

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0870121008](#)  
**Status:** **Active**  
**Overview:** [sca2](#)  
**Description:** 1.27mm (.050") Pitch SCA-2 Plug, Through Hole, Right Angle, 40 Circuits, Lead-free

**Documents:**

[3D Model](#) [Product Specification PS-87012-0001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

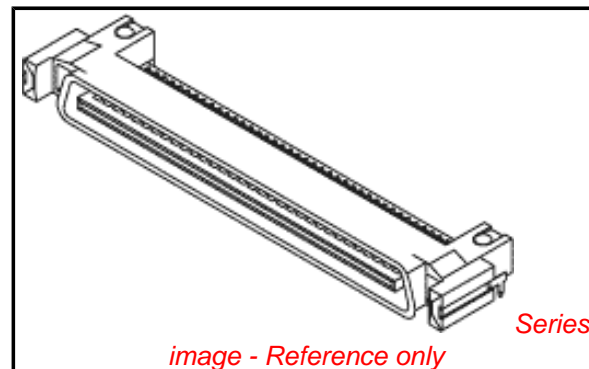
Product Family	PCB Headers
Series	<a href="#">87012</a>
Application	Board-to-Board
Overview	<a href="#">sca2</a>
Product Name	SCA-2

**Physical**

Breakaway	No
Circuits (Loaded)	40
Circuits (maximum)	40
Color - Resin	Black
Durability (mating cycles max)	500
First Mate / Last Break	No
Glow-Wire Compliant	No
Guide to Mating Part	Yes
Keying to Mating Part	None
Lock to Mating Part	None
Material - Metal	Brass
Material - Plating Mating	Gold, Tin
Material - Plating Termination	Tin
Material - Resin	High Temperature Thermoplastic
Number of Rows	2
Orientation	Right Angle
PC Tail Length (in)	0.059 In
PC Tail Length (mm)	1.50 mm
PCB Locator	Yes
PCB Retention	Yes
PCB Thickness Recommended (in)	0.040 In
PCB Thickness Recommended (mm)	1.00 mm
Packaging Type	Tray
Pitch - Mating Interface (in)	0.050 In
Pitch - Mating Interface (mm)	1.27 mm
Plating min: Mating (µin)	152.4, 30.4
Plating min: Mating (µm)	0.76, 3.81
Plating min: Termination (µin)	152.4
Plating min: Termination (µm)	3.81
Polarized to Mating Part	Yes
Shrouded	Fully
Stackable	No
Surface Mount Compatible (SMC)	N/A
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Through Hole

**Electrical**

Current - Maximum per Contact	1A
Voltage - Maximum	30V



**EU RoHS**

**ELV and RoHS  
Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free  
Status**  
**Not Reviewed**

**China RoHS**



**Need more information on product  
environmental compliance?**

Email [productcompliance@molex.com](mailto: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**

[87012Series](#)

**Mates With**

EBBI™ 50D Receptacle [73826Link:71743](#) ,  
[73829](#) , [71744](#). SCA-2 Receptacle [87557](#) , [87620](#)

**Solder Process Data**

Duration at Max. Process Temperature (seconds)	180
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	227

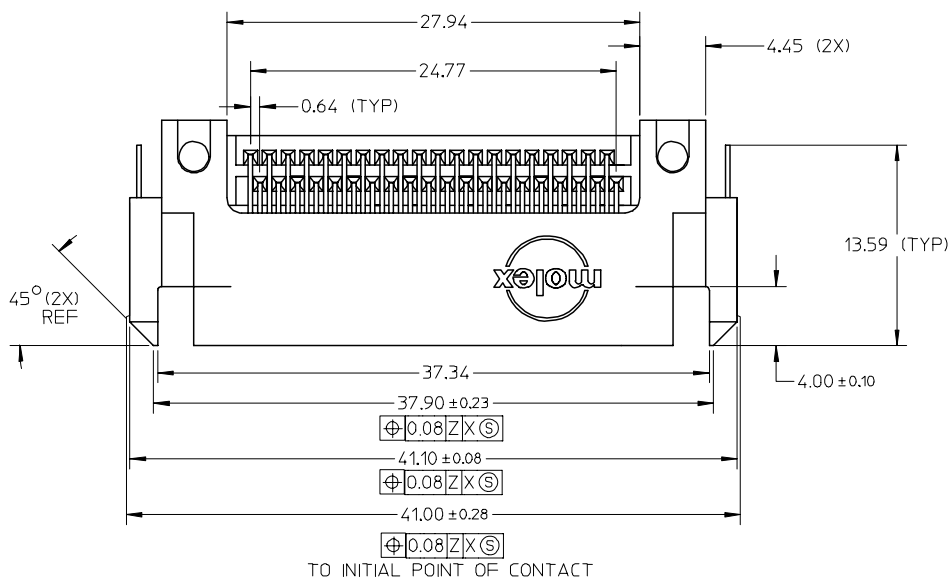
**Material Info****Reference - Drawing Numbers**

