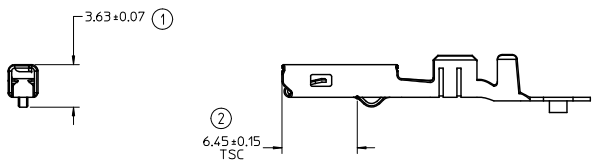
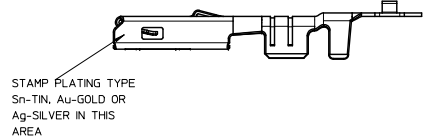


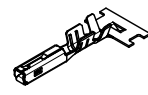
13 12 11 10 9 8 7 6 5 4 3 2 1



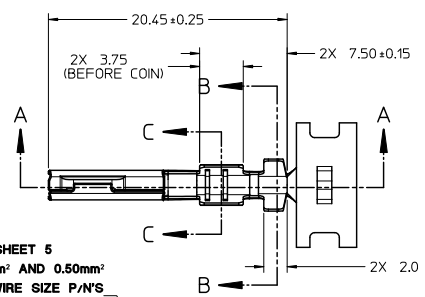
**DIMENSIONS FOR LARGE POLARIZATION RIB TERMINAL ONLY**



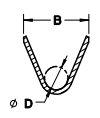
STAMP PLATING TYPE  
Sn-TIN, Au-GOLD OR  
Ag-SILVER IN THIS  
AREA



SCALE 2:1

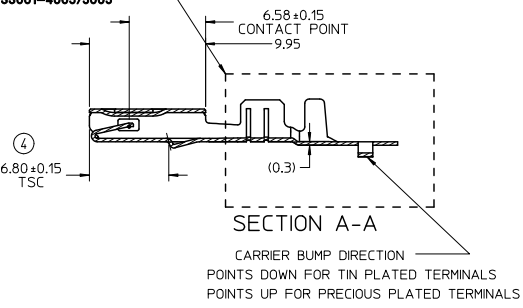
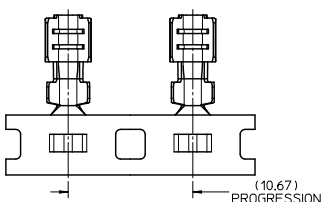
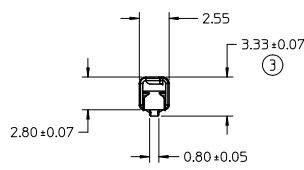


SEE SHEET 5  
0.35mm<sup>2</sup> AND 0.50mm<sup>2</sup>  
ISO WIRE SIZE P/N'S  
33012-2004/3004  
33001-4005/5005

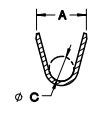


SECTION B-B  
SCALE 5:1

- 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: 490 MIN MPA
  - TIN PLATED TERMINAL FINISH:  
OVERALL UNDERPLATE ELECTRODEPOSITED NICKEL  
OVERALL ELECTRODEPOSITED REFLOW TIN
  - GOLD PLATED TERMINAL FINISH:  
OVERALL UNDERPLATE ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL  
CONTACT AREA - ELECTRODEPOSITED GOLD  
GRP AREA - ELECTRODEPOSITED 100% TIN MATTE FINISH
  - SILVER PLATED TERMINAL FINISH:  
OVERALL UNDERPLATE ELECTRODEPOSITED DUCTILE SULFAMATE NICKEL  
CONTACT AREA - ELECTRODEPOSITED PURE SILVER (0.5% MAX IMPURITIES) SEMI-BRIGHT FINISH  
- SILVER ANTI-TARNISH - EVIABRITE  
GRP AREA - ELECTRODEPOSITED 100% TIN MATTE FINISH
  - 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
  - REFERENCE 979G-1474-AAB FOR LARGE POLARIZATION RIB CAVITY SPECIFICATION
  - INSERTION FORCE (TIN AVG. FROM PV TESTING - 3.0N LARGE POLARIZATION RIB 3.5N SMALL POLARIZATION RIB (REFERENCE))
  - ALL DIMENSIONS EXCEPT  $\varnothing$  & ARE COMMON TO BOTH SMALL AND LARGE POLARIZATION RIB TERMINALS
  - REFERENCE PK-31300-516 FOR REEL DIRECTION
  - REFERENCE AS-33012-002 FOR CRIMP INFORMATION



