

EEZ DIB AFE1 BOM (r1B5, 2021-05-14)
Project source code at <https://github.com/eez-open/modular-psu>

#						Farnell / Element14				Digi-Key			Mouser		
	Qty	Part name	Package	Reference designator	Code	Part Number	Unit price €	MOQ		Part Number	Unit price €	MOQ	Part Number	Unit price €	MOQ
1	19	100n	0603	C1, C2, C4, C5, C6, C7, C9, C10, C14, C16, C21, C22, C26, C27, C28, C29, C32, C33, C34	2522597	C0603C104K4RAC7081	0,073	10		490-4774-1-ND	0,090	100	80-C0603C104M4R	0,085	100
2	8	1u	0805	C11, C13, C15, C23, C24, C25, C30, C31	2495193	885012207078	0,139	5		1276-1066-1-ND	0,070	10	963-TMK212B7105K G-T	0,050	10
3	1	22u	1206	C17	2320935	MC1210X226K250CT	1,490	1		1276-3373-1-ND	0,369	10	603-CC121KKX7R8B B226	0,777	10
4	2	1n	0603	C2, C10	2627426	MC0603B102K250CT	0,009	10		1276-1018-1-ND	0,026	10	80-C0603C102J5RA C	0,021	10
5	4	10u	1206	C3, C8, C18, C35	3013485	CL21B106KOQNN NE	0,262	10		1276-2872-1-ND	0,207	10	810-CGA4J1X7S1C1 06KA	0,144	1
6	4	BAV199,235	SOT-23	D1, D4, D13, D20	2319137	BAV199,215	0,185	5		1727-6382-1-ND	0,145	10	771-BAV199235	0,146	10
7	16	SA2M-E3/61T	SMA	D2, D3, D5, D6, D7, D8, D9, D10, D11, D12, D14, D15, D16, D17, D18, D19	2335163	SA2M-E3/61T	0,261	10		CSA2M-E3/IGICT-ND	0,223	10	78-CSA2M-E3/H	0,202	10
8	1	SN005-60	1206	F1, F2	3103210	1206L005/60WR	0,771	1		F8129CT-ND	0,460	1	576-1206L005/60WR	0,440	1
9	4	ZH32	THT; 20x5mm fuse holder	F3, F4, F5, F6	-					-			-		
10	2	MCP6004T-I/ST	TSSOP-14	IC1, IC4	-					-			579-MCP6004T-I/ST	0,373	1
11	1	ADS131E04IPAGR	TQFP-64	IC11	3123346	ADS131E04IPAG	13,450	1		296-34885-1-ND	7,560	1	595-ADS131E04IPAG R	8,430	1
12	1	TPS71725DCKR	SC70-5	IC12	2348004	TPS71725DCKR .	0,982	1		296-21525-1-ND	0,890	1	595-TPS71725DCKR	0,889	1
13	1	TPS72325DBVR	SOT-23-5	IC13	3007843	TPS72325DBVR	2,690	1		296-39479-1-ND	2,300	1	595-TPS72325DBVR	2,310	1
14	4	DG212BDY-T1-E3	SOIC-16	IC2, IC5, IC7, IC9	1469429	DG212BDY-T1-E3	1,820	1		DG212BDY-T1-E3CT-ND	1,550	1	781-DG212BDY-T1-E3	1,470	1
15	1	ULN2803ADWR	SOIC-18	IC3	3125103	ULN2803ADWR	1,120	5		296-15777-1-ND	1,090	1	595-ULN2803ADWR	1,090	1
16	2	MCP6001T-I/OT or TLV9001IDBVR	SOT-23-5	IC6, IC8	4974992	MCP6001T-I/OT	0,219	1		MCP6001T-I/OTCT-ND	0,200	1	579-MCP6001T-E/OT	0,203	1
17	2	RT424F05	THT; DPDT Latching relay	ISEL10A_1, ISEL10A_2	3406968	RT424F05	6,450	1		PB2024-ND	6,370	1	655-5-1393243-2	6,380	1
18	2	EE2-5TNU-L	DPDT Latching relay, Gull Wing Lead	ISEL1A_1, ISEL1A_2	2360813	EE2-5TNU-L	1,900	1		399-11021-1-ND	2,110	1	80-EE2-5TNU-L	2,120	1
19	4	DS1025-01-1*2P8BV1-B	THT; 2- pin header, 2 mm	JP1, JP2, JP3, JP4	-					-			-		
20	2	MLZ1608N100LT000	0603	L1, L2	2564062	MLZ1608N100LT000	0,167	10		445-6755-1-ND	0,111	10	810-MLZ1608N100LT000	0,086	10
21	2	BLM18AG102SH1D	0603	L3, L4	3471092	BLM18AG102SH1D	0,032	10		490-7809-1-ND	0,070	10	81-BLM18AG102SH1D	0,051	10
22	4	VOR1142B4	SMD DIP-4	OK1, OK2, OK3, OK4	2889672	VOR1142B4	1,660	1		VOR1142B4-ND	1,420	1	78-VOR1142B4	1,420	1

