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Part Number:

0878101002

Status:

Active

Overview:

Description:

1.00mm (.039") Pitch iCool™ Low Profile VRM, Vertical, Through Hole, with Tower, with Beveled Metal Pins, 22 Signal, 88 Power, 0.76µm (30µ") Gold (Au) Plating, Leadfree

Agency Certification

CSA	LR19980
UL	E29179

General

Product Family	Edge Card Connectors
Series	87810
Component Type	Edgecard to PCB
Overview	icool
Product Name	iCool™, VRM

Physical

Circuits (Loaded)	110
Circuits (maximum)	110
Circuits Detail	22 Signal, 88 Power
Color - Resin	Black
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)	0.150 In
PC Tail Length (mm)	3.80 mm
PCB Locator	No
PCB Retention	Yes
PCB Thickness Recommended (in)	0.093 In
PCB Thickness Recommended (mm)	2.40 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

Solder Process Data

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

EU RoHS

ELV and RoHS

Compliant

REACH SVHC

Contains SVHC: No

Halogen-Free

Status

Not Reviewed

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

87810Series

Mates With

Voltage Regulator Module

Material Info

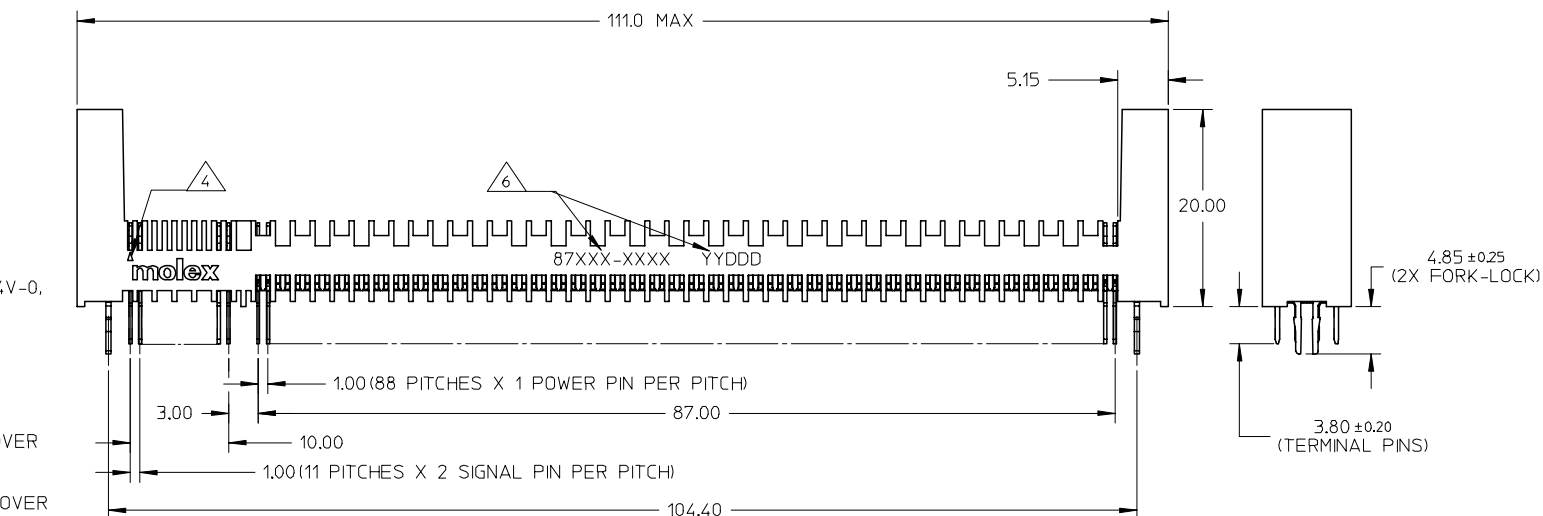
Reference - Drawing Numbers

Sales Drawing

SD-87810-030

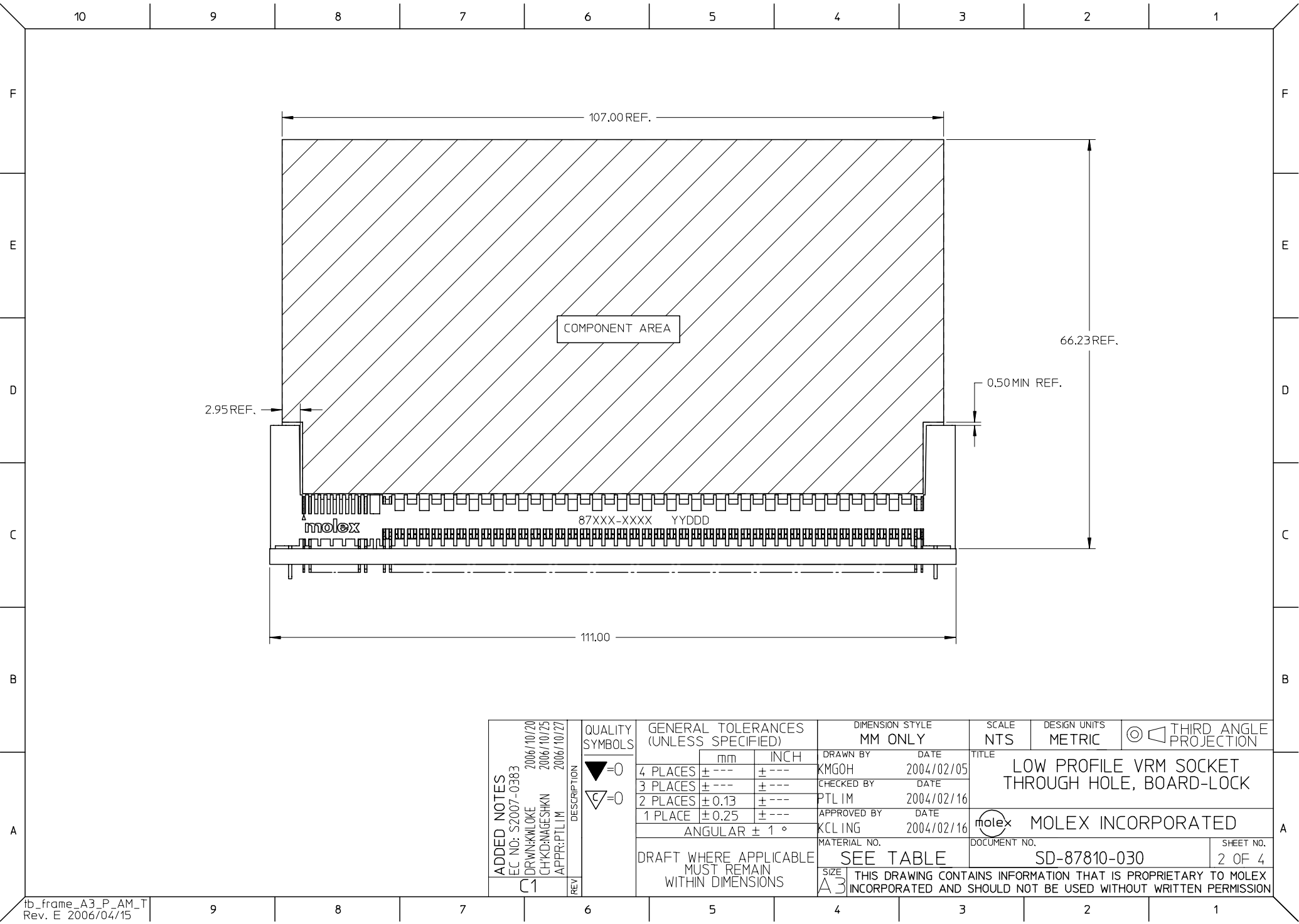
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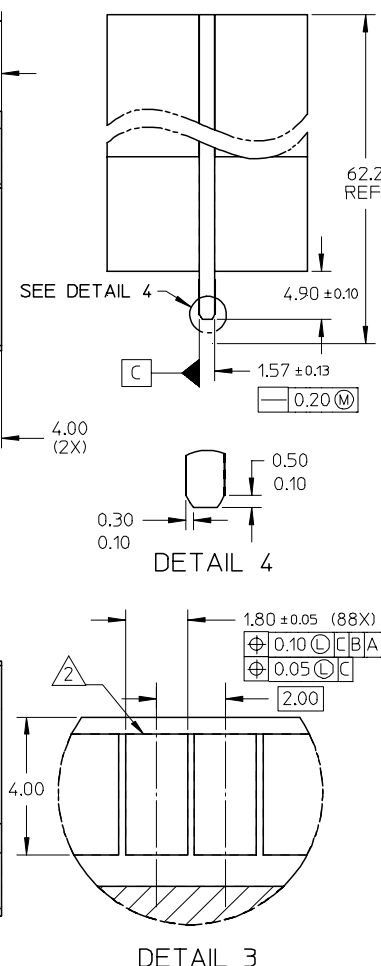
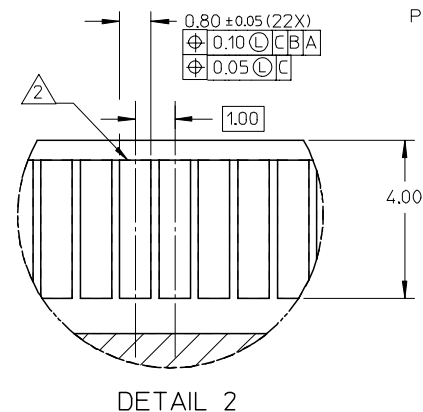
9. PARTS PACKAGED IN TRAY.

