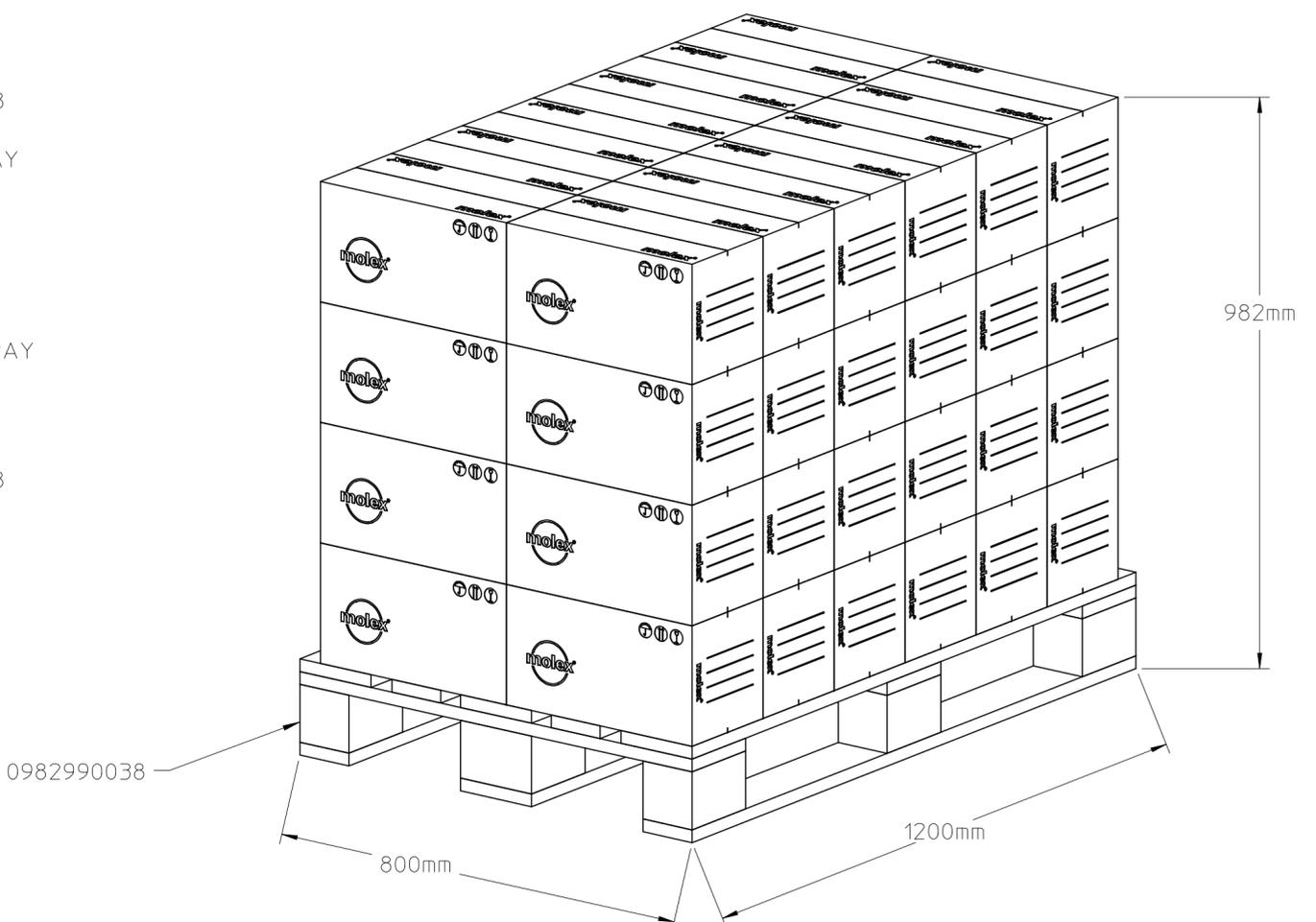
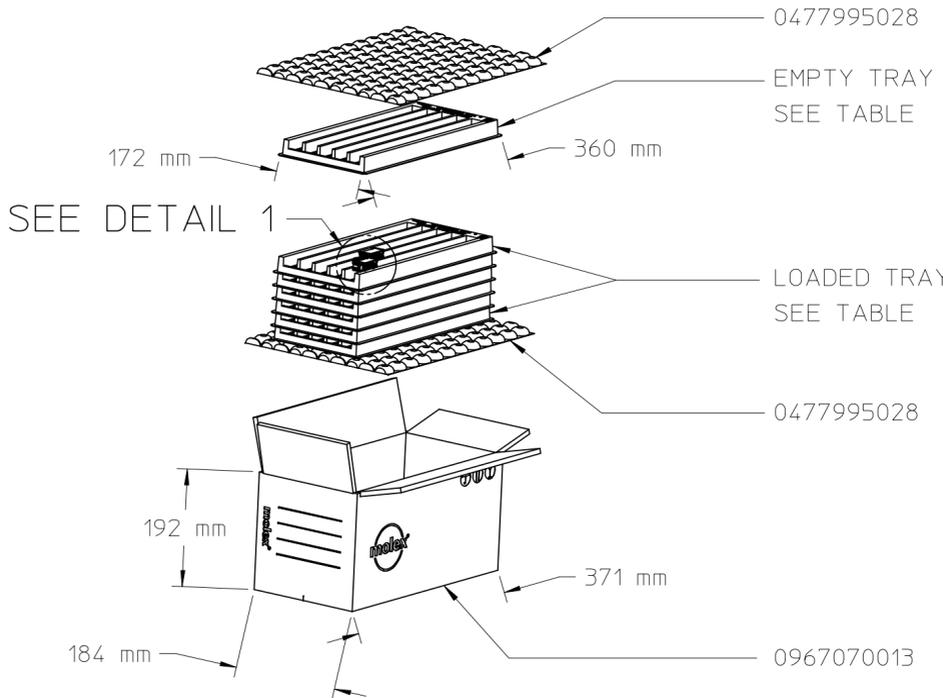


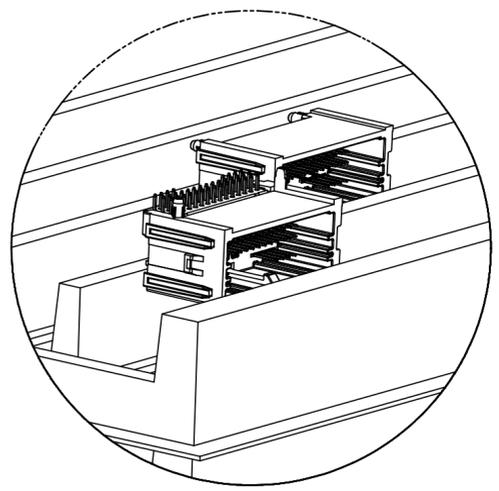
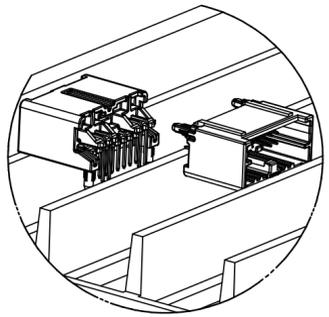
Molex 34792-0040 PDF

