

IF down converter

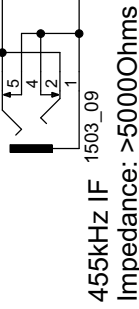
455kHz to 12kHz

Total gain 12dB (18dB)

LA1186N or TA7358AP
CX101 Only for TA7358AP

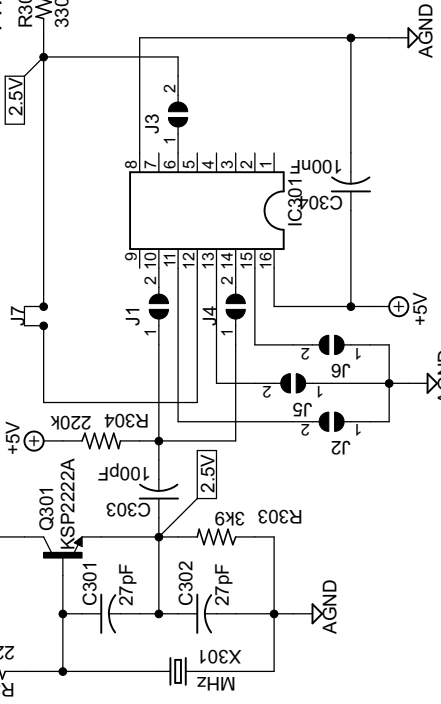
Attenuation

455kHz IF 1503_09
Impedance: >5000Ohms



For TA7358AP:
R102 390

447kHz/443kHz

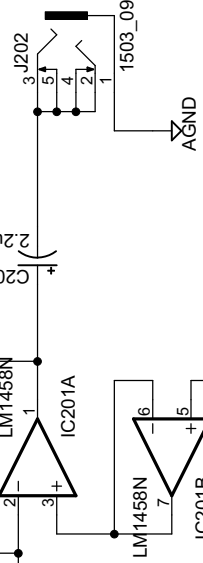


X301 TV Chorma Crystal
PAL-M 3.575611MHz (74HC4040)
NTSC 3.579545 MHz (74HC4040)
PAL 4.433619MHz (74HC4017)

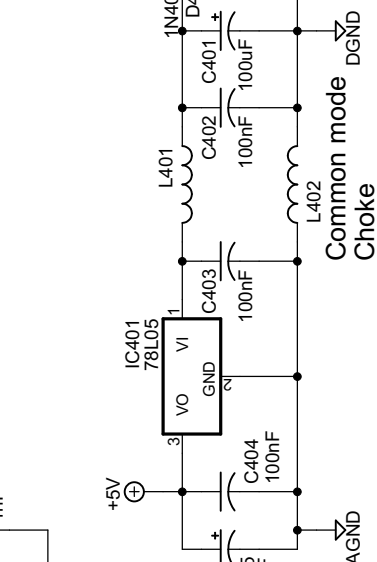
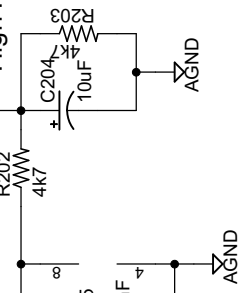
Close Jumpers for:
74HC4040 J1, J2 e J3
74HC4017 J4, J5, J6, J7

For total gain of 18dB
Change R201 to 22k and
C202 to 330pF

PC audio line in



Change C201 to 68nF for
High Pass Filter above 2kHz.



