

STEVAL-ISA161V1

Bill of material

Table 1. 65 W motherboard BOM

Ref.	Part type / Value	Description	Manufacturer
C1	2N2	Y1 - safety cap. CD12-E2GA222MYGS	TDK
C2	120 μ F - 400 V	400 V - aluminum elcap - KXW series - 105°C	Rubycon
C3	330 pF - 2 kV	2 kV - disc cericap	Murata
C4	100N	X2 - flm cap - B32922C3104M000	EPCOS
C5	2N2	Y1 - safety cap. CD12-E2GA222MYGS	TDK
C6	150N	X2 - flm cap - B32922C3154M000	EPCOS
C7	1000 μ - 25 V	25 V - aluminum elcap - ZL series - 105°C	Rubycon
C8	1000 μ - 25 V	25 V - aluminum elcap - ZL series - 105°C	Rubycon
C9	47 μ - 50 V	50 V - aluminum elcap - YXF series - 105°C	Rubycon
C10	100 μ - 25 V	25 V - aluminum elcap - YXF series - 105°C	Rubycon
C11	47 μ - 50 V	50 V - aluminum elcap - YXF series - 105°C	Rubycon
C12	1N0	200 V cericap - general purpose - 1206	AVX
C13	22N	50 V cericap - general purpose - 0805	AVX
C14	2N2	50 V cericap - general purpose - 0805	AVX
C16	2N2	50 V cericap - general purpose - 0805	AVX
C17	100N	50 V cericap - general purpose - 0805	AVX
C18	100N	50 V cericap - general purpose - 1206	AVX
C19	100N	50 V cericap - general purpose - 1206	AVX
C20	330 pF	50 V cericap - general purpose - 1206	AVX
C22	330 pF	50 V cericap - general purpose - 1206	AVX
C27	100 N	50 V cericap - general purpose - 0805	AVX
C28	10 N	50 V cericap - general purpose - 1206	AVX
C30	47 pF	50V cericap - general purpose - 1206	AVX
D1	GBU4J	Single phase bridge rectifier	Vishay
D2	STPS20H100CFP	High voltage power Schottky rectifier	STMicroelectronics
D3	STPS20H100CFP	High voltage power Schottky rectifier	STMicroelectronics
D4	1.5KE300A	Transil	STMicroelectronics
D5	S1M	High voltage rectifier	Vishay
D6	BZV55-B18	Zener diode	NXP
D7	S07M	High voltage diode	Vishay
D9	NM	Fast switching diode	-
D10	LL4148	Fast switching diode	Vishay

Table 1. 65 W motherboard BOM (continued)

Ref.	Part type / Value	Description	Manufacturer
D12	STTH102A	Fast switching diode	STMicroelectronics
D13	S07M	High voltage diode	Vishay
D14	LL4148	Fast switching diode	Vishay
F1	392/TE05 - 4A	Fuse T4A - time delay	Littelfuse
HS1	HEAT-SINK	Bridge rectifier and MOSFET heatsink	-
HS2	HEAT-SINK	Output rectifiers heatsink	-
J1	MKDS 1.5/ 2-5.08	PCB term. block, screw conn., p5.08 mm - 2 W.	Phoenix Contact
J2	MKDS 1.5/ 2-3.81	PCB term. block, screw conn., p3.81 mm - 2 W.	Phoenix Contact
JP2	SHORTED	SMD standard film res - jumper - 1206	-
JPX1	SHORTED	Wire jumper	-
JPX2	SHORTED	Wire jumper	-
JPX3	SHORTED	Wire jumper	-
JPX4	SHORTED	Wire jumper	-
JPX5	SHORTED	Wire jumper	-
L1	HF2826-203Y1R5-T01	Input EMI filter	TDK
L2	1071.0083	1.1 μ H-5 A - radial inductor	Magnetica
Q1	STF7NM80	N-channel power MOSFET	STMicroelectronics
Q2	BC847C	NPN small signal BJT	Zetex
Q3	BC847C	NPN small signal BJT	Zetex
Q4	BC847C	NPN small signal BJT	Zetex
Q6	NM	PNP small signal BJT	-
R2	NTC 1R-S237	NTC resistor P/N B57237S0109M000	EPCOS
R3	M57703	Thermistor - B57703M103G	EPCOS
R4	2K2	SMD standard film res - 1/4W - 5% - 250ppm/ $^{\circ}$ C	Vishay
R5	100K	SMD standard film res - 1/8W - 5% - 250ppm/ $^{\circ}$ C	Vishay
R6	3R9	SMD standard film res - 1/4W - 5% - 250ppm/ $^{\circ}$ C	Vishay
R7	3R9	SMD standard film res - 1/4W - 5% - 250ppm/ $^{\circ}$ C	Vishay
R8	4K7	SMD standard film res - 1/8W - 5% - 250ppm/ $^{\circ}$ C	Vishay
R9	1K8	SMD standard film res - 1/8W - 5% - 250ppm/ $^{\circ}$ C	Vishay
R10	3M9	SMD standard film res - 1/4W - 1% - 100ppm/ $^{\circ}$ C	Vishay
R11	91K	SMD standard film res - 1/4W - 1% - 100ppm/ $^{\circ}$ C	Vishay
R12	3M9	SMD standard film res - 1/4W - 1% - 100ppm/ $^{\circ}$ C	Vishay
R13	NM	SMD standard film res - 1/8W - 5% - 250ppm/ $^{\circ}$ C	-
R14	33R	SMD standard film res - 1/8W - 5% - 250ppm/ $^{\circ}$ C	Vishay
R15	100K	SMD standard film res - 1/8W - 5% - 250ppm/ $^{\circ}$ C	Vishay

