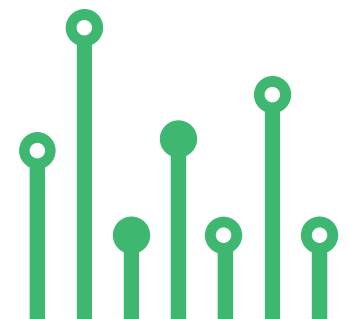


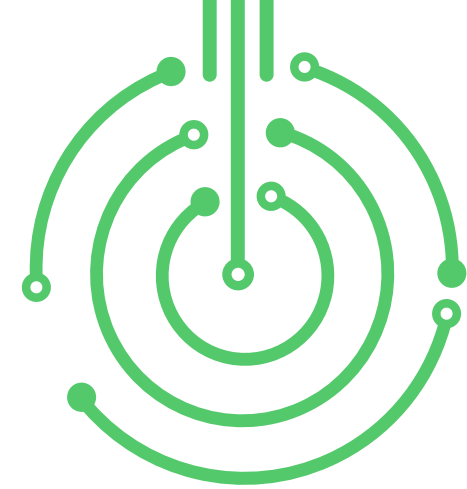
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# Video Driver with Built-In 6 Channel Input Selection Switch

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SKU: EL136311

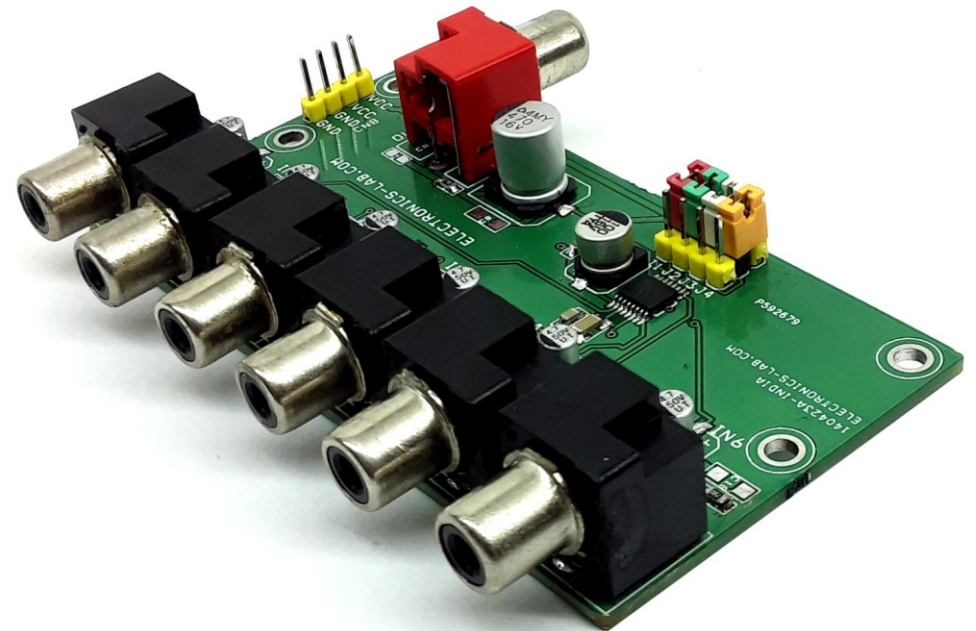
# Video Driver with Built-In 6 Channel Input Selection Switch



The project presented here is a video driver with 6 channel input selection using onboard jumpers or a microcontroller interface. The circuit features a wide dynamic range and frequency response. The IC can be used with low voltage starting at  $VCC=2.8V$  and the project supports a broad range of input signals, depending on whether or not a 6-dB video and video driver is included and what combination of sync tip clamp type and bias (resistor terminal) type input is used. RCA connectors are provided for video input and output connection. The header connector helps to power the board. Jumpers J2 to J3 are provided to select the input channels. 6-channel video selection can also be controlled using an external circuit or microcontroller by applying high or low TTL signal to CTLA, CTLB, CTLC, CTLD pins. In this case, use the center pins of jumper J1 to J4.