SECTION A-A  
CARRIER BUMP DIRECTION  
POINTS DOWN FOR TIN PLATED TERMINALS  
POINTS UP FOR PRECIOUS PLATED TERMINALS



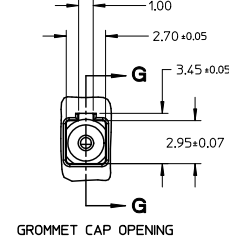
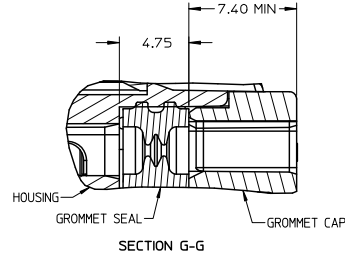
SECTION C-C  
SCALE 5:1

ENTER DESCRIPTION EC NO.: UAU201-0539 DRAWN: HENOS 2011/01/12 CHKD: BMOSE APPR: BMOSE BZ	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		mm	INCH	MM ONLY	4:1	METRIC		
		4 PLACES ± --- ± ---		DRAWN BY	DATE	TITLE		
		3 PLACES ± 0.005 ± ---		L. PULLIAM	2005/06/21	MX150 RECEPTACLE TERMINAL		
2 PLACES ± 0.10 ± ---		CHECKED BY	DATE					
1 PLACE ± 0.3 ± ---		A. DHIR	2005/06/21					
ANGULAR ± 3 °		APPROVED BY	DATE					
		B. MOSER	2005/06/22					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE	SEE TABLE		MATERIAL NO.	DOCUMENT NO.	SHEET NO.	
		C				SD-33012-002	1 OF 5	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

12 11 10 9 8 7 6 5 4 3 2 1

13 12 11 10 9 8 7 6 5 4 3 2 1

TABLE										
SUPPLIER PART NUMBER	PLATING	GRP CODE	WIRE APPLICATION		A +0.30	B +0.30	C +0.30	D +0.30	COMMENTS	
SMALL POLARIZATION RIB RIGHT PAYOFF DIRECTION B	LEFT PAYOFF DIRECTION D		SAE (AWG)	METRIC (mm <sup>2</sup> )						
33012-2001	33012-3001	TIN	14	14/16	2.0-15	3.9	4.4	1.7	1.6	
33012-2002	33012-3002	TIN	18	18/20	10-0.75	3.3	3.1	1.3	1.4	
33012-2003	33012-3003	TIN	22	22	0.35-0.50	2.5	2.6	0.9	1.0	
33012-2004	33012-3004	TIN	M3	N/A	0.35-0.50	2.5	2.7	0.9	1.54±0.1	PREFERRED TERMINAL FOR USE IN SEALED APPLICATION WITH 0.35& 0.50 WIRES (OD 1.2-1.7mm)
33001-2003	33001-3003	GOLD	14	14/16	2.0-15	3.9	4.4	1.7	1.6	
33001-2004	33001-3004	GOLD	18	18/20	10-0.75	3.3	3.1	1.3	1.4	
33001-2005	33001-3005	GOLD	22	22	0.35-0.50	2.5	2.6	0.9	1.0	
33001-4001	33001-5001	SILVER	14	14/16	2.0-15	3.9	4.4	1.7	1.6	NOT TO BE USED IN CONNECTOR SYSTEMS WITH CIRCUIT COUNTS HIGHER THAN 8 DUE TO HIGHER CONNECTOR MATE/UNMATE FORCE
33001-4002	33001-5002	SILVER	18	18/20	10-0.75	3.3	3.1	1.3	1.4	
33001-4003	33001-5003	SILVER	22	22	0.35-0.50	2.5	2.6	0.9	1.0	
33001-4005	33001-5005	SILVER	M3	N/A	0.35-0.50	2.5	2.7	0.9	1.54±0.1	PREFERRED TERMINAL FOR USE IN SEALED APPLICATION WITH 0.35& 0.50 WIRES (OD 1.2-1.7mm) USE IN CLASS 3 (125° C) APPLICATIONS ONLY
LARGE POLARIZATION RIB - NOT TO BE USED IN MX150 SEALED CONNECTORS										
33012-2021	33012-3021	TIN	14	14/16	2.0-15	3.9	4.4	1.7	1.6	
33012-2022	33012-3022	TIN	18	18/20	10-0.75	3.3	3.1	1.3	1.4	
33012-2023	33012-3023	TIN	22	22	0.35-0.50	2.5	2.6	0.9	1.0	
33001-2021	33001-3021	GOLD	14	14/16	2.0-15	3.9	4.4	1.7	1.6	
33001-2022	33001-3022	GOLD	18	18/20	10-0.75	3.3	3.1	1.3	1.4	
33001-2023	33001-3023	GOLD	22	22	0.35-0.50	2.5	2.6	0.9	1.0	
33001-4021	33001-5021	SILVER	14	14/16	2.0-15	3.9	4.4	1.7	1.6	NOT TO BE USED IN CONNECTOR SYSTEMS WITH CIRCUIT COUNTS HIGHER THAN 8 DUE TO HIGHER CONNECTOR MATE/UNMATE FORCE
33001-4022	33001-5022	SILVER	18	18/20	10-0.75	3.3	3.1	1.3	1.4	
33001-4023	33001-5023	SILVER	22	22	0.35-0.50	2.5	2.6	0.9	1.0	

