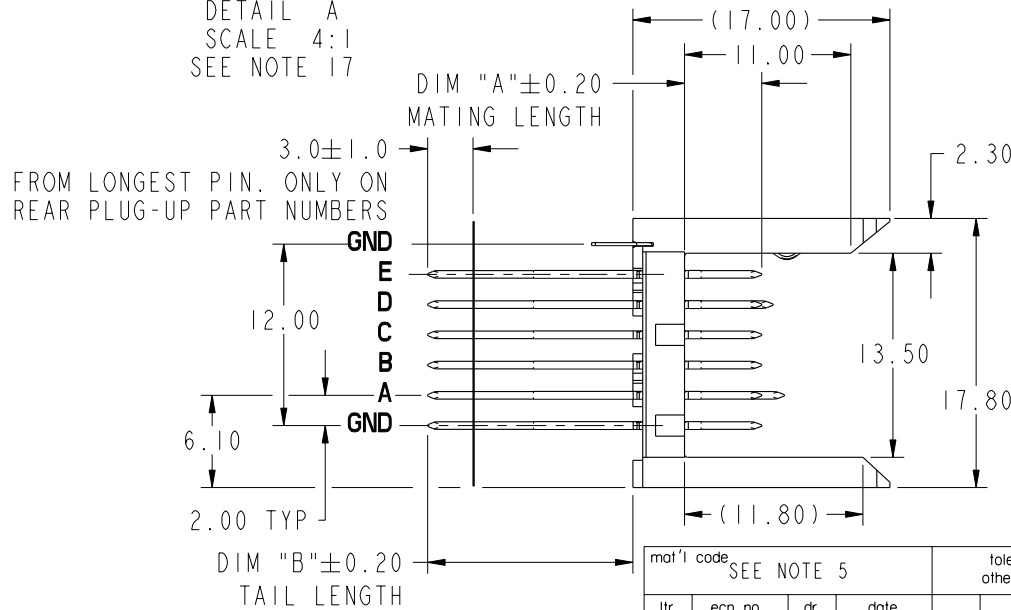


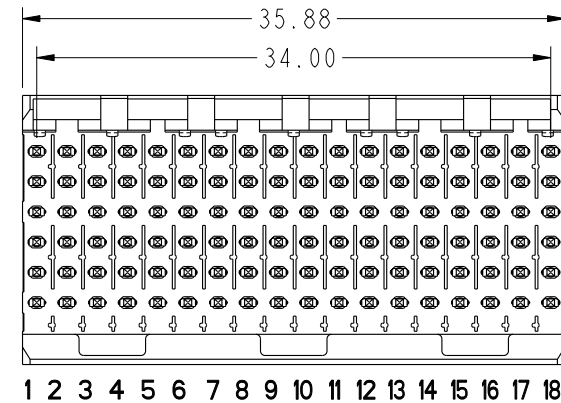
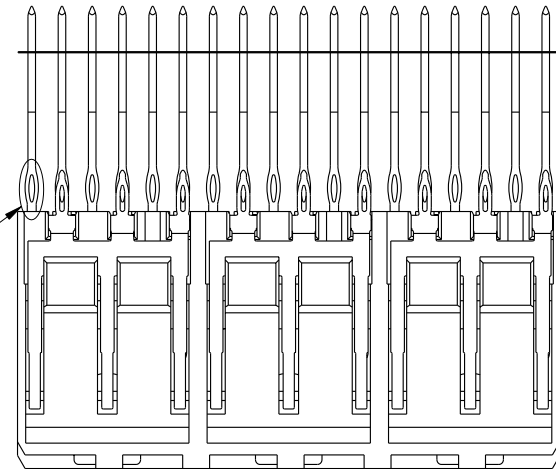
PRODUCT NUMBER	PLATING PERFORMANCE LEVEL	APPLICATION	FOR REAR PLUG-UP APPLICATIONS USE SHROUD
60066-1ZZZ	TELCORDIA CO	STANDARD	84818-104
60066-1ZZZLF		LEAD FREE	84818-104LF
60066-5ZZZ	TELCORDIA UE	STANDARD	84818-504
60066-5ZZZLF		LEAD FREE	84818-504LF
60066-9ZZZ	TELCORDIA CO	STANDARD	84818-904
60066-9ZZZLF		LEAD FREE	84818-904LF



DETAIL A
SCALE 4:1
SEE NOTE 17



SEE DETAIL A



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		COPY	title		
K	V06-0498	DCH	2006-05-30	linear	0.XX ±0.13		projection	VERTICAL SIGNAL HDR 5 ROW		
L	V06-0706	LP	2006-07-27	angles	.XXX ±.051		MM	P.F. 90 POS. SELECT LOAD STD.		
M	V07-0502	DCH	2007-07-31	angles	0° ±2°			product family	METRAL 1000	code
N	V07-0733	HTB	2007-12-21	dr	K. BELL	2000-03-15	scale	size	dwg no	sheet
P	V08-0049	LP	2008-2-4	engr	M. HAHN	2000-03-15		A	60066	213
-	-	-	-	chr	M. HAHN	2000-03-15	1:1	1 of 6		
J	V05-0806	VS	2005-09-09	appd	M. HAHN	2000-03-15				
sheet index	revision sheet	P 1	P 2	P 3	P 4	P 5	P 6	cage code		
								22526	4	



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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,D,E	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

* 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.