## Features

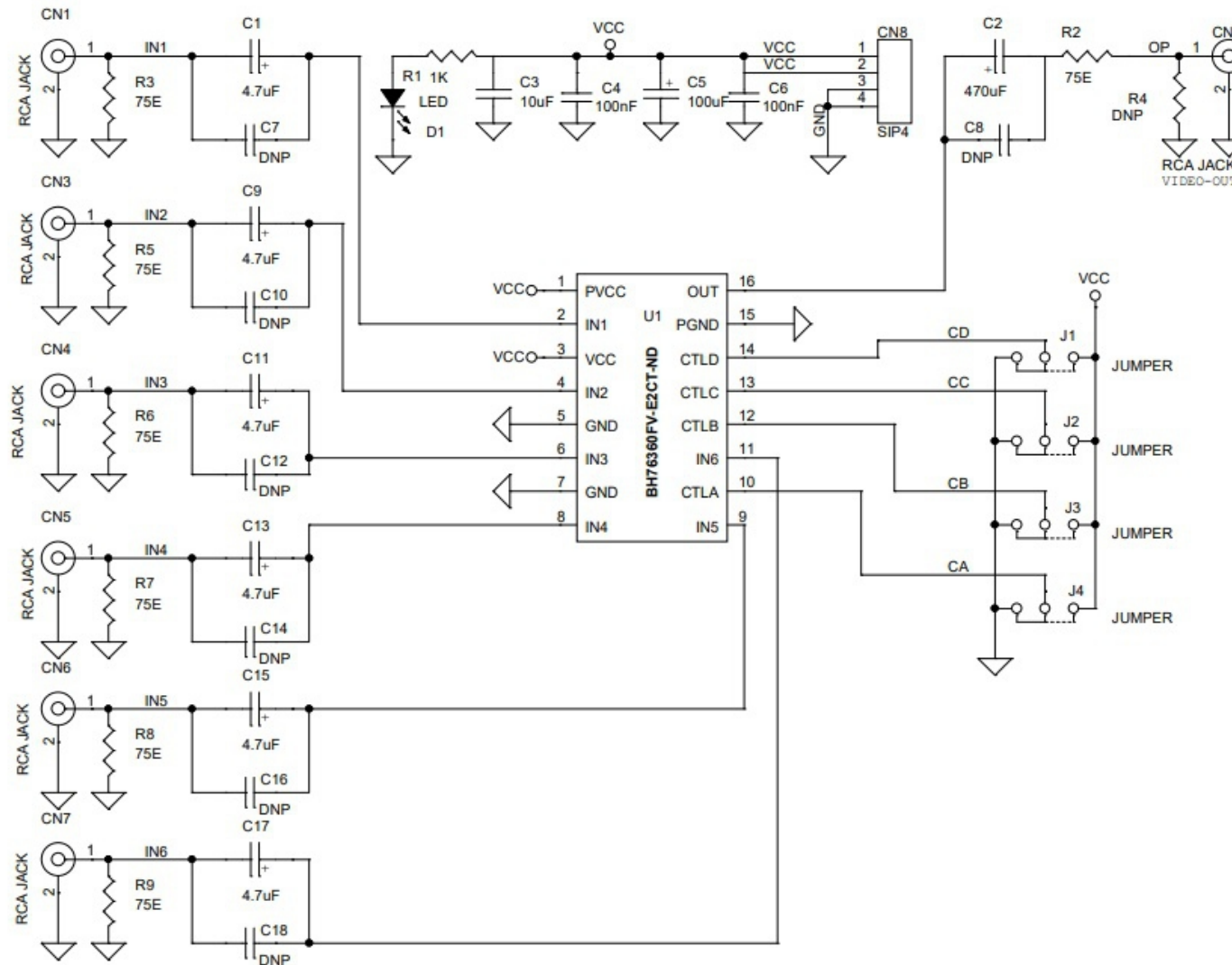
- Power supply voltage, from 2.8 V to 5.5 V
- Wide output dynamic range
- Excellent frequency response 100kHz/10MHz 0dB[Typ.]
- No crosstalk between channels (Typ. -65 dB,  $f = 4.43$  MHz)
- Built-in standby function, circuit current during standby is 0  $\mu A$  (Typ.)
- Sync tip clamp input
- Video Amplifier Gain 6dB
- 6-dB amp and 75Ohms driver are built-in
- Maximum Output Level 3.8Vpp ( $f=10KHz$ , THD=1%)
- Input Voltage Range 0 to  $VCC+0.2V$
- Control Pin Switch Level 1.2V Minimum High Level, 0.45V Maximum
- Low-Level Threshold Voltage
- Input Impedance 150K Ohms
- PCB Dimensions 91.44 x 48.10mm
- 4 x 3mm Mounting Holes



