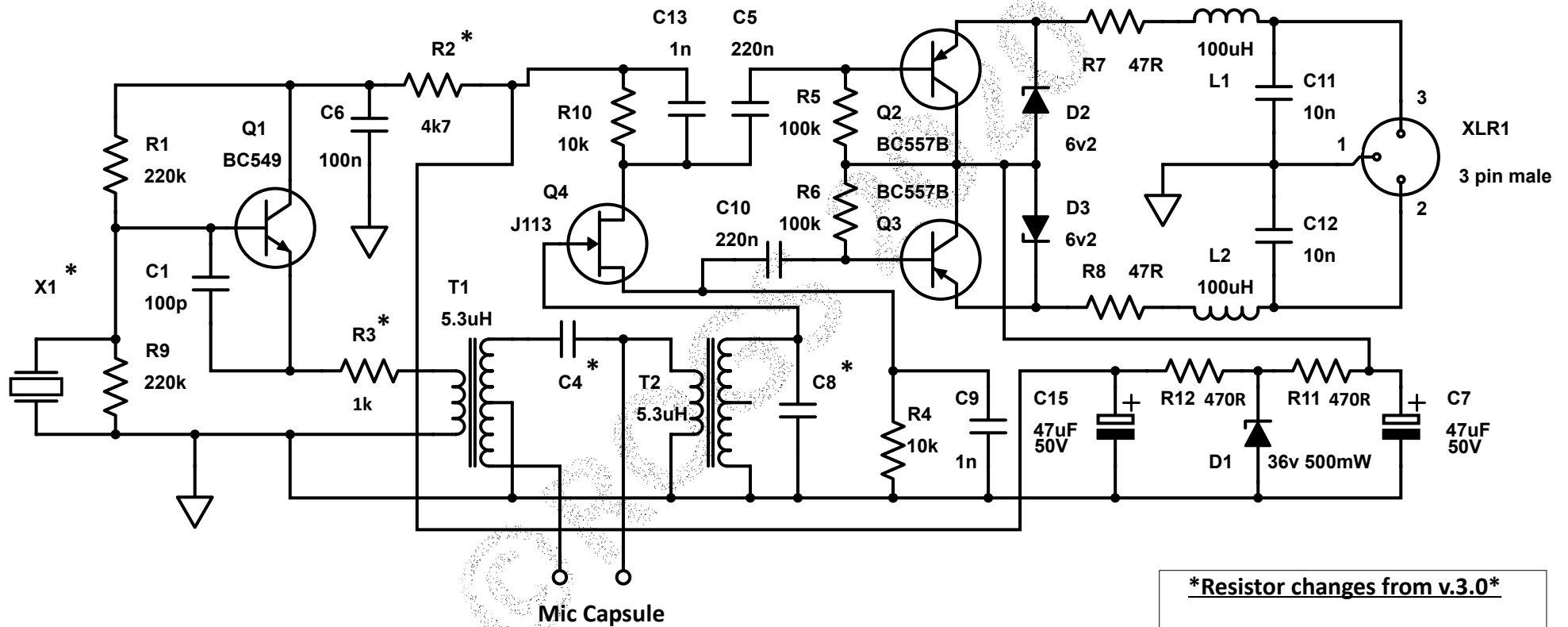


# RF.AMX10 v.3.2

## DIY RF Condenser Microphone – Schematic

- Sensitivity: -18dB
- S/N: 80dB
- Current: 3.5mA



\*Resistor changes from v.3.0\*

	<u>R2</u>	<u>R3</u>
v.3.0	0R	4k7
v.3.2	4k7	1k

<u>Mic Capsule "Style"</u>	<u>Capacitive value (typical)</u>	<u>X1 *</u>	<u>C4 *</u>	<u>C8 *</u>
"K67" (centre terminated)	65pF	10MHz	68pF	47pF
"C12" (edge terminated)	90pF	8MHz	100pF	68pF

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**RF.AMX10 v.3.2**  
**PCB Parts List (04.21)**

**Resistors -**

R1 - 220k	R7 - 47R
R2 - 4k7*	R8 - 47R
R3 - 1k*	R9 - 220k
R4 - 10k	R10 - 10k
R5 - 100k	R11 - 470R
R6 - 100k	R12 - 470R

\* Value changed from v.3.0

- All 1% 1/8w metal film - **MF12 series**
- 47R x 2, 470R x 2, 4k7 x 1, 10k x 2, 100k x 2, 220k x 2

**Capacitors -**

C1 - 100pF	C8 - * see schematic
C2 - not fitted	C9 - 1nF
C3 - not fitted	C10 - 220nF
C4 - * see schematic (fit track side)	C11 - 10nF
C5 - 220nF	C12 - 10nF
C6 - 100nF	C13 - 1nF
C7 - 47uF 50V	C15 - 47uF 50V

- C1, C4 and C8 are **Vishay K series** - class 1 COG 50V MLCC
- C5, C6, C9, C10, C11, C12 and C13 are **Multicomp MCPBSFC series** - 63V polyester
- C7 and C15 are **Panasonic M series** - 6.3mm diameter
- **C2 and C3 are not fitted**
- **C14 is not present**

**Semiconductors -**

Q1 - BC549C
Q2 - BC557B
Q3 - BC557B
Q4 - J113 JFET
D1 - 36V 500mW or 1.3W Zener diode – <b>BZX79</b> or <b>BZV85 series</b>
D2 and D3 - 6V2 500mW Zener diode - <b>BZX79 series</b>

**Crystal -**

- X1 \* see schematic ( 8 MHz or 10MHz (**IQD - LF A140K** or **IQD - LF A143K**) )

**Inductors -**

- T1 and T2 are **Spectrum Communications 10mm 10K 7MHz RF/IF coils - Type 5u3H (or 5u3HH)**  
(see here - <http://www.spectrumcomms.co.uk/Components.htm>)
- L1 and L2 are 100uH RF chokes - **Multicomp MCAL series: MCAL0410A1 - 101KU**

(All components - (except T1 and T2) are available from CPC Electronics in the UK)