#	RS Components						TME					Price calculation for 1 set			
	Qty	Part name	Code	Part Number	Unit price €	MOQ	Code / Part Number	Unit price €	MOQ	THT	SMD	Best Supplier	Lowest unit price €	Order Qty	Line Cost €
1	19	100n	264-4630	C0603C104K4R ACTU	0,035	25	CL10B104KA8NNNC	0,098	100		19	RS	0,035 €	19	0,665
2	8	1u	378-665	08052R104K8B B	0,038	25	VJ0805Y105KXXTW1 BC	0,014	100		8	TME	0,014 €	8	0,116
3	1	22u	766-1182	CL32A226KAJN NNE	0,343	10	CL32A226KAJNNNE	0,158	10		1	TME	0,158 €	1	0,158
4	2	1n	135-6565	06031C102KAZ 2A	0,014	100	VJ0603Y102KXACW1 BC	0,010	100		2	Farnell	0,009 €	2	0,018
5	4	10u	184-3969	EMK212BB7106 MG-T	0,233	50	CL21A106KOQNNNG	0,034	100		4	TME	0,034 €	4	0,137
6	4	BAV199,235	751-3437	BAV199DW-7-F	0,232	25	BAV199.215	0,035	20		4	TME	0,035 €	4	0,140
7	16	SA2M-E3/61T	812-9275	SA2M-E3/5AT	0,116	100	SA2M-E3/61T	0,050	50		16	TME	0,050 €	16	0,794
8	1	SN005-60	-				SN005-60	0,075	10		1	TME	0,075 €	1	0,075
9	4	ZH32	-				ZH32	0,228	5	4		TME	0,228 €	4	0,912
10	2	MCP6004T-I/ST	-				-				2	Mouser	0,373 €	2	0,746
11	1	ADS131E04IPAGR	817-5705	ADS131E04IPA G	6,050	1	-				1	RS	6,050 €	1	6,050
12	1	TPS71725DCKR	-				-				1	Mouser	0,889 €	1	0,889
13	1	TPS72325DBVR	-				-				1	Digikey	2,300 €	1	2,300
14	4	DG212BDY-T1-E3	710-4780	DG212BDY-T1- E3	1,630	5	-				4	Mouser	1,470 €	4	5,880
15	1	ULN2803ADWR	646-6311	ULN2803ADW	1,336	1	ULN2803ADWR	0,866	1		1	TME	0,866 €	1	0,866
16	2	MCP6001T-I/OT or TLV9001IDBVR	698-9041	MCP6001T-I/OT	0,230	1	MCP6001T-I/OT	0,254	3		2	Digikey	0,203 €	2	0,406
17	2	RT424F05	164-7553	RT424F05	6,485	1	5-1393243-2	2,500	2	2		TME	2,500 €	2	5,000
18	2	EE2-5TNU-L	870-5517	EE2-5TNU-L	1,987	1	-				2	Farnell	1,900 €	2	3,800
19	4	DS1025-01-1*2P8BV1-B	-				ZL303-02P	0,013	50	4		TME	0,013 €	4	0,051
20	2	MLZ1608N100LT000	-				-				2	Mouser	0,086 €	2	0,172
21	2	BLM18AG102SH1D	839-0803	BLM18AG102S H1D	0,025	100	BLM18AG102SH1D	0,016	50		2	TME	0,016 €	2	0,031
22	4	VOR1142B4	180-7266	VOR1142B4	1,416	5	-				4	RS	1,416 €	4	5,664

