

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number:

0919990529

Status:

Active

Overview:

rast_5_connector_system

Description:

5.00mm (.197") Pitch Appli-Mate RAST 5 Header, Vertical, 3 Circuits, No Reference, Tin (Sn) Plating, Glow Wire Compatible

Documents:

3D Model

Drawing (PDF)

Product Specification PS-99020-0037 (PDF)

RoHS Certificate of Compliance (PDF)

Agency Certification

CSA

LR19980

UL

E29179

General

Product Family

PCB Headers

Series

91999

Application

Wire-to-Board

Overview

rast_5_connector_system

Product Name

RAST 5

Physical

Breakaway

No

Circuits (Loaded)

3

Circuits (maximum)

3

Color - Resin

Natural

Durability (mating cycles max)

10

First Mate / Last Break

No

Flammability

94V-0

Glow-Wire Compliant

Yes

Guide to Mating Part

No

Keying to Mating Part

Yes

Lock to Mating Part

No

Material - Metal

Brass

Material - Plating Mating

Tin

Material - Resin

Nylon

Number of Rows

1

Orientation

Vertical

PC Tail Length (in)

0.154 In

PC Tail Length (mm)

3.90 mm

PCB Locator

Yes

PCB Retention

None

PCB Thickness Recommended (in)

0.055 In

PCB Thickness Recommended (mm)

1.40 mm

Packaging Type

Bag

Pitch - Mating Interface (in)

0.197 In

Pitch - Mating Interface (mm)

5.00 mm

Plating min: Mating (µin)

200

Plating min: Mating (µm)

5

Polarized to PCB

Yes

Robotic Placement

None

Shrouded

Fully

Stackable

No

Surface Mount Compatible (SMC)

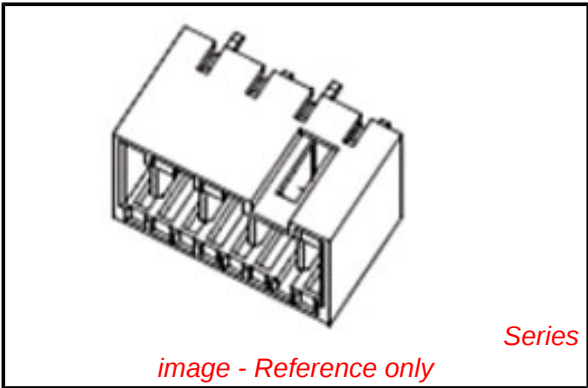
No

Temperature Range - Operating

-20C TO +120C

Termination Interface: Style

Through Hole



EU RoHS

ELV and RoHS Compliant

REACH SVHC

Not Reviewed

Halogen-Free Status

Not Halogen-Free

China RoHS



Need more information on product environmental compliance?

Email productcompliance@molex.com

For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

Search Parts in this Series

91999Series

Electrical

Current - Maximum per Contact	16A
Voltage - Maximum	250V AC

Material Info

Old Part Number	WITH ZYTEL RM
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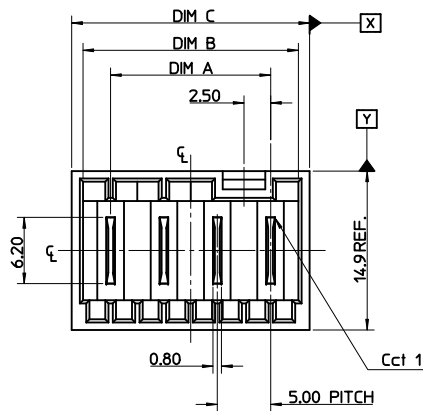
Reference - Drawing Numbers

Packaging Specification	PK-90858-001
Product Specification	PS-99020-0037
Sales Drawing	SD-91999-001

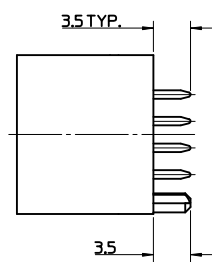
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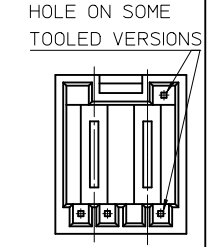
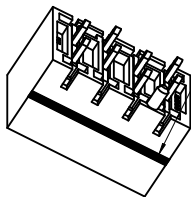
13 12 11 10 9 8 7 6 5 4 3 2 1