Common mode
Choke

7.5VDC to 15VDC

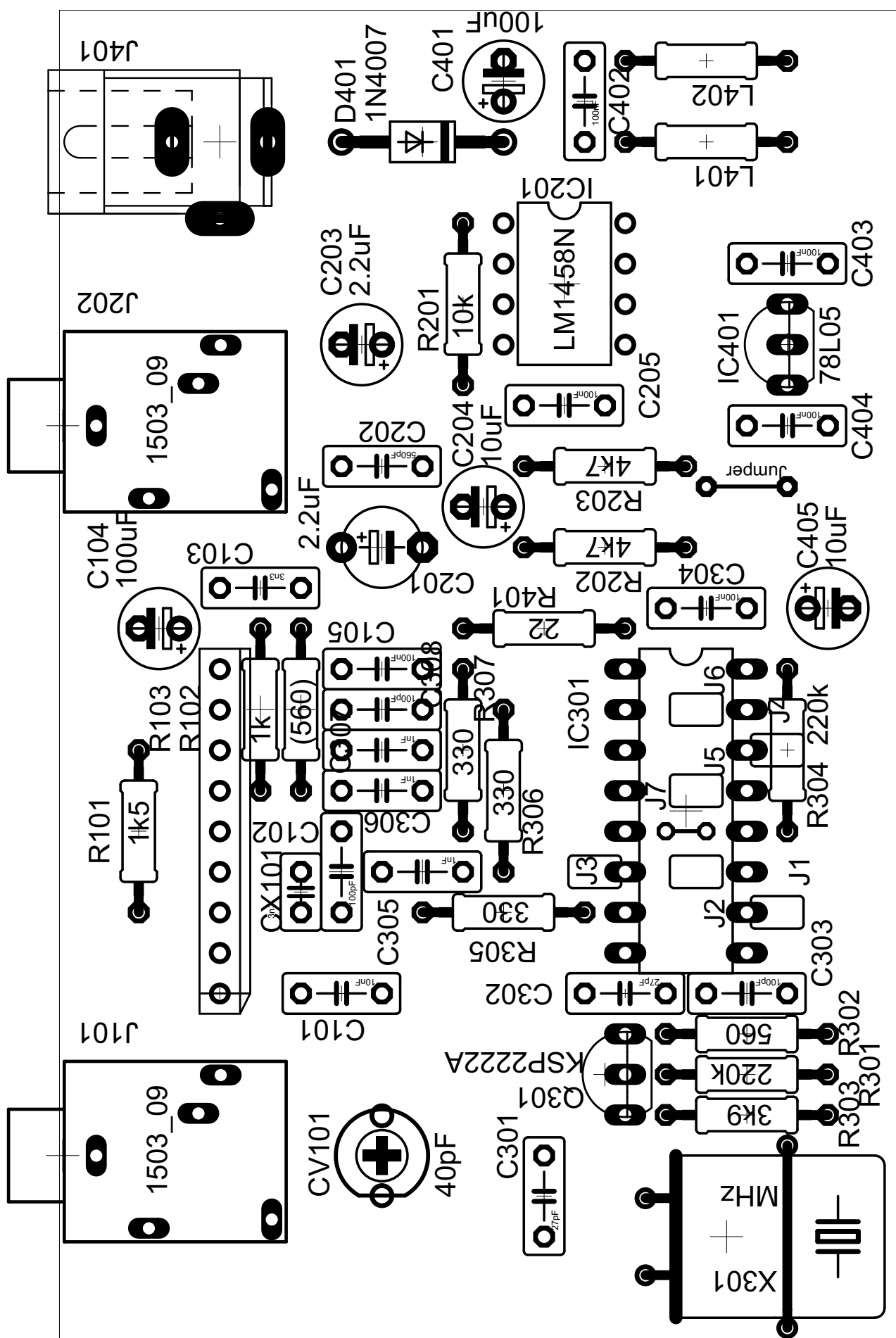


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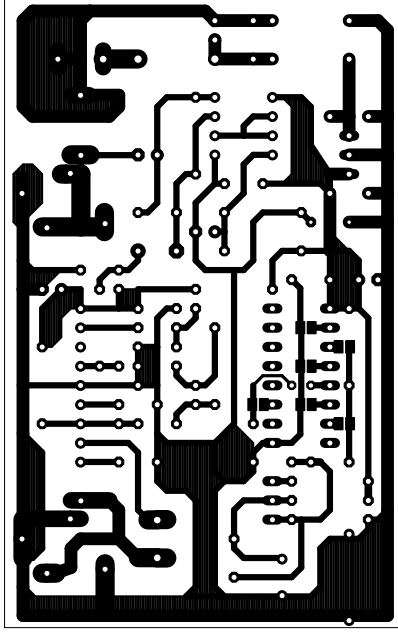
if-455-to-12khz

