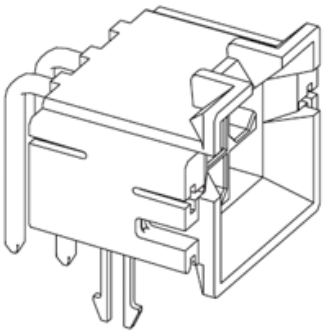
This document was generated on 05/14/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: 0438100353

Status: Active

Description: 4.20mm (.165") Pitch Mini-Fit BMI™ Surface Mount Compatible Header, Dual Row, Right Angle, 4 Circuits, 6.35mm (.250") PCB Thickness, with Snap-In Metal Pins, PA Polyamide Nylon 4/6, UL 94V-0, with Tin (Sn) Over Nickel (Ni) Plating



Series image - Reference only

Documents:

3D Model
Drawing (PDF)
Product Specification PS-43810-001 (PDF)
RoHS Certificate of Compliance (PDF)

Agency Certification

CSA	LR19980
UL	E29179

General

Product Family	PCB Headers
Series	43810
Application	Board-to-Board, Wire-to-Board
Comments	Current = 13A max. per circuit when header is mated to a receptacle loaded with 45750 Mini-Fit Plus HCS™ Crimp Terminal Crimpted to to 16 AWG wire. . See Molex product specification PS-45750-001 for additional current de-rating information.
Product Name	Mini-Fit SMC™

Physical

Breakaway	No
Circuits (Loaded)	4
Circuits (maximum)	4
Color - Resin	Black
Durability (mating cycles max)	30
Flammability	94V-0
Glow-Wire Compliant	No
Guide to Mating Part	Yes
Lock to Mating Part	Yes
Material - Metal	Brass
Material - Plating Mating	Tin
Material - Plating Termination	Tin
Material - Resin	High Temperature Thermoplastic
Number of Rows	2
Orientation	Right Angle
PC Tail Length (in)	0.200 In
PC Tail Length (mm)	5.08 mm
PCB Locator	Yes
PCB Retention	Yes
PCB Thickness Recommended (in)	0.125 In
PCB Thickness Recommended (mm)	3.20 mm
Packaging Type	Tray
Pitch - Mating Interface (in)	0.165 In
Pitch - Mating Interface (mm)	4.20 mm
Plating min: Mating (µin)	100
Plating min: Mating (µm)	2.54
Plating min: Termination (µin)	100
Plating min: Termination (µm)	2.54
Polarized to Mating Part	Yes
Polarized to PCB	Yes

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
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
43810Series

Mates With
15-06-0041 Mini-Fit BMI™ Panel Mount Receptacle, 39-01-2045 Mini-Fit Jr.™ Receptacle, 15-24-7041 Mini-Fit BMI™ Receptacle Header

Shrouded	Fully
Stackable	No
Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Through Hole

Electrical

Current - Maximum per Contact	13A
Voltage - Maximum	600V

Solder Process Data

Lead-free Process Capability	SMC & Wave Capable (TH only)
Process Temperature max. C	235

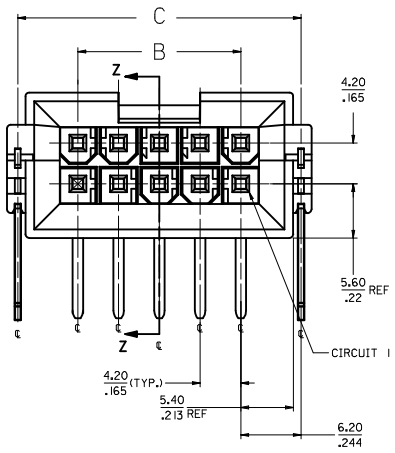
Material Info

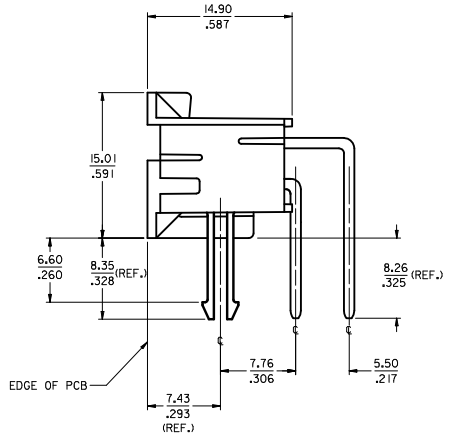
Reference - Drawing Numbers

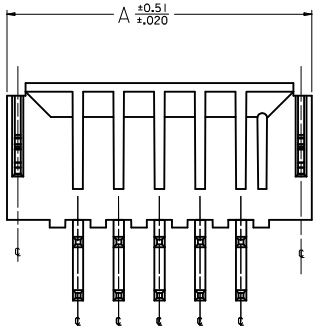
Packaging Specification	PK-43810-001
Product Specification	PS-43810-001
Sales Drawing	SD-43810-071
Test Summary	TS-43810-001

