

Bill of Materials

MCP19061 Dual USB DCP Reference Board

Part Number: **EA72M20A**
 Assy Number: **02-00887**
 PCB Number: **04-11963**
 Assy Revision: **1**
 Creation Date: **3/4/2024**



Designator	Description	Manufacturer	Part Number
C1, C38	CAP CER 1uF 50V 10% X7R 0805 AEC-Q200	TDK Corporation Taiyo Yuden Murata	CGA4J3X7R1H105K125AB UMK212B7105KGHT GCM21BR71H105KA03K
C2, C11, C12, C14, C17, C18, C21, C24, C26, C40, C45, C48, C53, C56, C58, C60, C61, C64, C65	CAP CER 0.1uF 50V 10% X7R SMD 0603 AEC-Q200	D3_AVX Corporation TDK Corporation	06035C104K4Z4A CGA3E2X7R1H104K080AA
C3, C5, C69, C70	CAP CER 0.47uF 50V 10% X7R SMD 0603	TDK Corporation	C1608X7R1H474K080AC
C4, C10, C39, C54, C55	CAP CER 220pF 50V 5% C0G SMD 0603 AEC-Q200	AVX TDK Corporation KEMET	06035A221J4T2A CGA3E2C0G1H221J080AA C0603C221J5GACAU0
C6, C7, C8, C9, C82, C83, C84, C85	CAP CER 4.7uF 16V 10% X5R SMD 0603	Murata Electronics	GRM188R61C475KE11D
C13, C23, C25, C86	CAP CER 1uF 25V 10% X7R SMD 0603 AEC-Q200	Samsung Electro-Mechanics TDK Corporation	CL10B105KA8VPNC CGA3E1X7R1E105K080AC
C15, C16, C19, C20, C22, C46, C49, C50, C57, C59, C66	CAP CER 10uF 16V 10% X5R SMD 0603 AEC-Q200	Murata	GRT188R61C106KE13D
C27, C28, C71, C72	CAP ALU 150uF 35V 20% 0.08R SMD F AEC-Q200	Panasonic Electronic Components	EEE-FP1V151AL
C29, C30, C31, C32, C34, C35, C36, C37, C41, C42, C43, C68, C73, C74, C75, C76, C78, C79, C80, C89, C90, C91, C92	CAP CER 10uF 50V 10% X7R SMD 1210	KYOCERA AVX Samsung Electro-Mechanics TDK Corporation Yageo	CM32X7R106K50AT CL32B106KBJNNWE C3225X7R1H106K250AC CC1210KKX7R9BB106
C33, C77	CAP ALU 100uF 50V 20% 0.34R SMD F AEC-Q200	Panasonic Electronic Components	EEE-FN1H101L
C44, C47, C62, C63, C67, C81	CAP CER 1uF 16V 10% X7R SMD 0603	D3_AVX Corporation Samsung Electro-Mechanics TDK Corporation Taiyo Yuden Würth Elektronik Yageo	0603YC105KAT2A CL10B105K08VPNC C1608X7R1C105K EMK107B7105KA-T 885012206052 CC0603KRX7R7BB105