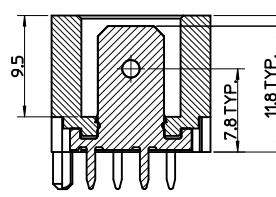
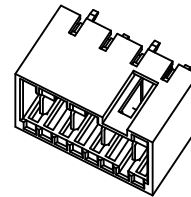
PCB PIN POLARISATION
OPTION A AND B



COLOUR STRIPE OPTION



HOLE ON SOME
TOOLED VERSIONS



A-A
Scale 3:1

CCT	DIM A	DIM B	DIM C	TOL
2	5.00	10.20	12.30	+/-0.30
3	10.00	15.20	17.30	
4	15.00	20.20	22.30	
5	20.00	25.20	27.30	
6	25.00	30.20	32.30	
7	30.00	35.20	37.30	
8	35.00	40.20	42.30	
9	40.00	45.20	47.30	
10	45.00	50.20	52.30	
11	50.00	55.20	57.30	
12	55.00	60.20	62.30	

- NOTES:
- MATERIALS
HOUSING: PA 66, UL94 V-0 750°C GWT NO FLAME
TERMINAL: BRASS 0.80REF. THICK
PLATING: OPTIONAL (SEE CHARTS SHEETS 2-6)
54µm TIN OVER
2.54µm NICKEL ALLOVER
SELECTIVE SILVER
24µm MIN SILVER
3-54µm TIN OVER
2.54µm NICKEL ALLOVER
 - PRODUCT CONFORMS TO SPECIFICATION PS-99020-0037/39
 - MATES WITH MOLEX 91338, 90833, 90835, 91777, 91778, 91779, 91954 & 92000.
 - SEE PACKAGING SPECIFICATION PK-90858-001
TWO PACKAGING OPTIONS
"A" LOOSE IN POLYBAGS IN SHIPPING CARTON
"B" IN TUBES IN SHIPPING CARTON
SEE TABLES IN FOLLOWING SHEETS FOR PACKAGING TYPE FOR EACH PART NUMBER
 - PLATED THRU HOLE
 - NON-PLATED THRU HOLE
 - RECOMMENDED PCB THICKNESS: 1.4±0.1mm
 - PCB VIEW IS FROM SOLDER SIDE

MOULD TOOLING CHANGE	DESCRIPTION
EC NO: E2010-0370	2010/05/17
DRWN:BRUTTE	2006/10/04
CHKD:T.TOURSH	2010/06/08
APPR:BMAGUIRE	2010/06/08
REV	

QUALITY SYMBOLS
▽=0
▽=0

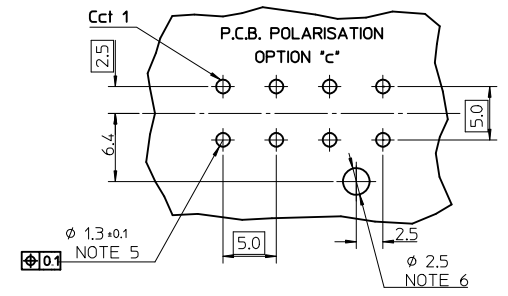
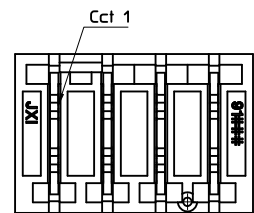
GENERAL TOLERANCES (UNLESS SPECIFIED)		
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.1	± ---
1 PLACE	± 0.2	± ---
ANGULAR ± 2 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY	1:1	METRIC	
DRAWN BY	DATE	TITLE	
B.RUTTLE	2006/10/04	RAST 5 VERT HDR PA 66 HOUSING	
CHECKED BY	DATE		
T.TOURSH	2006/10/04		
APPROVED BY	DATE		
BMAGUIRE	2006/10/04		
MATERIAL NO.	DOCUMENT NO.		
	SD-91999-001		
SIZE			
A2			

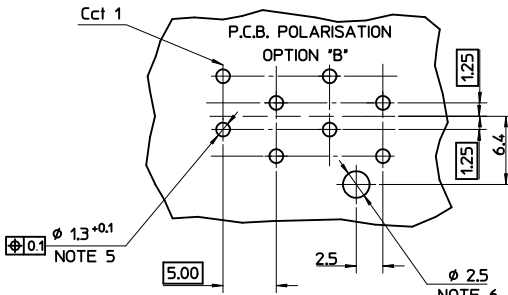
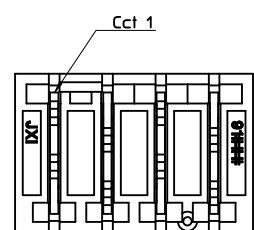
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	SHEET NO. 1 OF 6
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OPTION "C"