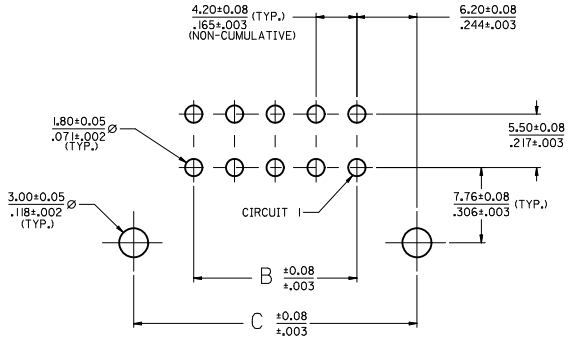
This document was generated on 05/14/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION





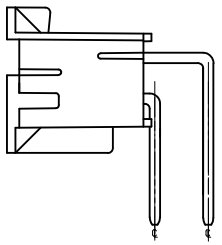




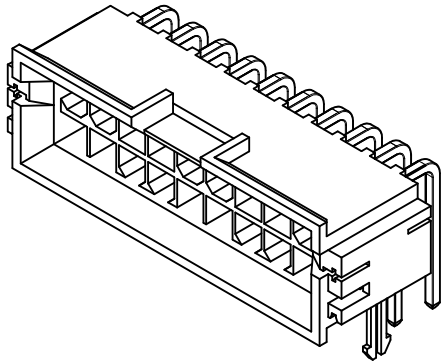
PCB LAYOUT: COMPONENT SIDE

RECOMMENDED PCB THICKNESS: $\frac{6.35\pm0.18}{.250\pm.007}$

NOTES
1) MATERIALS
   HOUSING: NYLON 4/6 UL 94V-0 GLASS FILLED, COLOR: BLACK
   TERMINAL: BRASS
   BOARD RETENTION CLIP: BRASS
2) FINISHES:
   TERMINAL:
   1.=(0.00254)/.000100 MIN. BRIGHT TIN OVER (0.00127)/.000050 MIN. NICKEL
   2.=(0.00076)/.000030 MIN. GOLD OVER (0.00127)/.000050 MIN. NICKEL
   3.=(0.00076)/.000030 MIN. SELECT GOLD AND (0.00254)/.000100 MIN. SELECT MATTE TIN OVER (0.00127)/.000050 MIN. NICKEL OVERALL
   MOUNTING CLIP:
   (0.00254)/.000100 MIN. MATTE TIN OVER (0.00127)/.000050 MIN. NICKEL
3) PRODUCT SPECIFICATION: PS-43810-001
4) PACKAGING SPECIFICATION: PK-43810-001
5) PARTS MATES WITH MOLEX RECPTACLE #5557 AND #42474 AND #42385 HEADER
6) PART ALLOWS FOR (1.27)/.050 MAX MIS-ALIGNMENT WITH MATING HOUSINGS IN ANY DIRECTION
7) CONNECTOR ASSEMBLIES ARE NOT TO BE MATED AND UNMATED WHILE CIRCUITS ARE LIVE
8) PARTS ARE NOT DESIGNED FOR CURRENT SHARING
9) DISCOLORATION IN THE BANDOLIER CARRIER AREA OF THE PIN IS INHERENT TO THE PLATING PROCESS AND IS DUE TO THE MASKING EFFECT OF THE CARRIER. THIS DISCOLORATION IS IN A NON-FUNCTIONAL AREA OF THE PIN AND WILL NOT AFFECT THE PERFORMANCE OF THE HEADER ASSEMBLY.
10) PART CONFORMS TO CLASS "B" REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002



HEADER ASSEMBLY
WITH NO CLIP OPTION



20 CKT SHOWN

2	D
I	D
SHT.	REV.

ADDED PN SHT 2 2010/05/26
EC NO: UCP2010-0715 2010/05/27
DRWN:JAGUILAR 2010/06/04
CHKD:BELL
APPR:FSMITH
DESCRIPTION
REV: D