C51, C52	CAP CER 10uF 25V 10% X5R SMD 0805	TDK Corporation KEMET KYOCERA AVX Samsung Electro-Mechanics Yageo Murata	C2012X5R1E106K125AB C0805C106K3PAC7800 08053D106KAT4A CL21A106KAYNNNG CC0805KKX5R8BB106 GRM21BR61E106KA73L
C93, C94	CAP CER 10uF 10V 20% X5R SMD 0603	Murata Electronics Samsung Electro-Mechanics Yageo Murata Samsung Electro-Mechanics	GRM188R61A106MAALD CL10A106MP8NNNC CC0603MRX5R6BB106 GRM188R61A106KE69D CL10A106MP8NNNC
C97, C98	CAP CER 0.1uF 16V 10% X7R SMD 0603 AEC-Q200	KYOCERA AVX Samsung Electro-Mechanics	0603YC104K4T4A CL10B104K08WPNPNC
D1, D5	DIO RECTARR BAV99 1.25V 150mA 75V SOT-323	Diodes Incorporated	BAV99W-7-F
D2	DIO ZNR BZT585B4V7T-7 4.7V 350mW SMD SOD-523	Diodes Incorporated	BZT585B4V7T-7
D3	DIO RECT 1N4148WS 1.25V 150mA 75V SOD-323	Diodes Incorporated	1N4148WS-7-F
D4	DIO SCTKY B2100A-13-F 790mV 2A 100V SMD DO-214AC_SMA	Diodes Incorporated	B2100A-13-F
D6	DIO TVS BI-DIR SMAJ26CAQ-13-F 26V 400W SMD DO-214AC_SMA AEC-Q101	Diodes Incorporated	SMAJ26CAQ-13-F
J1, J4	CON USB3.1 TYPE-C FEMALE TH R/A	Würth Electronics	632723300011
J2	CON TERMINAL 5mm 1x2 Female 12-26AWG 18A TH R/A	Phoenix Contact	1935161
J3	CON HDR-2.54 Male 1x8 Gold 5.84MH TH R/A	Sullins Connector Solutions	PBC08SBAN
J5	CON HDR-2.54 Male 1x6 Tin 5.84MH TH VERT	Sullins SHENZHEN JUNHAO ENGINEERING	PEC06SAAN R-211-0611-0021-400
L1	INDUCTOR 0.68uH 48A 20% SMD XAL1010	Coilcraft	XAL1010-681MED
L2, L3	INDUCTOR 4.7uH 24A 20% AEC-Q200 SMD L11.3W10H10	Coilcraft	XAL1010-472MEB
L4	INDUCTOR 22uH 5.6A 20% SMD 6.56x6.36x6.1	Coilcraft	XAL6060-223MEC
LABEL1	LABEL PCBA 18x6mm Datamatrix Assy# / Rev / Serial / Date	ACT Logimark AS MicrochipTechnology Inc Sunrise Paper (M) Sdn Bhd	505462 01000-004967 037268-5
Q1, Q8	TRANS FET N-CH 2N7002-7-F 60V 170mA 370mW SOT-23-3	Diodes Inc	2N7002-7-F
Q2	TRANS FET P-CH IPD50P04P413ATMA2 -40V -50A 0.0126R 58W TO-252-3 AEC-Q100	Infineon Technologies	IPD50P04P413ATMA2
Q3, Q6, Q11, Q13	TRANS FET N-CH BSZ021N04LS6ATMA1 40V 40A 0.0024R 83W TDSO8-8	Infineon Technologies	BSZ021N04LS6ATMA1
Q4, Q5, Q10, Q12	TRANS FET N-CH ISZ034N06LM5ATMA1 60V 112A 0.0034R 83W TDSO8-8	Infineon Technologies	ISZ034N06LM5ATMA1

