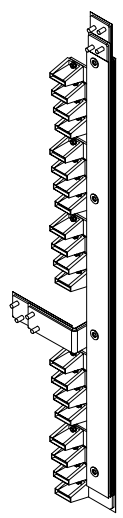


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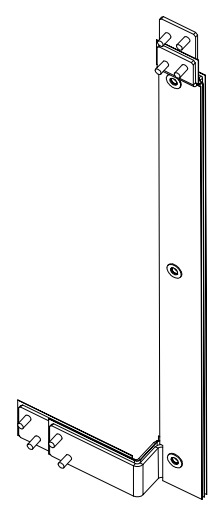
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PRODUCT NO.  
SEE P/N LIST

- 1.0 APPLICABLE DOCUMENTS:
- 12M80967A78 MOTOROLA VENDOR MATERIAL QUALITY CONTROL
  - 12M09150F79 MOTOROLA DATABASE TRANSFERS, GENERAL GUIDELINES.
  - 12G13933A01 MOTOROLA RECEIVING BAR CODE SPECIFICATION.
  - 12S10601A MOTOROLA PACKAGING REQUIREMENTS FOR SUPPLIERS
  - 12S10782A MOTOROLA APPEARANCE REQUIREMENTS FOR DECORATIVE SURFACES
  - 12S11055A MOTOROLA SUPPLIER QUALITY ASSURANCE
  - 12S11062A MOTOROLA PURCHASED MATERIAL AND SUPPLIER QUALITY CERTIFICATION
  - 12S22968 MOTOROLA MARKING STANDARD
  - 12S40460 MOTOROLA CHROMATE COATING ON METAL
  - 10S8556 MOTOROLA ELECTRO-ZINC (ELECTRODEPOSITED) COATING STANDARD
  - 10S8521 MOTOROLA TIN PLATING REQUIREMENTS
  - 12M02897W18 MOTOROLA HAZARDOUS MATERIALS
- 2.0 CHARACTERISTICS: (UNLESS OTHERWISE SPECIFIED)
- 2.1. GENERAL:
- 2.1.1. PARTS MUST BE CLEAN AND FREE OF ALL FOREIGN MATTER.
  - 2.1.2. PACKAGING FOR SHIPMENT: PER 12S10601A AND 12G13933A01. PACKAGING DESIGN MUST BE APPROVED BY MOTOROLA BEFORE PROCEEDING WITH PRODUCTION RUN OF PARTS.
  - 2.1.3. SAMPLE PARTS MUST BE APPROVED BY MOTOROLA BEFORE PROCEEDING WITH PRODUCTION RUN.
  - 2.1.4. A REFERENCE DIMENSION (X.XX) IS A DIMENSION WITHOUT TOLERANCE AND IS USED FOR INFORMATION PURPOSES ONLY.
  - 2.1.5. ALL DIMENSIONS SHOWN ACROSS A CENTERLINE SHALL BE CENTRALIZED WITHIN ONE HALF THEIR TOTAL TOLERANCE.
  - 2.1.6. A CRITICAL DIMENSION IS DENOTED WITH A BOX-X SYMBOL [X] .
  - 2.1.7. ALL DIMENSIONS APPLY AFTER PLATING AND BEFORE PAINTING.
  - 2.1.8. PARTS MUST BE IN CONFORMANCE WITH MATERIAL RESTRICTIONS AND REPORTING ACCORDING TO 12M02897W18.
- 2.2. MECHANICAL:
- 2.2.1. MATERIAL:
- 2.2.1.1. CONDUCTOR: 4 LAYERS, 3.18 MM THICK COPPER ALLOY 110(FOR ITEM 1, 2,3, AND 4 OF 3186241X01, AND FOR ITEM 1 AND 2 OF 3186241X02)
  - 2.2.1.2. INSULATOR: MYLAR LAMINATE, 0.38MM THICK BETWEEN LAYERS AND ON OUTSIDE SURFACES. EDGES TO BE LEFT OPEN, INSULATION OVERLAP 3MM(FOR ITEM 7,8,9,10,11, AND 12 OF 3186241X01, AND FOR ITEM 5,6,7, AND 8 OF 3186241X02).
  - 2.2.1.3. INSULATED SPACER: DELRIN, COLOR: NATURAL FOR ITEM 5 OF 3186241X01 AND FOR ITEM 3 OF 3186241X02.
  - 2.2.1.4. INSULATED WASHER: 0.8MM THICK EPOXY GLASS LAMINATE, NEMA GRADE FR-4 FOR ITEM 6 OF 3186241X01 AND FOR ITEM 4 OF 3186241X02
- 2.2.2. FINISH: 100-300 MICRONS TIN PLATE PER 10S8521(FOR ITEM 1,2, 3, AND 4 OF 3186241X01, AND FOR ITEM 1 AND 2 OF 3186241X02).
- 2.2.3. APPEARANCE: CLASS "C" PER MOTOROLA 12S10782A ON ALL SURFACES.
- 2.2.4. MAXIMUM BURR HEIGHT SHALL BE 10% OF MATERIAL THICKNESS OR 0.15MM WHICHEVER IS LESS, NO LOOSE BURRS PERMITTED.
- 2.2.5. MARKING: PER 12S22968.
- 2.2.5.1. MOTOROLA PART NUMBER, ISSUE LETTER, VENDOR CODE AND DATE CODE (MONTH/YEAR) MUST BE PERMANENTLY AND LEGIBLY MARKED IN AREA SHOWN. ISSUE LETTER MUST BE REVISED WITH EACH NEW DRAWING ISSUE, CHARACTERS MUST BE 2.0MM X 4.0MM HIGH.
- 2.2.5.2. NO SUPPLIER TRADEMARK TO APPEAR ON PARTS.
- 2.2.6. COMPLETE TOOL DRAWINGS, IF REQUIRED, MUST BE APPROVED BY MOTOROLA ENGINEERING DEPARTMENT.
- 2.3. ELECTRICAL INSPECTION REQUIRED
- 2.3.1. ELECTRICAL ISOLATION OF COMPONENT IS REQUIRED RELATIVE TO MOUNTING SURFACES AND HOLES. [X]
- 2.3.2. INSULATION RESISTANCE TO BE 500 MEGOHMS MINIMUM BETWEEN ANY TWO CONDUCTORS, AFTER ONE MINUTE ELECTRIFICATION AT 100VDC. [X]
- 2.3.3. VOLTAGE BREAKDOWN: ASSEMBLY SHALL WITHSTAND 1500 Vrms, 60HZ FOR ONE MINUTE BETWEEN ANY TWO CONDUCTORS AND BETWEEN ANY CONDUCTOR AND GROUND [X]
- 3.0 QUALITY ASSURANCE PROVISIONS: PER 12M80967A78
- 3.1. IT IS THE SUPPLIERS RESPONSIBILITY TO SUPPLY A CERTIFICATE OF COMPLIANCE (COC) CERTIFYING THAT THE MATERIALS AND FINISHES USED IN THE PART MEET THE PRINT REQUIREMENTS. THE SUPPLIER WILL FURNISH MOTOROLA WITH A COC UPON REQUEST.
- 4.0 EXCEPTIONS: NO CHANGE SHALL BE ALLOWED ON PRODUCTION MATERIAL REGARDLESS OF WHETHER SUCH CHANGE AFFECTS REQUIREMENTS SPECIFIED, WITHOUT PRIOR WRITTEN APPROVAL FROM MOTOROLA.



