



File Name: Pulsiv OSMIUM Front-End Evaluation Board Bill of Materials

Updated: 16th February 2023

Pulsiv P/N	Description	Designator	Qty	MANUF#1	MANUF P/N#1	MANUF#2	MANUF P/N#2
PUL00066	CAP 1206 X7R 10UF 25V 10% -55/+125	C1	1	TAIYO YUDEN	TNKC16B7106KL-TD		
PUL00003	CAP PTH CER XY 1nF 250VAC 20% -20/+125	C10, C11	2	KEMET	C901102MMVDBA7317		
PUL00083	CAP 0402 X7R 100NF 16V 10% -55/+125	C100	1	MURATA	GCML55R71C10KA55D		
PUL00082	CAP 0402 X7R 10NF 16V 10% -55/+125	C102, C109, C110, C1	5	TAIYO YUDEN	EMF105B7103KVHF		
PUL00109	To calculate this component value, please use the Design Calculator.	C103	1	Based on value determined by design calculator		NICHICON	UCY2C820MPD9
PUL00064	CAP 0805 X7R 1U0F 25V 10% -55/+125	C105, C106, C108	3	KEMET	C0805C105K3RECAUTO		
PUL00090	CAP 0402 X7R 2.2NF 50V 10% -55/+125	C113	1	WALSIN	0402B222K500CT	MURATA	GRM155R71H222JA01D
PUL00089	CAP 0402 COG 150PF 50V 5% -55/+125	C114	1	KEMET	C0402C151J5GACTU	WALSIN	0402B151K500CT
PUL00125	CAP 0603 COG 47pF 50V 10% -55/+125	C15	1	YAGEO	CC0603JRNPO9BN470	WALSIN	0603N470J500CT
PUL00085	CAP 1812 X7R 100NF 1KV 10% -55/+125	C2	1	KEMET	C1812X104KDRACU75		
PUL00065	CAP 0805 X7R 4U7F 25V 10% -55/+125	C20, C101, C107	3	YAGEO	CC0805KX7R8BB475	TDK	C2012X7R1E475K125AB
PUL00014	CAP 0603 X7R 100NF 50V 10% -55/+125	C3, C18, C104	3	TDK CORPORATION	CGA3E2X7R1H104K080AA		
PUL00016	CAP 0603 X7R 1NF 50V 10% -55/+125	C4, C5, C14, C16	4	TDK	CGA3E2X7R1H102K080AA		
PUL00126	CAP PTH PP 0.33uF 450V 10% -55/+125	C7	1	EPCCOS	B32672P433AK000	PANASONIC	ECW-FE2W33AP5
PUL00002	CAP PTH PP 0.68uF 305VAC 10% -40/+110	C8	1	EPCCOS	B32922C3684K189	KEMET	R46K136800DPDK
PUL00114	To calculate this component value, please use the Design Calculator.	C9	1	Based on value determined by design calculator		UNI CHEM-CON	EXKG161EL1221ML255
PUL00129	DIO TVS 18V 600W UNIDIRECTIONAL DO214AA	D1	1	VISHAY	5MBJ18D-M3/H		
PUL00037	DIO RECTIFIER 600V 1A SOD-123FL	D102, D106, D108	3	ON SEMI	U51JFA	YANGZHOU	F1M-F1-3000HF
PUL00067	DIO GEN PURP 100V 0.2A SOD323-2 +150	D103, D104	2	VISHAY	BA516WS-E3-08	VISHAY	BA516WS-G3-18
PUL00117	DIO SINGLE 40V 0.3A SOD323 +150	D105	1	ST MICRO	BAT54JFILM	ON SEMI	BAT54HT1G
PUL00093	DIO ZENER 12V 200mW SOD323FL	D109	1	ONSEMI	MM3Z12VC		
PUL00105	DIO RECTIFIER 600V 1ASMB	D11, D12	2	DIODES	ES3J18-1F	TAIWAN SEMI	ES3J18 R5G
PUL00055	DIO SCHOTTKY 30V 200MA SOD123	D15	1	ONSEMI	58AT54T1G	ONSEMI	NSVBAT54HT1G
PUL00040	DIO THYRISTOR SURGE PROTECT BV 120A SMA	D2, D16, D18	3	BOURNS	1TSP4015L1AIR-S		
PUL00030	DIO ZENER 18V 625mW SOD-123	D3	1	NEXPERIA	PD238BGWXX	ONSEMI	MM5Z18ET1G
PUL00106	DIO RECTIFIER 1000V 3A DO-201AV	D5	1	DIOTEC SEMI	UF5404	VISHAY	UF5404-E3/54
PUL00001	FUS PTH MINI 3 15A 250V	F1	1	BEL FUSE	0697A3150-01		
PUL00104	CON 1W SPADE TERMINAL TAB 2.8MM ST	J1	1	TE	735187-2		
PUL00038	CON 1W SPADE TERMINAL TAB 6.3MM ST	J4	1	TE	726386-2		
PUL00006	IND FER 68uH 2A 20% -40/+105	L2	1	WE	2447033		
PUL00042	IND CHOKE 6.8mH@ 10kHz 1A 300V -40/+100	L3	1	SCHAFFNER	RN218-1-7-02-6M8		
PUL00118	To calculate this component value, please use the Design Calculator.	L7, L8	2	Based on value determined by design calculator			