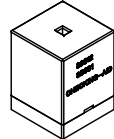


**GROMMET SEAL / CAP CONFIGURATION TO MODIFY LARGE POLARIZATION RIB CAVITY TO ACCEPT SMALL POLARIZATION RIB APPLICATIONS**

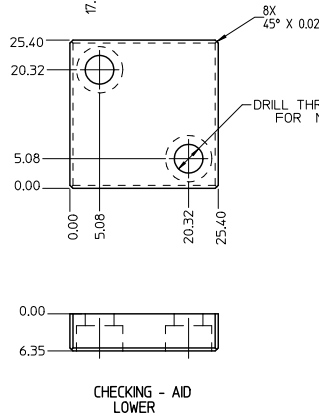
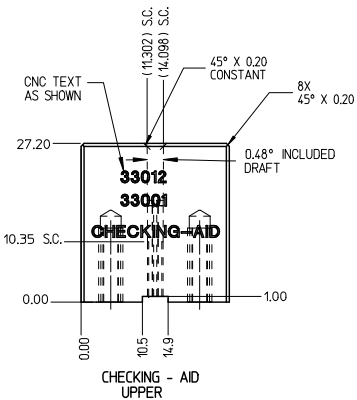
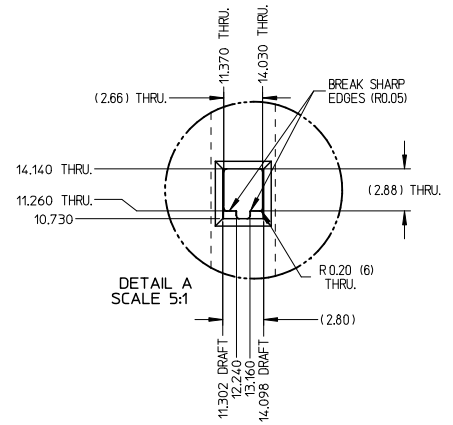
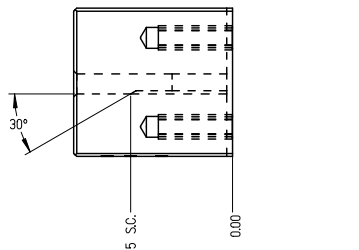
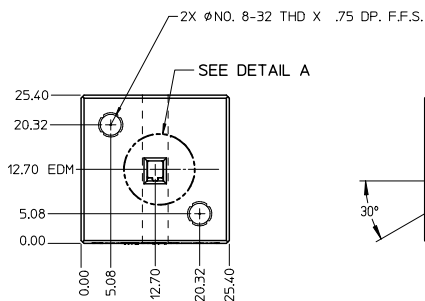
<b>ENTER DESCRIPTION</b> EC NO.: UAL201-0539 DRAWN: HENOS 2011/01/12 CHKD: APPR: BMOSER 2011/01/20 REV:	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm INCH	MM ONLY	METRIC	⊙	
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE			
	▽=0	3 PLACES ± 0.005 ± ---	L. PULLIAM 2005/06/21	TITLE		
	2 PLACES ± 0.10 ± ---	CHECKED BY DATE				
	1 PLACE ± 0.3 ± ---	A. DHIR 2005/06/21				
	ANGULAR ± 3 °	APPROVED BY DATE				
		B. MOSER 2005/06/22				
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.	SEE TABLE	DOCUMENT NO.		SHEET NO.
						2 OF 5

