

MAIN BOARD

Qty	Part ID	Description	MFG Part Number	Digi-Key Part Number	Price	Ext
1	UGV-II PCB	2-LAYER (52.7 x 28.9mm) 0.8mm PCB	JLPCB	JLPCB	\$2.00	\$2.00
1	C5	CAP CERAMIC 56PF 50V RADIAL	K560J15C0GF5TH5	BC1039CT-ND	\$0.23	\$0.23
5	C2,C3,C4,C5,C6	CAP CERAMIC .1UF 50V AXIAL	C410C104M5U5TA	399-C410C104M5U5TA-ND	\$0.30	\$1.50
1	C1	CAP ELECTROLYTIC 47UF 50V RADIAL	ECE-A0JKA470	P802-ND	\$0.22	\$0.22
1	R9	RES 10 OHM 1/8W 5% CF AXIAL	CF18JT10R0	CF18JT10R0CT-ND	\$0.10	\$0.10
1	R4	RES 27 OHM 1/8W 5% CF AXIAL	CF18JT27R0	CF18JT27R0CT-ND	\$0.10	\$0.10
1	R11	RES 62 OHM 1/8W 5% CF AXIAL	CF18JT62R0	CF18JT62R0CT-ND	\$0.10	\$0.10
3	R1,R2,R3	RES 75 OHM 1/8W 5% CF AXIAL	CF18JT75R0	CF18JT75R0CT-ND	\$0.10	\$0.30
1	R8	RES 150 OHM 1/8W 5% CF AXIAL	CF18JT150R	CF18JT150RCT-ND	\$0.10	\$0.10
2	R10,R12	RES 180 OHM 1/8W 5% CF AXIAL	CF18JT180R	CF18JT180RCT-ND	\$0.10	\$0.20
3	R15,R16,R17	RES 374 OHM 1/8W 1% CF AXIAL	RNF18FTD374R	RNF18FTD374RCT-ND	\$0.10	\$0.30
1	R14	RES 750 OHM 1/8W 5% CF AXIAL	CF18JT750R	CF18JT750RCT-ND	\$0.10	\$0.10
1	R13	RES 1.5K OHM 1/8W 5% CF AXIAL	CF18JT1K50	CF18JT1K50CT-ND	\$0.10	\$0.10
3	R5,R6,R7	RES 3K OHM 1/8W 5% CF AXIAL	CF18JT3K00	CF18JT3K00CT-ND	\$0.10	\$0.30
4	Q1,Q2,Q3,Q4	MOSFET TO92 N 60V 0.2A 50HM 150C	2N7000	2N7000FS-ND	\$0.49	\$1.96
1	U1	IC MCU 8BIT 3.5KB FLASH 8DIP	PIC12F1572-I/P	PIC12F1572-I/P-ND	\$0.93	\$0.93
1	U2	IC GATE AND 4CH 2-INPUT 14DIP	SN74F08N	296-3543-5-ND	\$0.70	\$0.70
1	U3	IC BUFFER VIDEO 3-CHAN 8SOIC	FMS6400	eBay or AliExpress	\$1.08	\$1.08
1	U1	CONN IC DIP SOCKET 8POS TIN	A 08-LC-TT	AE9986-ND	\$0.17	\$0.17
1	U2	CONN IC DIP SOCKET 14POS TIN	A 14-LC-TT	AE9989-ND	\$0.24	\$0.24
1	P1	CONN IC DIP MP SKT 40POS GOLD	SA406000	ED3032-ND	\$1.75	\$1.75
1	J1	CONN MALE 0.1" HDR RA 7-POS	eBay (Seller cgdz998)	Buy Link	\$1.73	\$1.73
1	J1 CONNECT	F/F 7-pin Dupont Jumper Wires 30 CM	eBay (Seller HKGY01)	Buy Link	\$1.73	\$1.73

TOTAL= \$15.94

S-VIDEO INTERFACE BOARD (optional)

1	UGV-SINTFC	2-LAYER (27.3 x 17.8mm) 1.6mm PCB	JLPCB	JLPCB	\$1.00	\$1.00
1	J1	CONN JACK FEMALE MINI DIN 4P	MDJ-004-FS	2057-MDJ-004-FS-ND	\$1.10	\$1.10
1	J2	CONN MALE 0.1" HDR RA 5-POS	0022122051	WM2736-ND	\$1.07	\$1.07

TOTAL= \$3.17

1/8 watt resistors were chosen for their small physical size. Larger wattage resistors will not fit the available space on the board. Capacitor C5 (56pF) is a radial device That needs to be bent over for clearance under the GTIA chip. It should've been axial, but that's unavailable in that value.

The 40 pin IC socket (P1) will need to have both center plastic supports removed.

The S-Video Interface board will require either 4-40 or 3mm mounting hardware. The exact type is dependent upon the mounting method chosen, And the type of mounting hardware used.

The Dupont jumper wire length shown is good for most any installation, but it's best to keep it as short as actually needed.