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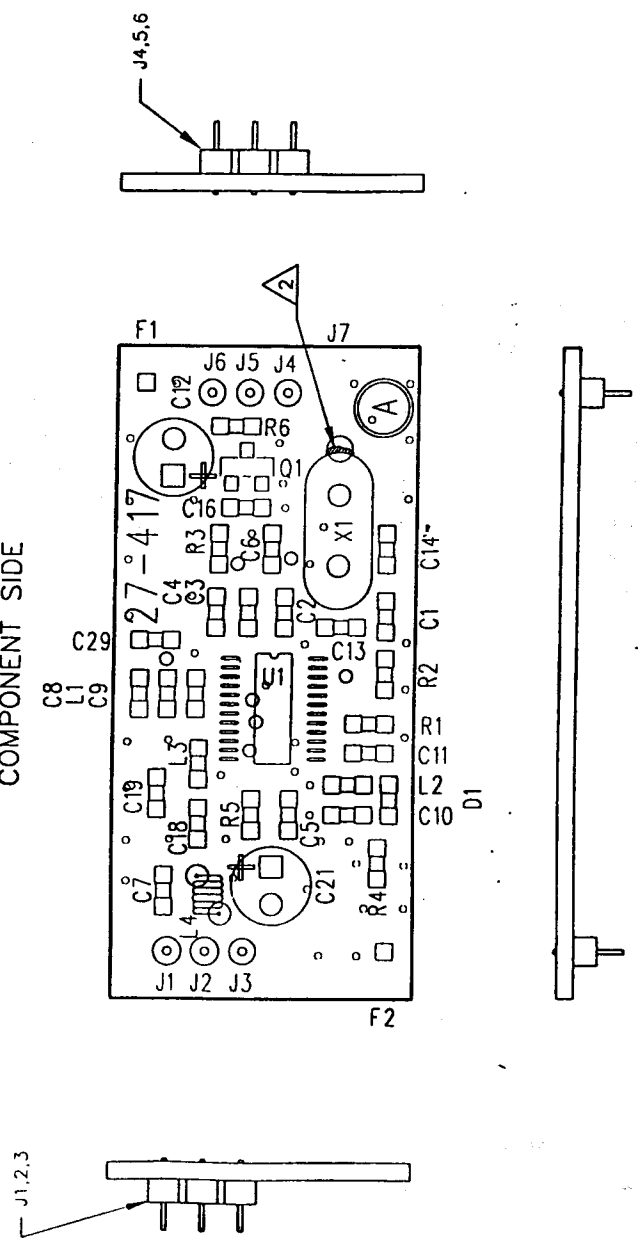
REV	DESCRIPTION	DATE	APPROVED
A	ECN #030899A	3/9/99	KC

REFERENCE  
MAR 10 1999

ONLY

PROPRIETARY INFORMATION STATEMENT  
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COMPONENT SIDE



UNLESS OTHERWISE SPECIFIED:  
1. ALL DIMENSIONS ARE IN INCHES.  
2. TOLERANCES ARE:  
XXX DECIMAL ± 0.005"  
XXX FRACTIONS ± 0.01"  
XXX ANGLES ± 1/32"  
3. BREAK ALL SHARP EDGES.  
4. DO NOT SCALE DRAWING.  
MATERIAL:  
FINISH:

APPLICATION:	APPROVALS	DATE	TITLE
	R.P.	3/8/99	PCBA, PLESSEY WHIP RECEIVER
	CHECKED		
	DESIGN ENGR.		
	PROD. ENGR.		

CLIFFORD ELECTRONICS, INC. 20750 LASSEN STREET, CHATSWORTH, CALIFORNIA 91311	FILE NO. 43-417A	SHEET 1 OF 1
SIZE FSCM NO. B	DWG. NO. AS43-417	REV. A
SCALE: NONE		

2. SOLDER CASE OF X1 TO PAD ON PCB FOR GND CONNECTION.  
1. SEE BILL OF MATERIAL FOR PART NUMBERS.  
NOTES: UNLESS OTHERWISE SPECIFIED.



