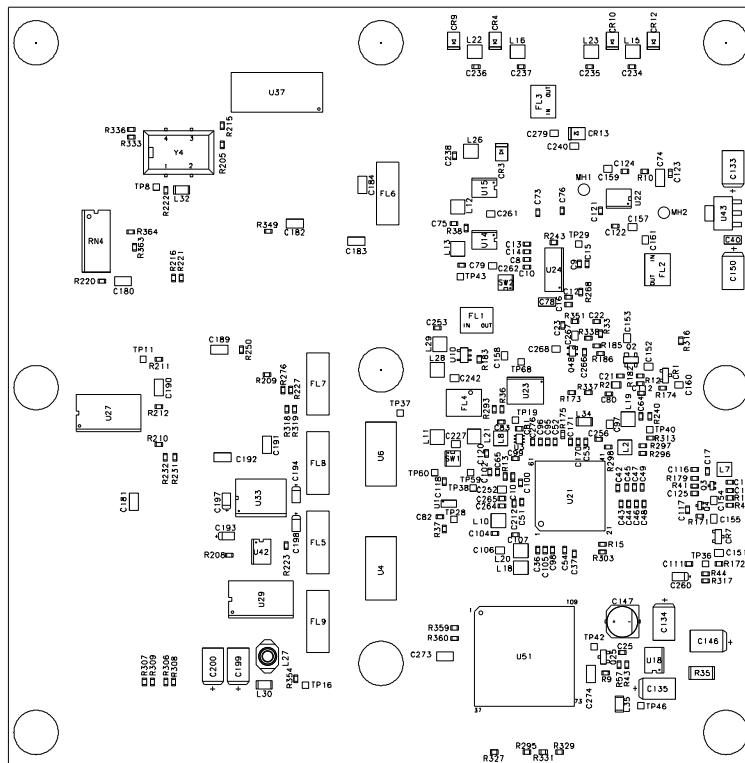


M/A-COM PROPRIETARY AND PRIVATE

The information contained in this document or item is the property of M/A-COM, Inc., d.b.a. Microwave Associates, Inc., and/or its subsidiaries (M/A-COM); and shall be kept in strict confidence. Except with written permission of M/A-COM, such information or item shall not be published, disclosed to others, or used for manufacture or sale or for any other purpose, and this document or item shall not be reproduced, in whole or in part. If permission is granted for reproduction, this legend shall be included in any such reproduction. This document or item shall be returned to M/A-COM upon request, or completion of the use for which it was made available to recipient, or termination of relationship with recipient, whichever first occurs. Any recipient so agrees by acceptance of this document or item.



TOP SIDE (COMPONENT)

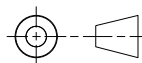
REVISONS			
LTR	DESCRIPTION	DATE	APPROVED
-	INITIAL RELEASE PER DDR# 14429	2/24/00	COMTOIS
A	UPDATED PER ECN #43783	5/22/00	COMTOIS
B	UPDATED PER ECN #1001947	12/5/00	COMTOIS
B1	UPDATED PER ECN #1005093	4/10/01	COMTOIS
C	UPDATED PER ECN #1005553	5/9/01	COMTOIS
C1	UPDATED PER ECN #1006110	5/24/01	COMTOIS
C2	UPDATED PER ECN #1009982	5/14/02	ALLEN

DO NOT LOAD FOLLOWING COMPONENTS:
R204, R206, R227, R295, R261, R322-331,
R333, R339-340, R344-345,
C269-270, J10

PRODUCTION
RELEASE

DO NOT SCALE THIS DRAWING

NOTE: THIS DWG INCORPORATES
THIRD ANGLE PROJECTION



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

TOLERANCES ON

DECIMALS ANGLES

.X ±

.XX ±

.XXX ±

±

UNLESS OTHERWISE SPECIFIED $\frac{63}{100}$ ALL OVER

MATERIAL

FINISH

DRAWN

DATE
G.COMTOIS 2/24/00

CHECKED

J. BRODERICK

ENG. APP'D

S. OSGOOD 3/2/00

PROD. APP'D

K. ANDERSON 3/2/00

APPROVALS

tyco Electronics

M/A-COM

1011 Pawtucket Blvd
Lowell, MA 01853-3295

TITLE
ISM RADIO
ASSEMBLY DRAWING

SIZE CAGE CODE DRAWING NO.

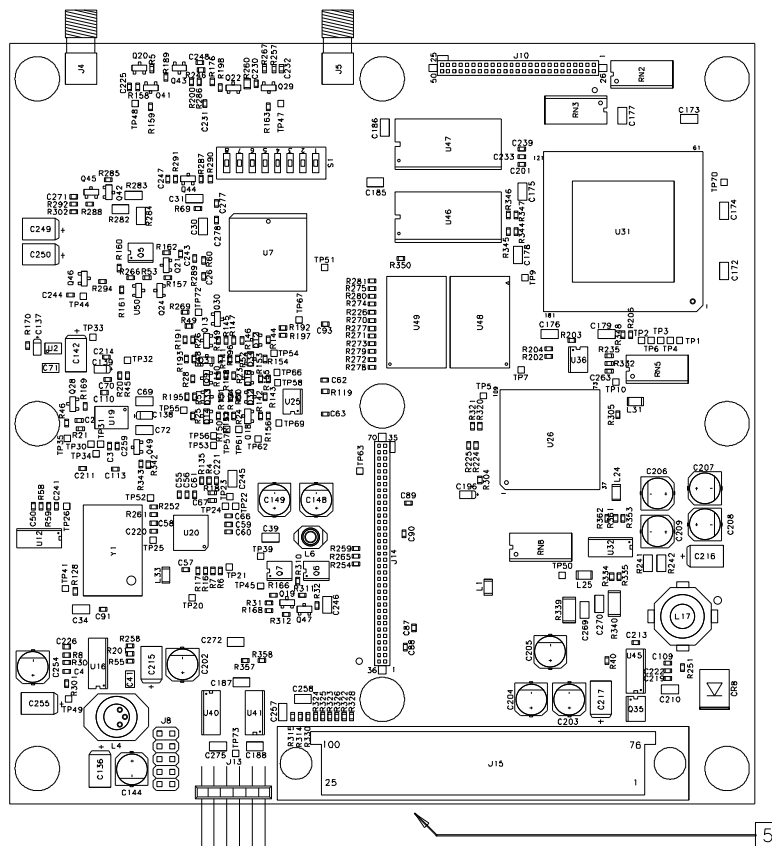
C 96341 BG01194

SCALE 1.5 SHEET 1 OF 6

C2	C2	C2	C2	C2	C2	REVISION	REV STATUS OF SHEETS
6	5	4	3	2	1	SHEET	

NEXT ASSY

USED ON



BOTTOM SIDE (SOLDER)

NOTES:

1. ASSEMBLE PER IPC-A-610B CLASS 2.
2. ELECTROSTATIC DISCHARGE CONTROL PROGRAM FOR PROTECTION OF ELECTRICAL AND ELECTRONIC PARTS, ASSEMBLIES AND EQUIPMENT SHALL BE IN ACCORDANCE WITH MIL-STD-1686B, CLASS 1 AND MIL-HDBK-263B.
3. MAXIMUM LEAD PROTRUSION SOLDER SIDE .050".
4. PIN 1 OF ALL COMPONENTS ARE PLACED WITH RANDOM ORIENTATION
5. ADD BARCODE TO SIDE OF 100 PIN CONNECTOR
6. REMOVE EXCESS SOLDER FROM J4 AND J5 OUTER PADS TO PREVENT INTERFERENCE WITH HOUSING.

