

Mikrophonie 2.2

Qty	Value	Device	Package	Parts	Mouser part	Notes
1		10_PIN_HEADER	MA05-2	SV1	649-67997-210HLF	
2	100n	Capacitor	C050-024X044	C4, C5	594-K104K15X7RF5TH5	
1	TL072	Dual Op Amp	DIL	IC2	595-TL072CP	Any TL072 should work, don't worry about suffixes
2	10uf	Electrolytic Capacitor	RADIAL-10UF-25V	C1, C2	667-ECE-A1EKS100	Any high value poly will work; 10uf, 22uf, 47uf. Physically smaller caps will be easier to fit.
2		PJ-301B		MIC_IN, OUT		From Erthenvar or Thonk
1	50k	Potentiometer	EVUF	GAIN	652-PTV09A-4025FB503	For better results, use Alpha 9mm pot with 6.35mm metal bushing; VR117 from Bitsbox, "Alpha Single-Gang 9mm Right-Angle PC Mount" from Smallbear. Values other than 50k will change the gain; larger=higher
2	1N4001	Power diode	DO41-10	D5, D6	512-1N4001	Optional, for power protection. Leave empty if not used.
2	FUSE	Resettable Fuse	C050H075X075	1, FUSE	576-60R010XU	Optional, for power protection. Replace with wire if not used.
1	10k	Resistor	0207/10	R8	660-MF1/4DCT52A1002F	
1	1m	Resistor	0207/10	R5	660-MF1/4DCT52A1004F	
2	2.2k	Resistor	0207/10	R12, R14	660-MF1/4DC2201F	
1	220R	Resistor	0207/10	R16	660-MF1/4DCT52R2200F	
1	56k	Resistor	0207/10	R10	660-MF1/4DCT52R5602F	
2	1N4148	Signal diode	DO35-7	D3, D4	78-1N4148	
1			8 pin DIP socket		649-DILB8P223TLF	
1		20mm Peizo Disk	With soldered leads		81-7BB-20-6L0	Any 19 or 20mm peizo should work. Ones with wires are easier to connect. If your disk has a small 'feedback' pad, just ignore it, remove the wire.
To make external peizo microphones:						
1		3.5mm mono plug			568-NYS226	
1		Peizo Disk			81-7BB-27-4	Any Size will work. Wired disks are easier to solder (when you replace the wires, the solder makes it easier). Maplin sell various peizos. Many places sell them for cheaper than Mouser.
		Shielded Audio cable				Microphone cable works fine, any flexible, shielded cable will be fine
		Epoxy glue				To secure the cable to the peizo
		Plasti-Dip				Plasti-Dip sticks better after the peizo has been cleaned with alcohol and allowed to dry