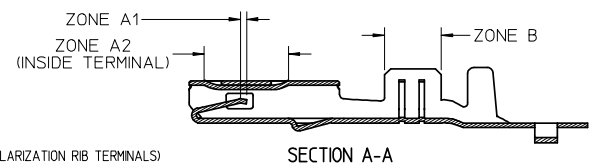


CRIMP INFORMATION
SEE NOTE 14

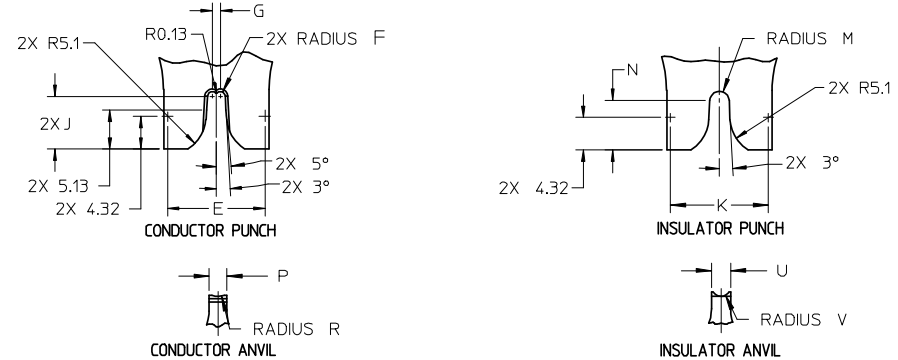
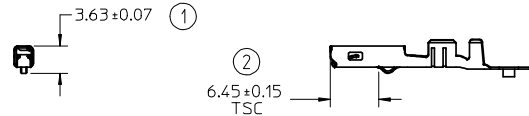
PLATING INFORMATION



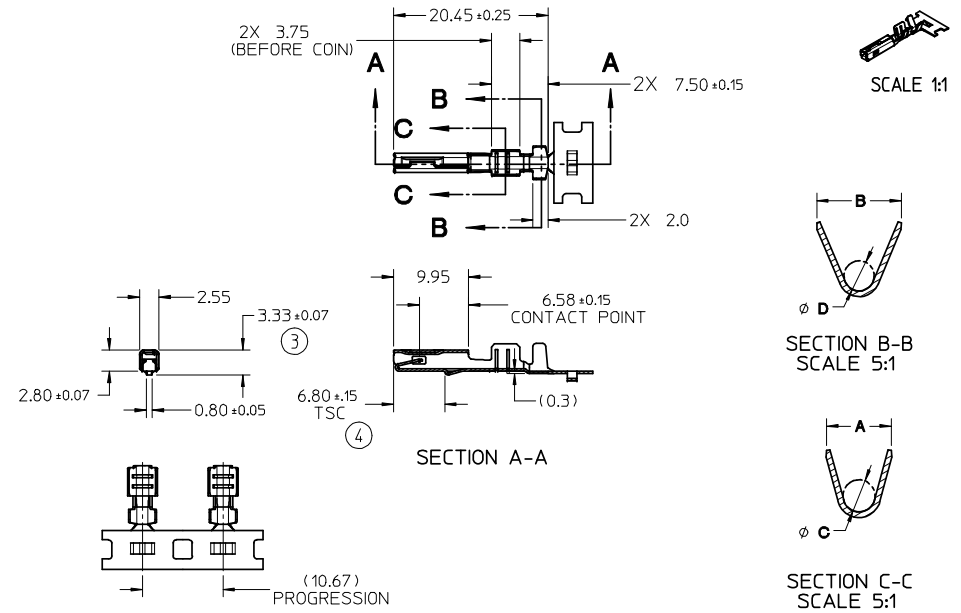
PLATING NOTES: (FOR SMALL AND LARGE POLARIZATION RIB TERMINALS)