3186241X01



3186241X02

P/N LIST

ITEM	FO P/N	MOTOLORA P/N	ASSEMBLY DESCRIPTION
1	10020750-001	3186241X01	-48V MAIN BUS BAR
2	10020750-002	3186241X02	+27V MAIN BUS BAR

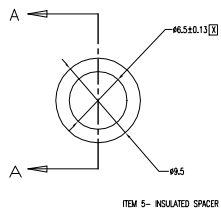
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ltr	ecn no	dr	date	linear	.X ±.3	projection	title
A	N03-0040	SHENW	03/31/03	linear	.XX ±.10		BUSBAR, MAIN 31D86241X
				angles	.XXX ±.050		
				dr	0° ±2°	MM	product family
				enfr	SHENW 03/31/03	←	BUSBAR
				chr	CHENG MING 03/31/03	scale	code
				appd	CHENG MING 03/31/03	---	NAN
sheet	revision	A	A	A			size
index	sheet	1	2	3			dwg no
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							10020750
							sheet
							1 of 3

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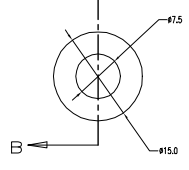
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10020750-001



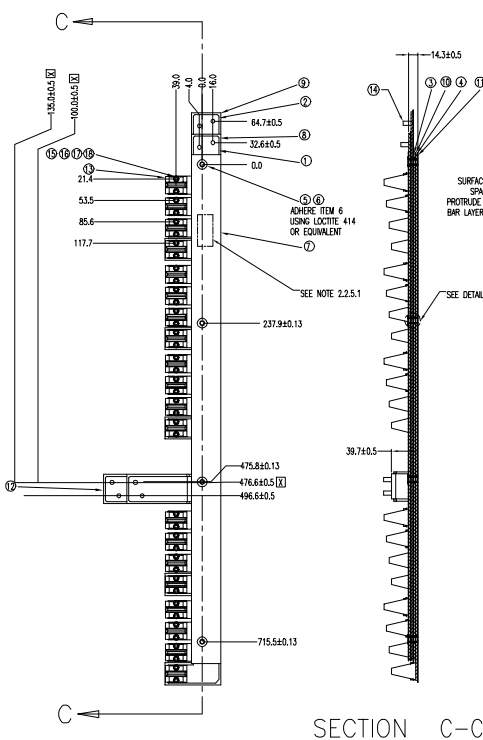
ITEM 5- INSULATED SPACER



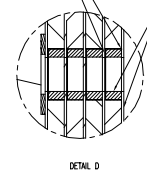
ITEM 6- INSULATED WASHER

TABLE 2: BILL OF MATERIALS FOR 3186241X01

ITEM	QTY	MOTOROLA P/N	PART DESCRIPTION	PRO/ENGINEER FILENAME	VENDOR	VENDOR P/N	REMARKS
18	40	0410985A01	M4 SPLIT LOCK WASHER				
17	40	0402891W10	M4 PLAN WASHER				
16	40	0210971A05	M4 NUT				TORQUE TO 2.3 N-M (20 IN-LB)
15	40		PEM SELF CLINCHING STUD	PEM	FHL-M4-10		
14	8		PEM SELF CLINCHING STUD	PEM	FHS-M6-15		
13	20		CROWN CLIP 11	ELCON	538-0068-00100		USE ELCON CROWN CLIP 538-17-00100 AS ALTERNATIVE
12	1		INSULATED LAYER 6	3186241X_MYLAR_LAYER6.PRT			
11	1		INSULATED LAYER 5	3186241X_MYLAR_LAYER5.PRT			
10	1		INSULATED LAYER 4	3186241X_MYLAR_LAYER4.PRT			
9	1		INSULATED LAYER 3	3186241X_MYLAR_LAYER3.PRT			
8	1		INSULATED LAYER 2	3186241X_MYLAR_LAYER2.PRT			