Packaging Specification	PK-89990-610
Product Specification	PS-87012-0001
Sales Drawing	SD-87012-0008

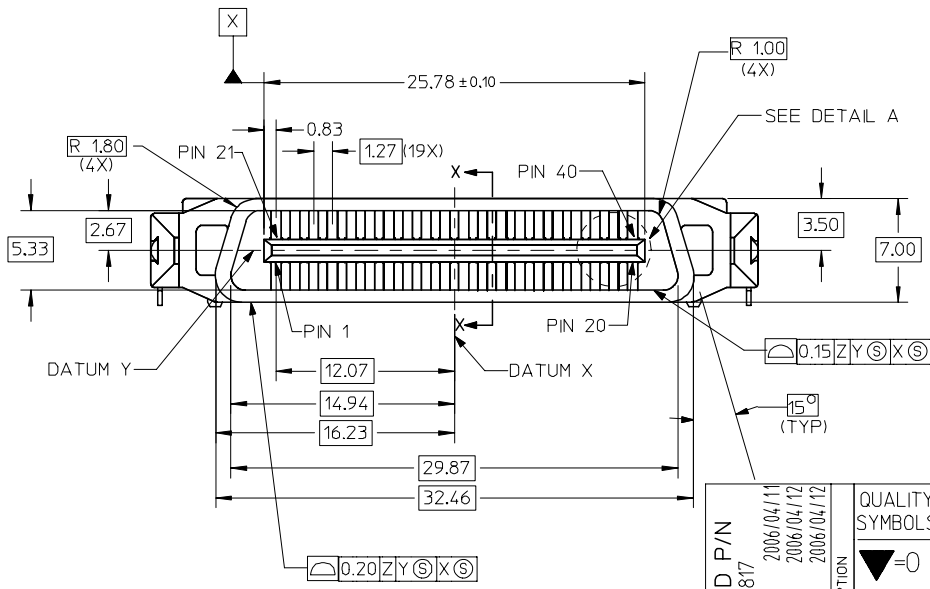
This document was generated on 05/31/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**

10 9 8 7 6 5 4 3 2 1

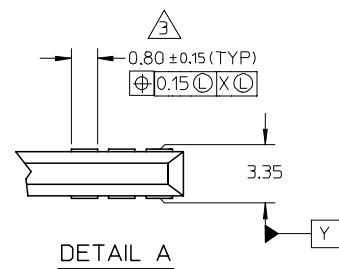


TO INITIAL POINT OF CONTACT



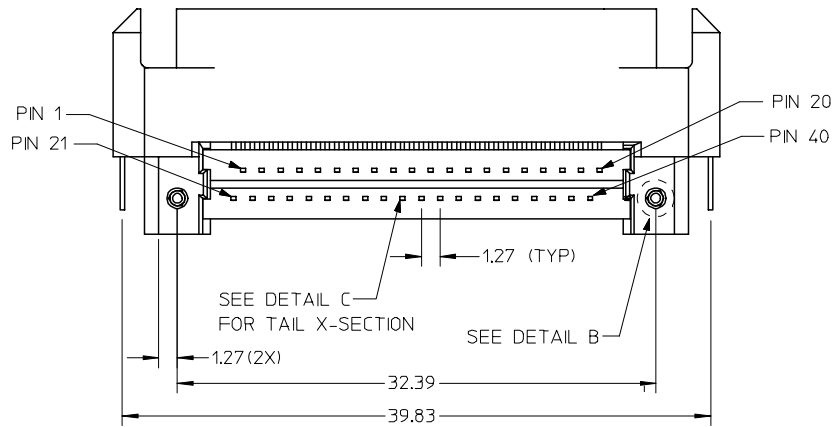
NOTE:

- MATERIAL:  
HOUSING: LCP, UL RATED 94V-0, COLOR BLACK,  
CONTACTS: BRASS  
RETENTION CLIP: BRASS  
LOCATING PIN: BRASS
  - PLATING:  
CONTACTS: 1.27  $\mu\text{M}$  MIN. NICKEL UNDERPLATE ALL OVER WITH 0.76  $\mu\text{M}$  MIN. GOLD PLATE AT CONTACT AREA AND 3.81  $\mu\text{M}$  MIN. TIN ON TAILS.  
RETENTION CLIP: 1.27  $\mu\text{M}$  MIN. NICKEL UNDERPLATE ALL OVER WITH 3.81  $\mu\text{M}$  MIN. TIN ALL OVER.  
LOCATING PIN: 1.27  $\mu\text{M}$  MIN. NICKEL UNDERPLATE ALL OVER WITH 3.81  $\mu\text{M}$  MIN. TIN ALL OVER.
3. CONTACT MUST BE ABOVE PLASTIC ALONG EFFECTIVE MATING AREA.
4. CONNECTOR SEATING PLANE IS DEFINED AS THE SEATING SURFACE ON THE PCB AND THE FLATNESS TO BE WITHIN 0.15.
5. PART CONFORMS TO SFF SPECIFICATIONS FOR SCA II.