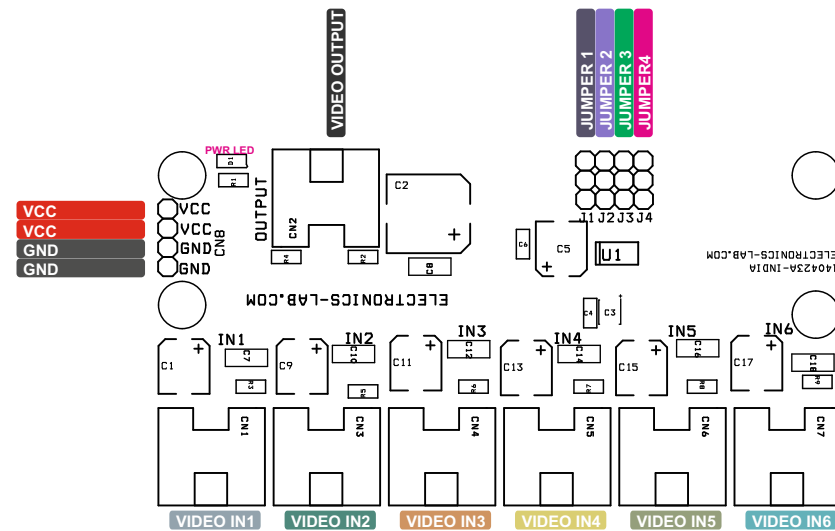
## Input Selection Jumper J1 - J4

- IN1 = J1=H, J2=L, J3=L, J4=L
- IN2 = J1=H, J2=L, J3=L, J4=H
- IN3 = J1=H, J2=L, J3=H, J4=L
- IN4 = J1=H, J2=L, J3=H, J4=H
- IN5 = J1=H, J2=H, J3=L, J4=L
- IN6 = J1=H, J2=H, J3=L, J4=H
- Mute = J1=H, J2=H, J3=H, J4=X
- STBY = J1=Open/L, J2=X, J3=X, J4=X
- X= L(Open)Or H Either Is Possible

# Schematic



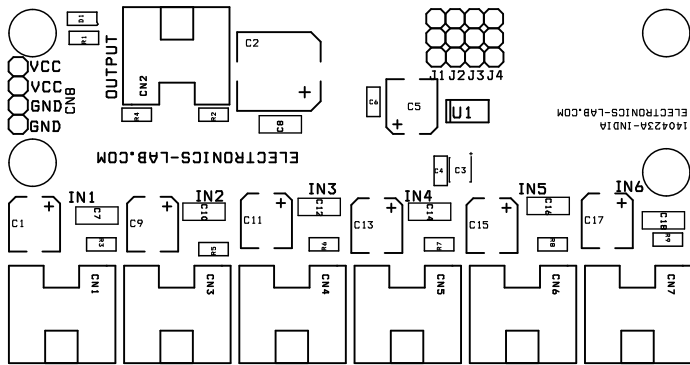
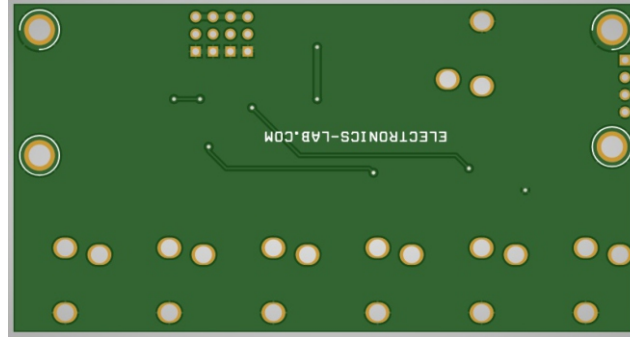
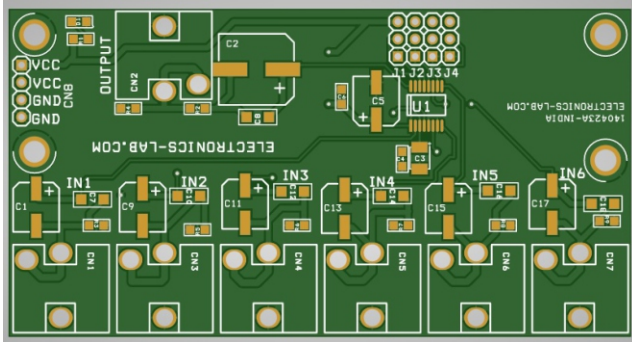
# Connections