Run Date: 10-MAR-1999 Time: 02:38 PM  
 Parent Item: 46-417  
 PCBA, PLESSEY, WHIP, DAUGHTER

Explosion Report  
 Clifford Electronics, Inc.  
 Stk:S Ctl:C P/M:P Comm: 45  
 BD,315MHZ

Prod Cat: A  
 User Def: Single Level  
 Eng Rls: 45  
 User: STE  
 Rev: 1X  
 Date: 2/17/99  
 Size: STE  
 Route: 0/00/00

LEV	COMPONENT	ITEM NUMBER	QTY PER UM	DESCRIPTION	OPER	SQ	SCRAP	B/M	REV	EFF-DATE	ST/END	DATE	BY	DATE	BY	
1	22-355	1.0000	EA	VENKEL,CR0805-10W-473JT SEE:P/N 12-0805 AVL LIST R1,2,4,6	0	10	.0	A				2/17/99	STE	0/00/00		
1	13-003	1.0000	EA	SEE:P/N 12-0805 AVL LIST R5 CAP,47UF,ELEC,RDL,25V	0	11	.0	A			10/15/98	2/17/99	STE	0/00/00		
1	22-026	1.0000	EA	E/W # LYT25RE47 RUBICON#25TWMS47 NICHICON#UVX1E470MDA UCC#SME25VB47RM5X11LL ELITE #SMIER470MQNN0511 C12 CAP,1.5PF,NPO,1R5E2P,0805	0	11	.0	A				2/17/99	STE	0/00/00		
1	22-058	1.0000	EA	MMC # CE1R5C2NO-T1 MMC # CC20CG1H1R5C-TP MMC # CC20GH1H1R5C-TP MURATA #GRM40COG1R5CO50 C8 CAP,0.1UF,Z5U,20%,0805	0	11	.0	A			9/16/98	2/17/99	STE	0/00/00		
1	22-088	1.0000	EA	MMC ELECT. #KC20E1H104M-TP JOHANSON # 500R15Z104MV4E OR T JOHANSON # 500R15Z104MV6E OR T SAMSUNG # CL21E104MENC MURATA #GRM40Z5U104M050 C1 CAP,.001UF,NPO,SMD,5%,0805	0	11	.0	A				2/17/99	STE	0/00/00		
1	22-115	2.0000	EA	JOHANSON # 101R15N102JV6E AVX # 08055A102JATMA ROHM #MCH215A102JP SAMSUNG # CL21C102JBNC C29 CAP,100PF,NPO,5%,0805 22-101 SAME AVX # 08051A101JATMA JOHANSON # 101R15N101JV6T ROHM # MCH215A101J CENTRALAB # C101J0805CFLV00 SAMSUNG #CL21C101JENC MURATA #GRM40C0G101J100 MURATA #GRM40C0G101J050 C11,16 CAP,33PF,NPO,10%,0805	0	11	.0	A				10/12/98	2/17/99	STE	2/17/99	STE
1	22-116	1.0000	EA	CAP,33PF,NPO,10%,0805	0	11	.0	A				2/17/99	STE	2/17/99	STE	

LEV	COMPONENT ITEM NUMBER	QTY PER UM	DESCRIPTION	OPER	SQ	SCRAP B/M	REV	EFF-DATE	ST/END	DATE	BY	DATE	BY
1	22-141	2.0000	EA CAP, .01UF, X7R, 10%, 50V, 0805	0	11	.0	A			2/17/99	STE	0/00/00	
			AVX # 08051A330JATMA										
			AVX # 08051A330JATNA (PAPER TA										
			JOHANSON # 101R15N330JV4E										
			SAMSUNG # CL21C330J0J4E										
			SAMSUNG # CL21C330J0J4E										
			JOHANSON # 101R15N330JV6T										
			JOHANSON # 101R15N330JV6E										
			MURATA #GRM40C0G330J100										
			MURATA #GRM40C0G330J050										
			C10										
1	22-151	2.0000	EA CAP, 6.8PF, NPO, 10%, 0805	0	11	.0	A			2/17/99	STE	0/00/00	
			JOHANSON # 500R15W103KV6E										
			AVX # 08055C103KATMA										
			KEMET # C0805C103J5RAC										
			SAMSUNG #CL21B103KBNC										
			MURATA #GRM40X7R103K050										
			C3,4										
1	22-183	1.0000	EA CAP, 3.3PF, NPO, 10%, 0805	0	11	.0	A			5/14/98	STE	0/00/00	
			AVX # 08055A6R8CAT2										
			MURATA # GRM40 C0G6R8D50										
			KEMET - C0805C689K5GAC										
			KEMET # C0805C689J5GAC										
			C7,18										
			TEAM YOUNG #0805N3R3C500NT										
			JOHANSON # 500R15N3R3CV4T										
			JOHANSON # 500R15N3R3DV4E										
			SAMSUNG #CL21C3R3BCNC										
			MURATA #GRM40C0G3R3C050										
			MURATA #GRM40C0G3R3C100										
			C19										
1	22-199	2.0000	EA CAP, 220PF, NPO, 10%, 0805	0	11	.0	A			2/17/99	STE	0/00/00	
			JOHANSON # 101R15N221JV6T										
			AVX # 08051A221JATMA										
			MURATA #GRM40C0G221J100										
			MURATA #GRM40C0G221J050										
			C2,5										
1	22-202	1.0000	EA CAP, 68PF, NPO, 10%, 0805	0	11	.0	A			10/12/98	STE	0/00/00	
			JOHANSON # 101R15N680JV6E										
			AVX# 08051A680JATMA										
			MURATA #GRM40C0G680J100										
			MURATA #GRM40C0G680J050										
			SAMSUNG #CL21C680J0J50										
			SAMSUNG #CL21C680J0J50										
			C9										