- PRECIOUS METAL PLATING:
ZONE A1 AND ZONE A2:
PER MOLEX ES-88 REVISION REL
BASE LAYER: ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL
THICKNESS: 1.25 - 2.25 MICROMETERS
PRECIOUS LAYER: GOLD OR SILVER
GOLD: ELECTRODEPOSITED GOLD
THICKNESS: 0.76 MICROMETERS MINIMUM
SILVER: ELECTRODEPOSITED PURE SILVER (0.5% MAX IMPURITIES)
THICKNESS: 1.9 - 3.3 MICROMETERS
FINISH: SEMI-BRIGHT
ANTI-TARNISH TREATMENT FOR SILVER PLATING
EVABRITE WS
 - TIN PLATING: (ENTIRE TERMINAL)
BASE LAYER: ELECTRODEPOSITED ADVANCED TIN BARRIER
THICKNESS: 0.25-1.00 MICROMETERS
TIN LAYER: ELECTRODEPOSITED REFLOW TIN, 100% TIN
NO BRIGHTENERS
THICKNESS: 0.50-1.00 MICROMETERS
- ZONE B:
TIN PLATING: PER MOLEX ES-88 REVISION REL
BASE LAYER: ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL
THICKNESS: 1.25-2.25 MICROMETERS
TIN LAYER: ELECTRODEPOSITED 100% TIN MATTE FINISH
THICKNESS: 2.50 - 4.00 MICROMETERS

DIMENSIONS FOR LARGE POLARIZATION RIB TERMINAL ONLY



CRIMP TOOL INFORMATION
SEE TABLE 2 FOR TABLED DIMENSIONS



- NOTES: (UNLESS OTHERWISE SPECIFIED)
- MATING TERMINAL SHOWN ON SD-33000-001
 - MATERIAL: ASTM B422, UNS C19025, HR04
THICKNESS: 0.30 mm ± 0.01
TEMPER: FULL HARD (REF)
TENSILE: 496 MIN MPA
PLATING: SEE PLATING NOTES ABOVE
 - MEETS PERFORMANCE SPECIFICATION FOR CABLE TO TERMINAL ELECTRICAL CRIMPS PER SAE/USCAR-21 (8/2001)
 - MEETS PERFORMANCE STANDARD FOR AUTOMOTIVE ELECTRICAL CONNECTOR SYSTEMS FOR SAE/USCAR-2, REV. 4 (TEMP CLASS 3) (4/2001)
 - MEETS ELECTRICAL CONNECTION SYSTEM DESIGN SPECIFICATION (SDS) REV.11 (5/2002)
 - MEETS FIELD CORRELATED LIFE TEST (FCLT) PER SAE/USCAR-20 (11/2001)
 - MEETS WIRING COMPONENT DESIGN GUIDELINES SAE/USCAR-12 REV 2 (12/2001)
 - TSC ON A DIMENSION TO BE INTERPRETED AS DISTANCE TO A THEORETICAL SHARP CORNER AS IF THE RADIUS WERE NOT PRESENT
 - DRAWING CONFORMS TO AVP-(IT401/T406)-001 REVISION A DATED 2/16/99
 - REFERENCE 97BG-14474-AAB FOR LARGE POLARIZATION RIB CAVITY SPECIFICATION
 - INSERTION FORCE (TN) AVG. FROM PV TESTING -
3.8N LARGE POLARIZATION RIB
3.5N SMALL POLARIZATION RIB (REFERENCE)
 - ALL DIMENSIONS EXCEPT ①, ②, ③ & ④ ARE COMMON TO BOTH SMALL AND LARGE POLARIZATION RIB TERMINALS
 - REFERENCE PK-31300-516 FOR REEL DIRECTION
 - REFERENCE CS-33012-002 FOR ADDITIONAL CRIMP INFORMATION

ENTER DESCRIPTION EC NO: JAU2008-0370 DRAWN BY: PULLIAM 2007/12/12 CHKD BY: DHIR 2008/01/07 APPR: BMOSER 2008/01/07	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		mm	INCH	DRAWN BY L. PULLIAM	DATE 2005/06/21	TITLE MX150 RECEPTACLE TERMINAL	MOLEX INCORPORATED		
B	REVISION	4 PLACES ± --- ± ---	3 PLACES ± 0.005 ± ---	2 PLACES ± 0.10 ± ---	1 PLACE ± 0.3 ± ---	APPROVED BY B. MOSER	DATE 2005/06/22	DOCUMENT NO. SD-33012-002	
		ANGULAR ± 3 °		MATERIAL NO. SEE TABLE		SHEET NO. 1 OF 5		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