深圳创唯电子有限公司

<http://www.molex-connect.com>



- NOTES:
1. FOLD AND TAPE THE BOTTOM FLAPS OF THE CARTON (0967070013).
 2. LOAD HEADERS INTO TRAY (SEE TABLE) ORIENTED AS SHOWN IN DETAIL 1 IF 0313020690 OR PARTIAL 1 IF 0313014390 AND PER THE TABLE ON SHEET 2.
 3. LOAD FULL TRAYS, ONE EMPTY TRAY AS A COVER AND BUBBLE PADS AS SHOWN AND PER THE TABLE ON SHEET 2.
PUT ABOUT HALF THE BUBBLE PADS ON TOP AND THE OTHERS UNDER THE TRAYS.
 4. FOLD AND TAPE THE TOP FLAPS OF THE CARTON.
 5. LABEL, THEN PALLETIZE IN UP TO 4 LAYERS OF 12 CARTONS.
 7. UNITIZE PER E-47799-150.
 8. STANDARD PACKAGE QUANTITY (SPQ): SEE TABLE
 9. FULL PALLET QUANTITY: SEE TABLE



NO CHANGE EC NO: UAU2016-1666 DRWN:PPHELPS 2016/05/12 CHKD: APPR:CSHELDON 2016/05/26	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 1:8	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		mm	INCH	DRAWN BY P.PHELPS	DATE 2009/11/06	TITLE TRAY PACK FOR MINI 50 HEADERS 034792 SERIES, ETC.				
		4 PLACES ± ---	± ---	CHECKED BY P.PHELPS	DATE 2009/11/06	MOLEX INCORPORATED				
		3 PLACES ± ---	± ---	APPROVED BY JNORTHRO	DATE 2011/02/17	DOCUMENT NO. PK-31301-440				
		ANGULAR ± 1 °		MATERIAL NO. SEE TABLE		SHEET NO. 1 OF 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								

TABLE

MAT'L #	DESCRIPTION	#/SLOT	#/TRAY	TRAY/CARTON	SPQ/MOQ	PALLET QTY	BUBBLE PADS	TRAY #
0347920040	4-CKT VERTICAL HEADER (TIN)	23	138	16 LOADED 1 EMPTY	2208	105,984	0	0313014390
0347920041								
0347920042								
0347920043								
0347920080	8-CKT VERTICAL HEADER (TIN)	15	90	16 LOADED	1440	69,120	2	0313014390
0347920081								
0347920082								
0347920083								
0347922081								
0347930040	4-CKT RIGHT ANGLE HEADER (TIN)	23	138	12 LOADED	1656	79,488	2	0313014390
0347930041								
0347930042								
0347930043								
0347934040	4-CKT RIGHT ANGLE HEADER (REFLOW TIN)							
0347934041								
0347934042								
0347934043								
0347930080	8-CKT RIGHT ANGLE HEADER (TIN)	15	90	12 LOADED	1080	51,840	2	0313014390
0347930081								
0347930082								
0347930083								
0348250120	12-CKT VERTICAL HEADER LOW PROFILE (TIN)	15	90	14 LOADED 1 EMPTY	1260	60,480	0	0313014390
0348250121								
0348250122								
0348250124	12-CKT VERTICAL HEADER (TIN)	13	65	8 LOADED 1 EMPTY	520	24,960	2	0313020690
0348250125								
0348250126								

REFERENCES:
 FOR 4-CKT VERTICAL HEADERS, REFERENCE: E-34792-020
 FOR 4-CKT R/A HEADERS, REFERENCE: E-34793-020
 FOR 8-CKT VERTICAL HEADERS, REFERENCE: E-34792-040
 FOR 8-CKT R/A HEADERS, REFERENCE: E-34793-040
 FOR 12-CKT VERTICAL LOW PROFILE HEADERS, REFERENCE: E-34825-010
 FOR 12-CKT R/A LOW PROFILE HEADERS, REFERENCE: E-34826-010
 FOR 12-CKT VERTICAL HEADERS, REFERENCE: E-34825-010
 FOR 12-CKT R/A HEADERS, REFERENCE: E-34826-010
 FOR 16-CKT VERTICAL HEADERS, REFERENCE: SD-34825-001
 FOR 16-CKT R/A HEADERS, REFERENCE: SD-34826-001
 FOR 20-CKT VERTICAL HEADERS, REFERENCE: SD-34825-001
 FOR 20-CKT R/A HEADERS, REFERENCE: SD-34826-001
 FOR 24-CKT VERTICAL HEADERS, REFERENCE: SD-34825-001
 FOR 24-CKT R/A HEADERS, REFERENCE: SD-34826-001

ADD 0347922081 EC NO: UAU2016-1666 DRWN:PPHELPS 2016/05/12 CHKD: APPR:CSHELDON 2016/05/26	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION															
	$\nabla = 0$ $\nabla \square = 0$ $\nabla \square \square = 0$	<table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>2 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± ---	± ---	1 PLACE	± ---	± ---	MM ONLY	1:8	METRIC	
		mm	INCH																		
	4 PLACES	± ---	± ---																		
3 PLACES	± ---	± ---																			
2 PLACES	± ---	± ---																			
1 PLACE	± ---	± ---																			
	ANGULAR ± 1 °																				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	TRAY PACK FOR MINI 50 HEADERS 034792 SERIES, ETC. MOLEX INCORPORATED		TITLE SHEET NO. 2 OF 3															
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																		

TABLE

MAT'L #	DESCRIPTION	#/SLOT	#/TRAY	TRAY/CARTON	SPQ/MOQ	PALLET QTY	BUBBLE PADS	TRAY #
0348250160	16-CKT VERTICAL HEADER	11	55	8 LOADED	440	21,120	2	0313020690
0348250161	(TIN)			1 EMPTY				
0348250162								
0348250200	20-CKT VERTICAL HEADER	10	50	8 LOADED	400	19,200	2	0313020690
0348250201	(TIN)			1 EMPTY				
0348250202								
0348250240	24-CKT VERTICAL HEADER	9	45	8 LOADED	360	17,280	2	0313020690
0348250241	(TIN)			1 EMPTY				
0348250242								
0348254240	24-CKT VERTICAL HEADER							
0348254241	(REFLOW TIN)							
0348254242								
0348260120	12-CKT RIGHT ANGLE HEADER	15	90	11 LOADED	990	47,520	0	0313014390
0348260121	LOW PROFILE			1 EMPTY				
0348260122	(TIN)							
0348260124	12-CKT RIGHT ANGLE	13	65	8 LOADED	520	24,960	2	0313020690
0348260125	HEADER (TIN)			1 EMPTY				
0348260126								
0348260160	16-CKT RIGHT ANGLE	11	55	8 LOADED	440	21,120	2	0313020690
0348260161	HEADER (TIN)			1 EMPTY				
0348260162								
0348260200	20-CKT RIGHT ANGLE	10	50	8 LOADED	400	19,200	2	0313020690
0348260201	HEADER (TIN)			1 EMPTY				
0348260202								
0348260240	24-CKT RIGHT ANGLE	9	45	8 LOADED	360	17,280	2	0313020690
0348260241	HEADER (TIN)			1 EMPTY				
0348260242								
0348264240	24-CKT RIGHT ANGLE							
0348264241	HEADER (REFLOW TIN)							
0348264242								

