



UART Application Kit

Bill of Materials

Digi document reference number: 90000932

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Description	Manufacturer references	Quantity	Design references
Connector SUB-D 9pin, male, THT, 90°, with grounding springs	AMP : 1-338168-2	4	X6-9
Connector Header, HTSW, 2x5pin, straight , RM2.54, THT, Gold 0.2µm	Samtec : HTSW-105-07-LM-D	4	X11-14
Connector Header, 2x25pin, straight, RM2.54, SMD	Wave-Tech : EPS01-50-A-1-0-B Pinrex : 212-92-25GB01	2	X1, X2
Dip-Switch, 4pole, SMD, RM1.27	ITTCannon : TDA04H0SB1R	4	S1-4
Transistor NPN, BC817-40, 45V, 0.5A, SOT23	Infineon : BC817-40 Fairchild : BC81740MTF	8	V1-8
Transistor N-FET BSS138, 50V, 0.22A, 3.5R@10V,SOT23, -55-+150°	Infineon : BSS138N Fairchild : BSS138 or BSS138NL	1	V9
Relay Photo MOS, AQY212, SMD4, 60V, 0.4A	NAIS Matsushita : AQY212EHA	8	O1-8
Capacitor 47pF, 0805, 50V, COG, 5%, -55-+125°	AVX : 08055A470JAT2A Kemet : C0805C470J5GAC Samsung : CL21C470JANNNC	1	C115
Capacitor 100nF, 0603, 16V, X7R, 10%, -55-+125°	AVX : 0603YC104KAT2A Kemet : C0603C104K4RAC Samsung : CL10B104KO5NNNC	68	C11-23;C25-41; C46-60;C66-85; C116-118
Capacitor 1µF, 0805, 16V, X5R, 10%, -55-+85°	AVX : 0805YD105KAT2A Kemet : C0805C105K4RAC Samsung : CL21A105KO5NNNC	20	C1-10;C24; C42-45;C61-65

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Capacitor 22pF, 0603, 50V, COG, 5%, -55-+125°	AVX : 06035A220JAT2A	1	C114
	Kemet : C0603C220J5GAC		
	Samsung : CL10C220JB8NNNC		
Resistor Network 4x1K5, 1206, 5%, 63mW, -55-+125°	Siemens : TSN-L08W152J	4	RN1-4
	Tateyama : TSN3NTJ152V		
Resistor 680R, 0805, 1%, 100mW, -55-+125°	Panasonic : ERJ6ENF6800V	8	R20-21;R27-28; R34-35;R43-44
	Vishay D12/CRCW0805 200 680R 1% ET1 E3		
	Yageo : RC0805FR-07680RL		
Resistor 120R, 0805, 5%, 100mW, -55-+125°	Panasonic : ERJ6ENF1200V	4	R19;R26;R33;R42
	Vishay D12/CRCW0805 200 120R 1% ET1 E3		
	Yageo : RC0805FR-07120RL		
Resistor 10K, 0603, 1%, 63mW, -55-+125°	Panasonic : ERJ3EKF1002V	13	R17-18;R24-25; R31-32;R40-41;R46-50
	Vishay : D11/CRCW0603 200 10K 1% ET1 E3		
	Yageo : RC0603FR-0710KL		
Resistor 1K, 0603, 1%, 63mW, -55-+125°	Panasonic : ERJ3EKF1001V	16	R1-3;R10-13; R15-16;R22-23; R29-30;R37-39
	Vishay : D11/CRCW0603 200 1K 1% ET1 E3		
	Yageo : RC0603FR-071KL		
Resistor 0R0, 0603, 1A, -55-+125°	Panasonic : ERJ3GEOR003V	1	R45
	Vishay : D11/CRCW0603 0R ET1 E3		
	Yageo : RC0603FR-070RL		
Resistor 820R, 0603, 1%, 100ppm, 63mW, -55-+125°	Panasonic : ERJ3EKF8200V	8	R4-9;R14;R36
	Vishay : D11/CRCW0603 200 820R 1% ET1 E3		

Description	Manufacturer references	Quantity	Design references
	Yageo : RC0603FR-07820RL		
UART Quad SC16C754B with 64byte FIFO,LQFP80, 3.3V/5V, -40-+85°	Philips : SC16C754BIB80	1	U1
Transceiver RS485/RS422 SO14, 0-70°,3.3V, 12Mbps, 15kV ESD protection	Maxim : MAX3491ECSD+ Intersil : ISL83076EiBZA ISL83076EiBZA-T	12	U3-4;U7;U12-13; U20;U29-30;U33; U42-43; U46
Transceiver RS232, SP3243, SSOP28, 0-70°, 3.3V/5V, 1Mbps, 15kV ESD	Sipex : SP3243EUCA-L	4	U2;U11;U28;U41
Decoder Dual 2 to 4, 74LVC139, SO16, 150mil, -40-+85°	TI : SN74LVC139D Philips : 74LVC139D	1	U54
Logic Gate 2-Input AND, SC70-5, -40-+85°	Fairchild : NC7S08P5X_NL TI : SN74AHC1G08DCKR	12	U9;U17-18;U22; U26-27;U35; U39-40;U48;U52-53
Logic Gate 2-Input NAND, SC70-5, -40-+85°	Fairchild : NC7S00P5X_NL TI : SN74AHC1G00DCKR	25	U5-6;U8;U10;U14-16; U19;U21;U23-25; U31-32;U34;U36-38; U44- 45;U47;U49-51;U60
Logic Gate 2-Input NOR, SC70-5, -40-+85°	Fairchild : NC7S02P5X_NL Philips : 74AHC1G02GW	3	U56;U58;U62
Flat Ribbon Cable, 50pin, 2xSocket Plug, RM2.54x2.54, L=70mm	ES&S : FORTH-TK02816	1	ME1
Quartz 18.432MHz, SMD 6x3.5mm, FA365, -20-+70°, 50/30ppm, 12pF	Epson : Q18.4320FA365+2T0	1	Q1