--CHANGED--  
DATE BY

LEV	COMPONENT	ITEM NUMBER	QTY PER UM	DESCRIPTION	OPER	SQ	FCTR	B/M	REV	ST/END	DATE	BY	DATE	BY
OPTIONS														
COMPONENT														
DESCRIPTION														
1	22-203	1.0000	EA	CAP, 150PF, NPO, 10%, 0805	0	11	.0	A		2/17/99	STE		0/00/00	
				JDI # 101R15N151JE6E										
				SAMSUNG # CL21C151JCNC										
				C6										
1	22-259	2.0000	EA	CAP, 18PF, NPO, 50V, SMD, 0805	0	11	.0	A		2/17/99	STE		0/00/00	
				SAMSUNG # CL21C180JCNC										
				MURATA # GRM40C0G180J050										
				C13, 14										
1	22-272	1.0000	EA	CAP, 2.2PF, NPO, 10%, 0805, 50V	0	11	.0	A		10/16/98	STE		0/00/00	
				AVX # 08051A2R2CATMA										
				MURATA # GRM40C0G2R2C050										
				MURATA # GRM40C0G2R2C100										
				C15										
1	73-162	1.0000	EA	CAP, 10UF, ELEC, RDL, 20%, 35V	0	11	.0	A		3/09/99	STE		0/00/00	
				RUBICON # 50TWS10 OR 35TWS10										
				NICHICON # UVX1H100MDA										
				ILLINOIS # 106CKR050M										
				NICHICON # UVX1V100MDA										
				C21										
1	22-321	1.0000	EA	INDUCTOR, 68NH, 10%, SMD, 0805	0	12	.0	A		2/17/99	STE		0/00/00	
				COILCRAFT # 0805-CS-680-KKBC										
				COILCRAFT # 0805-CS-680-KKBB										
				L1										
1	23-040	1.0000	EA	INDUCTOR, 5.5T, .067ID	0	12	.0	A		2/17/99	STE		0/00/00	
				MERCURY MAGNETICS # 23-040										
				FE-TRONIC # 23-040 R2XA										
				L4										
1	22-381	1.0000	EA	INDUCTOR, 150NH, 5%, SMD, 0805	0	12	.0	A		2/17/99	STE		0/00/00	
				L3										
1	22-382	1.0000	EA	INDUCTOR, 39NH, 5%, SMD, 0805	0	12	.0	A		2/17/99	STE		0/00/00	
				L2										
1	70-602	1.0000	EA	LBL, ID/DATE CODE, 3/4X1/4", WHT	0	20	.0	A		9/16/98	STE		0/00/00	
				JACON # 126-619-10										
1	AS43-417	.0000	EA	PCBA, DWG, PLESSEY, WHIP, RCVR	0	25	.0	A	X	11/10/98	STE		0/00/00	
1	SC46-417	.0000	EA	SCHEM, PCBA, PLESSEY, WHIP, 315MHZ	0	25	.0	A	X	3/09/99	STE		0/00/00	