

Explorer 16/32 Development Board (rev 6.3) Bill of Materials

Quantity	Designator	Description	Manufacturer	Manufacturer Part Number
14	J19, J22, J25, J26, J27, J28, J29, J33, J37, J38, J41, J42, J50, JP2	MECH HW JUMPER 2.54mm 1x2	3M	969102-0000-DA
24	C1, C2, C3, C4, C6, C7, C8, C11, C16, C21, C23, C28, C29, C31, C40, C41, C42, C43, C44, C46, C51, C52, C59, C65	CAP CER 0.1uF 50V 10% X7R SMD 0603	Murata	GRM188R71H104KA93D
7	C5, C22, C25, C26, C49, C56, C61	CAP CER 1uF 16V 10% X7R SMD 0603	Taiyo Yuden	EMK107B7105KA-T
14	C10, C13, C14, C19, C27, C33, C34, C35, C37, C38, C39, C45, C47, C60	CAP CER 10uF 25V 10% X5R SMD 0805	Murata	GRM21BR61E106KA73L
3	C15, C17, C20	CAP CER 15pF 50V 5% NP0 SMD 0603	TDK	C1608C0G1H150J
1	C18	CAP CER 1uF 16V 10% X7R SMD 0603	TDK	C1608X7R1C105K
2	C24, C30	CAP CER 27pF 50V 5% C0G SMD 0603	Murata	GRM1885C1H270JA01D
1	C32	CAP CER 0.022uF 50V 10% X7R SMD 0603	TDK	C1608X7R1H223K
4	C36, C48, C53, C62	CAP CER 0.010uF 25V 10% X7R SMD 0603	Yageo	CC0603KRX7R8BB103
1	C50	CAP CER 220pF 50V 5% NP0 SMD 0603	Panasonic	ECJ-1VC1H221J
1	C55	CAP ALUM 68UF 20% 25V SMD	Panasonic Electronic Components	EEE-FT1E680AR
2	C57, C58	CAP CER 390PF 50V 5% NP0 0603	Murata Electronics North America	GRM1885C1H391JA01D
10	D1, D3, D4, D5, D6, D7, D8, D9, D10, D12	LED 0805 GRN 525NM 400MCD 20MA	QT Brightek (QTB)	QBLP631-IG
4	D2, D14, D15, D18	DIODE SCHOTTKY 30V 1A PMDU	Rohm Semiconductor	RSX101MM-30TR
1	D13	LED ORANGE 2V 30mA 90mcd CLEAR SMD 0805	Lite-On Inc.	LTST-C170KFKT
1	D16	DIODE ARRAY GP 75V 150MA SOT23	Micro Commercial Co	BAV70-TP
1	D17	DIO SCTKY MBR0520 385mV 500mA 20V SOD-123	Fairchild	MBR0520L
3	D19, D22, D23	DIO SCTKYARR BAT54C 800mV 200mA 30V SOT-23-3	Fairchild	BAT54C
1	D20	DIO SCTKY B340A 500mV 3A 40V DO-214AC_SMA	Diodes Incorporated	B340A-13-F
1	D21	DIODE ZENER 5.1V 200MW SOD323	ON Semiconductor	MM3Z5V1ST1G
1	F1	RES FUSE 0.5A 13.2V VRY FST SMD 1210	TE Connectivity	MICROSM050F-2
1	FB1	FERRITE BEAD 1.5A 0.05R SMD 0805	Laird Technologies	MI0805K400R-10
1	J12	CON POWER 2.1mm 5.5mm SWITCH TH R/A	CUI	PJ-002A
2	J18, J40	CON USB Micro-B Female TH/SMD R/A 10118194-0001LF	FCI	10118194-0001LF
11	J19, J25, J26, J27, J33, J37, J38, J41, J42, J50, JP2	CON HDR-2.54 Male 1x2 Gold 5.84MH TH VERT	FCI	77311-118-02LF
4	J20, J21	Connector Header 8 Position 0.100" (2.54mm) Tin Through Hole	Sullins Connector Solutions	PPTC081LFBN-RC
3	J22, J28, J29	CON HDR-2.54 Male 1x3 Gold 5.84MH TH VERT	FCI	68000-103HLF
1	J24	CONN RCPT USB 3.0 TYPE C R/A HYBRID TH/SMT	Advanced-Connectek Inc.	NBR25-AK5322
1	J32	CON USB2.0 STD-A FEMALE TH R/A	TE Connectivity AMP Connectors	292303-1
2	J46, J48	CON HDR-2.54 Female 2x25 Tin TH VERT	Samtec	SSW-125-01-F-D
1	JP1	CON MODULAR RJ25 TH R/A	TE Connectivity	5555165-1
1	L1	Fixed Inductors 4.7uH 20% SMD 5040	Bourns	SRN5040-4R7M
1	LCD1	DISPLAY LCD TSB1G7000-E 16x2 Alpha 3.3V	Truly	TSB1G7000-E (Custom Order)
5	PAD1, PAD2, PAD3, PAD4, PAD5	MECH HW RUBBER PAD SQ Taper 0.50x0.50x0.23 Black	3M	SJ-5518
2	Q1, Q4	TRANS BJT PNP MMBT3906 -40V -200mA 300mW SOT-23-3	Central Semiconductor	CMPT3906-PST-LEADFREE
7	Q2, Q3, Q8, Q9, Q10, Q12, Q13	TRANS BJT NPN MMBT3904 40V 200mA 310mW SOT-23-3	Diodes Incorporated	MMBT3904-7
1	Q5	MOSFET P-CH 30V 5A 6TSOP	Alpha & Omega Semiconductor Inc	AO6405
2	Q6, Q7	MOSFET P-CH 20V 4.2A SOT23	Diodes Incorporated	DMG2305UX-13
1	Q11	TRANS FET N-CH 2N7002-7-F 60V 170mA 370mW SOT-23-3	Diodes Incorporated	2N7002-7-F
2	R1, R144	RES TKF 10k 1% 1/10W SMD 0603	ROHM	MCR03EZPFX1002
9	R2, R5, R10, R13, R19, R90, R95, R103, R107	RES TKF 5.1k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF5101V
3	R3, R11, R78	RES TKF 0R 1/10W SMD 0603	Panasonic	ERJ-3GSY0R00V
1	R6	RES VARIABLE Slide 10K 20% TH 30MM	BI Technologies / TT Electronics	PS30-10PB10BR10K
3	R7, R14, R17	RES TKF 330R 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF3300V
14	R8, R12, R24, R25, R27, R49, R50, R52, R71, R79, R111, R115, R124, R133	RES TKF 1k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF1001V

