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Part Number: [0877871012](#)
Status: **Active**
Overview: [icool](#)
Description: 1.00mm (.039") Pitch iCool™ Low Profile VRM Socket, VRM 11, Vertical, Through Hole, with Latches, with Beveled Metal Pins, Signal 24, Power 70, 0.76µm (30µ") Gold (Au) Plating, 3.00mm (.118) PC Tail Length, Leadfree

Documents:

[3D Model](#) [RoHS Certificate of Compliance \(PDF\)](#)
[Drawing \(PDF\)](#)

Agency Certification

CSA LR19980
 UL E29179

General

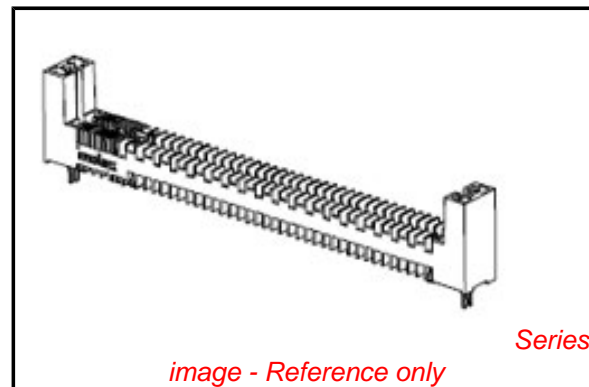
Product Family Edge Card Connectors
 Series [87787](#)
 Comments Latches in Beige Color
 Component Type Edgecard to PCB
 Overview [icool](#)
 Product Name iCool™, VRM

Physical

Circuits (Loaded) 94
 Circuits (maximum) 94
 Circuits Detail 24 Signal, 70 Power
 Color - Resin Black, Natural
 Durability (mating cycles max) 25
 Entry Angle Vertical (Top Entry)
 Flammability 94V-0
 Keying to Mating Part Yes
 Material - Metal High Performance Alloy (HPA), Phosphor Bronze
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Material - Resin High Temperature Thermoplastic
 PC Tail Length (in) 0.118 In
 PC Tail Length (mm) 3.00 mm
 PCB Locator Yes
 PCB Retention Yes
 PCB Thickness Recommended (in) 0.062 In
 PCB Thickness Recommended (mm) 1.60 mm
 Packaging Type Tray
 Pitch - Mating Interface (in) 0.039 In
 Pitch - Mating Interface (mm) 1.00 mm
 Plating min: Mating (µin) 30
 Plating min: Mating (µm) 0.76
 Plating min: Termination (µin) 150
 Plating min: Termination (µm) 3.81
 Polarized to Mating Part Yes
 Temperature Range - Operating -10°C to +105°C
 Termination Interface: Style Through Hole

Electrical

Current - Maximum per Contact 1A, 4A
 Voltage - Maximum 48V



EU RoHS

ELV and RoHS Compliant
REACH SVHC Contains SVHC: No
Halogen-Free Status

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
[87787Series](#)

