

FX 8 BIMO BOM										Digikey default	
Item No	Qty	Reference Designators	Value	My Additions	AudioGrade	Vendor	Part Number	Description	Cost Ea	ExtCost	
1	3	+35V, -35V, OUT	3-hole PCB-mounted Tabs			TE Connectivity	62409-1	Terminals .250 PCB TAB	0.21		
2	1	C1	10uf	25VDC, 20%	Y	NichiconUES	UES1E100MDM	Aluminum Electrolytic Capacitors - Leaded 25volts 10uF 85c 5x11 2LS	0.51	1.02	
		C1 optional		16V	Y	NichiconUES	UES1C100MDM	Aluminum Electrolytic Capacitors - Leaded 16volts 10uF 85c 5x11 2LS	0.46		
		C1 optional		50V	Y	NichiconUES	UES1H100MPM	Aluminum Electrolytic Capacitors - Leaded 50volts 10uF 85c 8x13 3.5LS	0.67		
		C1 optional	10µ MKP	CAP FILM 10000PF 5% 630VDC	Y	Panasonic, Foil, Polypropylen (PP)	ECW-F610J.L	RM10mm, 12,50mm x 5,20mm	1.34		
		C1 optional	2.2µF	CAP FILM 2.2UF 3% 400VDC	Y	Panasonic, Foil, Polypropylen (PP)	ECW-F4225HL	RM25mm, 28,00mm x 16,80mm	3.45		
3	4	C12, C15, C9, C16	470uF/50V	Electrolytic, 20%		Panasonic,FM-A, 5000 Std bei 105°C	EEU-FM1H471	RM 5mm, diameter 15mm	1.08	3.24	
		optional	470uF/50V	Electrolytic, 20%	Y	Nichicon UKZ	UKZ1H471MHM	RM 7.5, diameter 16mm, High 35mm	1.9		
		optional	470uF/50V	Electrolytic, 20%		EPCOS TDK, 3000 Std bei 125°C	B41895A6477M000	RM 5mm, diameter 12.5mm	1.09		
		optional	680/50V	Electrolytic, 20%		680 µF 50 V , 7000 Hrs @ 105°C	EEU-FM1H681L	RM 5mm, diameter 12.5mm	1.24		
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4	1	C4	220µF/25V								
		optional	220µF/25V	Nichicon UKZ	Y		UKZ1E221MHM	RM 5mm, diameter 12.5mm	0.9		
		optional	330µF/25V	Pana Oscon 330µF/25V		Polymer, 14mOhm 5000 Std bei 105°C	25SEPF330M+T	RM 5mm, diameter 10mm	2.01		
		optional	1000µF/6.3V	It should not have any significant DC voltage across it, nor should it have any significant AC voltage across it.	µF as big as possible	Epcos, 1000 µF 16 V, 215mOhm @ 120Hz	B41896C4108M000	RM 5mm, diameter 12.5mm	1.29		
5	1	C2	220pF/50V	220 pF ±1% 100V, COG, NPO		Kemet, silver mica or Ceramic NPO	C315C221F1G5TA		0.73		
		optional		220 pF ±5% 100V, COG, NPO		Vishay, silver mica or Ceramic NPO	K221310C0GH5UH5		0.25		
6	1	C5	4.7pF Mica			silver mica or Ceramic NPO					
			5pF/500V	CAP MICA 5PF, +/-0.5PF		CDE, silver mica or Ceramic NPO	CD15C0050D03		2.44		
7	4	C3, C6, C7, C17	100nf	0.1uf 50VDC 5%, X7R		Kemet	C412C104J5R5TA	Multilayer Ceramic Capacitors MLCC - Leaded 50volts .1uF 5%	0.43		
8	1	C8	1µF/35V	CAP FILM 1UF 10% 63VDC, polyester		Vishay, MKP	BFC237011105	MKP	1.68		
9	2	C10, C11	10pF	10 pF Mica, 500 V Radial		silver mica or Ceramic NPO	CD15CD100J03	mica	2.44		
10	2	C13, C14	1µF/35V	CAP FILM 1UF 10% 63VDC, polyester		Vishay, MKP	BFC237011105	MKP	1.68		
11	1	LED	RED	Red Led 5mm or 3mm		Everlight Electronics Co Ltd	EALP05RDHRA2	Red 639nm LED-Indikator - Diskret 2V Radial	0.39		
12	1	D1	1N4148	0.2A, 100V		onsemi	1N4148FS-ND	Diodes - General Purpose, Power, Switching 100V Io/200mA	0.09		
13	1	PGND, IN, SGND	Terminal Block	3 pins		TE Connectivity	1546216-3	Fixed Terminal Blocks TERM-BLOK PCB MNT 90 3P	0.93		