TABLE 1 - TERMINAL CRIMP DIM. REFERENCE TABLE

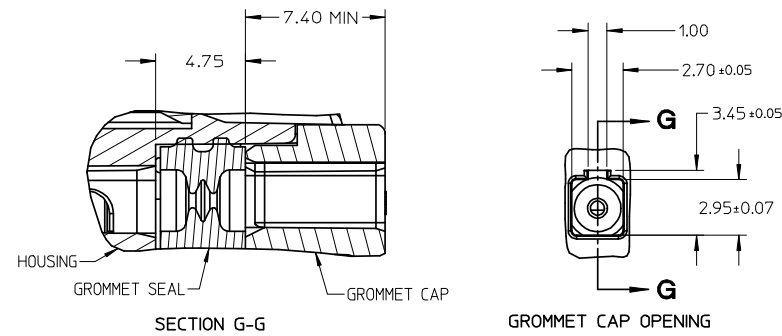
J	SUPPLIER PART NO.		FORD PART NO.	PLATING	WIRE SIZE (awg)	WIRE SPECIFICATION	CONDUCTOR OH (SEC Z-Z) ±0.05 mm	CONDUCTOR CW (SEC Z-Z) ±0.10 mm	INSULATOR IH (SEC Y-Y) ±0.10 mm	INSULATOR IW (SEC Y-Y) ±0.10 mm	WIRE PULL FORCE (N)
	RIGHT PAYOFF	LEFT PAYOFF									
I	33012-2001	33012-3001	7C3T-14474-EA	TIN	14	ML-123A	1.65	2.45	2.90	2.75	268
					16	ML-135A1	1.65	2.45	2.70	2.60	268
H	33012-2002	33012-3002	7C3T-14474-DA	TIN	18	ML-123A	1.35	2.45	2.40	2.60	222
					20	SAE J1128 (GXLI)	1.25	2.15	2.00	2.30	157
G	33012-2003	33012-3003	7C3T-14474-CA	TIN	22	ML-123A	1.15	2.15	1.90	2.10	128
					20	HFLON WIRE ¹	1.15	2.15	1.90	2.10	135
F	33012-2001	33012-3001	7C3T-14474-EA	TIN	2.00mm□	JASO D 611 (AVSSI)	1.60	2.45	2.90	2.75	231
					1.50mm□	ML-126A1	1.40	2.45	2.60	2.60	257
E	33012-2002	33012-3002	7C3T-14474-DA	TIN	1.00mm□	ML-126A1	1.30	2.15	2.00	2.30	211
					0.75mm□	ML-126A1	1.25	2.15	1.95	2.10	142
D	33012-2003	33012-3003	7C3T-14474-CA	TIN	0.50mm□	ML-126A1	1.10	1.60	1.80	1.90	111
					0.35mm□	JASO D 611 (AVSSI)	1.10	1.60	1.85	1.90	125
C	33001-2003	33001-3003	7C3T-14474-CA*	TIN	0.35mm□	WSK-1A348-A2	0.95	1.60	1.70	1.90	50
					14	ML-123A	1.65	2.45	2.90	2.75	268
B	33001-2003	33001-3003	7C3T-14474-HA	GOLD	16	ML-135A1	1.65	2.45	2.70	2.60	268
					18	ML-123A	1.35	2.45	2.40	2.60	222
A	33001-2004	33001-3004	7C3T-14474-GA	GOLD	20	ML-123A	1.25	2.15	2.00	2.30	157
					20	SAE J1128 (GXLI)	1.25	2.15	2.40	2.60	158
J	33001-2005	33001-3005	7C3T-14474-FA	GOLD	22	ML-123A	1.10	1.60	1.85	1.90	88
					2.00mm□	JASO D 611 (AVSSI)	1.60	2.45	2.90	2.75	231
I	33001-2003	33001-3003	7C3T-14474-HA	GOLD	1.50mm□	ML-126A1	1.40	2.45	2.60	2.60	257
					1.00mm□	ML-126A1	1.30	2.15	2.00	2.30	211
H	33001-2004	33001-3004	7C3T-14474-GA	GOLD	0.75mm□	ML-126A1	1.25	2.15	1.95	2.10	142
					0.50mm□	ML-126A1	1.10	1.60	1.80	1.90	111
G	33001-2005*	33001-3005*	7C3T-14474-FA*	GOLD	0.35mm□	JASO D 611 (AVSSI)	1.10	1.60	1.85	1.90	125
					0.35mm□	WSK-1A348-A2	0.95	1.60	1.70	1.90	50
F	33001-4001	33001-5001	7U5T-14474-UA	SILVER**	14	ML-123A	1.65	2.45	2.90	2.75	268
					16	ML-135A1	1.65	2.45	2.70	2.60	268
E	33001-4002	33001-5002	7U5T-14474-TA	SILVER**	18	ML-123A	1.35	2.45	2.40	2.60	222
					20	SAE J1128 (GXLI)	1.25	2.15	2.00	2.30	157
D	33001-4003	33001-5003	7U5T-14474-SA	SILVER**	22	ML-123A	1.10	1.60	1.85	1.90	88
					2.00mm□	JASO D 611 (AVSSI)	1.60	2.45	2.90	2.75	231
C	33001-4001	33001-5001	7U5T-14474-UA	SILVER**	1.50mm□	ML-126A1	1.40	2.45	2.60	2.60	257
					1.00mm□	ML-126A1	1.30	2.15	2.00	2.30	211
B	33001-4002	33001-5002	7U5T-14474-TA	SILVER**	0.75mm□	ML-126A1	1.25	2.15	1.95	2.10	142
					0.50mm□	ML-126A1	1.10	1.60	1.80	1.90	111
A	33001-4003	33001-5003	7U5T-14474-SA	SILVER**	0.50mm□	JASO D 611 (AVSSI)	1.10	1.60	1.85	1.90	125
					0.35mm□	WSK-1A348-A2	0.95	1.60	1.70	1.90	50