1/7/21 9:59 AM

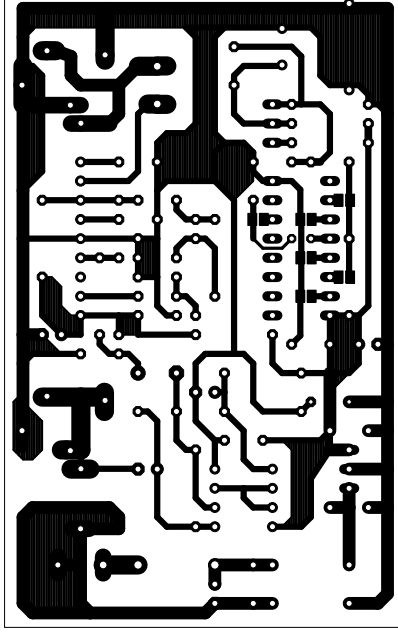
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TOP VIEW



SOLDER SIDE



455kHz to 12kHz converter part list.

Part	Value	Description
C101	10nF	Ceramic Capacitor
C102	100pF	Ceramic Capacitor
C103	3n3	Ceramic Capacitor
C104	100uFx16V	Electrolytic Capacitor
C105	100nF	Ceramic Capacitor
C201	2.2uFx16V	Electrolytic Capacitor
C202	560pF	Ceramic Capacitor
C203	2.2uFx16V	Electrolytic Capacitor
C204	10uFx16V	Electrolytic Capacitor
C205	100nF	Ceramic Capacitor
C301	27pF	Ceramic Capacitor
C302	27pF	Ceramic Capacitor
C303	100pF	Ceramic Capacitor
C304	100nF	Ceramic Capacitor
C305	1nF	Ceramic Capacitor
C306	1nF	Ceramic Capacitor
C307	1nF	Ceramic Capacitor
C308	100pF	Ceramic Capacitor
C401	100uFx16V	Electrolytic Capacitor
C402	100nF	Ceramic Capacitor
C403	100nF	Ceramic Capacitor
C404	100nF	Ceramic Capacitor
C405	10uFx16V	Electrolytic Capacitor
CV101	40pF	Ceramic Trimmer
CX101	3n3	Only for TA7358AP - Ceramic Capacitor
D401	1N4007	Diode
IC101	LA1186N	Or TA7358AP - FM RF Front End.
IC201	LM1458N	Dual OpAmp
IC301	DIL16	74HC4017 or 74HC4040 (according to the chosen crystal, see schematic)
IC401	78L05	Voltage regulator
J101	1503_09	3.5mm Jack
J202	1503_09	3.5mm Jack
J401	JACK-PLUG0	Power Jack
L401/L402		Common mode choke, bifilar winding on ferrite toroid
Q301	KSP2222A	NPN Transistor
R101	1k5	Resistor 1/8W
R102	(560)	3900hms for TA7358AP Resistor 1/8W
R103	1k	Resistor 1/8W
R201	10k	Resistor 1/8W
R202	4k7	Resistor 1/8W
R203	4k7	Resistor 1/8W
R301	220k	Resistor 1/8W
R302	560	Resistor 1/8W
R303	3k9	Resistor 1/8W
R304	220k	Resistor 1/8W
R305	330	Resistor 1/8W
R306	330	Resistor 1/8W
R307	330	Resistor 1/8W
R401	22	Resistor 1/8W
X301	MHz	PAL 4.433619MHz, PAL-M 3.575611MHz or NTSC 3.579545Mhz Chroma Crystal.