tyco Electronics M/A-COM 1011 Pawtucket Blvd Lowell, MA 01853-3295			
TITLE ISM RADIO ASSEMBLY DRAWING			
SIZE	CAGE CODE	DRAWING NO.	
C	96341	BG01194	
SCALE	1.5	REV	C2
		SHEET 2 OF 6	

D	ITEM #	COMPANY PART NO.	COUNT	REFERENCE	DESCRIPTION	
D	1	06035C102KAT2A	14	C36 C50 C73 C76 C80 C82 C83 C105 C211 C222 C230 C231 C232 C271	1000PF, 50V, 10%, MULTI-LAYER CERAMIC, AVX	
	2	1008CS-120XMBC	1	L10	12nH, VOLT, 10%, CHIP INDUCTOR, COILCRAFT	
	3	1008CS-150XMBC	2	L12 L13	15nH, VOLT, 20%, CHIP INDUCTOR, COILCRAFT	
	4	1008CS-180XMBC	9	L11 L15 L16 L18 L19 L22 L23 L26 L29	18nH, VOLT, 20%, CHIP INDUCTOR, COILCRAFT	
C	5	1008CS-390XKBC	3	L7 L21 L28	39nH, VOLT, 10%, CHIP INDUCTOR, COILCRAFT	
	6	1008CS-820XKBC	3	L2 L8 L20	82nH, VOLT, 10%, CHIP INDUCTOR, COILCRAFT	
	7	104652-7	1	J14	70 PIN CONN, AMP	
	8	104652-5-NOP0P	1	J10	50 PIN CONN, AMP	
B	9	146253-5	1	J8	10 PIN CONN HEADER, AMP	
	10	146308-6	1	J13	12 PIN RA CONN HEADER, AMP	
	11	2064-0000-00	2	J4 J5	RIGHT ANGLE JACK, M/A-COM	
	12	219-8LPST	1	S1	8 DIP SWITCH, CTS	
A	13	25C080-1/SN	1	U42	8K 5.0V SPI EEPROM, MICROCHIP	
	14	30BQ040	1	CR8	40, DIODE RECTIFIER, INT. RECTIFIER	
	15	4816P-T02-103-BR	5	RN2 RN3 RN4 RN5 RN8	10K, 2%, .080W, RESISTOR NETWORK, BOURNS	
	16	532436-1	1	J15	100 PIN CONN, AMP	
B	17	74AC04SC	2	U40 U41	OCTAL HEX INVERTER, NATIONAL	
	18	855392	1	FL4	BANDPASS FILTER, SAWTEK	
	19	AD22100AR	1	U25	VOLT OUTPUT TEMP SENSOR W/SIGNAL CONDITION, ANALOG DEVICES	
	20	AM29F040B-120E I	1	U37	512KX8 FLASH PROM, SAMSUNG	
C	21	AM29F800BB-120E I	1	U49	512KX16 FLASH PROM, AMD	
	22	AM29F800BB-120F I	1	U48	512KX16 FLASH PROM, AMD	
	23	AM55-0007TR-500	1	U24	PWR AMP, M/A-COM	
	24	AS104-59	2	SW1 SW2	GAAS SPDT SWITCH, ALPHA	
D	25	AT-260TR	1	U23	DIGITAL ATTENUATOR, M/A-COM	
	26	ATC100A0R3BW150X	1	C153	0.3PF, 150V, 0.1pF, PORCELAIN MULTILAYER CAP, AMERICAN TECHNICAL CERAMICS	
	27	ATC100A0R5BW150X	1	C152	.5pF, 150V, 0.1pF%, PORCELAIN MULTILAYER CAP, AMERICAN TECHNICAL CERAMICS	
	28	ATC100A1R0CW150X	3	C160 C161 C268	1.0pF, 150V, 0.25pF%, PORCELAIN MULTILAYER CAP, AMERICAN TECHNICAL CERAMICS	
B	29	ATC100A1R5CW150X	1	C158	1.5PF, 150V, 0.25pF, PORCELAIN MULTILAYER CAP, AMERICAN TECHNICAL CERAMICS	
	30	ATC100A1R8CW150X	3	C151 C157 C159	1.8PF, 150V, 0.25pF, PORCELAIN MULTILAYER CAP, AMERICAN TECHNICAL CERAMICS	
	31	ATC100A220KW150X	4	C240 C252 C262 C279	22PF, 150V, 10%, PORCELAIN MULTILAYER CAP, AMERICAN TECHNICAL CERAMICS	
	32	ATC100A2R2CW150X	1	C155	2.2PF, 150V, 0.1pF%, PORCELAIN MULTILAYER CAP, AMERICAN TECHNICAL CERAMICS	
A	33	ATC100A3R9CW150X	1	C154	3.9PF, 150V, 0.25pF, PORCELAIN MULTILAYER CAP, AMERICAN TECHNICAL CERAMICS	
	34	ATC100A6R8JW150X	6	C97 C106 C227 C242 C261 C267	6.8PF, 150V, 5%, PORCELAIN MULTILAYER CAP, AMERICAN TECHNICAL CERAMICS	
	35	AVQ2046	1		PRINTED CIRCUIT BOARD	
	36	BLA81B01T1	1	FL9	70, 50V, 300mA, FERRITE BEAD ARRAY, MURATA	
C	37	BLM31A700S	9	L1 L24 L25 L30 L31 L32 L33 L34 L35	70, 25%, .2 AMPS, FERRITE_BEAD, MURATA	
	38	CMM2321-AK-000T	1	U22	CUSTOM BR POWER AMP, CELERITEK	
	39	CTCR0603-0000F	12	R224 R225 R227 R261 R276 R322 R323 R336 R346 R347 R354 R363 R252 R295 R324 R325 R326 R327 R328 R329 R330 R331 R357 R358 R359 R360 R364 R361 R362	0, 1%, 1/16W, RESISTOR, SCD	
	40	CTCR0603-0000F-NOP0P	15	U36	0, 1%, 1/16W, RESISTOR, SCD	
D	41	CTCR0603-1002F	2	L17	10K, 1%, 1/16W, RESISTOR, SCD	
	42	CTX50-4	1	L17	50.18 uH, VOLT, 20%, TOROID INDUCTOR, COILTRONICS	
	43	DS1232LPSN-2-TR	1	U36	LOW POWER CHIP, DALLAS SEMICONDUCTOR	
	44	DS1608C-684	2	L6 L27	6.8uH, 9V, TOL, INDUCTOR, COILCRAFT	
A	45	DT3316P-104	1	L4	100uH, 5V, TOL, INDUCTOR, COILCRAFT	
	46	BCH1AY225R	2	C137 C138	2.2uF, 10V, 20%, POLARIZED TANTALUM CAP, PANASONIC	

tyco

Electronics

M/A-COM

1011 Pawtucket Blvd
Lowell, MA 01853-3295

TITLE

ISM RADIO
ASSEMBLY DRAWING

SIZE

CAGE CODE

DRAWING NO.