LARGE POLARIZATION RIB											
RIGHT PAYOFF	LEFT PAYOFF	7U5T-14474-NA	SILVER**	0.50mm□	ML-126A1	JASO D 611 (AVSSI)	1.10	1.60	1.80	1.90	111
33001-4023	33001-5023	7U5T-14474-NA	SILVER**	0.50mm□	ML-126A1	JASO D 611 (AVSSI)	1.10	1.60	1.85	1.90	125
33001-4023*	33001-5023*	7U5T-14474-NA*	SILVER**	0.35mm□	WSK-1A348-A2		0.95	1.60	1.70	1.90	50

¹HFLON WIRE:
CORE WIRE: STAINLESS STEEL, SUS #0.14, 7 STRANDS
SURROUNDING WIRE: NICKEL (Ni) PLATED COPPER (Cu) #0.14, 30 STRANDS
INSULATOR: PTFE

* 0.35mm□ WIRE MUST NOT BE USED IN MX150 SEALED CONNECTOR SYSTEMS

** SILVER PLATED TERMINALS NOT TO BE USED IN CONNECTOR SYSTEMS WITH CIRCUIT COUNTS HIGHER THAN 8 DUE TO HIGHER CONNECTOR MATE/UNMATE FORCE

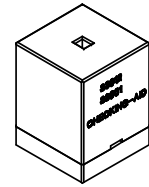


GROMMET SEAL / CAP CONFIGURATION TO MODIFY LARGE POLARIZATION RIB CAVITY TO ACCEPT SMALL POLARIZATION RIB APPLICATIONS

