


JUMA-TX1 main board components Rev. D 17.03.2006

Part number	Description	Value / type	pcs	Note
R5	Resistor SMD size 1206	4R7	1	
R7, R8		24R	2	
R3		51R	1	
R11, R14, R20		470R	3	
R1, R17		1k	2	
R10, R15		4k7	2	
R13		5k1	1	
R16, R19, R21, R22		10k	4	
R12		1M	1	
R18		4M7	1	Semi break release time
R2	SMD trimmer resistor, single turn	10k	1	E.g. Bourns 3314J
R4, R6, R9	Multi turn SMD trimmer Bourns 3214 or 3224W series or Vishay TSM4YJ or TSM4YL series	10k	3	Or similar 5 turn or 10 turn SMD trimmer. Values of 5k, 10k, 20k or 50k can be used
C31	Cer capacitor SMD size 1206 NP0 / 25 V or more	22p	1	
C35	NP0 / 50 V or more	120p	1	
C15, C16, C32, C34	NP0 / 50 V or more	560p	4	
C12, C13, C14, C33	NP0 / 50 V or more	820p	4	
C6, C18, C26, C30	25 V or more	4n7	4	
C1, C3	25 V or more	10n	2	
C2, C4, C5, C7, C8, C9, C10, C11, C17, C19, C20, C22, C23, C24, C25, C28, C29	25 V or more	100n	17	
C21, C27	Tantalum Capacitor SMD	4u7/16V Case style B	2	Value range 4u7-10u. Can be replaced with a radial Tantalum.
L1, L2	Inductor SMD Case size 2220	2u2H	2	Manufacturer e.g. Epcos SIMID 2220 series. High current type SIMID 2220H series can also be used
L3, L4	Inductor SMD Case size 2220	1uH	2	Manufacturer e.g. Epcos SIMID 2220 series. High current type SIMID 2220H series can also be used
RFC	 RF choke, inductance range 0.5uH...10uH (wire through a ferrite bead)	Small ferrite bead e.g. Amidon FB-43-101 outer diameter 3.5 mm, inner diameter 1.3 mm, length 3.5 mm	1	Not critical, a wire diameter of 0.4mm-1mm through any small ferrite bead is ok
T1	RF transformer	TDK signal filter ZJYS51R5-2PB or ZJYS51R5-2PB-01	1	Farnell code 423-0413 or Farnell code 962-1270
T2		TDK signal filter TDK ZJYS51R5-M4PA or TDK ZJYS51R5-M4PA-01	1	Farnell code 423-0474 or Farnell code 962-1334
D1, D2, D3, D4, D5	Diode dual SMD SOT-23	BAV99	5	or similar SOT-23 Si-diode
TR1, TR2, TR3	MOSFET N-type D-PAK	IRFR110	3	IRFU110 (I-PAK) can be used by shortening and bending the legs
TR4	NPN transistor	BC848B SOT-23	1	or BC846B, BC847B
TR5	MOSFET P-type SOT-23	BSS84	1	or similar, Rds < 10 ohm e.g. NDS332P
TR6, TR7	MOSFET N-type SOT-23	BSS123	2	or similar, Rds < 10 ohm e.g. 2N7002
IC1	CMOS inverter SOT-23-5	NC7S04	1	Fairchild
IC2, IC3	CMOS Schmitt trigger inverter SOT-23-5	NC7S14	2	Fairchild
REG1	Voltage regulator SO-8	78L05	1	
RL1, RL2	SMD Relay	NEC EB2-12V	2	Or Omron G6H-2F-12V or Nais TQ2SA-12V or Takamisawa AS12W-K
F1	Mini Fuse: Round D=8.5 mm, or rectangle 4 mm x 8.5 mm, lead spacing 5.08 mm	T1A	1	Fuse soldered to the pads. IC type socket header can be used
PCB	PCB	JUMA-TX1-main PCB	1	