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						Part Number	Unit price €	MOQ	Part Number	Unit price €	MOQ	Part Number	Unit price €	MOQ
23	4	CPC3902ZTR	SOT-223	Q1, Q2, Q3, Q4	-				CLA4156-1-ND	0,570	1	849-CPC3902ZTR	0,576	1
24	4	BSS214NH6327XTSA1	SOT-23	Q5, Q6, Q7, Q8	2480650	BSS214NH6327XTSA1	0,408	5	BSS214NH6327XTSA1CT-ND	0,255	10	726-BSS214NH6327	0,224	10
25	4	10R	0805	R1, R18, R53, R54	2447556	MCWR08X10R0FTL	0,009	10	2019-RK73H2ATTD10R0FCT-ND	0,029	10	652-CR0805FX-10R0ELF	0,012	10
26	6	100K	1206	R11, R24, R32, R37, R42, R47	2447551	MCWR08X1003FTL	0,010	10	RMCF0805FT100KCT-ND	0,024	10	71-CRCW0805100KFKEAC	0,040	10
27	4	4M7 0.1%	1206	R12, R13, R25, R26	-				408-2037-1-ND	0,413	10	754-RG3216P-4704B-T1	0,356	10
28	6	100K 0.1%	1206	R14, R17, R27, R30, R40, R50	1717738	ERA8AEB101V	0,482	10	RG32P100KBCT-ND	0,346	10	754-RG3216P-1003-BT5	0,226	10
29	8	200K 0.1%	1206	R15, R16, R28, R29, R38, R39, R48, R49	1841801	ERA8AEB204V	0,468	10	RG32P200KBCT-ND	0,355	10	754-RG3216P-2003-BT5	0,226	10
30	2	330R	0805	R2, R10	2447638	MCWR08X3300FTL	0,007	10	A106061CT-ND	0,038	10	279-CRGCQ0805F330R	0,036	10
31	4	470R	0805	R3, R6, R19, R21	1099798	WCR0805-470RFI	0,019	10	311-470CRCT-ND	0,039	10	71-CRCW0805470RFKEB	0,041	10
32	2	20R	1206, low TCR (max. ±25ppm/°C)	R31, R41	-				311-2930-1-ND	0,202	10	652-CRT1206BY20R0ELF	0,257	10
33	2	GMR100HTBFIR022	2512, low TCR (max. ±25ppm/°C)	R33, R43	-				511-1688-1-ND	1,090	10	755-GMR100HTBFIR022	1,250	1
34	2	1K	0805	R35, R45	1099800	WCR0805-1K0FI	0,019	10	RC0805FR-071KL	0,039	10	603-RC0805FR-071KL	0,015	10
35	2	GMR100HTBFA10L0	2512, low TCR (max. ±25ppm/°C)	R36, R46	2808330	GMR100HTBFA10L0	1,130	5	511-1686-1-ND	1,350	1	755-GMR100HTBFA10L0	1,080	1
36	2	33R 0.1%	1206, low TCR (max. ±25ppm/°C)	R4, R20	-				13-RT1206BRD0733RLCT-ND	0,394	10	603-RT1206BRD0733RL	0,266	10
37	6	10K	0805	R5, R7, R34, R44, R51, R52	9237755	RC0805FR-0710KL	0,022	10	311-10.0KCRCT-ND	0,039	10	603-RC0805FR-0710KL	0,014	10
38	4	49K9	1206	R8, R9, R22, R23	2908458	CR1206-FX-4992ELF	0,040	10	RNCP1206FTD49K9CT-ND	0,068	10	791-MR12X4992FTL	0,013	10
39	2	PESD12VL1BA,115	SOD-323	TVS1, TVS2	8737363	PESD12VL1BA,115	0,365	5	1727-3808-1-ND	0,320	10	771-PESD12VL1BA-T/R	0,296	10
40	1	691322310008	THT, 8-pin 3.81mm terminal block header, male pins	X1	-				732-2093-ND	1,390	1	710-691322310008	1,400	1
41	2	P125-2214A0BS230A1	THT; 28-pin 0.1" board-to-board (Producer: DONG GUAN YLIES PRECISE CONNECTOR CO.,LTD)	X2, X3	-				-			-		
42	1	MMSZ5230BT1G	SOD-123	ZD1	1431272	MMSZ5230BT1G	0,177	10	MMSZ5230BT1GOSCT-ND	0,148	10	863-MMSZ5230BT1G	0,170	10