NO CHANGE EC NO: UAU2016-1666 DRWN: PHELPS 2016/05/12 CHKD: APPR: CSHELDON 2016/05/26 REV: A3	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	$\nabla = 0$ $\nabla = 0$ $\nabla = 0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---	MM ONLY	1:8	METRIC	
		ANGULAR ± 1 °	DRAWN BY	DATE	TITLE	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	P.PHELPS	2009/11/06	TRAY PACK FOR MINI 50 HEADERS 034792 SERIES, ETC.	
			CHECKED BY	DATE		
		P.PHELPS	2009/11/06			
		APPROVED BY	DATE			
		JNORTHRO	2011/02/17			
		MATERIAL NO.	DOCUMENT NO.	SHEET NO.		
		SEE TABLE	PK-31301-440	3 OF 3		
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				



PRODUCT SPECIFICATION

1.0 SCOPE

This product specification covers the 0.50 mm (0.0197 inch) terminal system on a 2.0mm (0.0787 inch) centerline (pitch) single row and dual row Mini 50 unsealed wire to board connection system terminated with 0.35mm² to 0.13mm² wire using crimp technology.

Connectors in this specification are made from two resin materials – PBT & PA410 (Ecopaxx). Both will meet performance data unless specifically noted in the description or requirement columns.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBERS

Product Name	Series
24 Way Right Angle Header Assembly	34826
20 Way Right Angle Header Assembly	34826
16 Way Right Angle Header Assembly	34826
12 Way Right Angle Header Assembly	34826
8 Way Right Angle Header Assembly	34793
4 Way Right Angle Header Assembly	34793
24 Way Vertical Header Assembly	34825
20 Way Vertical Header Assembly	34825
16 Way Vertical Header Assembly	34825
12 Way Vertical Header Assembly	34825
8 Way Vertical Header Assembly	34792
4 Way Vertical Header Assembly	34792
24 Way SMT Header Assembly	34897
20 Way SMT Header Assembly	34897
16 Way SMT Header Assembly	34897
12 Way SMT Header Assembly	34897
8 Way SMT Header Assembly	34912
4 Way SMT Header Assembly	34912
2 Way SMT Header Assembly	34912
2 Way Receptacle Connector Assembly	34791
4 Way Receptacle Connector Assembly	34791
8 Way Receptacle Connector Assembly	34791
12 Way Receptacle Connector Assembly	34824
16 Way Receptacle Connector Assembly	34824
20 Way Receptacle Connector Assembly	34824
24 Way Receptacle Connector Assembly	34824

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	SHEET No. 1 of 17
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION

2.2 ASSOCIATED TERMINALS

Product Description	Vendor Part Number
Molex CTX 50 Small Grip Female Receptacle Terminal (.13mm ²)	560023-0421
Molex CTX 50 Medium Grip Female Receptacle Terminal (.22mm ²)	560023-0422
Molex CTX 50 Large Grip Female Receptacle Terminal (.35mm ²)	560023-0448

2.3 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Harness Housings: unfilled PBT – 2, 4, 8, 12, 16, 20, 24ckt connectors
 25% glass fiber PA410 (Ecopaxx) – 16, 20, 24ckt connectors
 Header Housing: 30% glass fiber SPS – 2, 4, 8, 12, 16, 20, 24ckt header housings
 Pins: Copper alloy C26000
 Tin Plating: Overall Tin with Nickel under-plate
 CPA: 50% glass fiber PA66

2.4 SAFETY AGENCY APPROVALS

UL File Number	Not Applicable
CSA File Number	Not Applicable
TUV License number	Not Applicable

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	SHEET No. 2 of 17
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

Description	Document Number
2, 4, 8 way single row receptacle assembly sales drawing (charted)	SD-34791-001
12, 16, 20, 24 way dual row receptacle assembly sales drawing (charted)	SD-34824-002
12, 16, 20, 24 way dual row receptacle assembly w/CPA sales drawing (charted)	SD-34824-003
4 & 8 way vertical header assembly sales drawing (charted)	SD-34792-001
12, 16, 20, 24 way vertical header assembly sales drawing (charted)	SD-34825-001
4 & 8 way right angle header assembly sales drawing (charted)	SD-34793-001
12, 16, 20, 24 way right angle header assembly sales drawing (charted)	SD-34826-001
2, 4, 8 way SMT header assembly sales drawing (charted)	SD-34912-001
12, 16, 20, 24 way SMT header assembly sales drawing (charted)	SD-34897-001
4 & 8 way harness sales drawing (charted)	DU5T-14489-CCA
12 way harness sales drawing (charted)	FU5T-14489-AA
Molex CTX 50 terminal sales drawing (charted)	SD-560023-002
Tray packaging specification (header only)	PK-31301-440
Tube packaging specification (header only)	PK-31301-688
Bulk packaging specification (receptacle assembly only)	PK-31301-538
Application specification	AS-34791-020

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	SHEET No. 3 of 17
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION

4.0 RATINGS

4.1 VOLTAGE

500 VDC MAXIMUM; Per GMW3191, All measured isolation resistances shall be $>100\text{M}\Omega$.
 14 VDC MAXIMUM; An initial leak current of $\leq 10\mu\text{A}$ and a post endurance leak current of $\leq 1\text{mA}$.

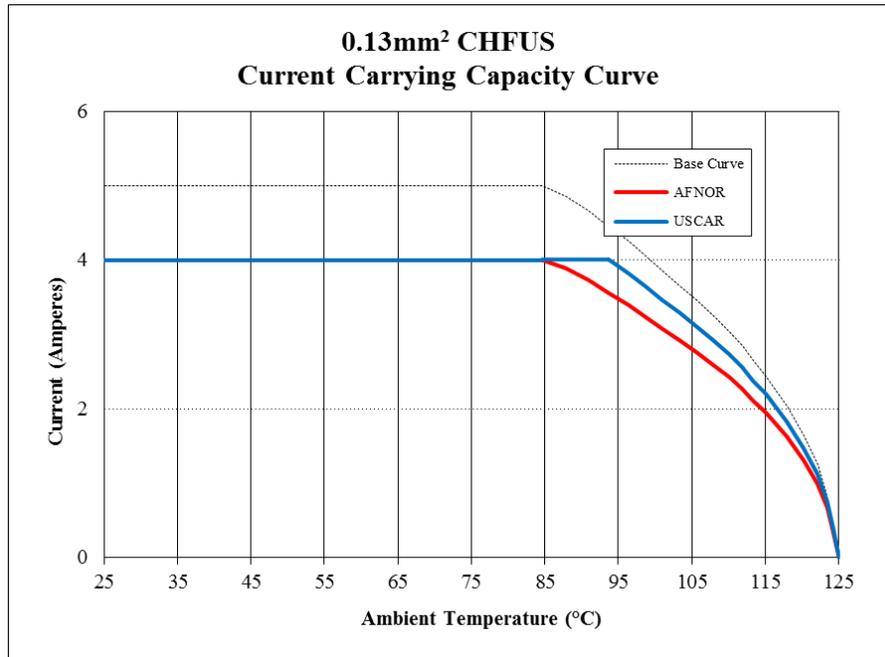
4.2 CURRENT AND APPLICABLE WIRES

Current is dependent on connector size, ambient temperature, blade size and related factors. Actual maximum current rating is application dependent and should be evaluated for each use.