C

96341

BG01194

SCALE

NONE

REV

C2

SHEET

3 OF 6

ITEM #	COMPANY PART NO.	COUNT	REFERENCE	DESCRIPTION
47	BCSH1ED106R	9	C133 C134 C135 C142 C146 C150 C215 C216 C217	10uF, 25V, 20%, POLARIZED TANTALUM CAP, PANASONIC
48	BCST1AD476R	6	C136 C199 C200 C249 C250 C255	47uF, 10V, 20%, POLARIZED TANTALUM CAP, PANASONIC
49	BCST1CY105R	7	C139 C193 C194 C196 C197 C198 C260	1uF, 16V, 20%, POLARIZED TANTALUM CAP, PANASONIC
50	BCUV1H100FCV	3	C113 C125 C266	10PF, 50V, +/-1pF, MULTI-LAYER CERAMIC, PANASONIC
51	BCUV1H101JCV	37	C26 C64 C81 C91 C93 C95 C96 C98 C99 C100 C101 C102 C104 C107 C110 C114 C115 C117 C118 C120 C121 C122 C123 C124 C170 C171 C212 C213 C214 C225 C226 C241 C247 C248 C253 C264 C265	100pF, 50V, 10%, MULTI-LAYER CERAMIC, PANASONIC
52	BCUV1H103KBV	39	C2 C4 C37 C42 C43 C44 C45 C46 C47 C48 C49 C51 C52 C53 C54 C55 C56 C57 C58 C59 C60 C61 C62 C63 C65 C66 C67 C70 C87 C88 C89 C90 C220 C221 C239 C259 C276 C277 C278	.01uF, 50V, 10%, MULTI-LAYER CERAMIC, PANASONIC
53	BCUV1H104KBW	41	C30 C31 C34 C39 C40 C41 C69 C71 C72 C74 C78 C172 C173 C174 C175 C176 C177 C178 C179 C180 C181 C182 C183 C184 C185 C186 C187 C188 C189 C190 C191 C192 C210 C245 C246 C257 C258 C272 C273 C274 C275	.1uF, 50V, 10%, MULTI-LAYER CERAMIC, PANASONIC
54	BCUV1H104KBW-NOPOP	2	C269 C270	.1uF, 50V, 10%, MULTI-LAYER CERAMIC, PANASONIC
55	BCUV1H220JCV	15	C8 C9 C10 C12 C17 C21 C22 C23 C116 C234 C235 C236 C237 C238 C256 C13 C14 C15 C16 C219 C243 C244 C25 C109 C233	22PF, 50V, 5%, MULTI-LAYER CERAMIC, PANASONIC
56	BCUV1H221JCV	7	C3 C75 C79 C111 C112 C201 C263 C144 C254	220PF, 50V, 5%, MULTI-LAYER CERAMIC, PANASONIC
57	BCUV1H222KBV	3	C147 C148 C149	2200pF, 50V, 10%, MULTI-LAYER CERAMIC, PANASONIC
58	BCUV1H471KBV	7	C206 C207 C208 C209	470pF, 50V, 10%, MULTI-LAYER CERAMIC, PANASONIC
59	BEVHB0J101P	2	C202 C203 C204 C205	100uF, 6.3V, 20%, ALUMINUM ELECTROLTIC, PANASONIC
60	BEVHB1C470P	7	R35	47uF, 16V, 20%, ALUMINUM ELECTROLTIC, PANASONIC
61	BEVHB1E330P	4	R339 R340	33uF, 25V, 20%, ALUMINUM ELECTROLTIC, PANASONIC
62	BRJ12ZYJ220	1		22, 5%, 1/2W, RESISTOR, PANASONIC
63	BRJ12ZYJ220-NOPOP	2		22, 5%, 1/2W, RESISTOR, PANASONIC

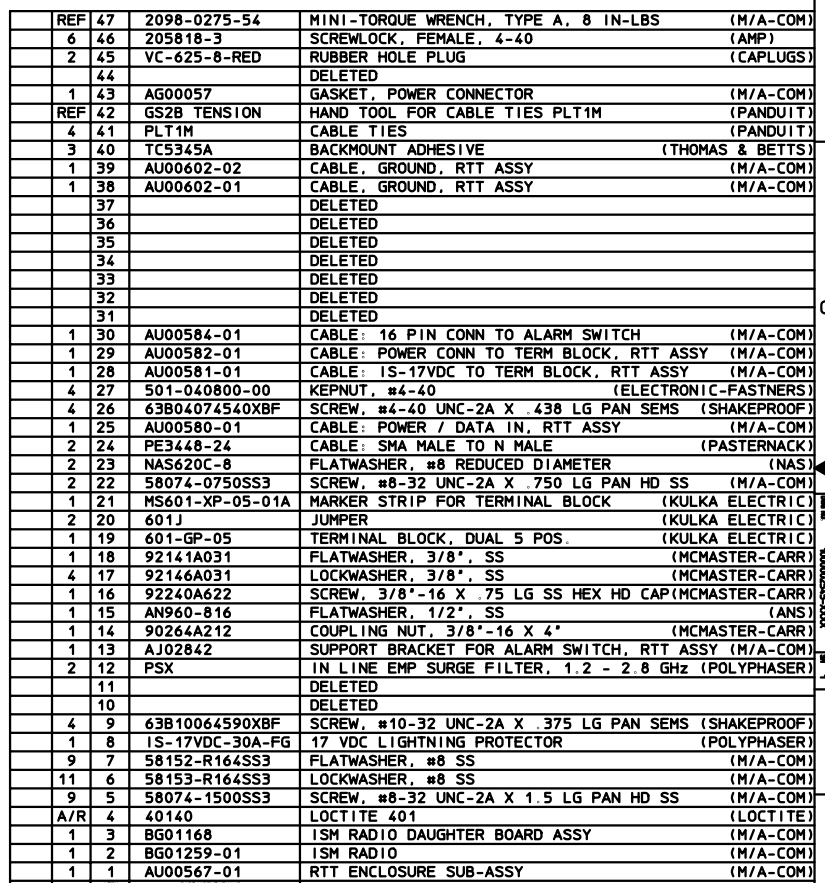
			
			
1011 Pawtucket Blvd Lowell, MA 01853-3295			
TITLE			
ISM RADIO			
ASSEMBLY DRAWING			
SIZE	CAGE CODE	DRAWING NO.	
C	96341	BG01194	
SCALE NONE		REV C2	SHEET 4 OF 6