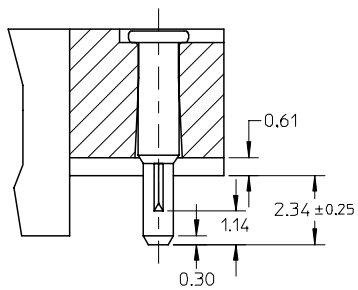


OBS TIN/LEAD P/N EC NO: S2006-0817 DRWN:MLONG CHKD:CGTAN APPR:KCLING	QUALITY SYMBOLS ▽=0 ◁=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
				MM ONLY	NTS	METRIC		
				MM	INCH			
				4 PLACES ± --- ± ---				
REV	DESCRIPTION	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRAWN BY	DATE	TITLE		
				KENT	1997/06/16	SCA-2, 40 CKTS, CONN. REVERSED FACE, R/A, T/H		
				CHECKED BY	DATE			
				KCLING	1997/07/21			
		ANGULAR ± 3°		APPROVED BY	DATE	MOLEX MOLEX INCORPORATED		
				PTH0	1997/07/21			
				MATERIAL NO.	DOCUMENT NO.	SHEET NO.		
				87012-1008	SD-87012-0008	1 OF 3		
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

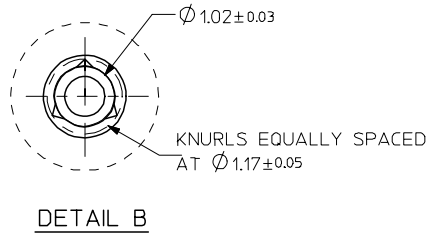
9 8 7 6 5 4 3 2 1



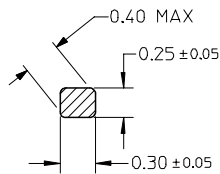
**BOTTOM VIEW**



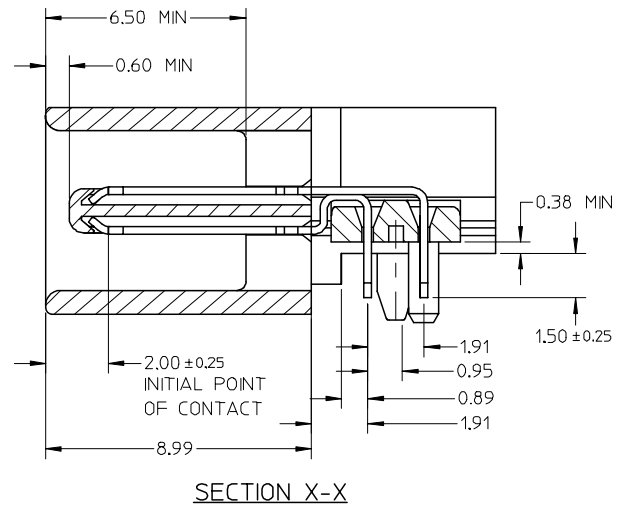
**LOCATING PIN DETAIL**



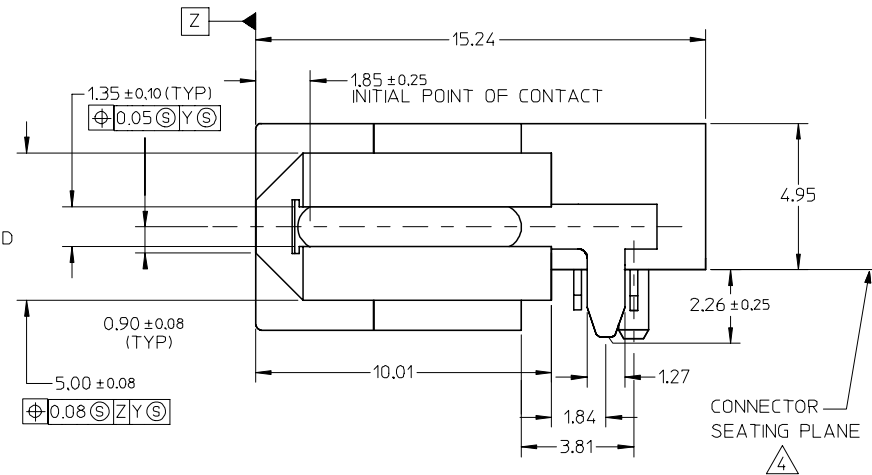
**DETAIL B**



**DETAIL C  
(TAIL X-SECTION)**



**SECTION X-X**



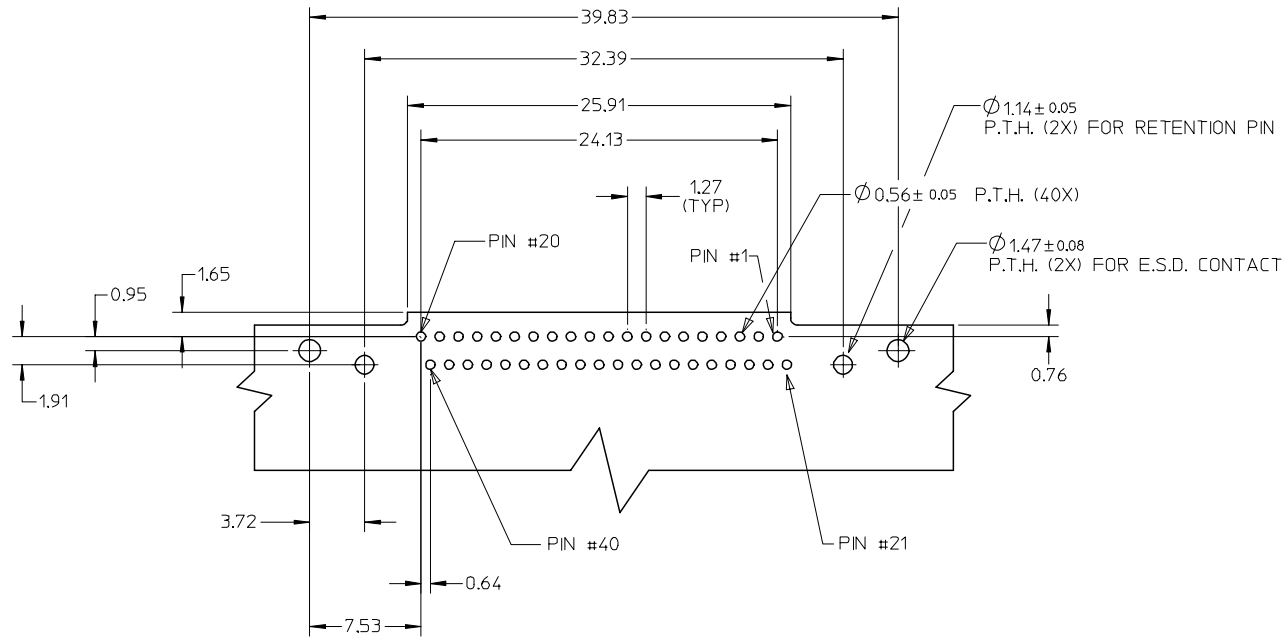
OBS	TIN/LEAD P/N	2006/04/11
EC NO:	S2006-0817	2006/04/12
DRWN:	M LONG	2006/04/12
CHKD:	CG TAN	2006/04/12
APPR:	KCL ING	2006/04/12