The current listed below is expected to cause a temperature rise in the **terminal only, outside plastic.**

Wire section	Current	Wire range	Insulation Diameter
.35 mm ²	see derating curve	1.4 mm MAX	(0.055 inch)
.22 mm ²	see derating curve	1.2 mm MAX	(0.047 inch)
.13 mm ²	see derating curve	1.05 mm MAX	(0.041 inch)

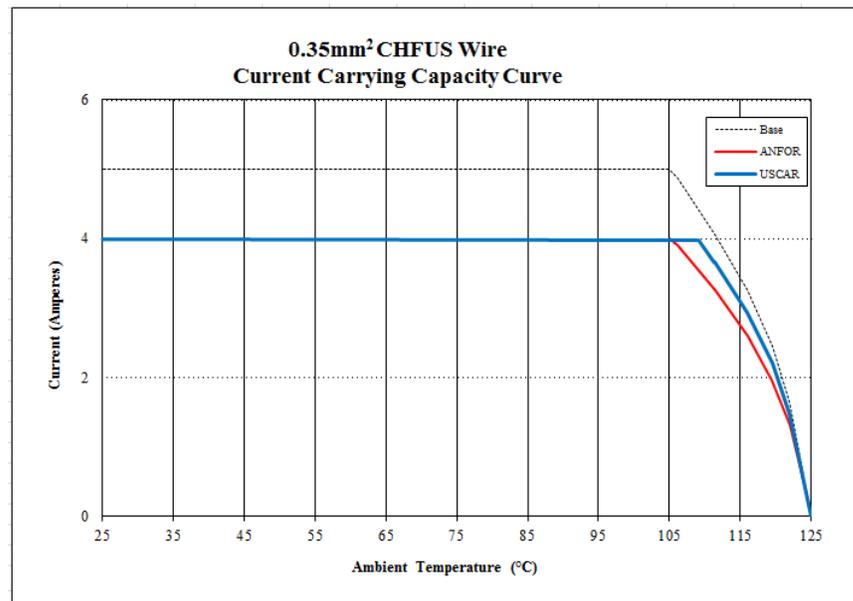
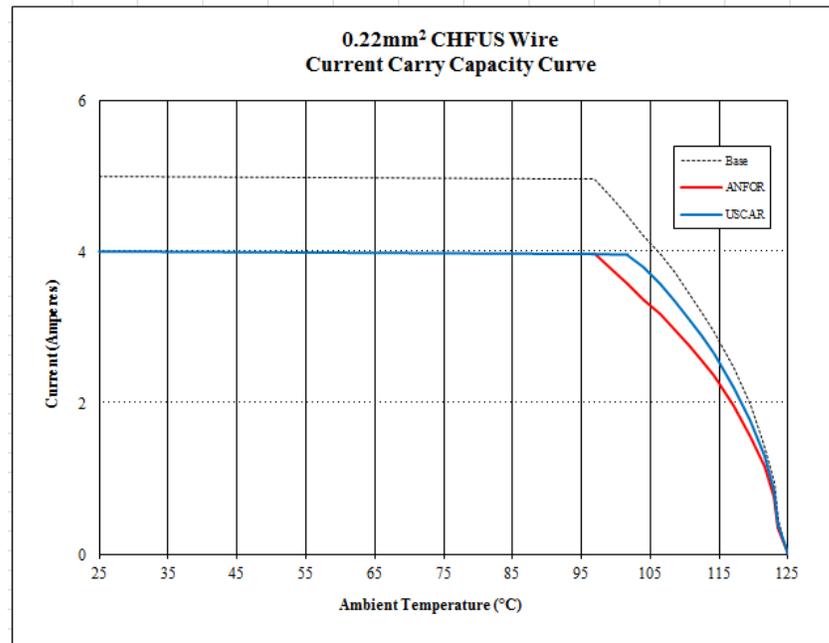
Derating Curves



REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	SHEET No. 4 of 17
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION



TEMPERATURE

Operating: - 40 C⁰ to + 105 C⁰
 Non-operating: - 40 C⁰ to + 105 C⁰

<u>REVISION:</u> J	<u>ECR/ECN INFORMATION:</u> EC No: 602889 DATE: 2018/8/14	<u>TITLE:</u> 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	<u>SHEET No.</u>
<u>DOCUMENT NUMBER:</u> PS-34791-020		<u>CREATED / REVISED BY:</u> TREVOR MACHUGA	<u>CHECKED BY:</u> YULIN LI/SHANKS WU
		<u>APPROVED BY:</u> JEREMY DUNAJ	



PRODUCT SPECIFICATION

5.0 PERFORMANCE

5.1 ELECTRICAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT										
1	Contact Resistance (Low Level)	Mate terminal: apply maximum voltage of 20 mV and a max current of 100 mA.	20 milliohms MAXIMUM										
2	Contact Resistance @ Rated Current (Voltage Drop)	Mate terminal: apply 3 A of current with a 0.35mm ² wire	20 milliohms MAXIMUM										
3	Isolation Resistance	Apply a voltage of 500 VDC between adjacent terminals and between terminals to ground.	100 Meg ohms MINIMUM										
4	Dielectric Strength	Apply an AC rms voltage of 1000V at 60 Hz across each adjacent cavity and between the terminals to ground	No dielectric breakdown or flash-over shall occur between cavities or between the cavities and the outside of a connector at any time during the test.										
5	Current Carrying Capability	Mate terminal: Determine the heating curve by measuring the temperature after 1008 cycles (45 minutes ON and 15 minutes OFF per cycle).	Temperature not to exceed 55° over ambient										
6	Connector - Connector Overcurrent Loading	Pass the following current for the specified time below through only one circuit that is arbitrarily selected: (20awg) <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Current (Amps)</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>11.0</td> <td>60 Minutes</td> </tr> <tr> <td>13.5</td> <td>200 Seconds</td> </tr> <tr> <td>15.0</td> <td>5 Seconds</td> </tr> <tr> <td>20.0</td> <td>1 Second</td> </tr> </tbody> </table>	Current (Amps)	Time	11.0	60 Minutes	13.5	200 Seconds	15.0	5 Seconds	20.0	1 Second	Housing shall not start burning
Current (Amps)	Time												
11.0	60 Minutes												
13.5	200 Seconds												
15.0	5 Seconds												
20.0	1 Second												
7	Leak Current	Apply 1000V AC with frequencies 50 to 60Hz, having wave-form close to a sinusoidal, between terminals and between housing and terminals. Conditioning consists of exposure to 60±5°C and 90-95% humidity for one hour in a thermo-static and humido-static tank.	Initial Leak Current 10 microAmp MAXIMUM										
			Post Conditioning 1 milliAmp MAXIMUM										