1b\_frame\_C.P.A.M.T 12 11 10 9 8 7 6 5 4 3 2 1  
 Rev. F 2009/06/18

THIS CHECKING - AID IS FOR SMALL POLARIZATION RIB TERMINALS ONLY



CHECKING - AID ASSEMBLY  
SCALE 1:1



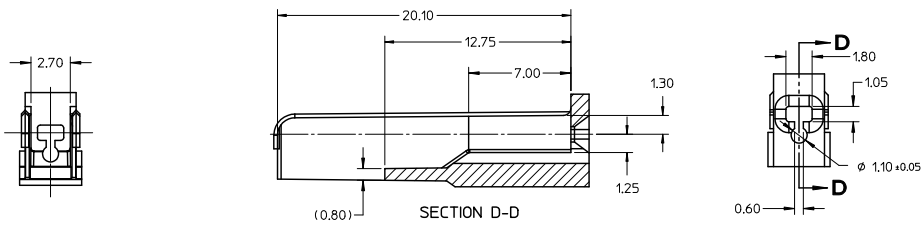
CRIMP REQUIREMENTS:

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/J593-21 (5-13-02) SECTIONS 4.2 (VISUAL INSPECTION), 4.2 (CROSS SECTION ANALYSIS) AND 4.4 (CONDUCTOR CRIMP PULLOUT FORCE).

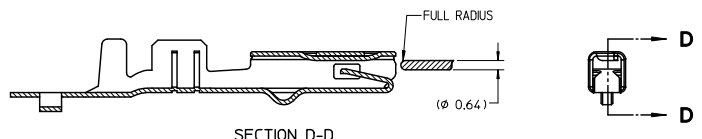
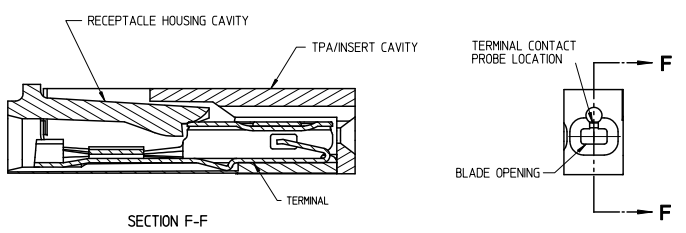
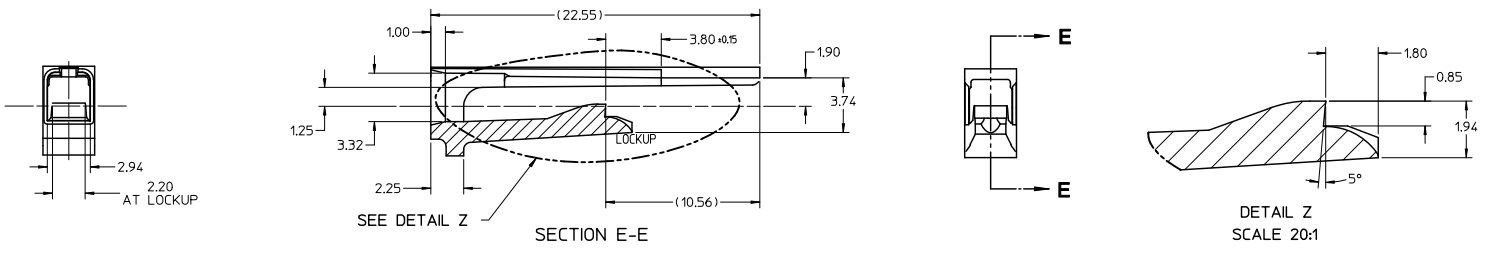
UPPER & LOWER  
CHECKING-AID  
A2 TOOL STEEL  
HARDEN & GRIND  
ROCKWELL 'C' 56-58

ENTER DESCRIPTION EC NO.: UAL2011-0559 DRAWN BY: DRW:SHENOS CHKD: APPR:MOSEER DATE: 2011/01/20	QUALITY SYMBOLS ∇=0 ∇=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		4 PLACES ± 0.15 ± 0.005 3 PLACES ± 0.005 ± 0.005 2 PLACES ± 0.10 ± 0.005 1 PLACE ± 0.3 ± 0.005	mm INCH	DRAWN BY L. PULLIAM	DATE 2005/06/21	TITLE MX150 RECEPTACLE TERMINAL		
		ANGULAR ± 3°		CHECKED BY A. DHIR	DATE 2005/06/21	MOLEX INCORPORATED		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY B. MOSER	DATE 2005/06/22	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-33012-002	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