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20	R18, R35, R36, R37, R38, R39, R40, R41, R42, R68, R70, R89, R92, R93, R101, R109, R110, R116, R135, R145	RES TKF 2k 1% 1/10W SMD 0603	Stackpole Electronics Inc	RMCF0603FT2K00
1	R21	RES SMD 3.57K OHM 1% 1/10W 0603	Vishay Dale	CRCW06033K57FKEA
2	R22, R149	RES TKF 82R 1% 1/10W SMD 0603	Yageo	RC0603FR-0782RL
5	R23, R51, R102, R108, R114	RES TKF 100k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF1003V
12	R26, R72, R74, R76, R80, R81, R82, R83, R84, R85, R88, R97	RES TKF 10k 1% 1/10W SMD 0603	Vishay	CRCW060310K0FKEA
3	R28, R29, R34	RES TKF 470R 1% 1/10W SMD 0603	Yageo	RC0603FR-07470RL
5	R30, R31, R32, R33, R104	RES TKF 20k 1% 1/10W SMD 0603	Yageo	9C06031A2002FKHFT
15	R44, R91, R105, R106, R123, R126, R129, R136, R138, R139, R140, R141, R142, R143, R146	RES TKF 36K 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF3602V
4	R59, R69, R87, R100	RES TKF 100R 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF1000V
1	R73	RES TKF 100R 1% 1/4W SMD 1206	Yageo	RC1206FR-07100RL
1	R96	RES SMD 18 OHM 1% 1/10W 0603	Yageo	RC0603FR-0718RL
1	R99	RES SMD 1.5 OHM 1% 1/3W 1210	Stackpole Electronics Inc	RMCF1210FT1R50
2	R112, R113	RES TKF 20k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF2002V
1	R130	RES TKF 200k 1% 1/10W SMD 0603	Vishay	CRCW0603200KFKEA
1	R131	RES TKF 330R 1% 1/10W SMD 0603	ROHM	MCR03EZPF3300
2	R132, R134	RES TKF 5.1k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF5101V
1	R137	RES SMD 82 OHM 1% 1/4W 1206	Yageo	RC1206FR-0782RL
1	R147	RES TKF 43k 1% 1/10W SMD 0603	Vishay	CRCW060343K0FKEA
6	S1, S3, S4, S5, S6, S7	SWITCH TACT SPST 12V 50mA TL3301NF160QG/TR SMD	E-Switch	TL3301NF260QG/TR
2	TP1, TP3	CON TP LOOP Red TH	Keystone	5010
2	TP2, TP5	CON TP LOOP Black TH	Keystone	5011
4	U1A	PIM_100Pin_Male (50 mil headers)	Samtec	TMS-125-01-G-S
2	U2, U5	MCHP MEMORY SERIAL EEPROM 256k SPI 25LC256-I/SN SOIC-8	Microchip Technology	25LC256T-I/SN
1	U3	IC INVERTER UHS DUAL SCHM SC70-6	Fairchild Semiconductor	NC7WZ14P6
1	U4	MCHP ANALOG TEMPERATURE SENSOR -40C to +125C TC1047AVNBTR SOT-23-3	Microchip Technology	TC1047AVNBTR
1	U6	MCHP ANALOG LDO 3.3V MCP1727T-3302E/MF DFN-8	Microchip Technology	MCP1727T-3302E/MF
1	U9	ANALOG SWITCHER Buck 5V MCP16323 VQFN-16	Microchip Technology	MCP16323T-500E/NG
1	U10	MCHP INTERFACE USB I2C UART MCP2221A-I/ST TSSOP-14	Microchip Technology	MCP2221A-I/ST
1	U14	MCHP MCU 16-BIT 32MHz 256kB 16kB PIC24FJ256GB106-I/PT TQFP-64	Microchip Technology	PIC24FJ256GB106T-I/PT
1	X1	RESONATOR CER 12.00MHZ SMD	AVX Corp/Kyocera Corp	PRQC12.00CR1010V00L
1	Y2	CRYSTAL 32.768kHz 12.5pF RAD P1.1D3.1H8.2	HEC Inc	HE38-32.768K-12.5
1	Y3	CRYSTAL 8MHz 20pF SMD HC49/US	ECS Inc	ECS-80-20-5PXDU-TR