REV	DESCRIPTION	

QUALITY SYMBOLS	▽=0
	▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .008
2 PLACES	± 0.20	± ---
1 PLACE	± ---	± ---
ANGULAR ± 3 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY		NTS	METRIC	
DRAWN BY	DATE	TITLE		
KENT	1997/06/16	SCA-2, 40 CKTS, CONN. REVERSED FACE, R/A, T/H		
CHECKED BY	DATE			
KCL ING	1997/07/21			
APPROVED BY	DATE			
PTH0	1997/07/21			
MATERIAL NO.	DOCUMENT NO.	SHEET NO.		
87012-1008	SD-87012-0008	2 OF 3		

MOLEX INCORPORATED	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	



RECOMMENDED P.C.B. LAYOUT  
(COMPONENT SIDE)

OBS TIN/LEAD P/N EC NO: S2006-0817 DRWN:MLONG CHKD:CGTAN APPR:KCLING	2006/04/11 2006/04/12 2006/04/12	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			▽=0 ∇=0		mm	INCH	DRAWN BY KENT	DATE 1997/06/16	TITLE SCA-2, 40 CKTS, CONN. REVERSED FACE, R/A, T/H			
				4 PLACES ± --- ± ---			CHECKED BY KCLING	DATE 1997/07/21				
				3 PLACES ± --- ± .008			APPROVED BY PTH0	DATE 1997/07/21	MATERIAL NO. 87012-1008		DOCUMENT NO. SD-87012-0008	SHEET NO. 3 OF 3
				1 PLACE ± --- ± ---				MOLEX INCORPORATED				
				ANGULAR ± 3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					