ITEM #	COMPANY PART NO.	COUNT	REFERENCE	DESCRIPTION
64	BRJ3GSYJ102	13	R119 R175 R179 R180 R183 R202 R251 R254 R259 R265 R303 R304 R305	1K, 5%, 1/16W, RESISTOR, PANASONIC
65	BRJ3GSYJ103	60	R9 R43 R58 R59 R60 R69 R135 R140 R141 R142 R143 R144 R145 R146 R147 R148 R149 R150 R151 R152 R153 R154 R155 R156 R158 R159 R161 R163 R166 R169 R170 R172 R174 R215 R216 R220 R221 R222 R223 R226 R235 R246 R257 R266 R267 R277 R278 R279 R280 R281 R290 R291 R314 R315 R316 R334 R335 R349 R350 R353	10K, 5%, 1/16W, RESISTOR, PANASONIC
66	BRJ3GSYJ104	15	R32 R40 R48 R49 R50 R51 R52 R201 R294 R306 R307 R308 R309 R312 R332	100K, 5%, 1/16W, RESISTOR, PANASONIC
67	BRJ3GSYJ104-NOPOP	9	R204 R206 R318 R319 R320 R321 R333 R344 R345	100k, 5%, 1/16W, RESISTOR, PANASONIC
68	BRJ3GSYJ121	3	R33 R55 R297	120, 5%, 1/16W, RESISTOR, PANASONIC
69	BRJ3GSYJ200	1	R338	20, 5%, 1/16W, RESISTOR, PANASONIC
70	BRJ3GSYJ202	11	R5 R12 R41 R128 R157 R162 R168 R176 R258 R285 R302	2K, 5%, 1/16W, RESISTOR, PANASONIC
71	BRJ3GSYJ203	8	R23 R24 R25 R26 R28 R46 R47 R342	20K, 5%, 1/16W, RESISTOR, PANASONIC
72	BRJ3GSYJ330	4	R38 R173 R337 R351	33, 5%, 1/16W, RESISTOR, PANASONIC
73	BRJ3GSYJ331	5	R37 R240 R287 R288 R293	330, 5%, 1/16W, RESISTOR, PANASONIC
74	BRJ3GSYJ333	6	R30 R31 R182 R197 R311 R343	33K, 5%, 1/16W, RESISTOR, PANASONIC
75	BRJ3GSYJ392	9	R15 R16 R17 R18 R21 R44 R45 R200 R301	3.9K, 5%, 1/16W, RESISTOR, PANASONIC
76	BRJ3GSYJ472	11	R203 R205 R208 R209 R210 R211 R212 R231 R232 R250 R348	4.7K, 5%, 1/16W, RESISTOR, PANASONIC
77	BRJ3GSYJ560	7	R36 R185 R186 R268 R296 R298 R313	56, 5%, 1/16W, RESISTOR, PANASONIC
78	BRJ3GSYJ562	8	R189 R270 R271 R272 R273 R274 R275 R292	5.6K, 5%, 1/16W, RESISTOR, PANASONIC
79	BRJ3GSYJ563	14	R8 R10 R53 R57 R191 R192 R193 R194 R195 R196 R243 R269 R286 R310	56K, 5%, 1/16W, RESISTOR, PANASONIC

				1011 Pawtucket Blvd Lowell, MA 01853-3295	
TITLE ISM RADIO ASSEMBLY DRAWING					
SIZE	CAGE CODE	DRAWING NO.			
C	96341	BG01194			
SCALE NONE		REV C2		SHEET 5 OF 6	

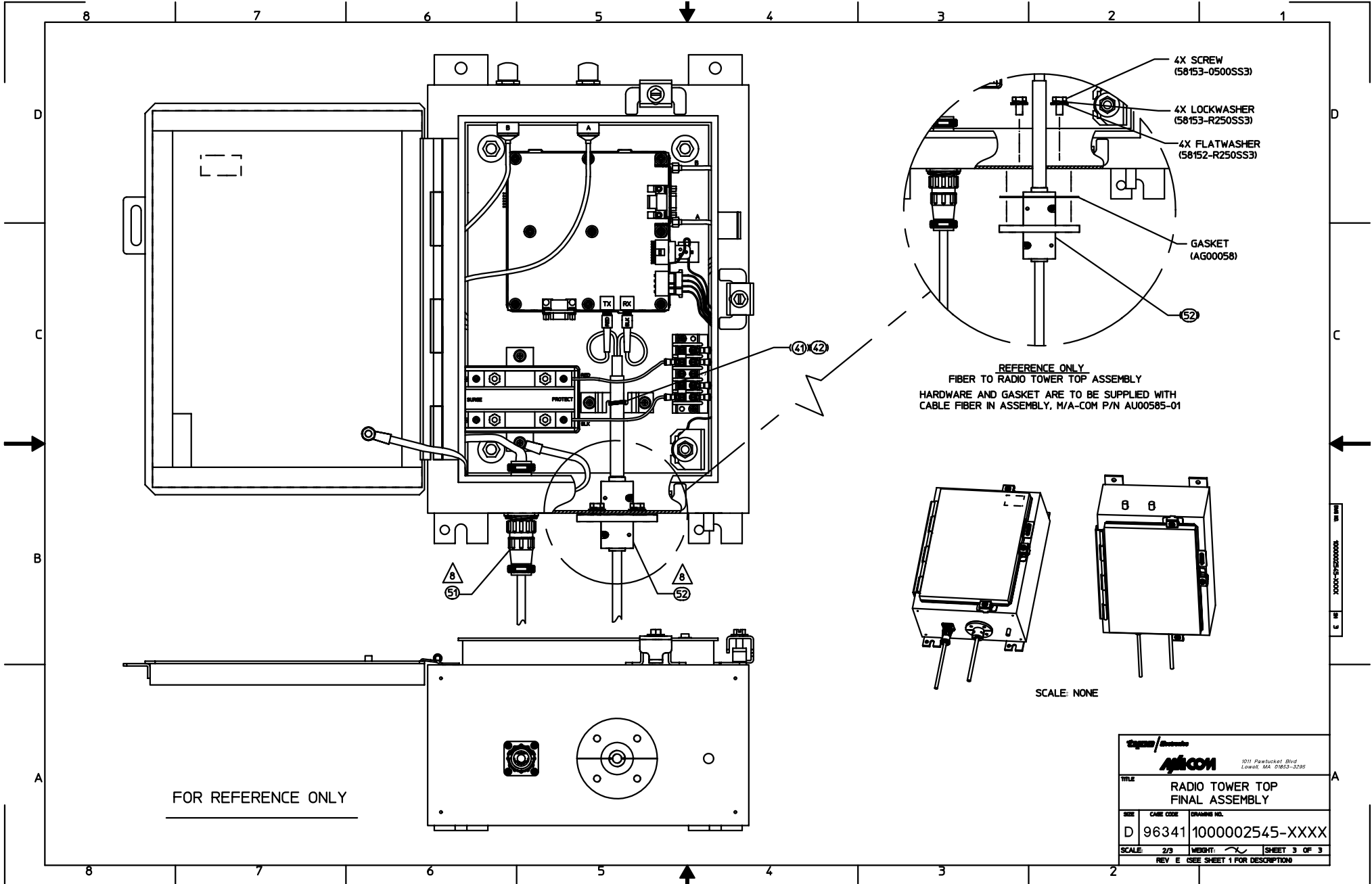
ITEM #	COMPANY PART NO.	COUNT	REFERENCE	DESCRIPTION
80	BRJ3GSYJ681	6	R6 R7 R13 R160 R289 R317	680, 5%, 1/16W, RESISTOR, PANASONIC
81	BRJ3GSYJ822	3	R4 R171 R198	8.2K, 5%, 1/16W, RESISTOR, PANASONIC
82	BRJ6GEYJ750	2	R2 R260	75, 5%, 1/10W, RESISTOR, PANASONIC
83	FMMT4124TA	15	Q21 Q22 Q24 Q25 Q28 Q29 Q30 Q31 Q32 Q33 Q34 Q41 Q44 Q45 Q47	NPN TRANSISTOR, ZETEX
84	FMMT4126TA	13	Q9 Q12 Q13 Q14 Q16 Q18 Q19 Q20 Q42 Q43 Q46 Q49 U50	PNP TRANSISTOR, ZETEX
85	HFA37261N-BR	1	U21	400MHZ QUADRATURE IF MOD/DEM0D CUSTOM PART, HARRIS
86	HFA3824A1V	1	U20	DIRECT SEQ. SPECTRUM BASEBAND PROCESSOR CUSTOM PART, HARRIS
87	IRF7104	1	Q7	DUAL POWER HEXFET, INT. RECTIFIER
88	IRF7205	2	Q5 Q6	P PWR HEXFET, INT. RECTIFIER
89	IRF7317	1	Q35	DUAL N_P_CH_HEXFET, INT. RECTIFIER
90	K6T4008C1C-VF70	2	U46 U47	512KX8 SRAM, SAMSUNG
91	LMX2330LTM	1	U19	DUAL FREQ SYNTHESIZER, NATIONAL
92	LT10541S8	1	U18	SWITCH CAP VOLT CONVERTER W/ REGULATOR, LINEAR TECHNOLOGY
93	LTC1148HVCS-5	1	U45	SWITCH REGULATOR, LINEAR TECHNOLOGY
94	LTC1574CS	1	U16	DC/DC CONVERTER, LINEAR
95	MA4PH235-1072T	6	CR3 CR4 CR9 CR10 CR12 CR13	35V, 10%, PIN DIODE, M/A-COM
96	MA4ST250-287T	2	CR1 CR7	30V, 10%, VARACTOR, M/A-COM
97	MAAM22010TR	2	U14 U15	LOW NOISE AMP, M/A-COM
98	MC68360CEM25L	1	U31	QUAD INTERGRATED COMMUNICATION CONTROLLER (QUICC), MOTOROLA
99	MC74HC00MADP2	1	U12	OCTAL BUFFER, MOTOROLA
100	MD54-0007TR	1	U10	RF MIXER, M/A-COM
101	MM74HC244WM	2	U27 U29	OCTAL BUFFER, NATIONAL
102	NE68519	2	Q3 Q4	NPN TRANSISTOR HIGH FREQUENCY, NEC
103	NE76118-TR	1	Q48	GoAs MESFET, NEC
104	NE85639-T1	1	Q2	HIGH FREQ NPN, NEC
105	NFA81R10C222T1	4	FL5 FL6 FL7 FL8	2200pF, 50V, 200mA, CAP FILTER ARRAY, MURATA
106	PIC16LC74B-041/L	1	U7	8 BIT MICROCONTROLLER WITH A/D CONVERTER, MICROCHIP
107	RK73H1J1910F	1	R20	191, 1%, 1/16W, RESISTOR, FIRST
108	SG615P-20.4800MHZ	1	Y4	QUARTX CRYSTAL OSCILLATOR, EPSON
109	SN74ALVC164245DG	2	U4 U6	16 BIT 3.3/5V TRANSCEIVER, TI
110	SP232EET	1	U33	CUSTOM MADE 5V TRANSCEIVER FOR BRAKE RADIO, MAXIM
111	SP491EEN	1	U32	RS482 RECIEVER, MAXIM
112	TDFM1B-2450T-10	3	FL1 FL2 FL3	CHIP FILTER, TOKO
113	TK11250BMCL	1	U2	VOLT REGULATOR, TOKO
114	TX0725EDW	1	Y1	TEMP COMPENSATED XTAL OSC, RAKON
115	UPC2749T	1	U1	MMIC AMP, NEC
116	UPC2771TB	1	U3	NEC
117	WSL-1206-0.1-1	5	R241 R242 R282 R283 R284	0.1, 1%, 1/4W, RESISTOR, DALE
118	XC5206-6TQ1441-BR	1	U26	CUSTOM BRAKE RADIO FPGA, XILINX
119	XCS30XL-4TQ1441	1	U51	SPARTAN FPGA, XILINX
120	ZR78L08G	1	U43	VOLT REGULATOR, ZETEX

