



DOD Electronics Corp.	
8760 South Sandy Parkway Sandy, Utah 84070	
Title FX96 ECHO FX	
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Page 1

FX96 ECHO FX

05-0096

Bill Of Materials

Quan Reference

Revised: March 28, 1997
 Revision: A0
 March 28, 1997 10:45:41
 Part SYMAN Description

7	C1,C31,C35,C36,C38,C39,C40	.047MD7	62-3129	.047	uF Cap	50V 20%	Cerm	SMT 0805
4	C2,C6,C30,C33	.0068J	56-0005	.0068	uF Cap	50V 5% Poly Film	682J ammo	
1	C3	220PKD7	62-3138	220	pF Cap	50V 10%	Cerm	SMT 0805
4	C4,C10,C15,C43	1M50E1	60-0044-01	1.0	uF Cap	50V -20/+20%	Elect., T&R	C&F
3	C5,C34,C37	.0022J	56-0002	.0022	uF Cap	50V 5% Poly Film	222J ammo	
5	C7,C22,C29,C32,C42	470PMD1	62-0003	470	pF Cap	50V 20%	Ceramic Disc	T&R
1	C8	.22LLM50E1	60-0039-01	.22	uF Cap	16V -20/+20%	Elect., LL-D	T&R
3	C9,C20,C24	10ME1	60-0049-01	10	uF Cap	16V -20/+20%	Elect., -D	Ammo
2	C12,C28	.47 T1	62-0161	.47	uF Cap	35V 10%	Tantalum	T&R
1	C13	.10KD7	62-3139	.10	uF Cap	50V 20%	Cerm	SMT 0805
3	C14,C25,C27	4.7ME1	60-0048-01	4.7	uF Cap	16V -20/+20%	Elect., T&R	
1	C16	.015J	56-0007	.015	uF Cap	50V 5% Poly Film	153J ammo	
1	C17	.010J	56-0006	.010	uF Cap	50V 5% Poly Film	103J ammo	
1	C18	.068J	56-0011	.068	uF Cap	50V 5% Stacked Metal	Pet 683J ammo	
1	C19	25PJD1	62-0001	25	pF Cap	50V 5%	Ceramic Disc	T&R
1	C21	820PMD1	62-0005	820	pF Cap	50V 20%	Ceramic Disc	T&R
1	C23	47ME1	60-0054-01	47	uF Cap	16V -20/+20%	Elect., T&R,	5X8mm body
2	C26,C11	120PJD7	62-3135	120	pF Cap	50V 5%	Cerm	SMT 0805
1	C41	.22LLME1	60-0039-01	.22	uF Cap	16V -20/+20%	Elect., LL-D	T&R
1	C44	.0015J	56-0001	.0015	uF Cap	50V 5% Poly Film	152J ammo	
1	D1	LEDR702059	70-2059		LED Red,	T1.75	0Case	
3	D2,D3,D5	1N4148R	70-0004	1N4148	Diode Silicon	Switching,	75 Volts PIV,	RADIAL
1	D4	1N4001R	70-0000	1N4001	Silicon Rectifier,	1 Amp,	50 Volts PIV,	RADIAL
1	H1	HDR321101	32-1101	5	Pin Header,	2mm spacing,	0.025" sq pins,	Locking
1	J1	J320101	32-0101		Barrel Jack,	Hor. PCB Mount,	2.0 x 5.5 x 10mm	
1	LS1	LS281032	28-1032-A		FX'96 Lexon LED	Standoff,	Component .450"X .410"	
3	P1,P2,P4	100K402141	40-2141	100	K "W" 16mm,	Rot Pot,	15mm D Shaft,	V. Mount, bent leads
1	P3	500K402142	40-2142	500	K "C" 16mm,	Rot Pot,	15mm D Shaft,	V. Mount, bent leads
1	PCB1	80-0096-A	80-0096-A		FX96 BOARD	RAW		
2	Q1,Q2	J201	70-1015	J201A	JFET,	N-Channel		
2	Q3,Q4	2N5088	70-1007	2N5088	NPN,	Transistor,	T&R	
6	R1,R32,R40,R42,R49,R50	1M-7	50-1506	1	MOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
11	R2,R4,R6,R17,R19,R20,R21,R30,R33,R46,R52	10K-7	50-1503	10	KOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
3	R3,R5,R26	47K-7	50-1502	47	KOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
9	R7,R8,R9,R34,R35,R36,R37,R38,R39	27K-7	50-1527	27	KOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
4	R10,R11,R15,R23	22K-7	50-1522	22	KOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
1	R12	15K-7	50-1516	15	KOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
5	R14,R31,R41,R44,R45	100K-7	50-1504	100	KOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
4	R16,R18,R28,R29	4.7K-7	50-1509	4.7	KOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
2	R24,R43	220K-7	50-1514	220	KOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
1	R25	51-7	50-1524	51	Ohm Resistor	5% 1/4 Watt	CF,	SMT 0805
1	R27	10-7	50-1500	10	Ohm Resistor	5% 1/10 Watt	CF,	SMT 0805
2	R47,R13	1K-7	50-1505	1	KOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
1	R48	470K-7	50-1523	470	KOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
1	R51	150K-7	50-1526	150	KOhm Resistor	5% 1/10 Watt	CF,	SMT 0805
1	SW1	SW440083	44-0083		Lite Touch	Switch,	Mini	
1	TP1	TESTP	00-0000		Test point,	Standard		
3	U1,U3,U6	NJM4560/SM	72-4233		NJM4560 Dual	Op-Amp,	SMT SOIC	
1	U2	NE570	72-4042		NE570 Dual	Compressor/Expander		

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Quan	Reference	Part	SYMAN	Description
1	U4	MN3005	72-3038	Bucket Brigade Delay
1	U5	MN3101	72-3040	Clock Driver
1	U7	4007A	72-0032	Dual CMOS Transistor Pair Plus CMOS Inverter