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	Qty	Part name	Code	Part Number	Unit price €	MOQ	Code / Part Number	Unit price €	MOQ	THT	SMD	Best Supplier	Lowest unit price €	Order Qty	Line Cost €
23	4	CPC3902ZTR	-				CPC3902ZTR	0,310	5		4	TME	0,310 €	4	1,240
24	4	BSS214NH6327XTSA1	827-0058	BSS214NH6327XTSA1	0,107	100	BSS214NH6327XTSA1	0,070	10		4	TME	0,070 €	4	0,280
25	4	10R	740-8987	CR0805-FX-10R0ELF	0,065	50	0805S8J0111T5E	0,013	100		4	Farnell	0,009 €	4	0,034
26	6	100K	223-0691	CRG0805F100K	0,028	50	0805S8F1003T5E	0,015	100		6	Farnell	0,010 €	6	0,058
27	4	4M7 0.1%	-				-				4	Mouser	0,356 €	4	1,424
28	6	100K 0.1%	669-6626	ERA8AEB104V	0,608	5	AR06BTCV1003	0,127	10		6	TME	0,127 €	6	0,759
29	8	200K 0.1%	828-0715	ERA8AEB204V	0,608	5	AR06BTCV2003	0,127	10		8	TME	0,127 €	8	1,013
30	2	330R	223-0354	CRG0805F330R	0,040	50	0805S8F3300T5E	0,014	100		2	Farnell	0,007 €	2	0,014
31	4	470R	223-0376	CRG0805F470R	0,021	50	RC0805FR-07470R	0,022	100		4	Farnell	0,019 €	4	0,076
32	2	20R	-				-				2	Digikey	0,202 €	2	0,404
33	2	GMR100HTBFIR022	-				-				2	Digikey	1,090 €	2	2,180
34	2	1K	223-0427	CRG0805F1K0	0,017	50	RC0805FR-071K	0,022	100		2	Mouser	0,015 €	2	0,030
35	2	GMR100HTBFA10L0	-				-				2	Mouser	1,080 €	2	2,160
36	2	33R 0.1%									2	Mouser	0,266 €	2	0,532
37	6	10K	125-1189	CRG0805F10K	0,002	100	RC0805FR-0710K	0,022	100		6	RS	0,002 €	6	0,012
38	4	49K9	679-2174	CRCW120649K9FKEA	0,039	50	RC1206FR-0749K9	0,029	100		4	Mouser	0,013 €	4	0,052
39	2	PESD12VL1BA,115	508-024	PESD12VL1BA,115	0,294	20	PESD12VL1BA.115	0,126	5		2	TME	0,126 €	2	0,252
40	1	691322310008	824-6661	691322310008	1,470	1	15EDGRC3.81-08P	0,662	1	1		TME	0,662 €	1	0,662
41	2	P125-2214A0BS230A1	-				-				2				-
42	1	MMSZ5230BT1G	545-3033	MMSZ5230BT1G	0,173	20	MMSZ5230BT1G	0,033	25		1	TME	0,033 €	1	0,033

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						Part Number	Unit price €	MOQ	Part Number	Unit price €	MOQ	Part Number	Unit price €	MOQ

Not installed														
1	N.C.		1206	C12										
4	N.C.		1206	C19										
1	N.C.		THT	C20										
1	N.C.			IC10										
5	N.C.		R-EU_R0805	R4, R9, R40, R41, R42										
1	N.C.			S1										
1	N.C.			XO1										

Related parts and accessories														
2	ZKSS-10A													
2	ZKSS-1.25A													
4	JUMPER-2.0/R			JP1, JP2, JP3, JP4	-				-			-		
1	691304100008	8-pin 3.81mm push-in connector			-				277-12329-ND	7,410	1	651-1748037	7,440	1

Custom made components														
1	PCB 4-layer 141.5 x 68.5 mm	JLCPCB.com		-										

All prices are net prices (without VAT)

Please note that BOM does not contain ordering number for parts on reels or that which includes re-reeling fee. Take also into account that total cost is higher because min. quantity (MOQ) for many parts is larger then what is needed for single unit.

All resistors are 1% 0805 and all capacitors are X7R 0805 if not otherwise specified.

For small quantities, consider ordering specialized chips at store.ti.com for better prices and availability.

#	RS Components						TME			Price calculation for 1 set					
	Qty	Part name	Code	Part Number	Unit price €	MOQ	Code / Part Number	Unit price €	MOQ	THT	SMD	Best Supplier	Lowest unit price €	Order Qty	Line Cost €
										13	108				46,08 €
Not installed															
1	N.C.														
4	N.C.														
1	N.C.														
1	N.C.														
5	N.C.														
1	N.C.														
1	N.C.														
Related parts and acces:															
2	ZKSS-10A						ZKSS-10A	0,459	10			TME	0,459 €	2	0,918
2	ZKSS-1.25A						ZKSS-1.25A	0,312	10			TME	0,312 €	2	0,624
4	JUMPER-2.0/R	-					JUMPER-2.0/R	0,044	20			TME	0,044 €	4	0,175
1	691304100008	185-4361	691304100008	8,900	1							Digikey	7,410 €	1	7,410
															9,13 €
Custom made componer															
1	PCB 4-layer 141.5 x 68.5 mm											JLCPCB	8,796 €	1	8,796
															8,80 €
Total															64,01 €