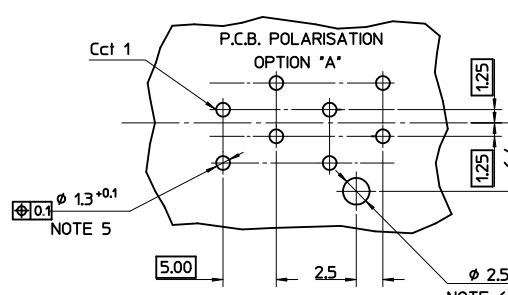
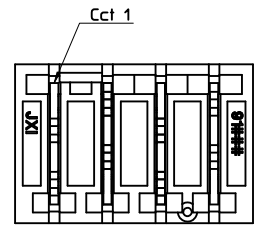
PCB LAYOUT



OPTION "B"



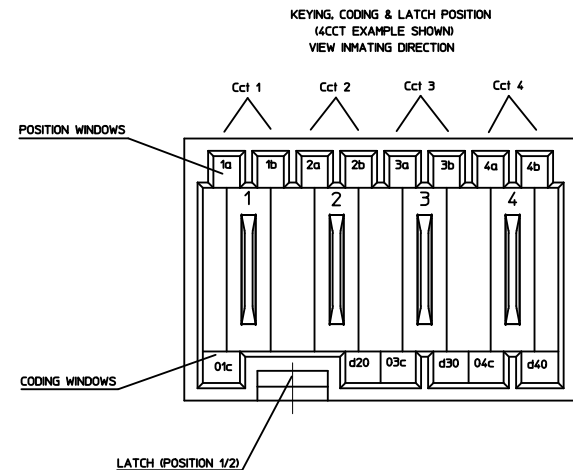
OPTION "A"



12 11 10 9 8 7 6 5 4 3 2 1

2 CIRCUIT		SEE CODE DESIGNATION TABLE FOR NUMBERING FORMAT WHEN ADDING NEW PART NUMBERS						P.C.B. POLARISATION OPTION	PACKAGING OPTION *	COLOUR STRIPE
PART NO. (TIN)	COLOUR	UNBLOCKED POSITION KEYS	UNBLOCKED CODING KEYS	LATCH POSITION	CONFIGURATION (SEE NOTES)	REF	PART NO. (SILVER)			
91999-0003	NATURAL	1b 2a	01c d20	1/2		K01	91999-0499	A		
91999-0004	NATURAL	1a 2b	01c	1/2		K02	91999-0482	A		
91999-0007	NATURAL	1b 2b	01c	1/2		K09	91999-0497	A		
91999-0018	NATURAL	2a	01c, d20	1/2		K03	91999-0495	A		
91999-0019	NATURAL	1a 2b	d20	1/2		K05	91999-0478	A		
91999-0021	NATURAL	1b	01c, d20	1/2		K16	91999-0492	A		
91999-0022	NATURAL	1a 2b	NONE	1/2		K06	91999-0491	A		
91999-0027	NATURAL	2b	NONE	1/2		K11	91999-0487	A		
91999-0029	NATURAL	1a 1b	d20	1/2		K13	91999-0486	A		
91999-0030	NATURAL	2a 2b	NONE	1/2		K31	91999-0485	A		
91999-0032	NATURAL	2b	d20	1/2		K38	91999-0484	A		
91999-0047	NATURAL	1a 2a	01c d20	1/2		K44	91999-0483	A		
91999-0055	NATURAL	1a 1b	NONE	1/2		K40	91999-0480	A		
91999-0020	NATURAL	1a 1b	01c	1/2		K04	91999-0475	A		
91999-0054	NATURAL	2b	01c d20	1/2		K15	91999-0476	A		
91999-0057	NATURAL	1a	01c d20	1/2		K12	91999-0477	A		
91999-0058	NATURAL	1a 2a	01c	1/2		K10	91999-0472	A		
91999-0059	NATURAL	ALL	d20	1/2		K34	91999-0474	A		
91999-0060	NATURAL	1b 2a 2b	d20	1/2		K07	91999-0473	A		
91999-0061	NATURAL	1b 2a	01c d20	1/2		K01	91999-0471	B		
91999-0062	NATURAL	2a	01c	1/2		K42	91999-0470	A		
91999-0063	NATURAL	1b, 2a	d20	1/2		K46	91999-0469	A		
91999-0064	NATURAL	1a, 2b	01c, d20	1/2		K48	91999-0468	A		