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	SHEET No. 6 of 17
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION

5.2 MECHANICAL REQUIREMENTS

All testing performed to USCAR-2 Rev 5 and Rev 6 with similar test criteria in all cases

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Connector Mate/ Unmate Forces	Mate and Unmate connector (male to female) at a rate of 50 ± 5 mm (2 ± ¼ inch) per minute.	Mate Force - Unpopulated Connector: 20 N MAX
			Mate Force - Fully Populated Connector Assembly: 1. Connector/Connector Mate Force (Primary Lock Engaged): 75 N MAX 2. Terminal Partially Installed: 7 N MIN
			Unmate Force - Unpopulated Connector: 1. Primary Lock Deflection: 5 N MAX 2. Primary Lock engaged a. (Non-Bridged): 110 N MIN b. (Bridged): PBT: 100 N MIN PA410: 110 N MIN
			Unmate Force - Fully Populated Connector: a. Primary Lock Disengaged: 75 N MAX b. Primary Lock Engaged With Wire Bundle Pull: 75 N MIN
2	Locking Device Strength (Primary Lock Engaged)	After the 11 th mating apply a force to the test sample with the locking device engaged and hold constant for 10+2 seconds.	100 N MIN
3	Primary Lock Disengage Force (CPA Disengaged)	Apply a force to push on the lock mechanism and attempt to unmate the connection	30 N MAX

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	SHEET No. 7 of 17
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION

4	Terminal Retention Force (in Housing-Dry as Molded)	Axial pullout force on the terminal in the housing at a rate of 50 ± 5 mm ($2 \pm \frac{1}{4}$ inch) per minute.	ISL in Pre-Lock: PBT:10 N MIN PA410:20 N MIN
			After 3 insertions and 2 removals (Post 2 Cycles): 5 N MIN
			ISL in Final-Lock PBT:40 N MIN PA410: 60 N MIN
5	Terminal Insertion Force (into Housing)	Apply an axial insertion force on the terminal at a rate of 50 ± 5 mm ($2 \pm \frac{1}{4}$ inch) per minute.	5 N MAX
6	Forward Stop Force	Apply an axial insertion force on the terminal at a rate of 50 ± 5 mm ($2 \pm \frac{1}{4}$ inch) per minute.	50 N MIN
7	Terminal - Engagement Force with ISL in Final-Lock	Apply an axial insertion force on the terminal at a rate of 50 ± 10 mm ($2 \pm \frac{1}{4}$ inch) per minute.	30 N MIN
8	Connector Audible	The connector lock must provide audible feedback during connector mating by hand Ambient noise must be between 30 and 50 dB	36 dB MIN over Ambient
9	Terminal/Cavity Polarization 180° Misoriented	Connector and terminal must be polarized to prevent mating in improper direction.	10 N MIN
10	Independent Secondary Lock (ISL) Engage Force	The force to insert the ISL from the pre-lock position to the final-lock position at a rate of 50 ± 5 mm ($2 \pm \frac{1}{4}$ inch) per minute.	ISL Insertion w/o terminals (pre to final lock): PBT: 5 N MIN PA410: 15 N MIN
			ISL Insertion with terminals (pre to final lock): 40 N MAX
			ISL Insertion with terminal partially installed: 40 N MIN
11	Independent Secondary Lock (ISL) Disengage Force	The force to completely disengage the ISL from final-lock position at a rate of 50 ± 5 mm ($2 \pm \frac{1}{4}$ inch) per minute.	PBT: 60 N MAX PA410: 120 N MAX

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	SHEET No. 8 of 17
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION

12	Header Pin Retention Force (in Vertical, Right Angle, & SMT Housing)	Axial pushout force on the terminal in the housing at a rate of 50 ± 10 mm (2 ± ¼ inch) per minute.	15 N MIN
13	Insertion / Removal Feeling	Insert and remove the terminal or the connector, while checking the correctness of the insertion/removal feeling	Connector shall be free of detrimental cracking, rust, play, flaw, deformation, and other defects. Terminal shall be free of catching and / or other abnormality.
14	Connector Repetitive Mating/Unmating (Single Row connectors only)	Mate and Unmate connector (male to female) at a rate of about 100mm/min	After 5 cycles <ol style="list-style-type: none"> Mating force 20 N MAX(primary lock engaged) Unmating force 8 N MIN(primary lock disengaged) After 50cycles <ol style="list-style-type: none"> Mating force 40 N MAX (primary lock engaged) Unmating force 10 N MIN(primary lock engaged) Voltage Drop 30 milliohms MAXIMUM
15	Connector Polarization Feature Effectiveness (PBT connectors only)	Connector must be polarized to prevent mating with similar connectors - 0° Misorientation for all possible header and receptacle configurations	<p>240 N MIN PolA_recp - PolB_hdr 12Ckt PolB_recp - PolA_hdr 12Ckt</p> <p>220 N MIN PolA_recp - PolB_hdr 4Ckt PolB_recp - PolA_hdr 4Ckt PolC_recp - PolD_hdr 4Ckt PolD_recp - PolC_hdr 4Ckt PolA_recp - PolB_hdr 8Ckt PolB_recp - PolA_hdr 8Ckt</p> <p>200 N MIN 16-20Ckt PolA_recp - PolB_hdr</p> <p>190 N MIN 16-20Ckt PolB_recp - PolA_hdr</p>

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: <p style="text-align: center;">4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY</p>	SHEET No. <p style="text-align: center;">9 of 17</p>
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION