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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		
P					0.XX ±0.13			title VERTICAL SIGNAL HDR 5 ROW P.F. 90 POS. SELECT LOAD STD.	
					.XXX ±.051			product family METRAL 1000 code	
				angles	0° ±2°	MM scale 1:1	size	dwg no	
				dr	K. BELL 2000-03-15		A	213	
				engr	M. HAHN 2000-03-15			60066	
				chr	M. HAHN 2000-03-15			sheet	
				appd	M. HAHN 2000-03-15	2			
sheet index	revision sheet								

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
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.

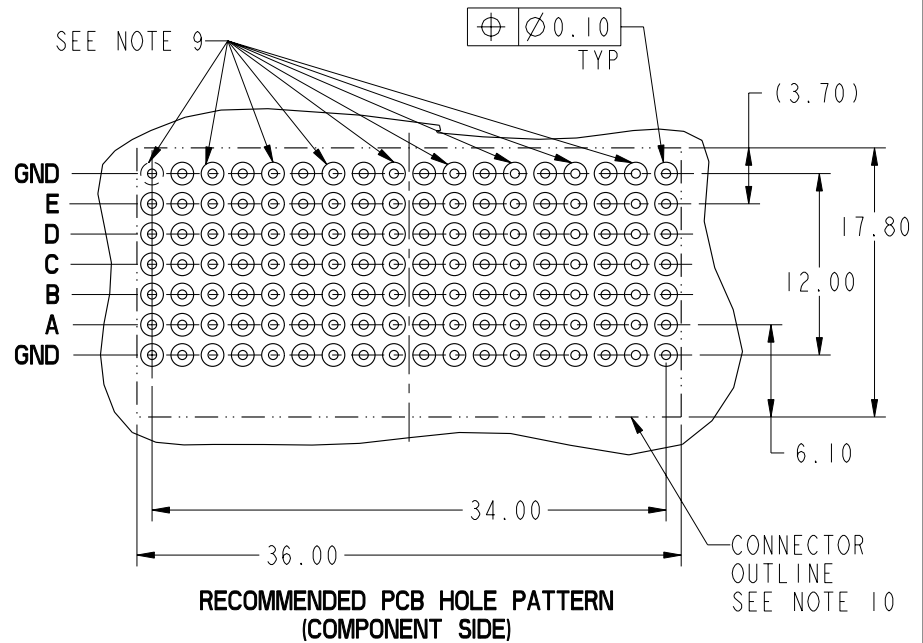
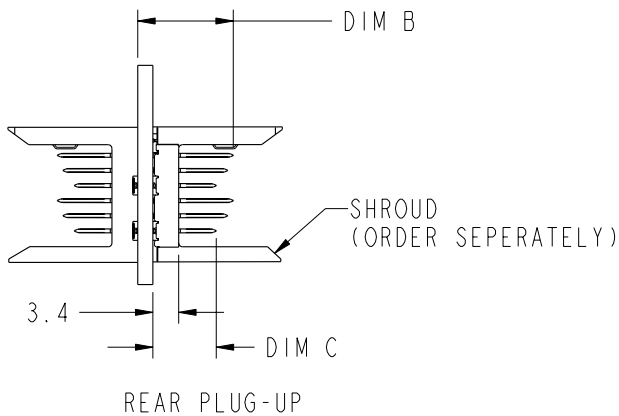
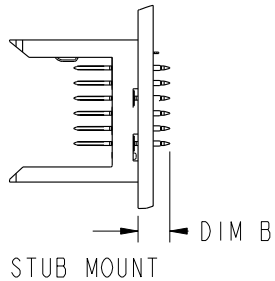


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mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		www.fciconnect.com	
ltr	ecn no.	dr	date	linear	0.X ± 0.3		COPY		title VERTICAL SIGNAL HDR 5 ROW P.F. 90 POS. SELECT LOAD STD.
P					0.XX ± 0.13		projection		
					.XXX ± 0.051				
				angles	0° ± 2°				product family METRAL 1000
				dr	K. BELL	2000-03-15	scale 1:1		code 213
				engr	M. HAHN	2000-03-15	size A		sheet 3
				chr	M. HAHN	2000-03-15	size A		
				appd	M. HAHN	2000-03-15	size A		
sheet index	revision sheet								

PRODUCT NUMBER
SEE SHEET 1

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

mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		FCJ www.fciconnect.com	
ltr	ecm no.	dr	date	linear	0.X ±0.3	COPY		title	
P				linear	0.XX ±0.13	projection		VERTICAL SIGNAL HDR 5 ROW P.F. 90 POS. SELECT LOAD STD.	
				angles	.XXX ±.051	MM		product family	
				dr	0° ±2°	← MM →		METRAL 1000	
				enr	K. BELL 2000-03-15	scale		code	
				chr	M. HAHN 2000-03-15	1:1		213	
				appd	M. HAHN 2000-03-15			sheet	
					M. HAHN 2000-03-15			4	
sheet index	revision sheet							cage code	
								22526	