				1011 Pawtucket Blvd Lowell, MA 01853-3295	
TITLE ISM RADIO ASSEMBLY DRAWING					
SIZE	CAGE CODE	DRAWING NO.			
C	96341	BG01194			
SCALE NONE		REV C2		SHEET 6 OF 6	

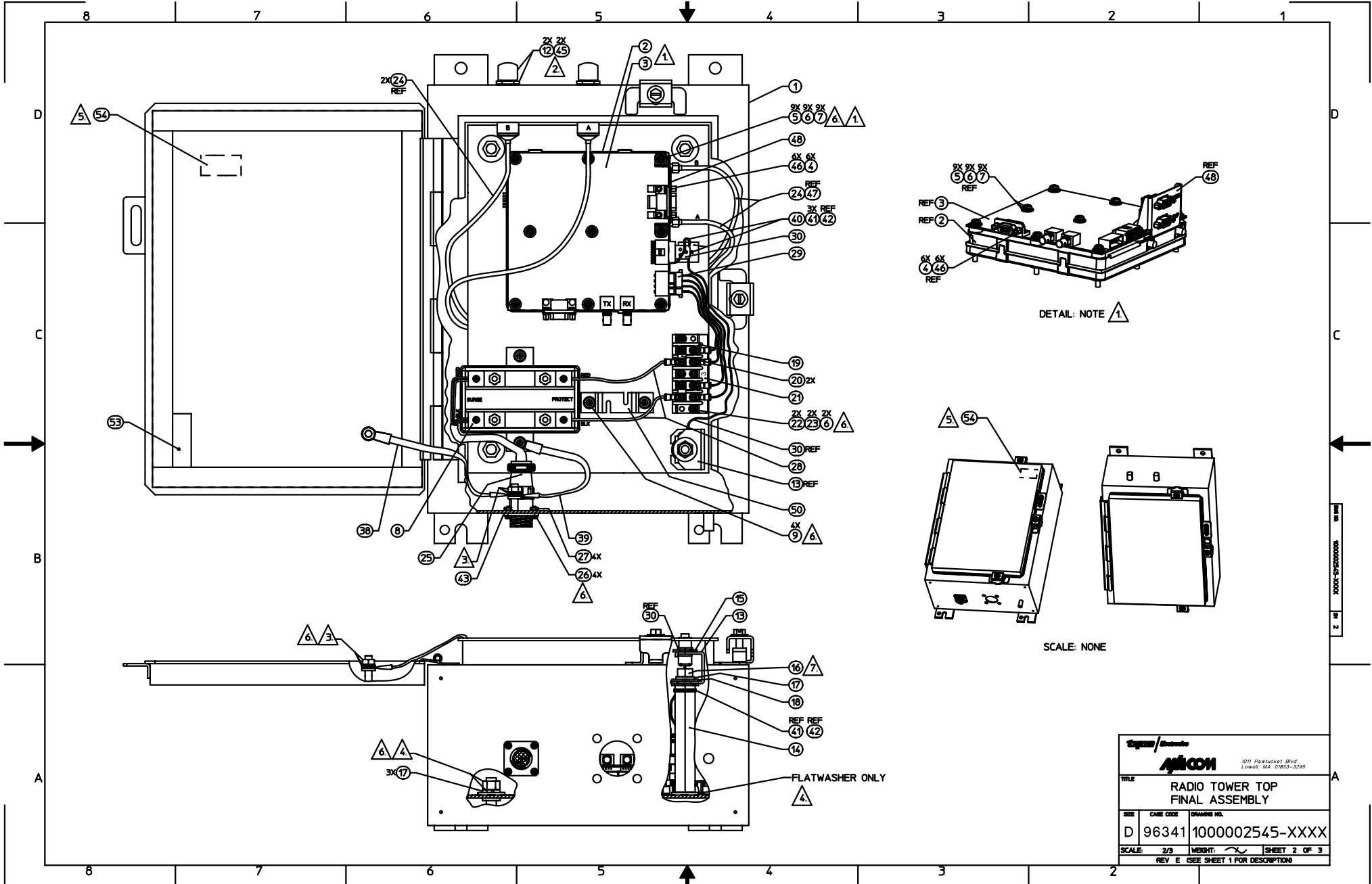


- | | | | | | |
|----------|-----|----|-----------------|--------------------------------------|-----------|
| | 2 | 54 | 1000012194-0001 | LABEL, ISM TOWER TOP | (M/A-COM) |
| | 1 | 53 | 1000000858 | GASKET, DOOR SWITCH | (M/A-COM) |
| | REF | 52 | BRO1-0002-XXX | BACKHAUL TO RADIO CABLE (FIBER) | (M/A-COM) |
| | REF | 51 | ISO1-0006-XXX | ISM POWER CABLE | (M/A-COM) |
| | 1 | 50 | AJ03040 | BRACKET, FIBER CABLE, RTT ASSY | (M/A-COM) |
| | | 49 | | DELETED | |
| | 1 | 48 | AJ02841 | SUPPORT BRACKET FOR CONNECTOR 750586 | (M/A-COM) |
| -02 | -01 | | | | |
| QTY REQD | | | | NOMENCLATURE/DESCRIPTION | |
| | | | | PARTS LIST | |

