

STEVAL-ISA148V1 --- 90 W ADAPTER BOARD USING L6563H & L6599A

Des.	Part Type/ Part Value	Case Style /Package	Description	Supplier	REV. 1.1
C1	470nF	9.0 x 18.0 p.15mm	X2 - MKP FILM CAP - B32922C3474K	EPCOS	
C10	1nF	0805	50V CERCAP - GENERAL PURPOSE	AVX	
C11	2n2F	0805	50V CERCAP - GENERAL PURPOSE	AVX	
C12	1uF	0805	25V CERCAP - GENERAL PURPOSE	AVX	
C13	680nF	1206	25V CERCAP - GENERAL PURPOSE	AVX	
C14	68nF	0805	50V CERCAP - GENERAL PURPOSE	AVX	
C15	47uF	DIA6.3X11 (MM)	50V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	
C16	2n2F	1206	50V CERCAP - GENERAL PURPOSE	AVX	
C17	220pF	0805	50V - 5% - C0G - CERCAP	AVX	
C18	4.7uF	1206	6.3V CERCAP - GENERAL PURPOSE	AVX	MODIF. VALUE
C19	100nF	1206	50V CERCAP - GENERAL PURPOSE	AVX	
C2	2n2F	DWG	Y1 SAFETY CAP. DE1E3KX222M	MURATA	
C20	2n2F	DWG	Y1 SAFETY CAP. DE1E3KX222M	MURATA	
C21	2n2F	DWG	Y1 SAFETY CAP. DE1E3KX222M	MURATA	
C22	220pF	0805	50V CERCAP - GENERAL PURPOSE	AVX	
C23	10nF	0805	50V CERCAP - GENERAL PURPOSE	AVX	
C24	100uF	DIA10X12.5 (MM)	50V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	
C25	330nF	0805	50V CERCAP - GENERAL PURPOSE	AVX	
C26	10uF	DIA6.3X11 (MM)	50V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	
C27	220pF	5x3 MM	500V CERCAP - 5MQ221KAAAA	AVX	
C28	22nF	5x18 p.15 mm	1000V - MKP FILM CAP - B32652A0223K000	EPCOS	FIXED P/N ERROR
C29	470uF	DIA10X20 (MM)	35V ALUMINIUM ELCAP - ZL SERIES - 105°C	RUBYCON	
C3	2n2F	DWG	Y1 SAFETY CAP. DE1E3KX222M	MURATA	
C30	470uF	DIA10X20 (MM)	35V ALUMINIUM ELCAP - ZL SERIES - 105°C	RUBYCON	
C31	100uF	DIA8X11 (MM)	35V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	MODIF. VALUE
C32	100nF	0805	50V CERCAP - GENERAL PURPOSE	AVX	
C33	470pF	0805	50V - 5% - C0G - CERCAP	AVX	
C34	100nF	0805	50V CERCAP - GENERAL PURPOSE	AVX	MODIF. VALUE
C36	1uF	DIA6.3X11 (MM)	50V ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	
C37	10nF	0805	50V CERCAP - GENERAL PURPOSE	AVX	MODIF. VALUE
C39	100nF	0805	50V CERCAP - GENERAL PURPOSE	AVX	
C4	470nF	9.0 x 18.0 p.15mm	X2 - MKP FILM CAP - B32922C3474K	EPCOS	
C40	100nF	1206	50V CERCAP - GENERAL PURPOSE	AVX	
C43	4n7F	1206	50V CERCAP - GENERAL PURPOSE	AVX	
C44	10nF	1206	50V CERCAP - GENERAL PURPOSE	AVX	
C45	220nF	0805	25V CERCAP - GENERAL PURPOSE	AVX	