13 12 11 10 9 8 7 6 5 4 3 2 1



- NOTES: UNLESS OTHERWISE SPECIFIED
1. TOLERANCES: LINEAR  $\pm 0.10$   
ANGULAR  $\pm 3^\circ$
  2. ALL DRAFT WITHIN TOLERANCE.
  3. MAX RADI 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 = 4500 TO 9400 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



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: 0.025 IN (0.64mm)  
TIP SHAPE: SPHERICAL  
TEL: 915-779-7255

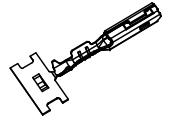
PREFERRED PROBING LOCATION IS NOT ON SPRING MEMBER

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

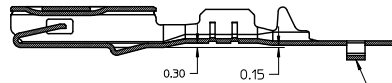
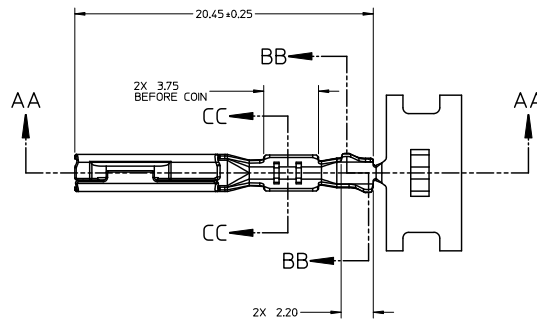
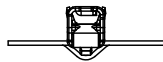
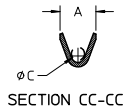
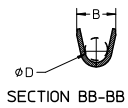
ENTER DESCRIPTION EC NO.: UAL0201-0559 DRAWN: REINOS 2011/01/12 CHKD: APPR: BMOSER 2011/01/20	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	$\nabla \Rightarrow \circ$ $\nabla \Rightarrow \square$ $\nabla \Rightarrow \square$	4 PLACES $\pm$ --- $\pm$ --- 3 PLACES $\pm 0.005$ $\pm$ --- 2 PLACES $\pm 0.10$ $\pm$ --- 1 PLACE $\pm 0.3$ $\pm$ --- ANGULAR $\pm 3^\circ$	DRAWN BY L. PULLIAM DATE 2005/06/21	CHECKED BY A. DHIR DATE 2005/06/21	TITLE MX150 RECEPTACLE TERMINAL		MOLEX INCORPORATED		SHEET NO. 4 OF 5
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	MATERIAL NO. SD-33012-002		DOCUMENT NO.		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

12 11 10 9 8 7 6 5 4 3 2 1

13 12 11 10 9 8 7 6 5 4 3 2 1



ISO VIEW  
SCALE 2:1



P/N'S 33012-2004/3004  
33001-4005/5005

CARRIER BUMP DIRECTION  
POINTS DOWN FOR TIN PLATED TERMINAL  
POINTS UP FOR PRECIOUS METAL PLATED TERMINAL

<b>ENTER DESCRIPTION</b> EC NO: UAU2011-0559 DRAWN: RRENOS 2011/01/12 CHKD: JAPPR: BMOSER 2011/01/20	<b>QUALITY SYMBOLS</b> □=0 □=0 □=0	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>		<b>DIMENSION STYLE</b> MM ONLY		SCALE 5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		4 PLACES ± --- ± --- 3 PLACES ± 0.005 ± --- 2 PLACES ± 0.10 ± --- 1 PLACE ± 0.3 ± ---	mm INCH	DRAWN BY L. PULLIAM	DATE 2005/06/21	TITLE MX150 RECEPTACLE TERMINAL			
		ANGULAR ± 3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	CHECKED BY A. DHIR	DATE 2005/06/21	APPROVED BY B. MOSER			
		MATERIAL NO. SEE TABLE	DATE 2005/06/22	MOLEX INCORPORATED		DOCUMENT NO. SD-33012-002	SHEET NO. 5 OF 5		

12 11 10 9 8 7 6 5 4 3 2 1