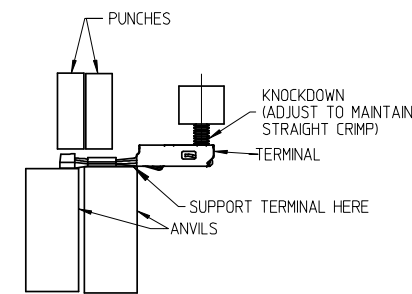
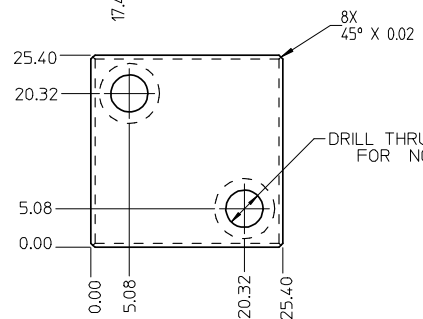
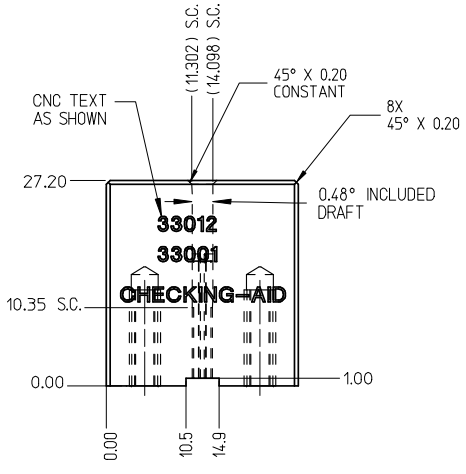
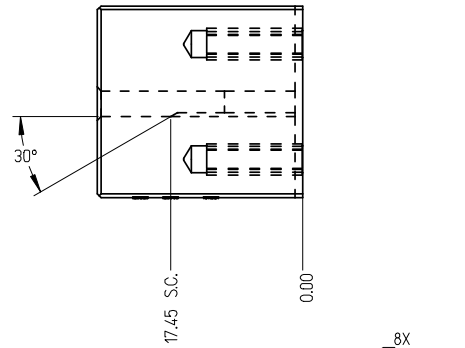
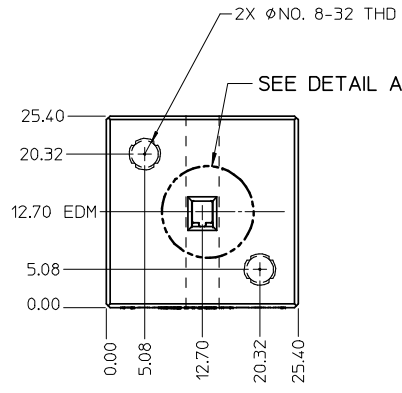
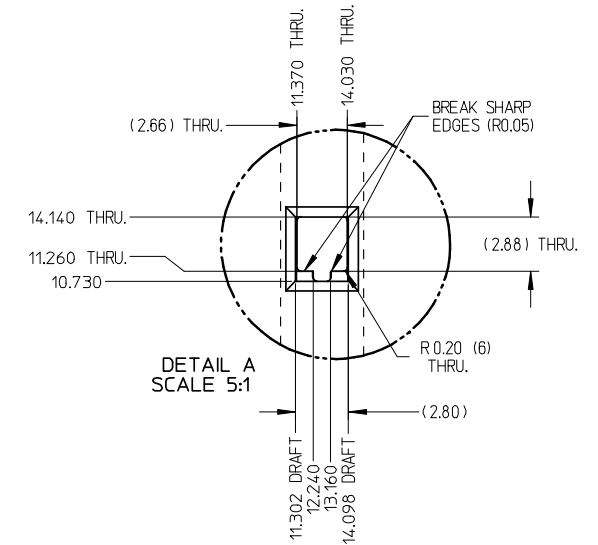
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EC NO: UAU2008-0370
DRAWN BY: DRWINPULLIAM
CHKD BY: CHKDA: DHR
APPR: BMOSER
2007/12/12
2008/01/07
2008/01/07

QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	mm	INCH	DRAWN BY	DATE			
▽=0	4 PLACES	± ---	± ---	L. PULLIAM	2005/06/21	MX150 RECEPTACLE TERMINAL	DOCUMENT NO. SD-33012-002
▽=0	3 PLACES	± 0.005	± ---	CHECKED BY	DATE		
	2 PLACES	± 0.10	± ---	A. DHR	2005/06/21	MOLEX INCORPORATED	SHEET NO. 2 OF 5
	1 PLACE	± 0.3	± ---	APPROVED BY	DATE		
	ANGULAR ± 3°		MATERIAL NO. SEE TABLE				