ADDED NOTES EC NO: S2007-0383 DRAWN: KJLOKE CHK'D: ANAGESHKIN APPR: PTLIM	2006/10/20 2006/10/20 2006/10/27	DESCRIPTION DRAWING LOCKE APPR: PTLIM	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
					mm	INCH	DRAWN BY DATE		TITLE LOW PROFILE VRM SOCKET THROUGH HOLE, BOARD-LOCK					
				4 PLACES	± ---	± ---	KMG0H 2004/02/05							
				3 PLACES	± ---	± ---	CHECKED BY DATE							
				2 PLACES	± 0.13	± ---	PTLIM 2004/02/16							
				1 PLACE	± 0.25	± ---	APPROVED BY DATE		molex MOLEX INCORPORATED					
				ANGULAR ± 1 °			KCLING 2004/02/16							DOCUMENT NO.
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			MATERIAL NO.		SD-87810-030				1 OF 4	
							SEE TABLE							
				C1		REV		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						



ADDED NOTES EC NO: S2007-0383 2006/10/20 DRWN:KLOKE CHKD:NAGESHKN 2006/10/25 APPR:PTL IM 2006/10/27		DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ▽C=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
										TITLE LOW PROFILE VRM SOCKET THROUGH HOLE, BOARD-LOCK	
										MOLEX INCORPORATED	
C1				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		DOCUMENT NO. SD-87810-030		SHEET NO. 2 OF 4	

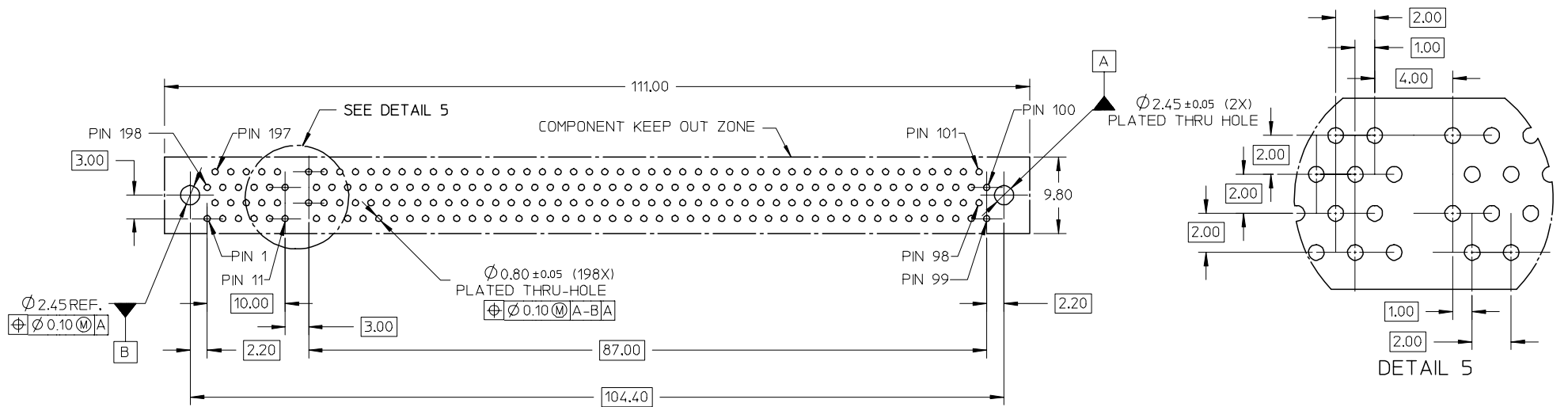
1. OPPOSING POWER PADS MUST BE OF THE SAME POLARITY.
2. APPLICATION NOTE:
EDGE OF CONTACT PADS SHALL BE FREE OF BURRS AND EXTERNAL TIE BARS.



DETAIL 3

tb_frame_A3_P_AM_T
Rev. E 2006/04/15

10	9	8	7	6	5	4	3	2	1
PART NUMBER	SIGNAL	POWER							
87810-1002	22	88							



RECOMMENDED PCB LAYOUT

NOTES:

1. PCB LAYOUT BASED UPON SOCKET PIN CONFIGURATION OF 22 SIGNAL PINS AND 88 POWER PINS.
2. THERE IS ONE SOLDERTAIL FOR EACH SIGNAL PIN AND TWO SOLDERTAILS FOR EACH POWER PIN.
3. THE PCB THICKNESS ARE BASED FROM 0.093 INCH (2.36MM) TO 0.110 INCH (2.79MM).

ADDED NOTES	EC NO: S2007-0383	2006/10/20	QUALITY SYMBOLS
	DRWN:KMOKE	2006/10/25	
	CHKD:NAGESHKN	2006/10/27	
	APPR:PTL IM		
REV	DESCRIPTION		
C1			

QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
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	1 PLACE	± 0.25	± ---	APPROVED BY	DATE	SD-87810-030			
	ANGULAR ± 1 °			KCL ING	2004/02/16				
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			MATERIAL NO.		DOCUMENT NO.			SHEET NO.
				SEE TABLE					4 OF 4
				SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			