			<p>115 N MIN PolA_rec - PolC_hdr 12Ckt PolA_rec - PolC_hdr 12Ckt</p> <p>110 N MIN PolA_rec - PolC_hdr 4Ckt PolA_rec - PolD_hdr 4Ckt PolC_rec - PolB_hdr 4Ckt</p> <p>100 N MIN PolC_rec - PolA_hdr 4Ckt PolD_rec - PolB_hdr 4Ckt PolB_rec - PolC_hdr 12Ckt</p> <p>95 N MIN PolA_rec - PolC_hdr 8Ckt PolA_rec - PolB_hdr 2Ckt PolB_rec - PolA_hdr 2Ckt PolB_rec - PolD_hdr 2Ckt PolC_rec - PolA_hdr 2Ckt PolC_rec - PolD_hdr 2Ckt PolD_rec - PolB_hdr 2Ckt PolD_rec - PolC_hdr 2Ckt</p> <p>90 N MIN PolB_rec - PolD_hdr 4Ckt PolB_rec - PolC_hdr 8Ckt</p> <p>80 N MIN PolB_rec - PolC_hdr 4Ckt PolD_rec - PolA_hdr 4Ckt PolA_rec - PolC_hdr 2Ckt</p> <p>35 N MIN PolA_rec - PolD_hdr 2Ckt PolB_rec - PolC_hdr 2Ckt PolC_rec - PolB_hdr 2Ckt PolD_rec - PolA_hdr 2Ckt</p>
16	<p>Connector Polarization Feature Effectiveness (PA410 connectors)</p>	<p>Connector must be polarized to prevent mating with similar connectors - 0° Misorientation for all possible header and receptacle configurations</p>	<p>295 N MIN PolA rec - PolB Hdr, 20ckt</p> <p>180 N MIN PolB rec - PolA Hdr, 20ckt</p> <p>160 N MIN PolB rec - PolC Hdr, 20ckt</p> <p>150 N MIN PolA rec - PolC Hdr, 20ckt</p>

REVISION:	ECR/ECN INFORMATION:	TITLE:		SHEET No.
J	<p>EC No: 602889</p> <p>DATE: 2018/8/14</p>	<p>4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY</p>		<p>10 of 17</p>
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:	
PS-34791-020	TREVOR MACHUGA	YULIN LI/SHANKS WU	JEREMY DUNAJ	



PRODUCT SPECIFICATION

			<p>130 N MIN PoIC recp – PolB Hdr, 20ckt</p> <p>115 N MIN PoIC recp – PolA Hdr, 20ckt</p>
17	Pry Resistance	<p>A pair of connectors shall have one of them secured and the other inserted. Under these conditions, they shall be pried axially, rectangularity, front and rear and right and left around the top with a force of 78N After prying the connectors to two stages of fitting, pull them out. This is one cycle.</p> <p>Subject connectors to 10 cycles and Perform Contact Resistance @ Rated Current (Voltage Drop) and Connector Mate/Unmate Forces (Primary Lock Engaged), the mate/unmate speed shall be about 100 mm/min.</p>	<p>While being tested, the connectors shall not have any problem in being made electrically alive</p> <p>Voltage Drop 30 milliohms MAX</p> <p>Mate: 20 N MAX</p> <p>Unmate: Primary Lock Engaged 20 N MIN</p>
18	Pry Resistance II	<p>Pull the female connector wire at a 45° angle in the direction which minimizes the male and female terminal contact at a speed of 5mm/min to 100N. Then decrease the pulling load at the same speed to 0N (No Force)</p>	<p>The waveform slope remained positive when increasing load during pulling and negative when decreasing load</p>
19	Connector Drop Test	<p>System Assembly (Mated & Fully populated) – Subject the assembly to a fall of 1 meter on each face, except for electrical wire side, onto a concrete floor</p>	<p>No damage or incipient rupture shall be observed.</p>
		<p>Connector Assembly (Unmated & Fully Populated) - Subject the assembly to a fall of 1 meter on each face, except for electrical wire side, onto a concrete floor</p>	<p>No damage or incipient rupture shall be observed.</p>
20	Connector Position Assurance (CPA) Engage Force	<p>Axial push force on the CPA in the housing at a rate of 50 ± 10 mm (2 ± ¼ inch) per minute.</p>	<p>Pre-staged to Final Lock With mated connector 22 N MAX</p> <p>With unmated connector PBT: 40 N MINIMUM PA410: 60 N MINIMUM</p>
21	Connector Position Assurance (CPA) Disengage Force	<p>Axial pull force on the CPA in the housing at a rate of 50 ± 10 mm (2 ± ¼ inch) per minute.</p>	<p>Final Lock to Pre-staged 10 N MIN 50 N MAX</p>
22	Connector Position Assurance (CPA) Removal Force	<p>Axial pull force on the CPA in the housing at a rate of 50 ± 10 mm (2 ± ¼ inch) per minute.</p>	<p>Removal from Pre-staged on Un-mated Connector 60 N MIN</p>

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
J	<p>EC No: 602889</p> <p>DATE: 2018/8/14</p>	<p>4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY</p>	<p>11 of 17</p>

DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-34791-020	TREVOR MACHUGA	YULIN LI/SHANKS WU	JEREMY DUNAJ



PRODUCT SPECIFICATION

5.3 ENVIROMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT						
1	Durability	Mate connectors up to 10 cycles prior to environmental tests.	10 milliohms MAX						
2	Thermal Shock (Electrical)	Mate connectors per durability; expose to 300 cycles of: <table border="0"> <tr> <td><u>Temperature C°</u></td> <td><u>Duration (Minutes)</u></td> </tr> <tr> <td>-40 +0/-3</td> <td>30</td> </tr> <tr> <td>+105 +3/-0</td> <td>30</td> </tr> </table> Perform Contact Resistance (Low Level)	<u>Temperature C°</u>	<u>Duration (Minutes)</u>	-40 +0/-3	30	+105 +3/-0	30	Dry Circuit Resistance: 20 milliohms MAX & Discontinuity < 1 microsecond
<u>Temperature C°</u>	<u>Duration (Minutes)</u>								
-40 +0/-3	30								
+105 +3/-0	30								
3	Thermal Shock (Physical)	Mate connectors per durability; expose to 300 cycles of: <table border="0"> <tr> <td><u>Temperature C°</u></td> <td><u>Duration (Minutes)</u></td> </tr> <tr> <td>-40 +0/-3</td> <td>30</td> </tr> <tr> <td>+105 +3/-0</td> <td>30</td> </tr> </table> Apply a voltage of 500 VDC per Isolation Resistance	<u>Temperature C°</u>	<u>Duration (Minutes)</u>	-40 +0/-3	30	+105 +3/-0	30	100 Meg ohms MIN No dielectric breakdown or flash-over shall occur between cavities or between the cavities and the outside of a connector at any time during the test.
		<u>Temperature C°</u>	<u>Duration (Minutes)</u>						
-40 +0/-3	30								
+105 +3/-0	30								
Apply an AC rms voltage of 1000V at 60 Hz per Dielectric Strength									
4	Thermal Shock (Mechanical)	Mate connectors per durability; expose to 1000 cycles of: <table border="0"> <tr> <td><u>Temperature C°</u></td> <td><u>Duration (Minutes)</u></td> </tr> <tr> <td>-40 +0/-3</td> <td>30</td> </tr> <tr> <td>+105 +3/-0</td> <td>30</td> </tr> </table> Unmate connector per Connector Mate/Unmate Forces	<u>Temperature C°</u>	<u>Duration (Minutes)</u>	-40 +0/-3	30	+105 +3/-0	30	Unmate w/latch: 100 N MIN w/o terminals (4CKT – 24CKT) ISL in Final-Lock: 30 N MIN
		<u>Temperature C°</u>	<u>Duration (Minutes)</u>						
-40 +0/-3	30								
+105 +3/-0	30								
Mate connectors per durability; expose to 1000 cycles of: <table border="0"> <tr> <td><u>Temperature C°</u></td> <td><u>Duration (Minutes)</u></td> </tr> <tr> <td>-40 +0/-3</td> <td>30</td> </tr> <tr> <td>+105 +3/-0</td> <td>30</td> </tr> </table> Extract terminal from housing per Terminal Retention Force (in Housing)	<u>Temperature C°</u>	<u>Duration (Minutes)</u>	-40 +0/-3	30	+105 +3/-0	30			
<u>Temperature C°</u>	<u>Duration (Minutes)</u>								
-40 +0/-3	30								
+105 +3/-0	30								
5	Temperature/Humidity Cycling (Electrical)	Mate connectors per durability. Subject connector system to 10 cycles of: 60% RH 4 hours @ 23 C°; 97% RH 10 hours @ 55 C°, 2 hour @ -40 C°; 2 hours @ 105 C° Perform Contact Resistance (Low Level) Perform Contact Resistance @ Rated Current (Voltage Drop)	Dry Circuit Resistance: 20 milliohms MAX Voltage Drop 20 milliohms MAX						

