02	02	02	55
	A	55	02	02	02	02	55
	GND	55	02	02	02	02	55
	STRIPLINE SHIELD	YES	NO	YES	NO	YES	NO

*** REAR PLUG-UP PART NUMBERS
WITHOUT PIN ALIGNER.

mat'l code SEE NOTE 5				tolerances unless otherwise specified				CUSTOMER		 www.fciconnect.com				
ltr	ecn no.	dr	date	linear	0.X ±0.3				COPY		title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD			
G					0.XX ±0.10				projection					
					0.XXX ±.050									
				angles	0° ±2°				 scale 1:1		product family METRAL 1000/4000		code	213
				dr	T. BRUNGARD	2004-08-12		size			dwg no	sheet	6	
				enrg	J. VOLSTORF	2004-08-12		A			10043968			
				chr	J. VOLSTORF	2004-08-12								
				appd	J. VOLSTORF	2004-08-12								
sheet index	revision sheet													

PIN CODE	PIN TYPE	VIA HOLE TYPE REQUIRED SEE SHEET 4
02	METRAL 4000	TYPE 2
55	METRAL 1000/2000	TYPE 1
GND	N/A	TYPE 2

PRODUCT NUMBER

SEE SHEET 1

NOTES:

1. SEE APPLICATION SPECIFICATIONS GS-20-010 AND GS-20-014 FOR INFORMATION ON AVAILABLE TOOLING, CIRCUIT BOARD DESIGN CONSIDERATIONS, REPAIR PROCEDURES AND PRODUCT OFFERINGS. SEE PRODUCT SPECIFICATION: GS-12-110
GS-12-184
2. SEE FCI PUBLICATION 95011-028 FOR "ELECTRICAL PERFORMANCE DATA FOR DIFFERENTIAL APPLICATIONS."
3. SEE FCI PUBLICATION 95011-029 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: LIQUID CRYSTAL POLYMER, 30% GLASS FILLED, FLAME RETARDANT PER UL 94-V0.
PIN MATERIAL: PHOSPHER BRONZE
GROUND SPRING MATERIAL: PHOSPHER BRONZE
6. 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
7. THE MIN PCB THICKNESS FOR REAR PLUG-UP APPLICATIONS IS 2.9mm SINCE THE COMPLIANT 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.

8. THESE HOLES ARE NEEDED FOR REAR PLUG-UP DESIGNS USING A SHROUD AND MAY BE OMITTED FOR FRONT PLUG-UP ONLY DESIGNS.
9. 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.

10. CURRENT RATING: 1 AMP PER PIN

11. TEMPERATURE RANGE: -55°C TO +105°C

12. P/N 10043968-XXXXLF



13. WE CURRENTLY HAVE NO INSPECTION METHOD TO CHECK TP OF CONTACT PIN TIP ON BOTTOM SIDE OF HEADER.

14. AFTER INSERTION INTO CIRCUIT BOARD WITH QUALIFIED TOOL.

15. PRODUCTS WHERE THE PART NUMBER ENDS IN LF MEET EUROPEAN 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.

16. FOR LEAD FREE PART NUMBERS, ADD AN "LF" SUFFIX. EXAMPLE: 10043968-X001LF

17. EQUIVALENT PRECIOUS METAL PLATINGS MAY BE SUBSTITUTED.

mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		FCI www.fciconnect.com			
ltr	ecr no.	dr	date	linear	0.X ± 0.3		projection	title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.			
G					0.XX ± 0.10						
					0.XXX ± 0.050						
				angles	0° ± 2°		MM	product family METRAL 1000/4000 code 213			
				dr	T. BRUNGARD 2004-08-12						
				enrg	J. VOLSTORF 2004-08-12						
				chr	J. VOLSTORF 2004-08-12		scale 1:1	size A		dwg no 10043968	
				appd	J. VOLSTORF 2004-08-12						
sheet index	revision sheet										