PUL00069	CON 30W MILLI-GRID HDR 2.0mmP RAP TH	PL102	1	MOLEX	877603016		
PUL00034	CON 5W TE 2.54MM W-T-8 TERM BLOCK ST	PL3, PL5	2	TE	282834-5		
PUL00049	CON 2W ST PWR POL 7.92MM PTH	PL4	1	TE	1-1123724-2		
PUL00108	TRN MOSFET N-CH 650V 18A TO220V -40/+150	Q1, Q2	2	INFINEON	IPAN60R180P75XKSA1		
PUL00092	TRN PNP 500V 150MA SOT23 -55/+150	Q100	1	NEXPERIA	P8VHVR050T215		
PUL00050	TRN NPN PNP GEN PURP X2 45V 0.1A SOT23-6	Q101	1	NEXPERIA	BC847BPN.115	NEXPERIA	BC847BPN.125
PUL00076	TRN MOSFET N-CH 600V 9A TO252-3 -40/+150	Q102	1	INFINEON	IPD60R360P75AUMA1		
PUL00101	TRN PNP 45V 500MA SOT23 -55/+150	Q3	1	NEXPERIA	BCR205-215		
PUL00127	TRN NPN 45V 100MA SOT23 -65/+150	Q4, Q5, Q6	3	NEXPERIA	BC847C.215	ONSEMI	BC847CLT1G
PUL00072	RES 0603 TF 100R 1% 0.1W -55/+150	R1, R3, R4, R5, R6, R10	7	STACKPOLE ELECTRONICS INC.	RMCF0603FT100R	BOURNS	CR0603-FX-1000ELF
PUL00079	RES 0402 TF 1K 0.1% 0.062W -55/+155	R100, R102, R103, R1	4	ROHM	5FRD1M2PF1001	WALSIN	WF04P1001F1L
PUL00081	RES 0402 TF 10K 0.1% 0.062W -55/+155	R105, R108, R117, R1	7	VISHAY	CRCW040210K0FKEDC	TE	CRCC0402F10K
PUL00113	To calculate this component value, please use the Design Calculator.	R107	1	Based on value determined by design calculator			
PUL00071	RES 0603 TF 1R0 1% 0.25W -55/+155	R112	1	TE	RC0603FR-071RL		
PUL00080	RES 0402 TF 1M0 1% 0.062W -55/+155	R113, R114, R115, R1	4	VISHAY	RCRW04021M00FKEDC		
PUL00115	RES 0805 TF 0R 0.125W -55/+155	R126	1	YAGEO	RC0805JR-070RL		
PUL00056	VAR TVS 10MM DISC 3.5kV 275VAC	R13	1	TDK EPCOS	B7221052271K101		
PUL00078	RES 0805 TF 499K 1% 0.25W -55/+155	R14, R15, R16, R17, R	12	KOA SPEER	W73H24TDA993F		
PUL00024	RES 0603 TF 1K 0.1% 0.1W -55/+150	R2	1	VISHAY	RCRW06031K00FKEA		
PUL00132	RES 0805 TF 10R 1% 0.125W -55/+155	R21	1	YAGEO	RC0805FR-0710RL	BOURNS	CR0805-FX-10R0ELF
PUL00122	RES 0603 TF 240K 1% 0.1W -55/+155	R23	1	YAGEO	RC0603FR-07240KL	VISHAY	CRCW0603240KFKEA
PUL00123	RES 0603 TF 4K7 1% 0.1W -55/+155	R24, R30	2	YAGEO	RTD603FRE074K7L		
PUL00103	RES 0603 TF 0R 0.1W -55/+155	R25, R28, R124	3	YAGEO	RC0603JR-070RL		
PUL00133	VAR TVS 275VAC 400A 3225	R33	1	EPCCOS	B72650M0271K072		
PUL00124	RES 0603 TF 15K 1% 0.1W -55/+155	R7, R10, R12, R20, R2	7	YAGEO	RC0603FR-0715KL		
PUL00119	RES 0603 TF 0.025R 1% 0.33W -55/+155	R8, R27	2	PANASONIC	ERI-38WFR025V		
PUL00121	RES 0805 TF 2M2 1% 0.125W -55/+155	R9, R11, R22	3	YAGEO	RC0805FR-072M2L	VISHAY	CRCW08052M20FKEA
PUL00057	CON 14W BE LOW PROFILE SK 2.00MM SMT	SK1, SK2	2	SAMTEC	CLT-107-02-G-D-BE	SAMTEC	CLT-107-02-G-D-BE-A
PUL00116	TRN MOSFET PWR DRIVE 2.6A NON-INV -40/+125	U1, U2	2	INFINEON	1ED44173N01BXTSA1		
PUL00031	IC PIC23-116-R1 PIC CONTROLLER 20N-24	U102	1	PLX SV	P59-40-250-Q241		
PUL00051	IC FAN73611 PWR MAN GATE DRIVER 20V/SOP-8	U103	1	ON SEMI	FAN73611MX	INFINEON	IR212715PBF
PUL00091	IC MCP1799T-3302H LDO 3.3V 80mA -40/+150	U104	1	MICROCHIP	MCP1799T-3302H		

Useful links:

[Design Calculator](#)

(This link will automatically download the excel design calculator)

[Datasheet](#)

(This link will automatically download the evaluation board datasheet)