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	SHEET No. 12 of 17
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION

6	Temperature/ Humidity Cycling (Physical)	Mate connectors per durability. Subject connector system to 10 cycles of: 60% RH 4 hours @ 23 C°; 97% RH 10 hours @ 55 C°, 2 hour @ -40 C°; 2 hours @ 105 C° Apply a voltage of 500VDC per Isolation Resistance	100 Meg ohms MIN
		Apply an AC rms voltage of 1000V at 60 Hz per Dielectric Strength	No dielectric breakdown or flash-over shall occur between cavities or between the cavities and the outside of a connector at any time during the test.
7	Temperature/ Humidity Cycling (Mechanical)	Mate connectors per durability. Subject connector system to 10 cycles of: 60% RH 4 hours @ 23 C°; 97% RH 10 hours @ 55 C°, 2 hour @ -40 C°; 2 hours @ 105 C° Unmate connector per Connector Mate/Unmate Forces (Connector Holding)	Unmate w/latch: 100 N MIN w/o terminals (4CKT – 24CKT)
		Mate connectors per durability. Subject connector system to 10 cycles of: 60% RH 4 hours @ 23 C°; 97% RH 10 hours @ 55 C°, 2 hour @ -40 C°; 2 hours @ 105 C° Extract terminal from housing per Terminal Retention Force (in Housing)	ISL in Final-Lock: 30 N MIN
8	High Temperature Exposure (Electrical)	Mate connectors per durability. Subject connector system to 105 C° for 1008 hours. Perform Contact Resistance (Low Level) Perform Contact Resistance @ Rated Current (Voltage Drop)	Dry Circuit Resistance: 20 milliohms MAX Voltage Drop: 20 milliohms MAX
9	High Temperature Exposure (Physical)	Mate connectors per durability. Subject connector system to 105 C° for 1008 hours. Apply a voltage of 500DC per Isolation Resistance post 1008 hours	100 Meg ohms MIN
		Apply an AC rms voltage of 1000V at 60 Hz per Dielectric Strength	No dielectric breakdown or flash-over shall occur between cavities or between the cavities and the outside of a connector at any time during the test.

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	SHEET No. 13 of 17
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION

10	High Temperature Exposure (Mechanical)	Mate connectors per durability. Subject connector system to 105 C° for 1008 hours. Apply a force to wire bundle and pull on wire bundle in the following directions: Straight, +45° Vertical, -45° Vertical, +45° Horizontal, & -45° Horizontal	No breakage or electrical discontinuities at 60N or less (4CKT – 24CKT)																		
		Mate connectors per durability. Subject connector system to 105 C° for 1008 hours. Extract terminal from housing per Terminal Retention Force (in Housing)	ISL in Final-Lock 30 N MIN																		
10b	High Temperature Exposure (Mechanical) GM	Subject connector system to 105 C° for 1008 hours. Extract Terminal from housing post test..	ISL in Final-Lock 40 N MIN																		
11	Chemical Resistance (Electrical) (PBT connectors only)	Perform Contact Resistance (Low Level) . Expose connectors to the following fluids for the specified duration of soak and dry time:	No deformation or cracks shall be observed in connector Delta Dry Circuit Resistance: 20 milliohms MAX Voltage Drop: 20 milliohms MAX																		
		<table border="1"> <thead> <tr> <th>Resistance To Fluids:</th> <th>Time / Temp. in Fluid</th> <th>Time / Temp. Drying</th> </tr> </thead> <tbody> <tr> <td>Automatic Transmission Oil:</td> <td>15 Seconds @ 23°C</td> <td>24 Hours @ 105°C</td> </tr> <tr> <td>Zinc Chloride:</td> <td>15 Seconds @ 23°C</td> <td>24 Hours @ 23°C</td> </tr> <tr> <td>Fuel:</td> <td>7 Days @ 23°C</td> <td>7 Days @ 23°C</td> </tr> <tr> <td>Engine Coolant:</td> <td>5 Minutes @ 23°C</td> <td>48 Hours @ 50°C</td> </tr> <tr> <td>Windshield Washer Fluid:</td> <td>5 Minutes @ 23°C</td> <td>48 Hours @ 50°C</td> </tr> </tbody> </table>		Resistance To Fluids:	Time / Temp. in Fluid	Time / Temp. Drying	Automatic Transmission Oil:	15 Seconds @ 23°C	24 Hours @ 105°C	Zinc Chloride:	15 Seconds @ 23°C	24 Hours @ 23°C	Fuel:	7 Days @ 23°C	7 Days @ 23°C	Engine Coolant:	5 Minutes @ 23°C	48 Hours @ 50°C	Windshield Washer Fluid:	5 Minutes @ 23°C	48 Hours @ 50°C
		Resistance To Fluids:		Time / Temp. in Fluid	Time / Temp. Drying																
		Automatic Transmission Oil:		15 Seconds @ 23°C	24 Hours @ 105°C																
		Zinc Chloride:		15 Seconds @ 23°C	24 Hours @ 23°C																
		Fuel:		7 Days @ 23°C	7 Days @ 23°C																
		Engine Coolant:		5 Minutes @ 23°C	48 Hours @ 50°C																
Windshield Washer Fluid:	5 Minutes @ 23°C	48 Hours @ 50°C																			
Perform Contact Resistance (Low Level) and Contact Resistance @ Rated Current (Voltage Drop) .																					

