

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% COG 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 VRV FST SMD 1210	TE Connectivity	MICROSMDF050F-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	R58, 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	MCR03EZPFX3300
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