Q7, Q9	TRANS FET N-CH SISHA14DN-T1-GE3 30V 10A 26.5W PowerPAK 1212-8SH	Vishay Siliconix	SISHA14DN-T1-GE3
R1, R19	RES TKF 300R 1% 1/8W SMD 0805	Panasonic	ERJ-6ENF3000V
R2, R22, R31	RES TKF 12k 1% 1/10W SMD 0603	Yageo	RC0603FR-0712KL
R3, R42, R50	RES TKF 4.7k 1% 1/10W SMD 0603 AEC-Q200	KOA Speer	RK73H1JTTD4701F
		Panasonic	ERJ-3EKF4701V
		Vishay	CRCW06034K70FKEA
R4, R5	RES TF 1.5k 1% 1/8W SMD 0603	Stackpole Electronics Inc	RNCP0603FTD1K50
R6, R46	RES TKF 330R 1% 3/4W SMD 1206 AEC-Q200	Vishay Dale	CRCW1206330RFKEAHP
		Yageo	SR1206FR-7T330RL
R7, R8, R10, R11, R12, R13, R28, R29, R30, R37, R38, R39, R40, R51, R53	RES TKF 0R 1/10W SMD 0603 AEC-Q200	Panasonic Electronic Components	ERJ-3GEY0R00V
		Vishay	CRCW06030000Z0EB
R9, R14, R17, R18, R36, R41, R43, R48	RES TKF 3.9R 1% 1/3W SMD 0603 AEC-Q200	Rohm Semiconductor	SDR03EZPF3R90
R15, R20, R23, R25, R27, R32, R34, R35, R44, R45	RES TKF 10k 1% 1/10W SMD 0603 AEC-Q200	Panasonic Electronic Components	ERJ-3EKF1002V
		Vishay	CRCW060310K0FKEB
		KOA Speer	RK73H1JTTD1002F
R16, R49	RES TF 100R 0.5% 1/16W SMD 0603	SUSUMU	RR0816P-101-D
R21	RES TKF 52.3k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF5232V
		Yageo	RC0603FR-0752K3L
R24, R33	RES TKF 91k 1% 1/10W SMD 0603	Vishay	CRCW060391K0FKEA
R26	RES TKF 84.5k 1% 1/10W SMD 0603	Yageo	RC0603FR-0784K5L
R47	RES TF 2.2k 1% 1/8W SMD 0603	Vishay	MCT06030C2201FP500
RS1, RS2, RS3, RS4	RES MF 0.005R 1% WW SMD 2512	Bourns Inc.	CRE2512-FZ-R005E-3
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17	MISC, TEST POINT MULTI PURPOSE MINI WHITE	Keystone	5002
		FuZhou XiXiang	Test Point-1P-DIP-H4.6-Ø2.5-WHITE
Microchip Parts			
U1	MCHP INTERFACE USB PD CONTROLLER UPD301B VQFN-40	Microchip Technology	UPD301B/KYX
U2, U7	MCHP ANALOG PWM CONTROLLER 300-500kHz MCP19061-E/RTB VQFN-32	Microchip Technology	MCP19061-E/RTB
U3, U6	MCHP INTERFACE USB TYPE-C PORT PROTECT UCS4002 QFN-20 AECQ100	Microchip	UCS4002-E/6N
U4	MCHP ANALOG SWITCHER Buck 2V to 15V MCP16301T-E/CH SOT-23-6	Microchip Technology	MCP16301T-E/CH
U5	MCHP ANALOG LDO ADJ MCP1825T-ADJE/DC SOT-223-5	Microchip	MCP1825T-ADJE/DC
U8	MCHP INTERFACE USB Type C PD PORT CONTROLLER, SPI, DB, QFN-28	Microchip Technology	UPD350BT-I/Q8X
U9	MCHP ANALOG TEMPERATURE SENSOR -40C to +150C MCP9700AT-E/LT SC-70-5	Microchip	MCP9700AT-E/LT
Mechanical Parts			
PAD1, PAD2, PAD3, PAD4	MECH HW RUBBER PAD CYLINDRICAL D7.9 H5.3 BLACK	3M	SJ61A11
Do Not Populate Parts (DNP)			
C87, C88, C95, C96	CAP CER 0.1uF 16V 10% X7R SMD 0603	Taiyo Yuden	EMK107B7104KA-T
		D1_Murata Electronics North America	GCM188R71C104KA37D
		D5_AVX	0603YC104KAT2A
		Samsung Electro-Mechanics	CL10B104K08NNNC
		Taiyo Yuden	EMK107B7104KA-T
		Würth Elektronik	885012206046
R52, R54	RES TKF 0R 1/10W SMD 0603 AEC-Q200	Yageo	CC0603KRX7R7BB104
		Panasonic Electronic Components	ERJ-3GEY0R00V
		Vishav	CRCW06030000Z0EB