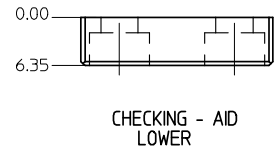
THIS CHECKING - AID IS FOR SMALL POLARIZATION RIB TERMINALS ONLY



CHECKING - AID ASSEMBLY
SCALE 1:1

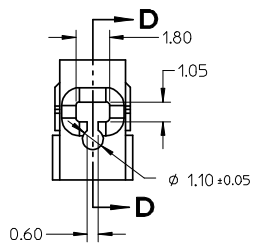
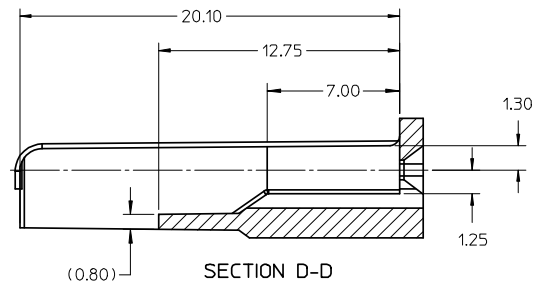
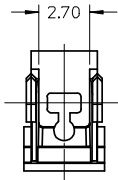


- CRIMP REQUIREMENTS:
1. CRIMP STRAIGHTNESS MUST BE MAINTAINED USE A KNOCKDOWN TOOL LOCATED AS SHOWN TERMINAL BOX MUST NOT BE DEFORMED
 2. AFTER CRIMPING, THE CRIMPED TERMINAL (AND UP TO 5 mm OF WIRE PAST THE INSULATOR CUTOFF TAB) MUST FIT FREELY INTO THE CHECKING-AID SHOWN ON THIS PAGE
 3. FOR OTHER MECHANICAL REQUIREMENTS ON CRIMPED TERMINALS, REFER TO SAE/USCAR-21 (5-13-02) SECTIONS 4.2 (VISUAL INSPECTION), 4.2 (CROSS SECTION ANALYSIS) AND 4.4 (CONDUCTOR CRIMP PULLOUT FORCE)

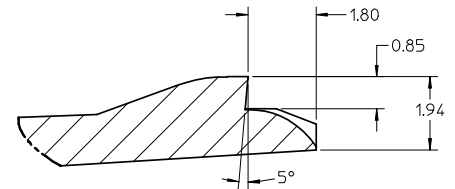
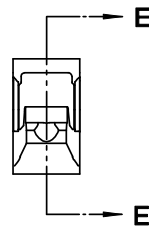
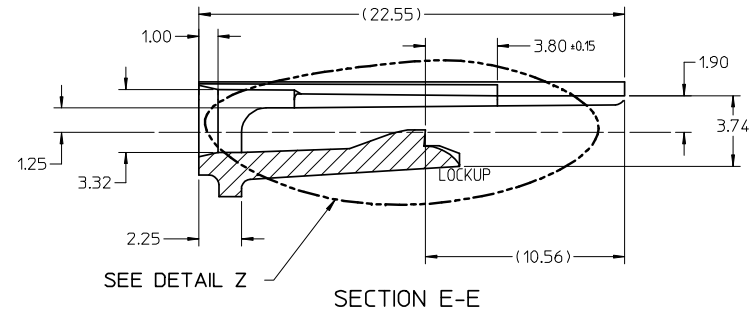
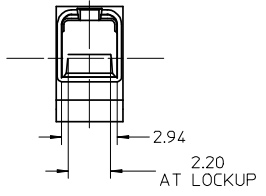


UPPER & LOWER CHECKING-AID
A2 TOOL STEEL
HARDEN & GRIND
ROCKWELL 'C' 56-58

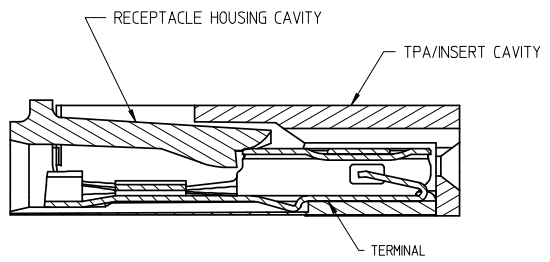
ENTER DESCRIPTION EC NO: UAU2008-0370 DRAWN: PULLIAM 2007/12/12 CHECKED: A. DHIR 2008/01/07 APPR: BMOSE 2008/01/07	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± mm ± INCH 3 PLACES ± 0.005 ± --- ± --- 2 PLACES ± 0.10 ± --- ± --- 1 PLACE ± 0.3 ± --- ± --- ANGULAR ± 3 °	DRAWN BY DATE L. PULLIAM 2005/06/21 CHECKED BY DATE A. DHIR 2005/06/21 APPROVED BY DATE B. MOSER 2005/06/22	TITLE MX150 RECEPTACLE TERMINAL		MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-33012-002
REV B	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						