(A) MANUFACTURER'S 2-DIM. OR 3-DIM. DIMENSIONS ARE TO NOT SCALE THIS DRAWING		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		DRAWN M. COTE		DATE 01JUN00				1011 Pawtucket Blvd Lowell, MA 01853-3295	
(B) NOTE: THIS DRAWING INCORPORATES THIRD ANGLE PROJECTION		TOLERANCES ON DECIMALS ANGLES		SDR APP'D S. OSGOOD		6/14/00				TITLE	
		$\begin{matrix} X \pm .1 \\ .001 \pm .005 \\ .0001 \pm .0005 \end{matrix}$		$\pm .5^\circ$		CAD APP'D A. GRUNDHOFF		6/15/00		RADIO TOWER TOP FINAL ASSEMBLY	
		UNLESS OTHERWISE SPECIFIED ALL OVER MATERIAL		IPR APP'D K. MAVROUDIS		6/14/00				SIZE D 96341	
(C) RADIO TOWER TOP NEXT ASSY. USED ON		(D) SEE PARTS LIST		APPROVALS				CAGE CODE 1000002545-XXXX		DRAWING NO.	
APPLICATION		FINISH						SCALE NONE WEIGHT		SHEET 1 OF 3	



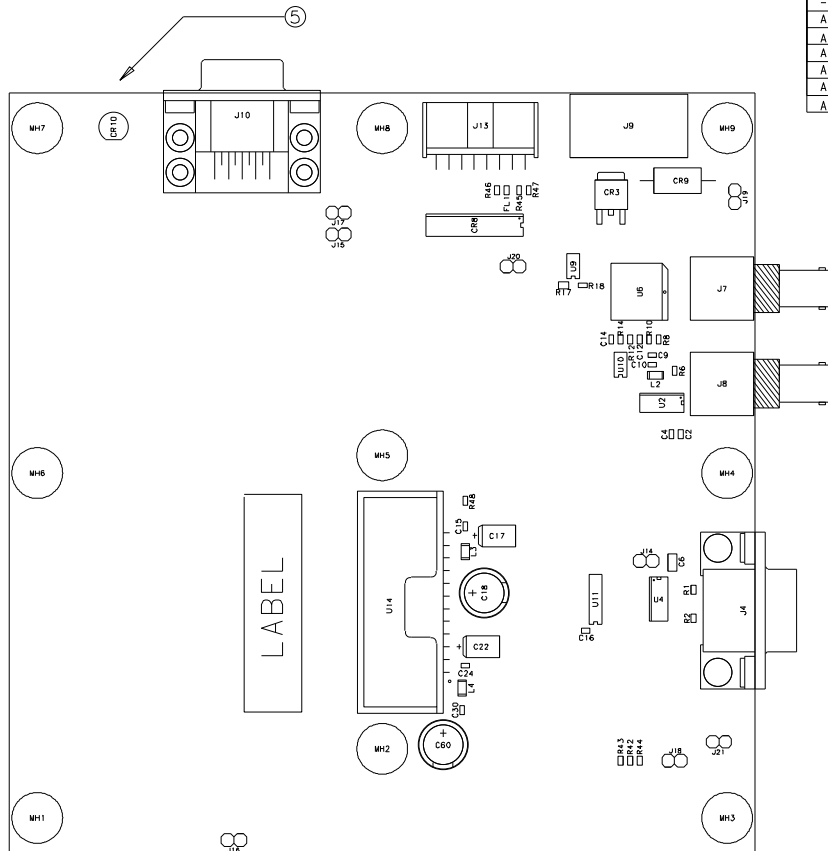
		
1011 Pawtucket Blvd Lowell, MA 01853-3295		
TITLE		
RADIO TOWER TOP FINAL ASSEMBLY		
SIZE	CAGE CODE	DRAWING NO.
D	96341	1000002545-XXXX
SCALE	2/3	WEIGHT
REV E (SEE SHEET 1 FOR DESCRIPTION)		SHEET 3 OF 3



RAYCOM 1011 Pawtucket Blvd Lowell, MA 01853-3295			
TITLE RADIO TOWER TOP FINAL ASSEMBLY			
SIZE	CAGE CODE	DRAWING NO.	
D	96341	1000002545-XXXX	
SCALE	2/3	WEIGHT	SHEET 2 OF 3
REV E SEE SHEET 1 FOR DESCRIPTION			

M/A-COM PROPRIETARY AND PRIVATE

The information contained in this document or item is the property of M/A-COM, Inc., d.b.a. Microwave Associates, Inc., and/or its subsidiaries (M/A-COM), and shall be kept in strict confidence. Except with written permission of M/A-COM, such information or item shall not be published, disclosed to others, or used for manufacture or sale or for any other purpose, and this document or item shall not be reproduced, in whole or in part. If permission is granted for reproduction, this document or item shall be returned to M/A-COM upon request, or completion of the use for which it was made available to recipient, or termination of relationship with recipient, whichever first occurs. Any recipient so agrees by acceptance of this document or item.

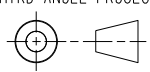


TOP SIDE (COMPONENT)

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
-	INITIAL RELEASE PER DDR # 16350	02/24/00	COMTOIS
A	Changes per ECN # 1002707	1/31/01	J.ALLEN
A1	Changes per ECN # 1003176	5/20/01	J.ALLEN
A2	Changes per ECN # 1007391	7/23/01	J.ALLEN
A3	Changes per ECN # 1008328	8/28/01	J.ALLEN
A4	Changes per ECO#20005455	3/3/02	J.ALLEN
A5	Changes per ECO#20015130	11/13/02	J.ALLEN

