

## BILL OF MATERIALS

Design: AVTX / by SPn

Dokumentti on tehty Englanniksi, koska monet kytkentäkaavio sivuilla vierailleet ulkomaalaiset ovat toivoneet myös englanninkielistä dokumentointia. Suomenkielistä versiota ei ole tehty ollenkaan.

QTY	PART-REFS	VALUE
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### Resistors

2	R1,R3	301R, 1206 SMD, 1%
3	R2,R4,R6	100R, 1206 SMD, 5%
1	R5	560R, 1206 SMD, 5%
1	R7	8.2k, 1206 SMD, 5%
1	R8	470k, 1206 SMD, 5%
1	R9	3.9k, 1206 SMD, 5%
3	R10,R11,R12	150R, 1206 SMD, 5%
1	R13	100R, minimelf SMD, 1%

### Capacitors

1	C1	470uF/25V / elcap / 105 degrees celsius
6	C2,C3,C4,C13,C14,C15	100nF, 1206 SMD
1	C5	10pF, 1206 SMD, NPO
1	C6	15pF, 1206 SMD, NPO
1	C7	5.5 - 20pF, SMD adjustable trimmer, RED
2	C8,C9	1nF, 1206 SMD
3	C10,C11,C12	10uF/35V/elcap/105 degrees celsius

### Integrated Circuits

3	U1,U2,U3	LT1117 / adjustable SMD voltage regulator
1	U4	INA 10386 / MMIC 0.1 ... 1500 MHz / gain 26 dB / +10dBm out

### Transistors

1	Q1	BCW32 / NPN SMD transistor
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### Diodes

1	D1	BYV10-60 or BYD 17D / SMD diode
1	D2	SMCJ18 / SMD TAZ zener

### Miscellaneous

1	CAM1	BWCAMERA / ITM-M-SC / for pcb
8	J1,J2,J3,J4,J5,J6,J7,J8	soldering points, J7/J8 alternative MCX female for pcb
2	L1,L3	1uH, 1206 SMD
1	L2	100nH, 1206 SMD
1	L4	100nH, miniatyre choke with legs
1	MOD1	AV-MODULATOR (removed from Playstation modulator)

Do not put antenna in output connector, because output level is quite high, if you do so then you have AV transmitter that is not approved. Prototype worked well in our application, you can adjust harmonics level by C 7. First harmonic was approx. 30 dB below carrier. If attenuation of output is needed it can be done for ex. by resistor attenuator.

Why three voltage regulators? Different cameras, modulators, amplifiers need different voltages, so it is possible to use many different items in same pcb (remember that it is almost sure that some modifications are needed if you use some other items).

If possible, keep pcb same as in our pictures, when RF is present and if you make you own modifications to pcb you must almost always do some adjustments in some component values. Working voltage of that circuit is between some. 10 ... 15 VDC, maybe less... 9 VDC. Current is below 100 mA. Printed circuit board is one (1) sided, but components are in both sides. Electret microphone can be any type as you like. The output MMIC work well with much higher frequencies also. Camera that we used was black and white miniatyre model.