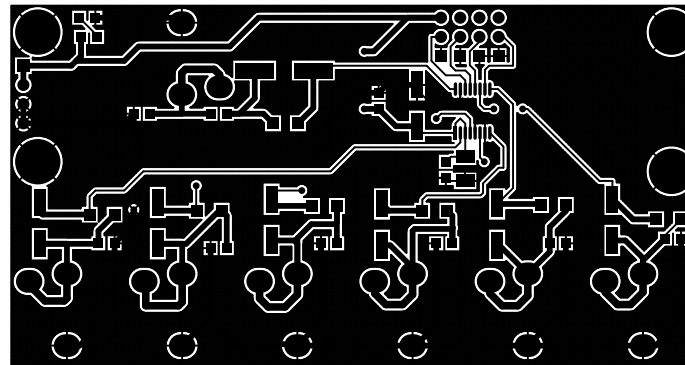
## Connections and Other Details

- CN1: RCA Female = Video Input 1
- CN3: RCA Female = Video Input 2
- CN4: RCA Female = Video Input 3
- CN5: RCA Female = Video Input 4
- CN6: RCA Female = Video Input 5
- CN7: RCA Female = Video Input 6
- CN2: RCA Female = Video Output
- CN8: Pin 1, 2 = VCC, Pin 3, 4 = GND
- Jumper J1: Control D
- Jumper J2: Control C
- Jumper J3: Control B
- Jumper J4: Control A
- D1: Power LED

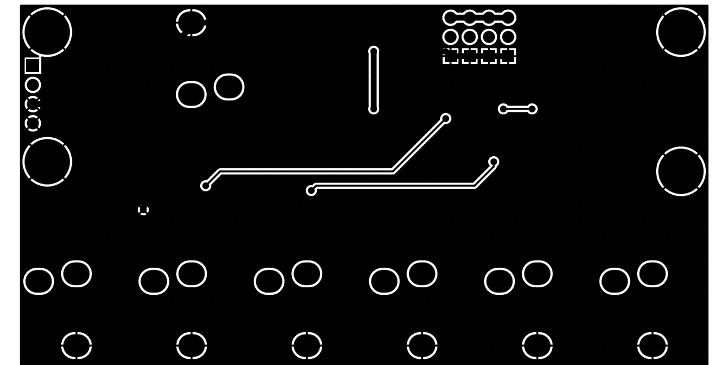
# PCB



SILK SCREEN TOP



BOTTOM LAYER



TOP LAYER

PCB DIMENSIONS 91.44MM X 48.10MM

# Parts List

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BOM						
NO.	QNTY.	REF	DESC.	MANUFACTURER	SUPPLIER	SUPPLIER'S PART NO
1	7	CN1,CN2,CN3,CN4,CN5,CN6,CN7	RCA JACK	KEystone	DIGIKEY	36-973-ND
2	1	CN8	SIP4	WURTH	DIGIKEY	732-5317-ND
3	6	C1,C9,C11,C13,C15,C17	4.7uF/50V ELECTROLYTIC 5.30 X 6.50MM	KEMET	DIGIKEY	399-6687-2-ND
4	1	C2	470uF/25V	RUBYCON	DIGIKEY	1189-1588-2-ND
5	1	C3	10uF/25V Ceramic SMD SIZE 1210 or 1206	YAGEO/MURATA	DIGIKEY	
6	2	C4,C6	100nF/50V CERAMIC SMD SIZE 0805	YAGEO/MURATA	DIGIKEY	
7	1	C5	100uF/16V OR 25V ELECTROLYTIC	NICHICON	DIGIKEY	493-9418-2-ND
8	8	R4,C7,C8,C10,C12,C14,C16,C18	DNP		DIGIKEY	
9	1	D1	LED RED SMD SIZE 0805	LITE ON INC	DIGIKEY	160-1427-1-ND
10	4	J1,J2,J3,J4	2 PIN MALE HEADER PITCH 2.54MM	WURTH	DIGIKEY	732-5315-ND
11	1	R1	1K 5% SMD SIZE 0805	YAGEO/MURATA	DIGIKEY	
12	7	R2,R3,R5,R6,R7,R8,R9	75E 1% SMD SIZE 0805	YAGEO/MURATA	DIGIKEY	
13	1	U1	BH76360FV-E2CT-ND	ROHM	DIGIKEY	BH76360FV-E2CT-ND
14	4	SHUNT FOR JUMPER	JUMPER SHUNT FOR J1,J2,J3,J4	SULINS CONCT	DIGIKEY	S9001-ND







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