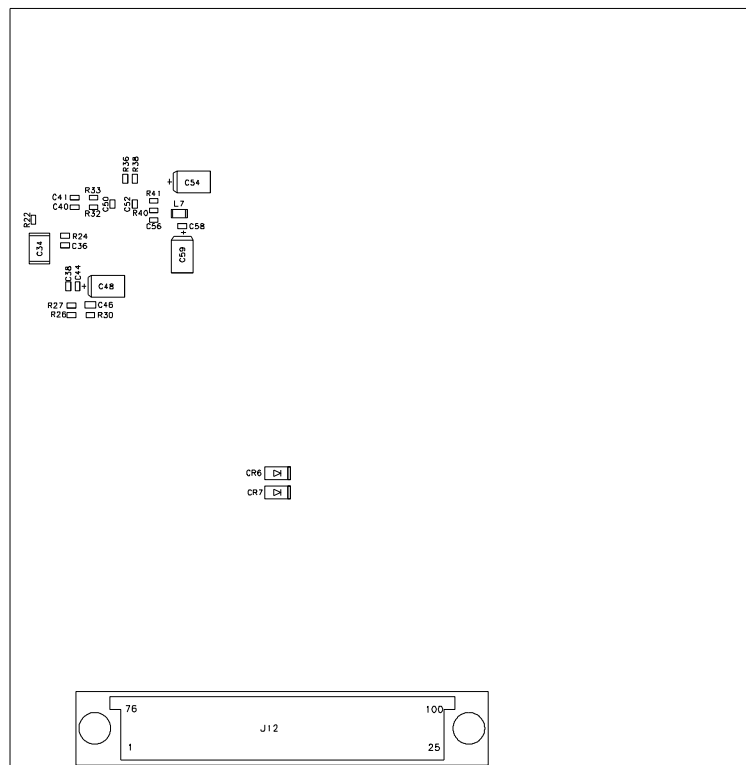
PRODUCTION
RELEASE

A5	A5	A5	REVISION	REV STATUS OF SHEETS
3	2	1	SHEET	

DO NOT SCALE THIS DRAWING		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		DRAWN	G.COMTOIS	DATE 02/24/00
		TOLERANCES ON		CHECKED	J.Allen	02/24/00
NOTE: THIS DWG INCORPORATES THIRD ANGLE PROJECTION 		DECIMALS	ANGLES	ENG. APP'D	W.Ewers	02/24/00
		.X ± .XX ± .XXX ±	±	PROD. APP'D	S.Forkey	02/24/00
		UNLESS OTHERWISE SPECIFIED ⁶³ ✓ ALL OVER		APPROVALS		
		MATERIAL				
NEXT ASSY	USED ON	FINISH				

TITLE
ISM RADIO DAUGHTER
ASSEMBLY DRAWING

SIZE	CAGE CODE	DRAWING NO.
C	96341	BC01168
SCALE	1.5	SHEET 1 OF 3



BOTTOM SIDE (SOLDER)

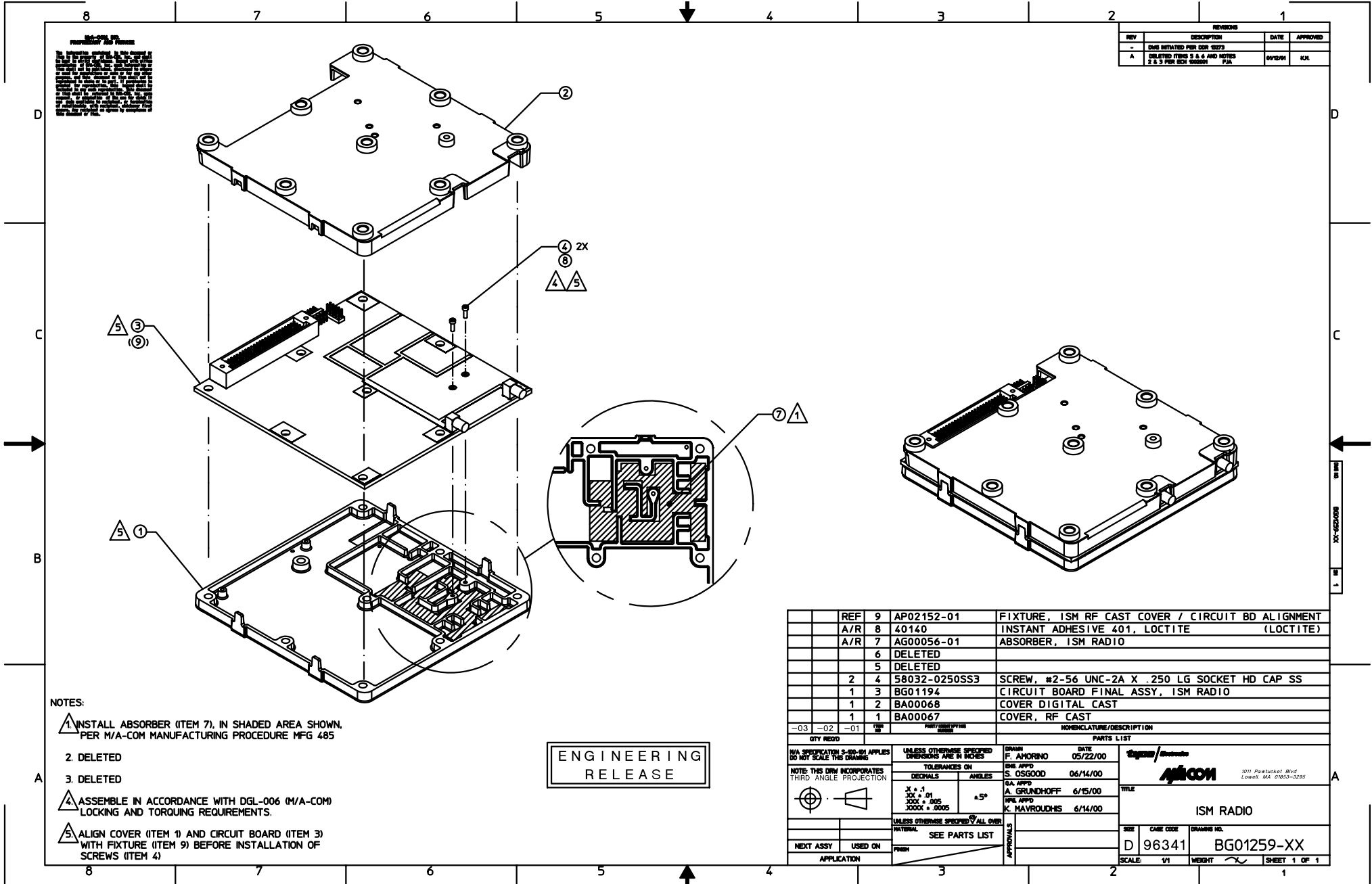
NOTES:

1. ASSEMBLE PER IPC-A-610B CLASS 2.
2. ELECTROSTATIC DISCHARGE CONTROL PROGRAM FOR PROTECTION OF ELECTRICAL AND ELECTRONIC PARTS, ASSEMBLIES AND EQUIPMENT SHALL BE IN ACCORDANCE WITH MIL-STD-1686B, CLASS 1 AND MIL-HDBK-263B.
3. MAXIMUM LEAD PROTRUSION SOLDER SIDE .050".
4. PIN 1 OF ALL COMPONENTS ARE PLACED WITH RANDOM ORIENTATION
5. CR10 SHOULD BE ROTATED 180 DEGREES BEFORE INSTALLATION
6. INSTALL #30 AWG INSULATED WIRE BETWEEN PIN #11 AND PIN #42 ON J12

 		a Division of AMP Incorporated 1811 Pawlucket Blvd. Laurel, MA. 01853-3295	
		TITLE ISM RADIO DAUGHTER ASSEMBLY DRAWING	
SIZE C	CAGE CODE 96341	DRAWING NO. BG01168	
SCALE 1.5		REV A5	SHEET 2 OF 3