Mates With
 Voltage Regulator Module

Solder Process Data

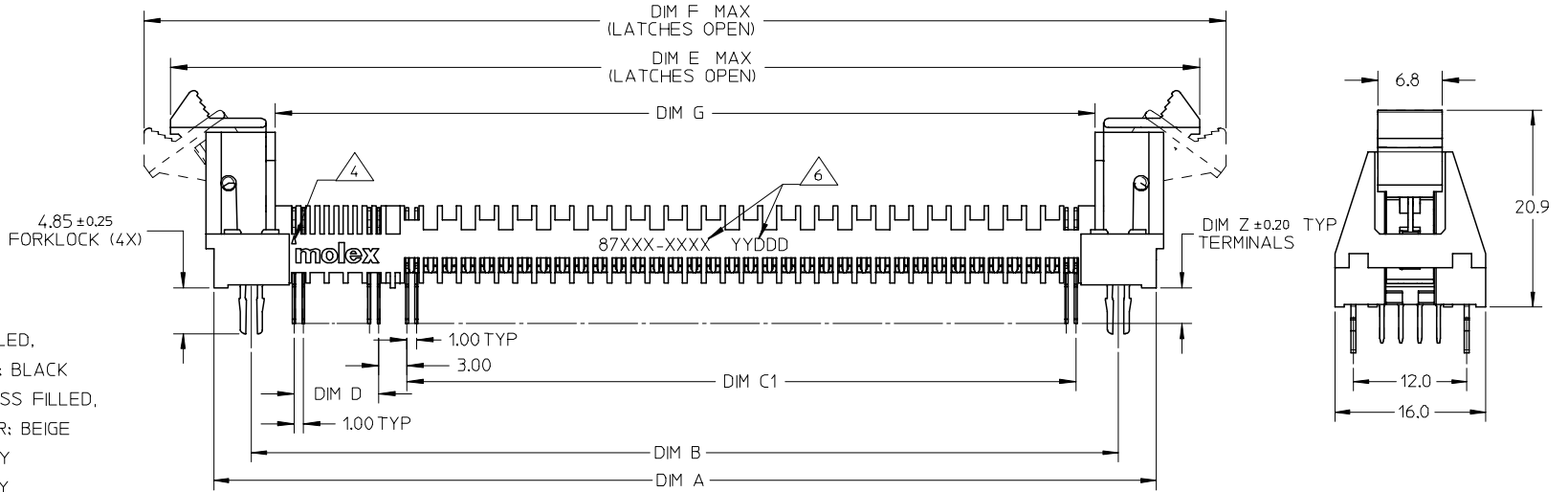
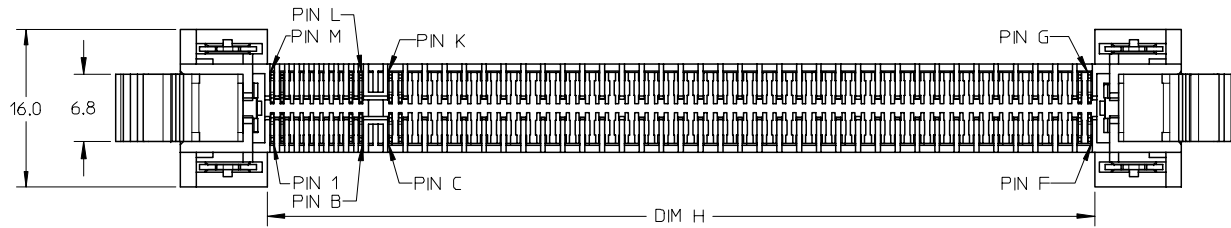
Duration at Max. Process Temperature (seconds)	5
Lead-free Process Capability	SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	245

Material Info**Reference - Drawing Numbers**

Sales Drawing	SD-87787-001
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This document was generated on 06/08/2010

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NOTES:

1. MATERIAL :

HOUSING: LCP, GLASS FILLED,
UL94V-0, COLOR: BLACK
LATCHES: NYLON 46, GLASS FILLED,
UL94V-0, COLOR: BEIGE
CONTACTS: COPPER ALLOY
FORKLOCK: COPPER ALLOY

2. FINISH:

CONTACTS: 0.76µm (30u") MIN GOLD OVER
1.27µm (50u") MIN NICKEL
SOLDER TAIL : 3.81µm (150u") MIN TIN OVER
1.27µm (50u") MIN NICKEL

3. THIS DRAWING IS BASED UPON PIN CONFIGURATION

OF 20 SIGNALS AND 72 POWER PINS.

- a) THE OVERALL CONNECTOR LENGTH INCREASES BY 1.00MM FOR EVERY ADDITIONAL 2 SIGNAL PINS.
- b) THE OVERALL CONNECTOR LENGTH INCREASES BY 2.00MM FOR EVERY ADDITIONAL 2 POWER PINS.