14	2	Q1, Q3	KSC1845FTA	NPN transistor - BJT / F, .hfe 300-600		Onsemi	KSC1845FTA	Q1 and Q3 should be match and tie (thermally coupled) for lower DC offset and stability from temperature.	0.33		
		optional	BC 550 C	NPN transistor - BJT / C, .hfe 420-800		Fairchild	2156-BC550-FS-ND		0.9		
15	1	Q2	2N5551	BJT, NPN 160 V 600 mA 300MHz		Diotec Semiconductor	2721-2N5551-ND	To-92	0.22		
16	1	Q4	2N5401	BJT - PNP 150 V 600 mA 400MHz		Diotec Semiconductor	2721-2N5401-ND	To-92	0.22		
17	1	Q7	2SK1058	MOSFET N-CH		Renesas Electronics America	2SK1058-E	MOSFET N-CH 180V 7A TO-3P	obsolete		
18	1	Q8	2SJ162	MOSFET P-CH		Renesas Hitachi	J162	MOSFET P-CH 180V 7A TO-3P	obsolete		
		optional	EXICON ECX10P20	MOSFET P-CH		Exicon	ECX10P20	MOSFET P-CH TO247 -200V	7.5	audiophonics	
		optional	EXICON ECX10N20	MOSFET N-CH		Exicon	ECX10N20	MOSFET N-CH TO247 -200V	7.5	audiophonics	
19	1	Q5	BD139-16	Bipolar Transistors - BJT		STMicroelectronics	BD139-16	Bipolar Transistors - BJT NPN Silicon Transistor			
20	1	Q6	BD140-16	Bipolar Transistors - BJT PNP Silicon Trasistor		STMicroelectronics	BD140-16	Bipolar Transistors - BJT PNP Audio Amplifier			
		optional	2SA1381 --> KSA1381ESTU	BJT- PNP 300 V 100 mA 150MHz		Onsemi, Cob 2.6pF, Cre=1.8pF	KSA1381ESTU	TO-126-3	0.53		
		optional	2SC3503 --> KSC3503DS	BJT- NPN 300 V 100 mA 150MHz		Onsemi, Cob 2.6pF, Cre=1.8pF	KSC3503DS	TO-126-3	0.58		
		optional	SC 3423 O	O = hfe 80 -160		ISCSEMI, Cob 2.5pF	SC 3423 O	TO-126-3	0.55	reichelt	
		optional	SA1380 O	O = hfe 80 -160		ISCSEMI, Cob 2.5pF	2SA1380	TO-126-3	0.55	reichelt	
		optional	TTA004B	BJT, PNP -160 V 1.5 A 100MHz 10 W		Thosiba, Cob 17pF	TTA004BQ-ND	TO-126N	0.45	mouseer	
		optional	TTC004B	BJT, NPN 160 V 1.5 A 100MHz 10 W		Thosiba, Cob 17pF	TTC004BQ-ND	TO-126N	0.51		
21	1	R1	2K2	1%, 0.25W		Vishay Dale 1%	CMF2.21KOFCT-ND		0.87		
22	1	R2	680R	1%, 0.25W			CMF681QFCT-ND		0.87		
23	1	R3	22K	1%, 0.25W			CMF22.1KOFCT-ND		0.87		
24	1	R4	10R	1%, 0.5W			CMF10.0HFCT-ND		0.68		
25	4	R5, R8, R13, R14	820R	1%, 0.25W			CMF825QFCT-ND	825R	0.87		
26	2	R6, R9	47R	1%, 0.25W			CMF47.5QFCT-ND	47R5	0.87		
27	1	R7	330R	1%, 0.25W			CMF332QFCT-ND	332R	0.87		
28	1	R10	10K	1%, 0.5W					0.87		
29	1	R11	1K	1%, 0.5W		metal film high quality	CMF1.00KHCT-ND		0.53		
30	1	R12	22k	1%, 0.5W		metal film high quality	CMF22.1KHCT-ND	carbon film-softier SQ	0.68		
		optional	550R	1%, 0.5W	lower Gain 550	metal film high quality	CMF549HFCT-ND	549R	0.68		
		optional	20k	1%, 0.5W	lower Gain 20k	metal film high quality	CMF20.0KHCT-ND		0.68		
31	2	R15, R17	33R	1%, 0.25W			CMF33.2QFCT-ND		0.87		
32	1	R16	500R Trim Pot			Bourns, 500 Ohms 0.5W, 1/2W	3296W-501LF-ND		2.27		
33	2	R18, R19	100R	1%, 0.25W	Gate Stopper		CMF100QFCT-ND		0.87		
34	2	R20, R21	100R	1%, 0.5W	Ripple eater		541-CMF5510R00FHEACT-ND		0.53		
35	1	R22	10R	2W	Zobel filter	YAEKO, 10 Ohms ±1% 2W	13-MFR200FRF52-10RCT-ND		0.44		
36	1	R23	2R2	1-3W	Filter	Ohmite	WNC2R0FECT-ND	drahtgewickelt	0.87		
		optional	3R3	3W	Filter	TE Connectivity Passive Product	A131577B-ND	±350ppm°C	0.46		
37	1	L1	1µH		Filter						
38	2	F1, F2 4A	Fuse Holder	FUSE HLDR CARTRIDGE 250V 5A PCB		Keystone Electronics	36-4628-ND	5 A 250V	0.68		