2 CIRCUIT					SEE CODE DESIGNATION TABLE FOR NUMBERING FORMAT WHEN ADDING NEW PART NUMBERS			P.C.B. POLARISATION OPTION	PACKAGING OPTION *	COLOUR STRIPE
PART NO. (TIN)	COLOUR	UNBLOCKED POSITION KEYS	UNBLOCKED CODING KEYS	LATCH POSITION	CONFIGURATION (SEE NOTES)	REF	PART NO. (SILVER)			
91999-0065	NATURAL	1b 2a	01c d20	1/2		K01	91999-0467	A	B	NONE
91999-0066	NATURAL	1a 2b	01c	1/2		K02	91999-0466	A	B	NONE
91999-0067	NATURAL	ALL	ALL	1/2		K00	91999-0465	A	A	NONE
91999-0068	NATURAL	1a 2b	01c	1/2		K02	91999-0464	A	B	RED
91999-0069	NATURAL	1a	01c	1/2		K57	91999-0463	A	A	NONE
91999-0070	NATURAL	2a 2b	01c	1/2		K32	91999-0462	A	B	NONE
91999-0071	NATURAL	1b 2b	01c	1/2		K09	91999-0461	C	A	NONE



NOTES:
* SEE SHEET 1 NOTE 4

SEE SHEET 1 EC NO: E2010-0370 2010/05/17 DRWN:BRUTLE CHKD:T. TOURSH 2006/10/04 APPR:BMAGUIRE 2010/06/08	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.1 ± ---	1 PLACE ± 0.2 ± ---	DRAWN BY B. RUTLE 2006/10/04	CHECKED BY T. TOURSH 2006/10/04	APPROVED BY BMAGUIRE 2006/10/04	
		ANGULAR ± 2 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
						MOLEX INCORPORATED		DOCUMENT NO. SD-91999-001	

3 CIRCUIT

SEE CODE DESIGNATION TABLE FOR NUMBERING
FORMAT WHEN ADDING NEW PART NUMBERS

PART NO. (TIN)	COLOUR	UNBLOCKED POSITION KEYS	UNBLOCKED CODING KEYS	LATCH POSITION	CONFIGURATION (SEE NOTES)	REF	PART NO. (SILVER)	P.C.B. POLARISATION OPTION	PACKAGING OPTION *	COLOUR STRIPE
91999-0502	NATURAL	1b	01c, d20	1/2		K01	91999-1249	A	A	NONE
91999-0508	NATURAL	1a	03c	1/2		K04	91999-1248	A		
91999-0511	NATURAL	1a 1b	d30	1/2		K05	91999-1247	A		
91999-0512	NATURAL	1a 3b	01c	1/2		K06	91999-1246	A		
91999-0513	NATURAL	1b	d20 03c	1/2		K09	91999-1245	A		
91999-0524	NATURAL	1b 2a 2b	d30	1/2		K33	91999-1244	A		
91999-0525	NATURAL	2b	d20	1/2		K56	91999-1243	A		
91999-0528	NATURAL	ALL	d10 d30	2/3		K38	91999-1242	A		
91999-0527	NATURAL	ALL	d20	1/2		K40	91999-1240	A		
91999-0526	NATURAL	2b 3b	d10 02c	2/3		K02	91999-1241	A		
91999-0529	NATURAL	1b	01c d20	1/2		N/A	91999-1239	A	A	NONE
91999-0530	NATURAL	2b 3b	ALL	2/3		k145	91999-1238	A		
91999-0531	NATURAL	3b	01c d30	2/3		k10	91999-1237	A		
91999-0532	NATURAL	3b	d10, 02c	2/3		N/A	91999-1236	A		
91999-0533	NATURAL	2b 3b	ALL	2/3		k145	91999-1235	A		
91999-0534	NATURAL	ALL	ALL	1/2		k00	91999-1234	A		
91999-0506	NATURAL	1a 3a	d20	1/2		k43	91999-1233	A		
91999-0507	NATURAL	2a	d10 d30	2/3		k44	91999-1232	A		
91999-0535	NATURAL	3b	d10 d30	2/3		N/A	91999-1231	A		
91999-0536	NATURAL	1b	01c	1/2		N/A	91999-1230	A		

NOTES:

* SEE SHEET 1 NOTE 4

SEE SHEET 1 EC NO: E2010-0370 2010/05/17 DRAWN: BRUTLE 2006/10/04 CHKD: T. TOURSH APPR: BMAGUIRE 2010/06/08	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.1 ± --- 1 PLACE ± 0.2 ± --- ANGULAR ± 2 °	DIMENSION STYLE MM ONLY	SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	DRAWN BY B. RUTLE 2006/10/04		DATE		TITLE RAST 5 VERT HDR PA 66 HOUSING	
	CHECKED BY T. TOURSH 2006/10/04		DATE		MATERIAL NO.	
	APPROVED BY BMAGUIRE 2006/10/04		DATE		DOCUMENT NO. SD-91999-001	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
SIZE A 1		SHEET NO. 3 OF 6				

4 CIRCUIT							SEE CODE DESIGNATION TABLE FOR NUMBERING FORMAT WHEN ADDING NEW PART NUMBERS		P.C.B. POLARISATION OPTION	PACKAGING OPTION *	COLOUR STRIPE
PART NO. (TIN)	COLOUR	UNBLOCKED POSITION KEYS	UNBLOCKED CODING KEYS	LATCH POSITION	CONFIGURATION (SEE NOTES)	REF	PART NO. (SILVER)				
91999-1254	NATURAL	1b	03c d40	1/2 3/4		K01	91999-1999	A	↑ ↓	↑	NONE
91999-1264	NATURAL	1a 4b	d40	1/2 3/4		K03	91999-1998	A			
91999-1265	NATURAL	2a 4b	d20	1/2 3/4		K07	91999-1996	A			
91999-1267	NATURAL	1b 2a 3a 4b	01c d40	1/2 3/4		K37	91999-1994	A			
91999-1270	NATURAL	1a 2b 4b	01c 03c d40	1/2 3/4		K44	91999-1993	A			
91999-1274	NATURAL	1a 3a 3b	01c d20 d40	1/2 3/4		K32	91999-1992	A			
91999-1275	NATURAL	1b 2a 4b	01c d20 03c	1/2 3/4		K61	91999-1991	A			
91999-1278	NATURAL	1a 3a	d40	1/2 3/4		K06	91999-1987	A			
91999-1280	NATURAL	1a 2b 3b 4a	01c 03c d40	1/2 3/4		K65	91999-1988	A			
91999-1281	NATURAL	2a 4b	d20 03c	1/2 3/4		K30	91999-1986	A			
91999-1282	NATURAL	3b	d30	2/3		K04	91999-1985	A			
91999-1283	NATURAL	1b 2a 4b	ALL	1/2 3/4		N/A	91999-1984	A			
91999-1284	NATURAL	2a 3a 3b 4b	ALL	1/2 3/4		N/A	91999-1983	A			
91999-1285	NATURAL	2a 2b 3b 4b	ALL	1/2 3/4		k153	91999-1982	A	A		
91999-1286	NATURAL	2a 2b 3b 4b	ALL	1/2 3/4		k153	91999-1981	A	B		
91999-1287	NATURAL	1a, 4b	01c	1/2 3/4		k02	91999-1980	A	A		
91999-1288	NATURAL	1b, 2b, 3b, 4a	01c 03c d40	1/2 3/4		k--	91999-1979	A	A		
91999-1289	NATURAL	1b	03c d40	1/2 3/4		k01	91999-1978	C	A		
91999-1290	NATURAL	1b 2a 2b 3a 4a 4b	03c d40	1/2 3/4		k12	91999-1977	A	A		
91999-1291	NATURAL	ALL	ALL	1/2 3/4		k00	91999-1976	A	A		
91999-1292	NATURAL	1b 2a 3a 4a	01c d20 03c	1/2 3/4		k83	91999-1975	A	A		
91999-1293	NATURAL	1b 2b 3b 4a	01c 03c d40	1/2 3/4		k120	91999-1974	A	A	NONE	
91999-1294	NATURAL	1a 2a 2b 3a 3b 4a 4b	NONE	1/2 3/4		k102	91999-1973	A	A	NONE	
91999-1295	NATURAL	1b 3b 4b	01c d20 03c	1/2 3/4		k85	91999-1972	A	A	NONE	

