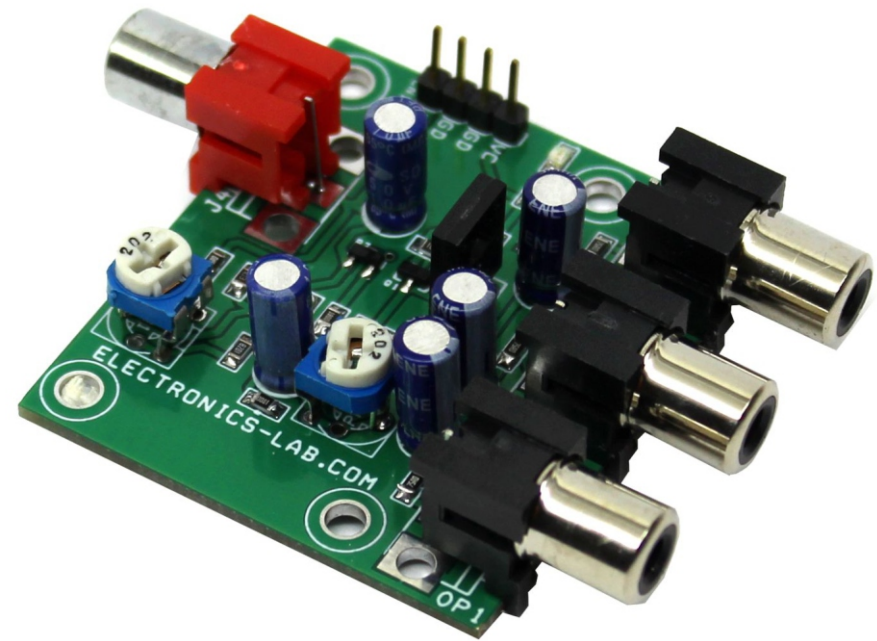


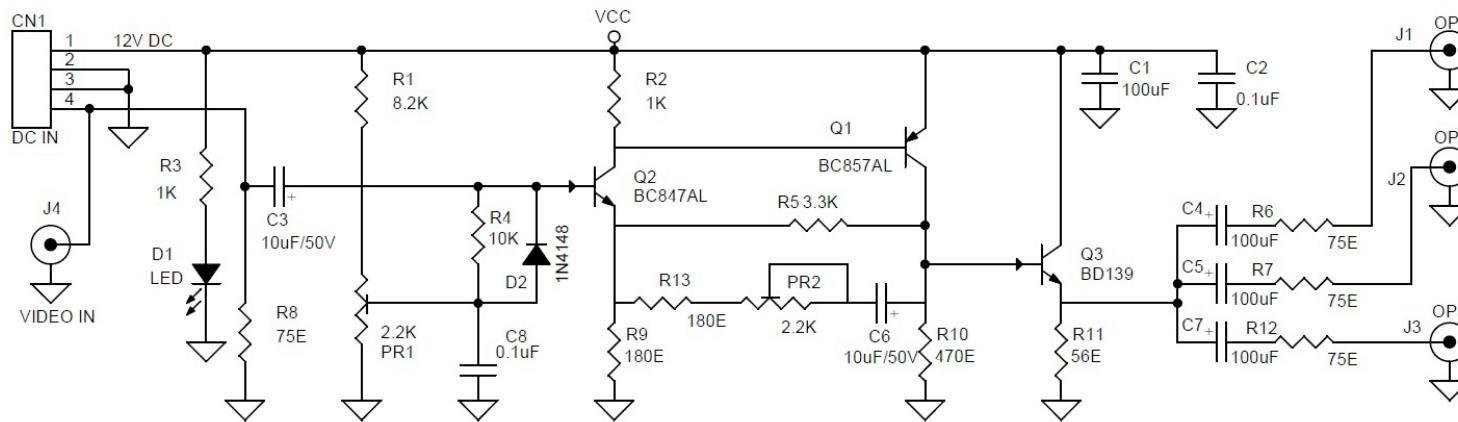
3 Channel Analog Video Splitter with Video Amplifier

If you need to drive multiple video gadgets or monitors from a single video signal source then this board is the right choice for you. This is a 3-channel video splitter with an amplifier and the circuit is built using discrete components. Q2 and Q1 act as a signal amplifier, Q3 act as output driver, trimmer potentiometer PR1 is provided to adjust the input signal swing, PR2 Trimmer is provided to set the gain of the amplifier, D1 is the power LED. The operating power supply is 12V DC and it draws 100mA current. RCA Connector J4 is the Video signal input, RCA Connector J1, J2, J3 provide the outputs. The default gain of the circuit is 4. The bandwidth is 5Mhz, input and outputs impedance are 75 Ohms. It is important to use all 3 channels at a time or change R11 to 150 Ohms if you will only use 1 x channel or 82 Ohms if 2 x channels are in use. Adjusting the board is very easy, just connect a voltmeter at the base of Q2 and adjust the PR1 so the voltage at the base of Q2 is 1V.

