ML6416 DEMO

Demonstration board for the ML6416

Features

- 7.1MHz Y and C filters, with CV out
- 14dB notch at 4.5 MHz for sound trap
- 42dB stopband attenuation at 27 MHz on Y, C, and CV
- Better than 1dB flatness to 4.5MHz on Y, C, and CV
- Capable of driving 75 Ohm cable
- AC coupled inputs and outputs
- No external frequency select components or clocks
- 5% overshoot on Y, C, and CV output edges

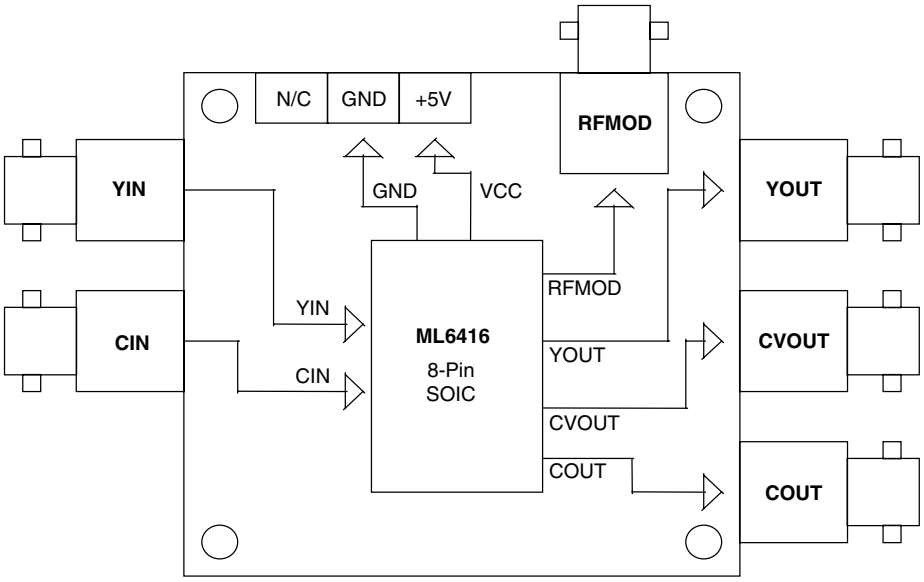
Applications

- Cable Set-top Boxes
- Satellite Set-top Boxes
- DVD Players

Description

The ML6416 DEMO demonstration board provides a flexible base for evaluating the performance of the ML6416. The ML6416 is a dual Y/C 4th-order Butterworth lowpass video filter optimized for minimum overshoot and flat group delay. The device also contains a summing circuit to generate filtered composite video, an audio trap and group delay compensation circuit to notch-out audio, providing an area for the addition of the FM audio carrier(s) and mimic the group delay distortion introduced at the transmitter. For a complete description of the ML6416 including typical applications, please refer to the ML6416 data sheet. The ML6416 DEMO also has an option to connect YIN, CIN, YOUT, COUT, CVOUT, or RFOUT to 75 Ohm terminated to Ground (Jumpers labeled as JP1-6).