SEE SHEET 1 SEC NO: E2010-0370 DRAWN BY: B. RUTTLER CHKD BY: T. TOURSH APPR: BMAGUIRE 2010/05/17 2006/10/04 2010/06/08	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES	± --- ± ---	mm	INCH	DRAWN BY B. RUTTLER	DATE 2006/10/04	TITLE RAST 5 VERT HDR PA 66 HOUSING		
		3 PLACES	± --- ± ---			CHECKED BY T. TOURSH	DATE 2006/10/04			
		2 PLACES	± 0.1 ± ---			APPROVED BY BMAGUIRE	DATE 2006/10/04	MOLEX INCORPORATED		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		1 PLACE	± 0.2 ± ---	ANGULAR ± 2 °		MATERIAL NO.				
SEE CHART		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		DOCUMENT NO. SD-91999-001		SHEET NO. 4 OF 6				

7 CIRCUIT						SEE CODE DESIGNATION TABLE FOR NUMBERING FORMAT WHEN ADDING NEW PART NUMBERS		P.C.B. POLARISATION OPTION	PACKAGIG OPTION *	COLOUR STRIPE	
PART NO. (TIN)	COLOUR	UNBLOCKED POSITION KEYS	UNBLOCKED CODING KEYS	LATCH POSITION	CONFIGURATION (SEE NOTES)	REF	PART NO. (SILVER)				
91999-3511	NATURAL	NONE	03c d40 07c	1/2 5/6		K01	91999-4249	A			NONE
91999-3512	NATURAL	3a 4a	d30 d70	1/2 5/6		K30	91999-4248	A			
91999-3504	NATURAL	2b	d20 d60	1/2 5/6		K32	91999-4247	A			
91999-3508	NATURAL	1a 1b 3a 4b 5a	01c 07c	1/2 3/4 5/6		K40	91999-4243	A			
91999-3509	NATURAL	2a	01c d50	2/3 4/5		K41	91999-4242	A			
91999-3515	NATURAL	7b	01c d40 d70	1/2 3/4 6/7		K43	91999-4240	A			
91999-3516	NATURAL	1b	03c d60	1/2 4/5		K31	91999-4239	A			
91999-3517	NATURAL	1a 3a 4b 7b	01c d20 03c 06c	1/2 3/4 6/7		K45	91999-4238	A			
91999-3519	NATURAL	1b 7a	02c d50	2/3 6/7		K48	91999-4237	A			
91999-3521	NATURAL	1a 2b 3a 4b 6a	d20 03c d40 d50 d70	1/2 3/4 6/7		K51	91999-4236	A			
91999-3522	NATURAL	1b 6a	d20 03c d50 d70	1/2 3/4 6/7		K69	91999-4235	A			
91999-3523	NATURAL	1b 2a 5a 5b 7b	d20 d50 06c d70	1/2 4/5 6/7		K34	91999-4234	A			
91999-3524	NATURAL	2b	d20 07c	1/2 3/4 5/6		K35	91999-4233	A			
91999-3525	NATURAL	2a 2b 4b 5b 6a	d20 03c d40 d60	1/2 3/4 5/6		K38	91999-4232	A			
91999-3526	NATURAL	2b 4a 4b 5b 6a	01c d20 d40 d60	1/2 3/4 5/6		K42	91999-4231	A	A		NONE
91999-3527	NATURAL	1b, 2a, 3a 5b, 6a, 6b, 7b	01c, d70	2/3, 6/7		K05	91999-4230	A	A		
91999-3528	NATURAL	ALL	ALL	1/2, 5/6		K00	91999-4229	A	A		
91999-3529	NATURAL	2a 3b 4b 5a 6a 6b 7a	01c d30 04c 06c d60 d70	1/2 4/5		N/A	91999-4228	A	A		
91999-3530	NATURAL	NONE	04c 07c	1/2 5/6		N/A	91999-4227	A	A	NONE	NONE

NOTES:
* SEE SHEET 1 NOTE 4

SEE SHEET 1 EC NO: E2010-0370 DRAWN BY: B. RUTLE CHKD BY: T. TOURSH APPR: BMAGUIRE 2010/05/17 2006/10/04 2010/06/08	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	TITLE RAST 5 VERT HDR PA 66 HOUSING					
		mm	INCH	DRAWN BY B. RUTLE	DATE 2006/10/04	DOCUMENT NO. SD-91999-001			SHEET NO. 6 OF 6					
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	CHECKED BY T. TOURSH	DATE 2006/10/04	MOLEX INCORPORATED		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						
		2 PLACES ± 0.1 ± ---	1 PLACE ± 0.2 ± ---	APPROVED BY BMAGUIRE	DATE 2006/10/04	SEE CHART								
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		ANGULAR ± 2 °		SIZE A 1										