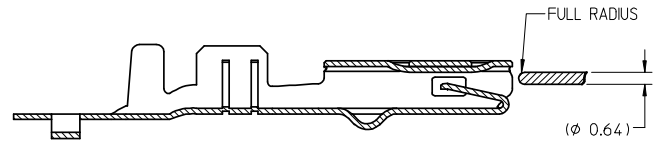
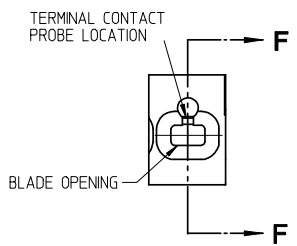
- NOTES: UNLESS OTHERWISE SPECIFIED
1. TOLERANCES: LINEAR ± 0.10
ANGULAR $\pm 3^\circ$
 2. ALL DRAFT WITHIN TOLERANCE.
 3. MAX RADII ON ALL CORNERS SHOWN SHARP: 0.10
 4. MAX FLASH PERMISSIBLE: 0.1
 5. EJECTOR PIN MARKS PERMISSIBLE IF FLUSH TO 0.25 BELOW SURFACE.
 6. MATERIAL: HOUSING/FINGER SPECIFICATION ENGINEERED FOR MATERIAL WITH THE FOLLOWING PROPERTIES:
A. FLEXURAL MODULUS = 4,500 TO 9,400 MPa
PER ASTM TEST D790
B. ELONGATION AT YIELD = 2.3% OR BETTER
PER ASTM TEST D638 TYPE V
 7. CAVITY SPEC FOR USE ONLY WITH MOLEX RECEPTACLE
TERMINAL PART NUMBERS SPECIFIED ELSEWHERE ON THIS
DRAWING



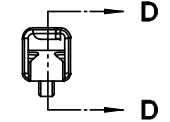
DETAIL Z
SCALE 20:1



SECTION F-F
RECEPTACLE CAVITY ASSEMBLED VIEWS
FOR SMALL POLARIZATION RIB APPLICATIONS
FIG. 1



SECTION D-D
FOR LARGE POLARIZATION RIB APPLICATIONS
FIG. 2



PROBING DOWN THE THROAT MUST USE THIS TERMINAL PROBE

PROBE PIN DETAILS:
MANUFACTURER: LONE STAR INDUSTRIAL
PART NUMBER: LS054R-403-N-4.6
PIN DIAMETER: 0.250IN (0.64mm)
TIP SHAPE: SPHERICAL
TEL: 915-779-7255

PREFERRED PROBING LOCATION IS NOT ON SPRING MEMBER

IF ELECTRICAL CONTINUITY PROBE TOUCHES SPRING MEMBER USE PROBING AS SHOWN IN FIG. 2

REV	DESCRIPTION
B	ENTER DESCRIPTION EC NO: JAU2008-0370 DRAWN: PULLIAM 2007/12/12 CHKD: A. DHIR 2008/01/07 APPR: BMOSEY 2008/01/07

QUALITY SYMBOLS	
▽=0	
▽=0	

GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm INCH
4 PLACES	± --- ± ---
3 PLACES	± 0.005 ± ---
2 PLACES	± 0.10 ± ---
1 PLACE	± 0.3 ± ---
ANGULAR $\pm 3^\circ$	

DIMENSION STYLE MM ONLY	SCALE 5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
DRAWN BY L. PULLIAM	DATE 2005/06/21	MX150 RECEPTACLE TERMINAL	
CHECKED BY A. DHIR	DATE 2005/06/21		
APPROVED BY B. MOSER		DATE 2005/06/22	
MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-33012-002	
SIZE C		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