4. MOLDED PIN #1 INDICATOR

5. FORKLOCK TO BE SOLDERED ONTO PCB BOARD.

6. PART NUMBER AND DATE CODE (YYDD) TO BE LASER MARK ONTO HOUSING.

7. SPECIFICATIONS:

PPRODUCT SPECIFICATION: PS-87786-008

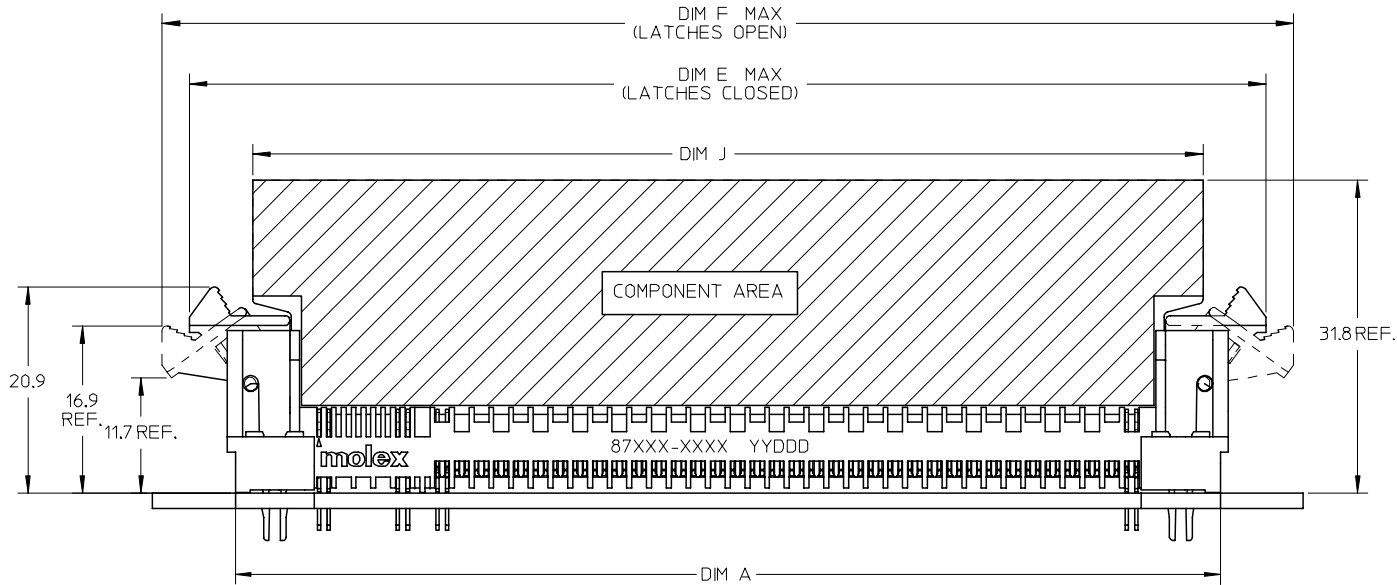
REVISED	DESCRIPTION
EC NO: S2006-1290	2006/06/29
DRWN:KLOKE	2006/06/30
CHKD:BLHOW	2006/06/30
APPR:PTLIM	2006/06/30
D1	REV

QUALITY SYMBOLS	DESCRIPTION
▽=0	
△=0	

GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm INCH
4 PLACES	± --- ± ---
3 PLACES	± --- ± ---
2 PLACES	± 0.13 ± ---
1 PLACE	± 0.25 ± ---
ANGULAR ± 3 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
KMGOH	2003/03/04
CHECKED BY	DATE
BHLOW	2003/03/05
APPROVED BY	DATE
PTLIM	2003/03/05
MATERIAL NO.	
SEE TABLE	
SIZE	A3

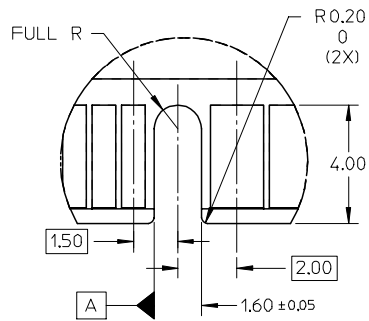
SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	
TITLE		
LOW PROFILE VRM SOCKET W/LATCH, T/H		
MOLEX INCORPORATED		
DOCUMENT NO.	SHEET NO.	
SD-87787-001	1 OF 4	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		



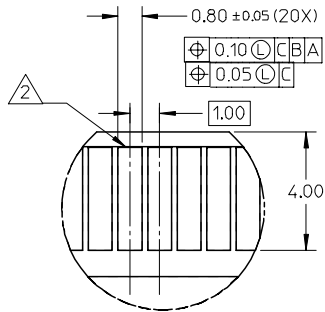
REVISED EC NO: S2006-1290 DRWN:KLOKE CHKD:BLW APPR:PTL IM	2006/06/29 2006/06/30 2006/06/30	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
				mm	INCH	DRAWN BY KMG0H	DATE 2003/03/04	TITLE LOW PROFILE VRM SOCKET W/LATCH, T/H				
			4 PLACES	± ---	± ---	CHECKED BY BHLOW	DATE 2003/03/05	MOLEX INCORPORATED DOCUMENT NO. SD-87787-001 SHEET NO. 2 OF 4				
			3 PLACES	± ---	± ---	APPROVED BY PTL IM	DATE 2003/03/05					
2 PLACES	± 0.13	± ---	ANGULAR ± 3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE					
1 PLACE	± 0.25	± ---										

NOTES:

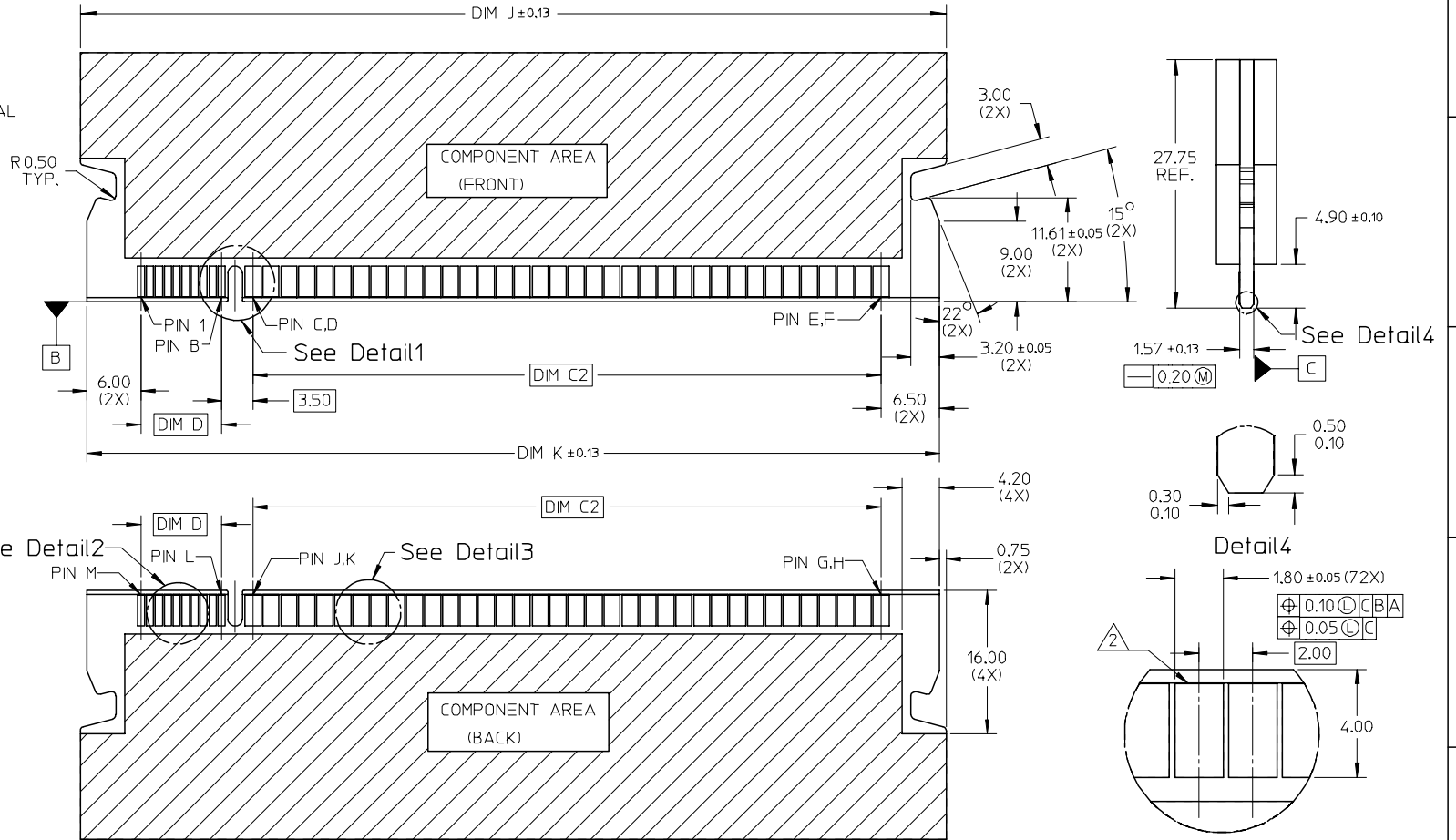
1. OPPOSING POWER PADS MUST BE OF THE SAME POLARITY.
2. APPLICATION NOTE: EDGE OF CONTACT PADS SHALL BE FREE OF BURRS AND EXTERNAL TIE BARS.