Block Diagram



ML6416 DEMO Schematic

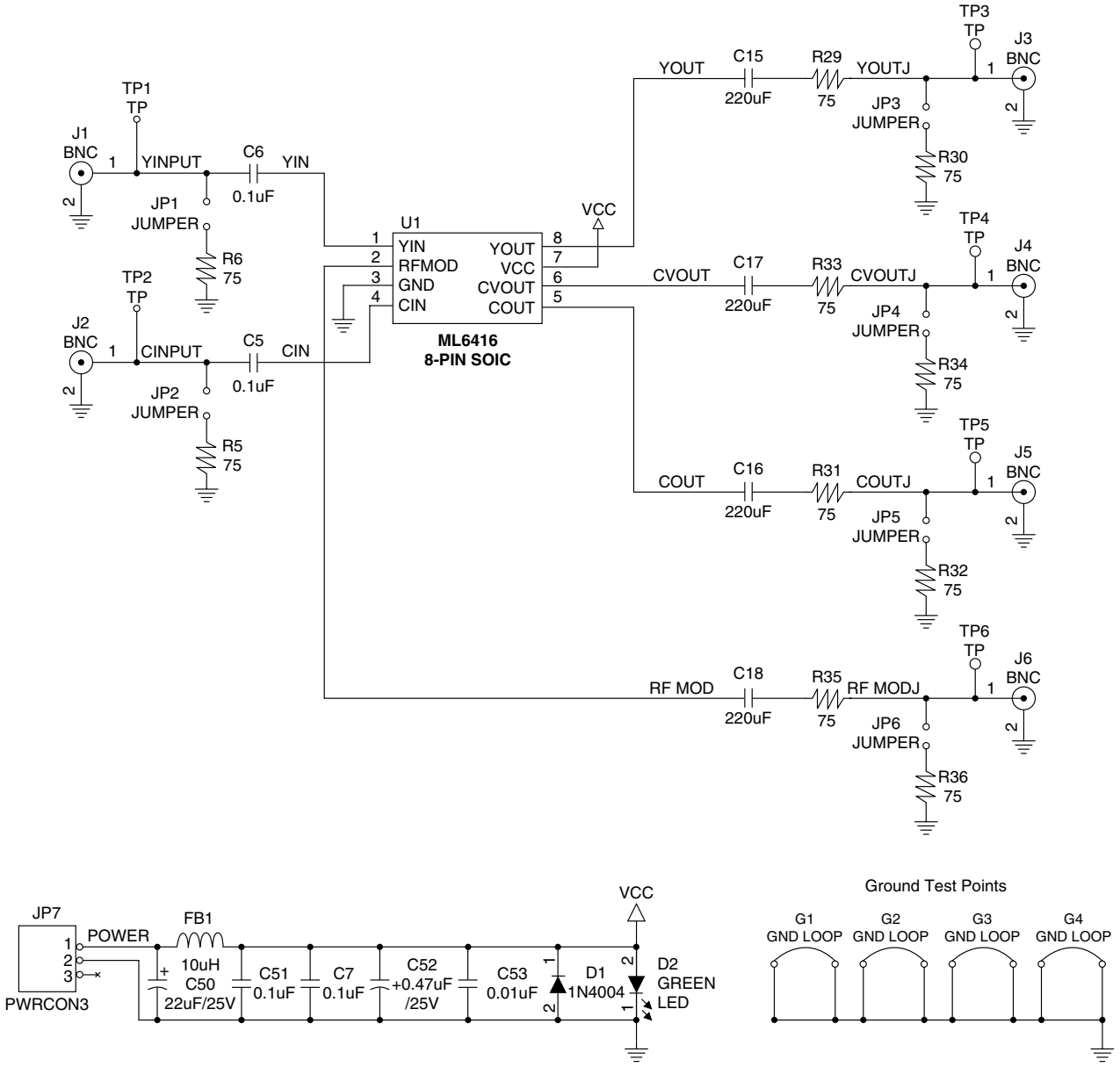


Table 1. Bill of Materials

Item	Quantity	Reference	Part
1	4	C5, C6, C7, C51	0.1uF
2	4	C15,C16,C17,C18	220uF
3	1	C50	22uF /25v
4	1	C52	0.47uF /25v
5	1	C53	0.01uF
6	1	D1	1N4004 (Diode)
7	1	D2	GREEN LED
8	1	FB1	10 uH (Inductor)
9	4	G1,G2,G3,G4	GND LOOP
10	6	JP1,JP2,JP3,JP4,JP5,JP6	JUMPER
11	1	JP7	PWRCON3
12	6	J1, J2,J3,J4,J5,J6	BNC Connectors
13	10	R5, R6, R29, R30, R31,R32, R33, R34, R35, R36	75 Ohms
14	6	TP1,TP2,TP3,TP4,TP5,TP6	TP (Test Points)
15	1	U1	ML6416 (8-Pin SOIC)

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