ITEM NUMBER	COMPANY PART NO.	COUNT	REFERENCE	DESCRIPTION
1	1.5KE18CA	1	CR9	TVS-BIDIR, 1uA, tvs bidir, GENERAL SEMICONDUCTOR
2	1000003082-0001	1		LABEL
3	102617-6	1	J13	CONN2X8, CONN2X8, AMP
4	15-24-4041	1	J9	CONN4, 4 PIN CONN HEADER, MOLEX
5	50WQ03FN	1	CR3	SCHOTTKY RECTIFIER, SCHOTTKY_RECTIFIER, INTERNATIONAL RECTIFIER
6	533285-1	1	J12	1-50, 100 PIN CONN, AMP
7	74ACTQ00SC	1	U2	74ACTQ00, QUAD NAND GATE, FAIRCHILD
8	750585-4	1	J10	750585-4, 18 PIN CONN, AMP
9	788796-2	1	J4	CONN9 2MH, 9 PIN CONN, AMP
10	AV02004	1		PRINTED CIRCUIT BOARD
11	BLM31P500S	4	L2 L3 L4 L7	BEAD, 50uH, 25%, 3 AMPS, EMI FILTER FERRITE BEAD, MURATA
12	CTCC0603-102KX	3	C4 C9 C38	CAP, 1000pF, 10%, 50V, X7R, SCD
13	CTCC0603-104KX	16	C2 C10 C12 C14 C15	CAP, 0.1uF, 10%, 50V, X7R, SCD
			C16 C24 C30 C36	
			C40 C41 C44 C50	
			C52 C56 C58	
14	CTCC0805-750KC	1	C46	CAP, 75pF, 10%, 50V, COG, SCD
15	CTCC1206-105KX	1	C6	CAP, 1uF, 10%, 16V, X7R, SCD
16	CTCR0603-1001F	8	R6 R8 R10 R12 R14	RES, 1.0K, 1%, 1/16W, RESISTOR, SCD
			R32 R33 R47	
17	CTCR0603-1002F	3	R42 R43 R44	RES, 10k, 1%, 1/16W, RESISTOR, SCD
18	CTCR0603-1200F	2	R1 R2	RES, 120, 1%, 1/16W, RESISTOR, SCD
19	CTCR0603-12R0F	1	R18	RES, 12, 1%, 1/16W, RESISTOR, SCD
20	CTCR0603-2700F	1	R27	RES, 270, 1%, 1/16W, RESISTOR, SCD
21	CTCR0603-3300F	1	R48	RES, 330, 1%, 1/16W, RESISTOR, SCD
22	CTCR0603-33R0F	2	R26 R30	RES, 33, 1%, 1/16W, RESISTOR, SCD
23	CTCR0603-4R99F	2	R22 R24	RES, 4.99, 1%, 1/16W, RESISTOR, SCD
24	CTCR0603-51R0F	4	R36 R38 R40 R41	RES, 51, 1%, 1/16W, RESISTOR, SCD
25	CTCR0603-8060F	2	R45 R46	RES, 806, 1%, 1/16W, RESISTOR, SCD
26	CTCR0805-61R9F	1	R17	RES, 61.9, 1%, 1/10W, RESISTOR, SCD
27	BCWU1C474JC	1	C34	CAP, .47uF, 5%, 16V, MULTI-LAYER CERAMIC, PANASONIC
28	BEU-FC1E331	2	C18 C60	PCAP, 330uF, +/- 20%, 25, DESC, PANASONIC
29	HE00702	1		Schematic
30	HFBR-1414T	1	J8	HFBR-1414T, PREAMP TRANSMITTER, HP
31	HFBR-2416TC	1	J7	HFBR-2416T, LINE RECEIVER, HP
32	LN21RPHL	1	CR10	LED, 25uA, 4VR, LED, PANASONIC
33	MC10E116FN	1	U6	MC10E116, LINE RECEIVER, MOTOROLA
34	MC10ELT21D	1	U10	MC10ELT21, TRANSLATOR, MOTOROLA
35	MC74HC157AD	1	U11	MC74HC157, QUAD 2-INPUT MULTIPLEXER, MOTOROLA
36	PS2701-4	1	CR8	PS2701-4, ISOLATOR, NEC
37	PT6302A	1	U14	PT6302A, SWITCHING REGULATOR, POWER TRENDS
38	PTC02SAAN-N0P0P	8	J14 J15 J16 J17	CONN2, 2 PIN CONN, SULLINS
			J18 J19 J20 J21	
39	SP491EEN	1	U4	SP491E, RS482 RECEIVER, SIPEX
40	T491D106M025AS	5	C17 C22 C48 C54	PCAP, 10uF, 20%, 25V, TANTALUM CHIP CAP, KEMET
			C59	
41	TL431A1D	1	U9	TL431A, SHUNT REGULATOR, TI
42	VCM18RN180DS1	1	FL1	VCM11R, EMI FILTER, MURATA
43	ZM4734A	2	CR6 CR7	ZENER, 25uA, 5.6, ZENER, VISHAY

 a Division of AMP Incorporated 1811 Pawtucket Blvd. Lowell, MA 01853-3295			
TITLE ISM RADIO DAUGHTER ASSEMBLY DRAWING			
SIZE	CAGE CODE	DRAWING NO.	
C	96341	BG01168	
SCALE	NONE	REV A5	SHEET 3 OF 3



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
1	DATE DATED PER 2018 05/22		
A	DELETED ITEMS 5 & 6 AND NOTES 2 & 3 PER ECH 100001	05/24/00	KJA

REF	9	AP02152-01	FIXTURE, ISM RF CAST COVER / CIRCUIT BD ALIGNMENT
A/R	8	40140	INSTANT ADHESIVE 401, LOCTITE (LOCTITE)
A/R	7	AG00056-01	ABSORBER, ISM RADIO
	6	DELETED	
	5	DELETED	
	4	58032-0250SS3	SCREW, #2-56 UNC-2A X .250 LG SOCKET HD CAP SS
	3	BG01194	CIRCUIT BOARD FINAL ASSY, ISM RADIO
	2	BA00068	COVER DIGITAL CAST
	1	BA00067	COVER, RF CAST
-03	-02	-01	ITEM NO PART/DESCRIPTION REVISION NOMENCLATURE/DESCRIPTION
QTY REQD		PARTS LIST	

M/A SPECIFICATION 5-20-94 APPLIES TO THIS DRAWING		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		DRAWN F. AMORINO DATE 05/22/00		SHEET 1 OF 1	
NOTE: THIS DWM INCORPORATES THIRD ANGLE PROJECTION		TOLERANCES ON DECIMALS ANGLES		SHEET APPD S. OSGOOD 06/14/00		TITLE ISM RADIO	
X ± .1 XX ± .01 XXX ± .005 XXXX ± .0005		± 5°		SHEET APPD A. GRUNDHOFF 6/15/00		SIZE CASE CODE D 96341	
UNLESS OTHERWISE SPECIFIED ALL OVER		SEE PARTS LIST		SHEET APPD K. MAVROUDIS 6/14/00		DRAWING NO. BG01259-XX	
NEXT ASSY USED ON APPLICATION		MATERIAL FINISH		APPROVALS		SCALE 1/1 WEIGHT SHEET 1 OF 1	

ENGINEERING
RELEASE

- NOTES:
- 1. INSTALL ABSORBER (ITEM 7), IN SHADED AREA SHOWN, PER M/A-COM MANUFACTURING PROCEDURE MFG 485
 - 2. DELETED
 - 3. DELETED
 - 4. ASSEMBLE IN ACCORDANCE WITH DGL-006 (M/A-COM) LOCKING AND TORQUING REQUIREMENTS.
 - 5. ALIGN COVER (ITEM 1) AND CIRCUIT BOARD (ITEM 3) WITH FIXTURE (ITEM 9) BEFORE INSTALLATION OF SCREWS (ITEM 4)