Detail1



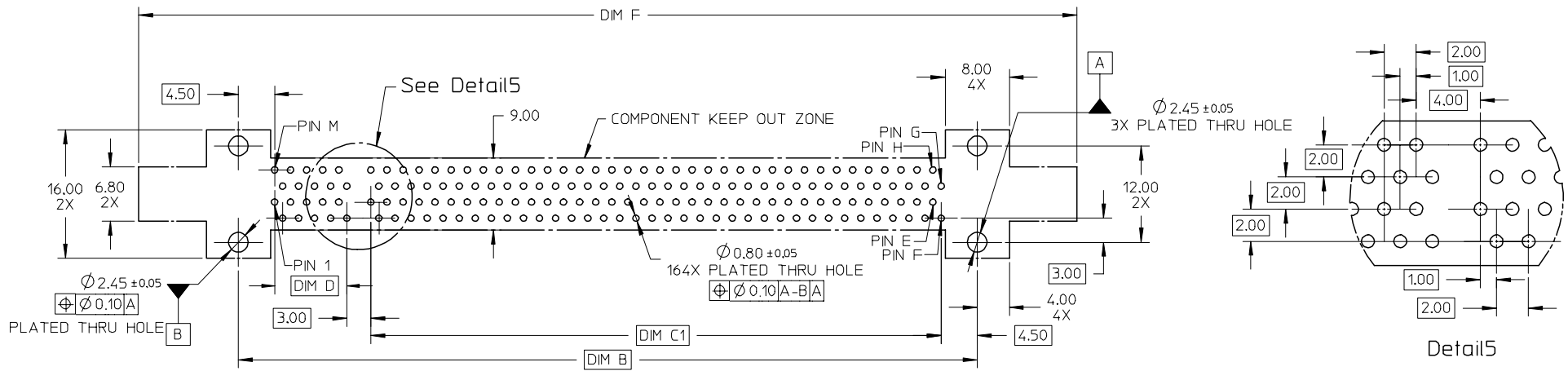
Detail2



RECOMMENDED MODULE OUTLINE

REVISED EC NO: S2006-1290 DRWN:KLOKE CHKD:BLHOW APPR:PTLIM 2006/06/29 2006/06/30 2006/06/30	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.13 ± ---	1 PLACE ± 0.25 ± ---	ANGULAR ± 3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY KMG0H	DATE 2003/03/04	CHECKED BY BHLOW	DATE 2003/03/05
		APPROVED BY PTLIM		DATE 2003/03/05	MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-87787-001	TITLE LOW PROFILE VRM SOCKET W/LATCH, T/H		MOLEX INCORPORATED	
		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		SHEET NO. 3 OF 4					

PART NUMBER	TYPE	SIGNALS	POWERS	PLATING OPTION	DIM A	DIM B	DIM C1	DIM C2	DIM D	DIM E	DIM F	DIM G	DIM H	DIM J	DIM K	DIM Z S/T LENGTH	PIN NUMBER CONFIGURATION														RECOMMENDED PCB THICKNESS
																	B	C	D	E	F	G	H	J	K	L	M				
87787-1002	VRM 10	20	72	TIN	100.00	92.00	71.00	70.00	9.00	110.50	116.80	87.00	84.00	96.50	95.00	3.80	10	11	12	81	82	83	84	153	154	155	164	2.36MM			
87787-1011	VRM 11	24	70	TIN	100.00	92.00	69.00	68.00	11.00	110.50	116.80	87.00	84.00	96.50	95.00	3.80	12	13	14	81	82	83	84	151	152	153	164	2.36MM			
87787-1012	VRM 11	24	70	TIN	100.00	92.00	69.00	68.00	11.00	110.50	116.80	87.00	84.00	96.50	95.00	3.00	12	13	14	81	82	83	84	151	152	153	164	1.57MM			



RECOMMENDED PCB LAYOUT

NOTES:

1. PCB LAYOUT BASED UPON SOCKET PIN CONFIGURATION OF 20 SIGNAL PINS AND 72 POWER PINS.
2. THERE IS ONE SOLDERTAIL FOR EACH SIGNAL PIN AND TWO SOLDERTAILS FOR EACH POWER PIN.

REVISED EC NO: S2006-1290 2006/06/29 DRWN:KLOKE CHKD:BLW 2006/06/30 APPR:PTL IM 2006/06/30	DESCRIPTION D1	QUALITY SYMBOLS ▽=0 △=0	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
			mm	INCH	DRAWN BY KMG0H	DATE 2003/03/04	TITLE LOW PROFILE VRM SOCKET W/LATCH, T/H
			4 PLACES ± ---	± ---	CHECKED BY BHLOW	DATE 2003/03/05	
			3 PLACES ± ---	± ---	APPROVED BY PTL IM	DATE 2003/03/05	
			2 PLACES ± 0.13	± ---			
			1 PLACE ± 0.25	± ---			
			ANGULAR ± 3 °				
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE A3	SEE TABLE	DOCUMENT NO. SD-87787-001	SHEET NO. 4 OF 4