QUALITY SYMBOLS
▽ =0
▽ =0
▽ =0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± .014
1 PLACE	± 0.35	± ---
ANGULAR ±1/2°		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 4:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY	MANLAPZ	DATE 01-06-97
CHECKED BY	BANDURA	DATE 03-26-97
APPROVED BY	EDGLEY	DATE 03-26-97

TITLE: MINI-FIT JR BMI SMC RIGHT ANGLE HEADER ASM FOR 6.35/.250 THK, PCB

MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-43810-071
SHEET NO.: 1 OF 2
SIZE: D

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

	MATERIAL NO.	CIRCUIT SIZE	CLIP OPTION	DIM. "A"	DIM. "B"	DIM. "C"	FINISH
	43810-0353	4	YES	18.81 / .740	4.20 / .165	16.60 / .653	1
	43810-0354	6	YES	23.01 / .906	8.40 / .331	20.80 / .819	1
N	43810-0355	8	YES	27.21 / 1.071	12.60 / .496	25.00 / .984	1
	43810-0356	10	YES	31.41 / 1.237	16.80 / .661	29.20 / 1.150	1
N	43810-0357	12	YES	35.61 / 1.402	21.00 / .828	33.40 / 1.315	1
	43810-0358	14	YES	39.81 / 1.567	25.20 / .992	37.60 / 1.480	1
N	43810-0359	16	YES	44.01 / 1.733	29.40 / 1.157	41.80 / 1.646	1
	43810-0360	18	YES	48.21 / 1.898	33.60 / 1.323	46.00 / 1.811	1
N	43810-0361	20	YES	52.41 / 2.063	37.80 / 1.488	50.20 / 1.976	1
N	43810-0362	22	YES	56.61 / 2.229	42.00 / 1.654	54.40 / 2.142	1
	43810-0363	24	YES	60.81 / 2.394	46.20 / 1.819	58.60 / 2.307	1
	43810-0364	4	YES	18.81 / .740	4.20 / .165	16.60 / .653	2
	43810-0365	6	YES	23.01 / .906	8.40 / .331	20.80 / .819	2
N	43810-0366	8	YES	27.21 / 1.071	12.60 / .496	25.00 / .984	2
	43810-0367	10	YES	31.41 / 1.237	16.80 / .661	29.20 / 1.150	2
N	43810-0368	12	YES	35.61 / 1.402	21.00 / .828	33.40 / 1.315	2
	43810-0369	14	YES	39.81 / 1.567	25.20 / .992	37.60 / 1.480	2
N	43810-0370	16	YES	44.01 / 1.733	29.40 / 1.157	41.80 / 1.646	2
	43810-0371	18	YES	48.21 / 1.898	33.60 / 1.323	46.00 / 1.811	2
N	43810-0372	20	YES	52.41 / 2.063	37.80 / 1.488	50.20 / 1.976	2
N	43810-0373	22	YES	56.61 / 2.229	42.00 / 1.654	54.40 / 2.142	2
	43810-0374	24	YES	60.81 / 2.394	46.20 / 1.819	58.60 / 2.307	2
	43810-0666	4	YES	18.81 / .740	4.20 / .165	16.60 / .653	3
	43810-0667	6	YES	23.01 / .906	8.40 / .331	20.80 / .819	3
N	43810-0668	8	YES	27.21 / 1.071	12.60 / .496	25.00 / .984	3
	43810-0669	10	YES	31.41 / 1.237	16.80 / .661	29.20 / 1.150	3
N	43810-0670	12	YES	35.61 / 1.402	21.00 / .828	33.40 / 1.315	3
	43810-0671	14	YES	39.81 / 1.567	25.20 / .992	37.60 / 1.480	3
N	43810-0672	16	YES	44.01 / 1.733	29.40 / 1.157	41.80 / 1.646	3
	43810-0673	18	YES	48.21 / 1.898	33.60 / 1.323	46.00 / 1.811	3
N	43810-0674	20	YES	52.41 / 2.063	37.80 / 1.488	50.20 / 1.976	3
N	43810-0675	22	YES	56.61 / 2.229	42.00 / 1.654	54.40 / 2.142	3
	43810-0676	24	YES	60.81 / 2.394	46.20 / 1.819	58.60 / 2.307	3