Features

- Power Supply 12V DCV
- Current Consumption 100mA
- RCA Connector for Video Input
- 3XRCA Connectors for Video Output
- Trimmer Potentiometer for Gain Adjust
- Trimmer For input signal Swing Adjust
- On Board Power LED
- PCB Dimensions 48.74 X 43.66 MM

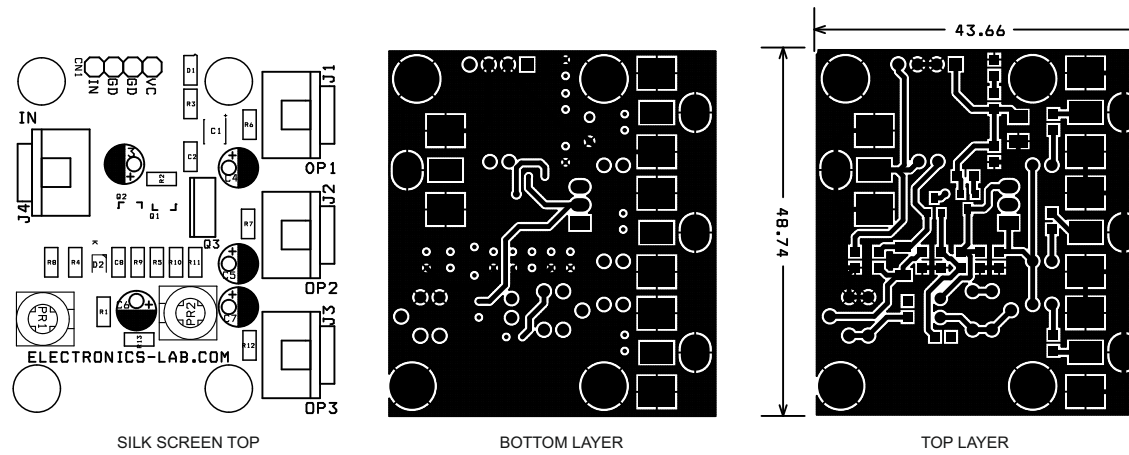






BOM						
No.	Qty.	Ref	Desc.	Manufacturer	Supplier	Supplier Part No
1	1	CN1	4 PIN MALE HEADER 2.54MM PITCH		DIGIKEY	S1011EC-40-ND
2	3	C4,C5,C7	100uF/25V ELECTROLYTIC CAPACITOR	NICHICON	DIGIKEY	399-6650-1-ND
3	2	C2,C8	0.1uF/50V SMD SIZE 0805	YAGEO	YAGEO	
4	2	C3,C6	10uF/50V ELECTROLYTIC	NICHICON	DIGIKEY	493-5915-1-ND
5	1	C1	100uF/16V SMD SIZE 1210	TAIYO YUDEN	DIGIKEY	587-5426-1-ND
6	1	D1	LED RED COLOR SMD SIZE 0805	OSRAM	DIGIKEY	475-1415-1-ND
7	1	D2	1N4148 SMD DIODE	MICROCHIP	DIGIKEY	1N4148UR-1-ND
8	1	J1	RCA JACK	KYCON INC	DIGIKEY	2092-KLPX-0848A-2-R-ND
9	1	J2	RCA JACK	KYCON INC	DIGIKEY	2092-KLPX-0848A-2-R-ND
10	1	J3	RCA JACK	KYCON INC	DIGIKEY	2092-KLPX-0848A-2-R-ND
11	1	J4	RCA JACK	KYCON INC	DIGIKEY	2092-KLPX-0848A-2-R-ND
12	2	PR1,PR2	2.2K TRIMMER POTENTIOMETER	BOURNS	DIGIKEY	3362P-1-222LF-ND
13	1	Q1	BC857 SMD SOT23-3	NEXPERIA	DIGIKEY	1727-2924-1-ND
14	1	Q2	BC847 SMD SOT23-3	NEXPERIA	DIGIKEY	BC857BLT3GOSCT-ND
15	1	Q3	BD139	ST	DIGIKEY	497-12137-ND
16	1	R1	8.2K 5% SMD SIZE 0805	YAGEO	MOUSER	
17	2	R2,R3	1K 5% SMD 0805	YAGEO	MOUSER	
18	1	R4	10K 5% SMD SIZE 0805	YAGEO	MOUSER	
19	1	R5	3.3K 5% SMD SIZE 0805	YAGEO	MOUSER	
20	4	R6,R7,R8,R12	75E 1% SMD SIZE 0805	YAGEO	MOUSER	
21	2	R9,R13	180E 5% SMD SIZE 0805	YAGEO	MOUSER	
22	1	R10	470E 5% SMD SIZE 0805	YAGEO	MOUSER	
23	1	R11	56E 5% SMD SIZE 0805	YAGEO	MOUSER	





PCB DIMENSIONS 43.66MM X 48.74MM