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	SHEET No. 14 of 17
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION

12	Chemical Resistance (Mechanical) (PBT connectors only)	Expose connectors to the following fluids for the specified duration of soak and dry time: <table border="1"> <thead> <tr> <th>Resistance To Fluids:</th> <th>Time / Temp. in Fluid</th> <th>Time / Temp. Drying</th> </tr> </thead> <tbody> <tr> <td>Automatic Transmission Oil:</td> <td>15 Seconds @ 23°C</td> <td>24 Hours @ 105°C</td> </tr> <tr> <td>Zinc Chloride:</td> <td>15 Seconds @ 23°C</td> <td>24 Hours @ 23°C</td> </tr> <tr> <td>Fuel:</td> <td>7 Days @ 23°C</td> <td>7 Days @ 23°C</td> </tr> <tr> <td>Engine Coolant:</td> <td>5 Minutes @ 23°C</td> <td>48 Hours @ 50°C</td> </tr> <tr> <td>Windshield Washer Fluid:</td> <td>5 Minutes @ 23°C</td> <td>48 Hours @ 50°C</td> </tr> </tbody> </table>	Resistance To Fluids:	Time / Temp. in Fluid	Time / Temp. Drying	Automatic Transmission Oil:	15 Seconds @ 23°C	24 Hours @ 105°C	Zinc Chloride:	15 Seconds @ 23°C	24 Hours @ 23°C	Fuel:	7 Days @ 23°C	7 Days @ 23°C	Engine Coolant:	5 Minutes @ 23°C	48 Hours @ 50°C	Windshield Washer Fluid:	5 Minutes @ 23°C	48 Hours @ 50°C	No deformation or cracks shall be observed in connector Unmate w/latch (hand evaluation) shall show no signs of functional degradation. ISL in Final-Lock 30 N MIN
		Resistance To Fluids:	Time / Temp. in Fluid	Time / Temp. Drying																	
Automatic Transmission Oil:	15 Seconds @ 23°C	24 Hours @ 105°C																			
Zinc Chloride:	15 Seconds @ 23°C	24 Hours @ 23°C																			
Fuel:	7 Days @ 23°C	7 Days @ 23°C																			
Engine Coolant:	5 Minutes @ 23°C	48 Hours @ 50°C																			
Windshield Washer Fluid:	5 Minutes @ 23°C	48 Hours @ 50°C																			
Un-mate connector per Connector Mate/ Un-mate Forces. (Hand Evaluation) Extract terminal from housing per Terminal Retention Force (in Housing)																					
13	Chemical Resistance (Physical) (PBT connectors only)	Expose connectors to the following fluids for the specified duration of soak and dry time: <table border="1"> <thead> <tr> <th>Resistance To Fluids:</th> <th>Time / Temp. in Fluid</th> <th>Time / Temp. Drying</th> </tr> </thead> <tbody> <tr> <td>Automatic Transmission Oil:</td> <td>15 Seconds @ 23°C</td> <td>24 Hours @ 105°C</td> </tr> <tr> <td>Zinc Chloride 50%:</td> <td>15 Seconds @ 23°C</td> <td>24 Hours @ 23°C</td> </tr> <tr> <td>Engine Coolant:</td> <td>5 Minutes @ 23°C</td> <td>48 Hours @ 50°C</td> </tr> </tbody> </table>	Resistance To Fluids:	Time / Temp. in Fluid	Time / Temp. Drying	Automatic Transmission Oil:	15 Seconds @ 23°C	24 Hours @ 105°C	Zinc Chloride 50%:	15 Seconds @ 23°C	24 Hours @ 23°C	Engine Coolant:	5 Minutes @ 23°C	48 Hours @ 50°C	No deformation or cracks shall be observed in connector 100 Meg ohms MIN						
		Resistance To Fluids:	Time / Temp. in Fluid	Time / Temp. Drying																	
Automatic Transmission Oil:	15 Seconds @ 23°C	24 Hours @ 105°C																			
Zinc Chloride 50%:	15 Seconds @ 23°C	24 Hours @ 23°C																			
Engine Coolant:	5 Minutes @ 23°C	48 Hours @ 50°C																			
Apply a voltage of 500 VDC per Isolation Resistance post 1008 hours Apply an AC RMS voltage of 1000V at 60 Hz per Dielectric Strength																					
			No dielectric breakdown or flash-over shall occur between cavities or between the cavities and the outside of a connector at any time during the test.																		

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
J	EC No: 602889 DATE: 2018/8/14	4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	15 of 17
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-34791-020	TREVOR MACHUGA	YULIN LI/SHANKS WU	JEREMY DUNAJ



PRODUCT SPECIFICATION

14	Solderability	Steam-age samples for 8 hours (Category 3), set at ambient for at least one hour, and its pins were dipped in ROL0 flux and lead-free solder per SMES-152 (Paragraph 5.3.4 Dip Coated) with an agitation of 10mm forward and backward. The solder temperature was 255°C per Molex BP5155. Criteria: SMES-152 Rev E Paragraph 5.4.1.	Solder coverage: 95% MIN (per SMES-152)
15	IR Process Soldering	Molex IR Profile: ES-40000-5013 Maximum Temperature: 260°C	Dimensional: Conformance to Sales Drawing requirements & Visual: No Damage

6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage. There is a very low probability that a CPA will seat during transit. If this occurs, please scrap that specific connector and Molex will replace it.

7.0 GAGES AND FIXTURES

All applicable gages and fixtures are referenced in the appropriate control plans.

8.0 OTHER INFORMATION

Products conform to the following environmental ratings (as specified to USCAR):

Temperature: 105°C

Vibration: On-Body (not coupled to engine)

Sealing: Un-Sealed

To ensure compliance with our product validation, it is imperative that our product meet the print dimensions. Any non-conformance with the true position of the PCB pins or mating interface will create performance failures that include; PCB installation, increased mate/unmate forces and electrical discontinuities.

9.0 LV-214 TESTING USING PBT CONNECTORS ONLY:

The Mini50 product has been tested to following LV 214 test (*according to the March 2010 revision*):

- PG 6, 7, 8, 14, 18A, 19, 21, 28

TEMPERATURE:

Operating: -40°C to +125°C

Non-Operating: -40°C to +125°C

Specific test results may include deviations, and are available upon request.

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY		SHEET No. 16 of 17
DOCUMENT NUMBER: PS-34791-020		CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ



PRODUCT SPECIFICATION

10.0 REVISION HISTORY

REVISION	MODIFICATION	SHEET	DATE
H	Added a blanket statement under Section 5.2 MECHANICAL REQUIREMENTS Added uniformed connector mate force requirement Added uniformed connector un-mate force (primary lock disengaged) requirement Added bridged and non-bridged connector un-mate force (primary lock engaged) requirement Added CPA requirement	7, 11	07/16/2018
J	Added Ecopaxx Test Data & information	1-3, 7-18	8/14/2018

REVISION: J	ECR/ECN INFORMATION: EC No: 602889 DATE: 2018/8/14	TITLE: 4, 8, 12, 16, 20, & 24 CKT MINI 50 CONNECTION ASSEMBLY	SHEET No. 17 of 17
DOCUMENT NUMBER: PS-34791-020	CREATED / REVISED BY: TREVOR MACHUGA	CHECKED BY: YULIN LI/SHANKS WU	APPROVED BY: JEREMY DUNAJ