N - NOT TOOLED

	MATERIAL NO.	CIRCUIT SIZE	CLIP OPTION	DIM. "A"	DIM. "B"	DIM. "C"	FINISH
	43810-0375	4	NO	18.81 / .740	4.20 / .165	16.60 / .653	1
	43810-0376	6	NO	23.01 / .906	8.40 / .331	20.80 / .819	1
N	43810-0377	8	NO	27.21 / 1.071	12.60 / .496	25.00 / .984	1
	43810-0378	10	NO	31.41 / 1.237	16.80 / .661	29.20 / 1.150	1
N	43810-0379	12	NO	35.61 / 1.402	21.00 / .828	33.40 / 1.315	1
	43810-0380	14	NO	39.81 / 1.567	25.20 / .992	37.60 / 1.480	1
	43810-0381	16	NO	44.01 / 1.733	29.40 / 1.157	41.80 / 1.646	1
	43810-0382	18	NO	48.21 / 1.898	33.60 / 1.323	46.00 / 1.811	1
N	43810-0383	20	NO	52.41 / 2.063	37.80 / 1.488	50.20 / 1.976	1
N	43810-0384	22	NO	56.61 / 2.229	42.00 / 1.654	54.40 / 2.142	1
	43810-0385	24	NO	60.81 / 2.394	46.20 / 1.819	58.60 / 2.307	1
	43810-0386	4	NO	18.81 / .740	4.20 / .165	16.60 / .653	2
	43810-0387	6	NO	23.01 / .906	8.40 / .331	20.80 / .819	2
N	43810-0388	8	NO	27.21 / 1.071	12.60 / .496	25.00 / .984	2
	43810-0389	10	NO	31.41 / 1.237	16.80 / .661	29.20 / 1.150	2
N	43810-0390	12	NO	35.61 / 1.402	21.00 / .828	33.40 / 1.315	2
	43810-0391	14	NO	39.81 / 1.567	25.20 / .992	37.60 / 1.480	2
N	43810-0392	16	NO	44.01 / 1.733	29.40 / 1.157	41.80 / 1.646	2
	43810-0393	18	NO	48.21 / 1.898	33.60 / 1.323	46.00 / 1.811	2
N	43810-0394	20	NO	52.41 / 2.063	37.80 / 1.488	50.20 / 1.976	2
N	43810-0395	22	NO	56.61 / 2.229	42.00 / 1.654	54.40 / 2.142	2
	43810-0396	24	NO	60.81 / 2.394	46.20 / 1.819	58.60 / 2.307	2
	43810- 0677	4	NO	18.81 / .740	4.20 / .165	16.60 / .653	3
	43810- 0678	6	NO	23.01 / .906	8.40 / .331	20.80 / .819	3
N	43810- 0679	8	NO	27.21 / 1.071	12.60 / .496	25.00 / .984	3
	43810- 0680	10	NO	31.41 / 1.237	16.80 / .661	29.20 / 1.150	3
N	43810- 0681	12	NO	35.61 / 1.402	21.00 / .828	33.40 / 1.315	3
	43810- 0682	14	NO	39.81 / 1.567	25.20 / .992	37.60 / 1.480	3
N	43810- 0683	16	NO	44.01 / 1.733	29.40 / 1.157	41.80 / 1.646	3
	43810- 0684	18	NO	48.21 / 1.898	33.60 / 1.323	46.00 / 1.811	3
N	43810- 0685	20	NO	52.41 / 2.063	37.80 / 1.488	50.20 / 1.976	3
N	43810- 0686	22	NO	56.61 / 2.229	42.00 / 1.654	54.40 / 2.142	3
	43810- 0687	24	NO	60.81 / 2.394	46.20 / 1.819	58.60 / 2.307	3

N - NOT TOOLED

ADDED PN TO CHART
EC NO: UCP2010-0715
DRWN: JAGUILAR 2010/05/26
CHKD: BELL 2010/05/27
APPR: FSMITH 2010/06/04
DESCRIPTION
REV: D

QUALITY SYMBOLS
▽ =0
▽ =0
▽ =0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± .014
1 PLACE	± 0.35	± ---
ANGULAR ±1/2°		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: -
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: JIWANG DATE: 00-07-20
CHECKED BY: BANDURA DATE: 00-07-20
APPROVED BY: FSMEDLEY DATE: 00-07-26 2010/06/03

TITLE: MINI-FIT JR BMI SMC RIGHT ANGLE HEADER ASM FOR 6.35/.250 THK. PCB

MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SD-43810-071
SHEET NO.: 2 OF 2
SIZE: D

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