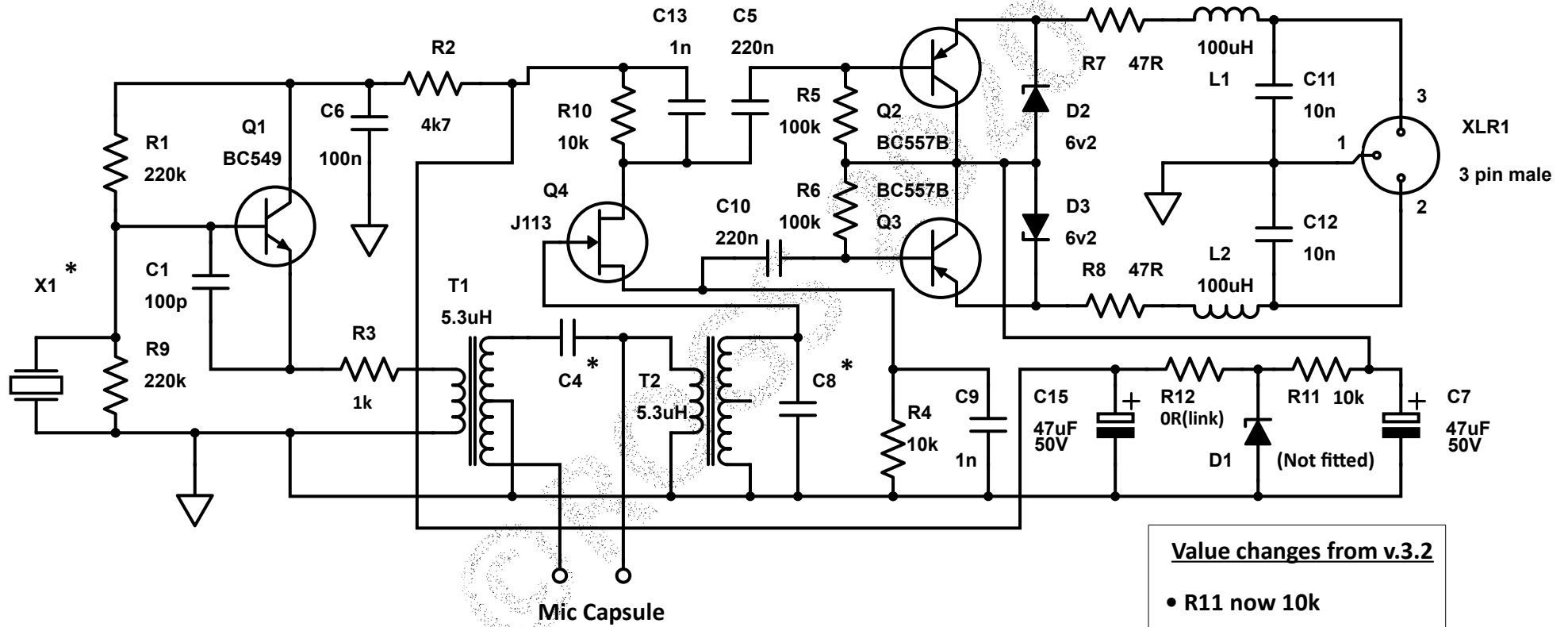


RF.AMX10 v.4.1

DIY RF Condenser Microphone – Schematic

- Sensitivity: -23dB
- S/N: 82dB
- Current: 2.5mA



<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

- Value changes from v.3.2
- R11 now 10k
 - R12 now 0R (link)
 - D1 not fitted

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RF.AMX10 v.4.1
PCB Parts List (23.04.21)

Resistors -

R1 - 220k	R7 - 47R
R2 - 4k7	R8 - 47R
R3 - 1k	R9 - 220k
R4 - 10k	R10 - 10k
R5 - 100k	R11 - 10k*
R6 - 100k	R12 - 0R (link)*

* **Value changed from v.3.2**

- All 1% 1/8w metal film - **MF12 series**
- 47R x 2, 1k x 1, 4k7 x 1, 10k x 3, 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 - not fitted
D2 and D3 - 6V2 500mW Zener diode - BZX79 series

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)