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PRODUCT NUMBER

SEE SHEET 1


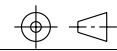
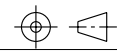
NOTES:

- 1. SEE APPLICATION SPECIFICATION GS-20-010 FOR INFORMATION ON AVAILABLE TOOLING, CURCUIT 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: LIQUID CRYSTAL POLYMER, 30% GLASS FILLED, FLAME RETARDANT PER UL 94-V0.
PIN MATERIAL: PHOSPHER BRONZE
GROUND SPRING MATERIAL: PHOSPHER BRONZE
- 6. PLATING INFORMATION: PLATING ON CONTACT AREA MEETS THE PERFORMANCE LEVELS SHOWN IN TABLE ON SHEET 1. PLATING OF "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 NO
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 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.
- 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 60066-XZZZLF

- 14. PIN CODE 55 CANNOT BE USED WITH METRAL 1000 SHROUDS. PIN CODE 55 HAS A DIM A=5.75mm, DIM B=11.55mm.
- 15. PART NUMBERS ENDING 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.
- 16. FOR LEAD FREE PART NUMBERS ADD 'LF' SUFFIX. EXAMPLE: 60066-XYYYLF
- 17. PIN TYPE IS AT THE MANUFACTURERS OPTION AND CAN BE EITHER BABY-H OR EYE OF THE NEEDLE STYLE



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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. 90 POS. SELECT LOAD STD.
P					0.XX ±0.13		projection		
				angles	.XXX ±.051		 product family METRAL 1000 code		
					0° ±2°		size		
				dr	K. BELL	2000-03-15	MM		213
				enrg	M. HAHN	2000-03-15	← MM →		sheet
				chr	M. HAHN	2000-03-15	scale		5
				appd	M. HAHN	2000-03-15	1:1		
sheet index		revision sheet						size A 60066 sheet 5	

SELECT LOAD PATTERNS

PRODUCT #	ROW	COLUMN																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
60066-X001 SEE NOTE 16 LEAD FREE OPTION	E	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01
	D	01	01	01	01	01	02	01	01	01	01	01	02	01	01	01	01	01	02
	C	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01
	B	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01
	A	01	01	03	01	01	03	01	01	03	01	01	03	01	01	03	01	01	03
	GND	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01	01
60066-X002 SEE NOTE 14 *RPU	E	55	02	02	02	02	55	55	55	02	02	02	02	55	55	55	55	55	
D	55	02	02	02	02	55	55	55	02	02	02	02	55	55	55	55	55	55	
C	55	02	02	02	02	55	55	55	02	02	02	02	55	55	55	55	55	55	
B	55	02	02	02	02	55	55	55	02	02	02	02	55	55	55	55	55	55	
A	55	02	02	02	02	55	55	55	02	02	02	02	55	55	55	55	55	55	
GND	55	02	02	02	02	55	55	55	02	02	02	02	55	55	55	55	55	55	
60066-X003 SEE NOTE 14 *RPU	E	55	55	55	55	55	55	55	55	55	55	55	55	02	02	02	02	55	
D	55	55	55	55	55	55	55	55	55	55	55	55	55	02	02	02	02	55	
C	55	55	55	55	55	55	55	55	55	55	55	55	55	02	02	02	02	55	
B	55	55	55	55	55	55	55	55	55	55	55	55	55	02	02	02	02	55	
A	55	55	55	55	55	55	55	55	55	55	55	55	55	02	02	02	02	55	
GND	55	55	55	55	55	55	55	55	55	55	55	55	55	02	02	02	02	55	

* REAR PLUG-UP PART NUMBERS

SELECT LOAD PATTERNS

PRODUCT #	ROW	COLUMN																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
60066-X004 SEE NOTE 16 LEAD FREE OPTION	E	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02
	D	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02
	C	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02
	B	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02
	A	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02
	GND	-	02	02	02	02	-	-	02	02	02	02	-	-	02	02	02	02	-

PCB THICKNESS RANGE FOR REAR PLUG UP APPLICATIONS: 1.6mm MIN.

PCB THICKNESS RANGE FOR REAR PLUG UP APPLICATIONS: 1.6mm MIN.



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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			COPY		projection 	title VERTICAL SIGNAL HDR 5 ROW P.F. 90 POS. SELECT LOAD STD.
P					0.XX ±0.13			MM			
					angles	.XXX ±.051			product family METRAL 1000		
				0° ±2°			size A	sheet 6			
				dr	K. BELL	2000-03-15			scale 1:1	A	60066
				enr	M. HAHN	2000-03-15					
				chr	M. HAHN	2000-03-15					
				appd	M. HAHN	2000-03-15					
sheet index	revision sheet										