



Bill of Materials For F5X Speaker Protection Board

Designator	Description	Comment	Footprint	Digikey Part Number	Quantity
C1, C2	Ceramic 3.3uF Capacitor - 1206 , 25V, X7R	1206-3.3uF	1206	445-4029-1-ND	2
C3	Ceramic 0.1uF Capacitor - 1206, 50V, X7R	1206-0.1uF	1206	490-1775-1-ND	1
C4, C5, C6, C7, C8, C9, C11, C12, C13, C14, C19, C23, C24, C29, C33, C34	Ceramic 1.0uF Capacitor -1206, 50V, X7R	1206-1uF	1206	455-4105-1-ND	16
C10	Ceramic 100uF Capacitor - 1210, 10V, X5R	C1210-100uF	1210	587-1965-1-ND	1
C15_L, C15_R, C16_L, C16_R, C17_L, C17_R	Ceramic 10uFCapacitor - 1210, 35V, X7R	C1210-10uF	1210	587-2779-1-ND	14
C20	Ceramic 47uF Capacitor - 1210, 10V, X5R	C1210-47uF	1210	490-5312-1-ND	1
C26, C27, C30, C31	SMD-V Aluminum Electrolytic Capacitors, FT-Series 820uF 25V	820uF/25V	EEE-G	PCE5011CT-ND	4
D1, D2, D3, D4, D7_L, D7_R, D8_L, D8_R	1N4148 in SOD-323 package	1N4148	SOD-323	1N4148WSFSCT-ND	8
D5_L, D5_R, D6_L, D6_R	Red LED 0805	HSMC-C170	2.0X1.25X0.8	516-1428-1-ND	4
D9	Bi-color 3mm Common-Cathode R/B LED	N300TBR2D	R/B LED		1
D10, D11	1A Schotky Bridge Rectifier, 60V - MB16S	MB16S	MBS-1	MB16S-TPMSCT-ND	2
P1, P2, P4, P5, P6, P7	MOLEX 530150410 board header right angle	530150410	MOLEX 53015410	WM18981-ND	6
P3	Momentary microswitch - Racon8 gullwing	Racon 8	Racon 8 gullwing	CKN9363CT-ND	1
Q1, Q2, Q3, Q4	N-Channel Enhancement Mode Vertical DMOS FET in SOT-23	2N7002	SOT23	568-5981-1-ND	4
Q5, Q6, Q9	HEXFET N-Channel Power MOSFET in TO220	IRF610	TO-220AB	IRF610PBF-ND	3
Q7_L, Q7_R, Q8_L, Q8_R	ZVP3310F - P-Channel Enhancement Mode Vertical DMOS FET	ZVP3310F	SOT23	ZVP3310FCT-ND	4
R1, R3	1206, 499 ohm, chip resistor	1206-499R	8-1206	541-499FCT-ND	2
R2, R4, R5, R6, R12, R14, R23, R24, R25, R26, R27, R28, R29, R51	1206, 4.99K ohm, chip resistor	1206-4.99K	8-1206	541-4.99KFCT-ND	14
R7, R16, R17, R18, R19, R20, R21, R22, R35_L, R35_R, R36_L, R36_R, R37_L, R37_R, R38_L, R38_R, R44	1206, 100K ohm, chip resistor	1206-100K	8-1206	541-100KFCT-ND	17
R8, R9, R42, R43	1206, 2.49K ohm, chip resistor	1206-2.49K	8-1206	541-2.49KFCT-ND	4
R10	1206, 24.9K ohm, chip resistor	1206-24.9K	8-1206	541-24.9KFCT-ND	1
R11, R13, R30, R31, R45, R48, R49, R50	1206, 10.0K ohm, chip resistor	1206-10K	8-1206	541-10.0KFCT-ND	8
R15	1206, 3.3K ohm, chip resistor	1206-3.3K	8-1206	541-3.32KFCT-ND	1
R32_L, R32_R	1206, 2.7K ohm, chip resistor	1206-2.7K	8-1206	541-2.67KFCT-ND	2
R33_L, R33_R, R34_L, R34_R	1206, 300 ohm, chip resistor	1206-300R	8-1206	541-300FCT-ND	4
R39_L, R39_R, R40_L, R40_R	1206, 1.24K ohm, chip resistor	1206-1.21K	8-1206	541-1.21KFCT-ND	4
R41	1206, 412K ohm, chip resistor	1206-390K	8-1206	541-392KFCT-ND	1
R46, R47	1206, 619 ohm, chip resistor	1206-620R	8-1206	541-620FCT-ND	2
U1	74HC367 - Hex Bus Driver with 3-State Outputs - TSSOP	SN74HC367PW	TSSOP-16L	296-28456-1-ND	1
U2, U13	74HC02 - Quadruple 2-Input Positive-NOR Gate - TSSOP	SN74HC02PW	TSSOP-14L	296-8206-1-ND	2
U3, U6	74HC74 - Dual D-Type Positive-Edge-Triggered Flip-Flop - TSSOP	SN74HC74PW	TSSOP-14L	296-8372-1-ND	2
U4	74HC1G14 - Schmitt-Trigger Inverter SOT-353-5L	74HC1G14GW	SOT353-5L	568-2641-1-ND	1
U5, U11	LT1716 - Precision rail-to-rail Comparator SOT-23-5L	LT1716	SOT95P285X100-5L	LT1716HS5#TRMPBFCT-ND	2
U7, U8, U9, U10	74HC4002 - Dual 4-Input Positive-NOR Gate TSSOP	CD74HC4002PW	TSSOP-14L	595-CD74HC4002PWR	4
U12	7805 - +5V 1A Regulator - TO220	L7805ABV	TO220ABN	497-2947-5-ND	1
U14	7812 - +12V 1A Regulator - TO220	L7812ABV	TO220ABN	497-1449-5-ND	1
U15	7912 - -12V 1A Regulator - TO220	L7912ABV	TO220V	497-1475-5-ND	1