Table 1. 65 W motherboard BOM (continued)

Ref.	Part type / Value	Description	Manufacturer
R16	0R33	MSR1 SMD film res - 1W - 5% - 250ppm/°C	Meggit
R17	470R	SMD standard film res - 1/4W - 5% - 250ppm/°C	Vishay
R19	2K7	SMD standard film res - 1/4W - 1% - 100ppm/°C	Vishay
R20	680K	SMD standard film res - 1/4W - 1% - 100ppm/°C	Vishay
R21	180K	SMD standard film res - 1/4W - 1% - 100ppm/°C	Vishay
R22	NM	SMD standard film res - 1/4W - 5% - 250ppm/°C	-
R23	12K	SMD standard film res - 1/8W - 1% - 100ppm/°C	Vishay
R24	6R8	SMD standard film res - 1/4W - 5% - 250ppm/°C	Vishay
R26	15K	SMD standard film res - 1/4W - 5% - 250ppm/°C	Vishay
R28	1K0	SMD standard film res - 1/8W - 5% - 250ppm/°C	Vishay
R31	0R008	MSR1 SMD FILM RES - 1W - 5% - 250ppm/°C	Meggit
R32	12K	SMD standard film res - 1/8W - 5% - 250ppm/°C	Vishay
R34	NM	SMD standard film res - 1/4W - 1% - 100ppm/°C	-
R35	39K	SMD standard film res - 1/4W - 5% - 250ppm/°C	Vishay
R39	NM	SMD standard film res - 1/8W - 1% - 100ppm/°C	-
R40	100K	SMD standard film res - 1/4W - 5% - 250ppm/°C	Vishay
R41	NM	SMD standard film res - 1/8W - 5% - 250ppm/°C	Vishay
R42	1K	SMD standard film res - 1/4W - 5% - 250ppm/°C	Vishay
R48	NM	SMD standard film res - 1/4W - 1% - 100ppm/°C	-
T1	1972.0005	Power transformer	Magnetica
U1	SFH617A-4	Optocoupler	Infineon
U2	L6566B	Multi-mode PWM controller	STMicroelectronics

Table 2. SEA01 daughterboard BOM

Ref.	Part type / value	Description	Manufacturer
C6	470N	50 V cericap - X7R general purpose	AVX
C7	100N	50 V cericap - X7R general purpose	AVX
C8	2N2	50 V cericap - X7R general purpose	AVX
D1	1N4148WS	Fast switching diode	Vishay
D2	1N4148WS	Fast switching diode	Vishay
J1		Pin connector	
J2		Pin connector	
J3		Pin connector	
J4		Pin connector	
J5	7-0215079-4	AMP micro match connector	TE connectivity
R1	3K9	SMD standard film res - 1/8W - 5% - 250ppm/°C	Vishay
R3	47K	SMD standard film res - 1/8W - 1% - 100ppm/°C	Vishay
R4	1K0	SMD standard film res - 1/8W - 5% - 250ppm/°C	Vishay
R5	47K	SMD standard film res - 1/8W - 5% - 250ppm/°C	Vishay
R6	22R	SMD standard film res - 1/8W - 5% - 250ppm/°C	Vishay
R7	120K	SMD standard film res - 1/8W - 1% - 100ppm/°C	Vishay
R8	7K5	SMD standard film res - 1/8W - 1% - 100ppm/°C	Vishay
R9	22K	SMD standard film res - 1/8W - 5% - 250ppm/°C	Vishay
U1	SEA01	Digitally trimmable CV/CC controller	STMicroelectronics