7	1		INSULATED LAYER 1	3186241X_MYLAR_LAYER1.PRT			
6	4		INSULATED WASHER	3186241X_FR4_WASHER.PRT			
5	16		INSULATED SPACER	3186241X_INSULATOR_SPACER.PRT			
4	1		27V RETURN BUS BAR	3186241X_27V_RETURN.PRT			
3	1		27V FEED BUS BAR	3186241X_27V_FEED.PRT			
2	1		-48V RETURN BUS BAR	3186241X_48V_RETURN.PRT			
1	1		-48V FEED BUS BAR	3186241X_48V_FEED.PRT			
ITEM	QTY	MOTOROLA P/N	PART DESCRIPTION	PRO/ENGINEER FILENAME	VENDOR	VENDOR P/N	REMARKS



SECTION C-C



DETAIL D

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				appd					
sheet index	revision sheet								

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PDM: Rev:A

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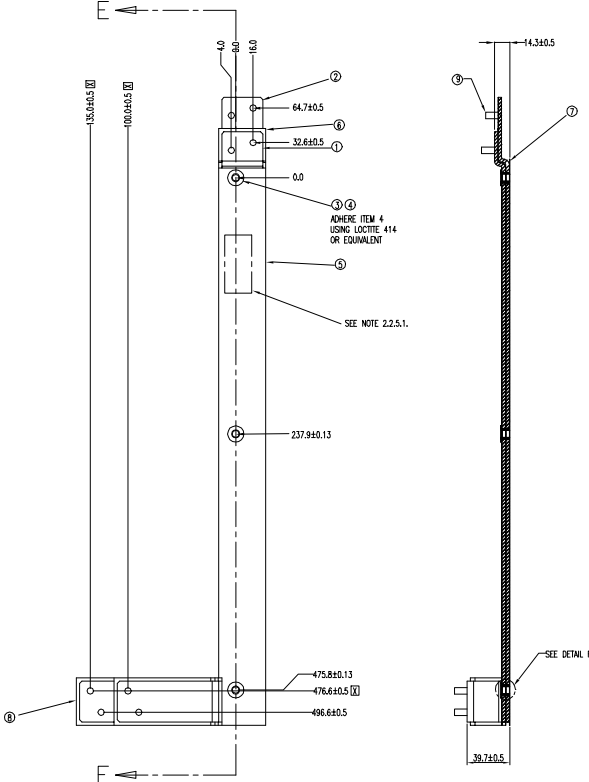


TABLE 3: BILL OF MATERIALS FOR 3186241X02

ITEM	QTY	PART DESCRIPTION	PRO/ENGINEER FILENAME	VENDOR	VENDOR P/N	REMARKS
9	8	PEM SELF CLINCHING STUD		PEM	FHS-M6-15	
8	1	INSULATOR LAYER 4	3186241X_2LYR_27V_MYLAR_LAYER4.PRT			
7	1	INSULATOR LAYER 3	3186241X_2LYR_27V_MYLAR_LAYER3.PRT			
6	1	INSULATOR LAYER 2	3186241X_2LYR_27V_MYLAR_LAYER2.PRT			
5	1	INSULATOR LAYER 1	3186241X_2LYR_27V_MYLAR_LAYER1.PRT			
4	3	INSULATED WASHER	3186241X_FRA_WASHER.PRT			SAME AS ITEM 6 ON SHEET2
3	6	INSULATED SPACER	3186241X_INSULATOR_SPACER.PRT			SAME AS ITEM 5 ON SHEET2
2	1	27V RETURN BUS BAR	3186241X_2LYR_27V_RETURN.PRT			
1	1	27V FEED BUS BAR	3186241X_2LYR_27V_FEED.PRT			

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A				.X ±.3		BUSBAR, MAIN	
				.XX ±.10		31D86241X	
				.XXX ±.050		product family BUSBAR	
				0° ±2'	MM	size	code
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				chr CHENG MING 03/31/03			3 of --
				appd CHENG MING 03/31/03			
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