C46	N.M.	0805	NOT MOUNTED		
C5	470nF	7.0 x 16.0 p. 22.5	400V - FILM CAP - B32673Z5474	EPCOS	
C6	4N7	0805	50V CERCAP - GENERAL PURPOSE	AVX	
C7	100nF	PTH	100V CERCAP - GENERAL PURPOSE	AVX	
C8	10uF	DIA6.3X11 (MM)	ALUMINIUM ELCAP - YXF SERIES - 105°C	RUBYCON	
C9	68uF	Dia. 18X32 mm	450V ALUMINIUM ELCAP - KXG SERIES - 105°C	UNITED CHEMICON	MODIF. VALUE
D1	GBU8J	STYLE GBU	SINGLE PHASE BRIDGE RECTIFIER	VISHAY	
D10	LL4148	MINIMELF SOD-80	HIGH SPEED SIGNAL DIODE	VISHAY	
D11	LL4148	MINIMELF SOD-80	HIGH SPEED SIGNAL DIODE	VISHAY	
D12	BZV55-B27	MINIMELF SOD-80	ZENER DIODE	VISHAY	MODIF. VALUE
D13	LL4148	MINIMELF SOD-80	HIGH SPEED SIGNAL DIODE	VISHAY	MODIF. VALUE
D14	N.M.	MINIMELF SOD-80	NOT MOUNTED		
D15	BZV55-C15	MINIMELF SOD-80	ZENER DIODE	VISHAY	
D16	LL4148	MINIMELF SOD-80	HIGH SPEED SIGNAL DIODE	VISHAY	
D17	N.M.	MINIMELF SOD-80	NOT MOUNTED		
D18	LL4148	MINIMELF SOD-80	HIGH SPEED SIGNAL DIODE	VISHAY	
D19	LL4148	MINIMELF SOD-80	HIGH SPEED SIGNAL DIODE	VISHAY	
D2	LL4148	MINIMELF SOD-80	HIGH SPEED SIGNAL DIODE	VISHAY	
D20	BZV55-C15	MINIMELF SOD-80	ZENER DIODE	VISHAY	
D21	BZV55-C15	MINIMELF SOD-80	ZENER DIODE	VISHAY	
D22	LL4148	MINIMELF SOD-80	FAST SWITCHING DIODE	VISHAY	
D23	STPS30H60CFP	TO-220FP	POWER SCHOTTKY RECTIFIER	ST	
D24	STPS30H60CFP	TO-220FP	POWER SCHOTTKY RECTIFIER	ST	
D3	1N4005	DO-41	GENERAL PURPOSE RECTIFIER	VISHAY	
D4	STTH2L06	DO-41	ULTRAFast HIGH VOLTAGE RECTIFIER	ST	
D5	LL4148	MINIMELF SOD-80	HIGH SPEED SIGNAL DIODE	VISHAY	
D6	LL4148	MINIMELF SOD-80	HIGH SPEED SIGNAL DIODE	VISHAY	
D7	LL4148	MINIMELF SOD-80	HIGH SPEED SIGNAL DIODE	VISHAY	
D8	N.M.	MINIMELF SOD-80	NOT MOUNTED		MODIF. VALUE
D9	STPS1L60A	SMA	POWER SCHOTTKY RECTIFIER	ST	
F1	FUSE T4A	8.5x4 p.5.08mm	FUSE 4A - TIME LAG - 3921400	LITTLEFUSE	
HS1	HEAT-SINK	DWG	HEAT SINK FOR D1, Q1, Q3, Q4		
HS2	HEAT SINK	DWG	HEAT SINK FOR D23, D24		
J1	MKDS 1,5/ 3-5,08	DWG	PCB TERM. BLOCK, SCREW CONN., PITCH 5MM - 3 W.	PHOENIX CONTACT	
J2	MKDS 1,5/ 2-5,08	DWG	PCB TERM. BLOCK, SCREW CONN., PITCH 5MM - 2 W.	PHOENIX CONTACT	
JPX1	Jumper	Wire	BARE COPPER WIRE JUMPER		
JPX2	Jumper	Wire	BARE COPPER WIRE JUMPER		
JPX3	Jumper	Wire	BARE COPPER WIRE JUMPER		
L1	2019.0002		CM INDUCTOR 2x18mH 1.8A	MAGNETICA	
L2	1974.0002	DWG	PFC INDUCTOR - 0.52mH (X08141-01-B)	MAGNETICA	
L3	1071.0083	DWG	1 uH - 5 A INDUCTOR	MAGNETICA	FIXED P/N ERROR

Q1	STF12NM50N	TO-220FP	N-CHANNEL POWER MOSFET	ST	
Q10	BC847C	SOT-23	NPN SMALL SIGNAL BJT	VISHAY	
Q2	BC857C	SOT-23	PNP SMALL SIGNAL BJT	VISHAY	
Q3	STF7NM50N	TO-220FP	N-CHANNEL POWER MOSFET	ST	
Q4	STF7NM50N	TO-220FP	N-CHANNEL POWER MOSFET	ST	
Q5	BC847C	SOT-23	NPN SMALL SIGNAL BJT	VISHAY	
Q6	BC847C	SOT-23	NPN SMALL SIGNAL BJT	VISHAY	
Q7	N.M.	SOT-23	PNP SMALL SIGNAL BJT - NOT USED		
Q9	BC847C	SOT-23	NPN SMALL SIGNAL BJT	VISHAY	
R1	3M3	1206	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	
R10	27K	0805	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	
R11	2M2	1206	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	
R12	2M2	1206	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	
R13	8K2	1206	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	MODIF. VALUE
R14	51K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R15	56K	1206	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	
R16	4K7	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R17	2M2	1206	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	
R18	82K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R19	56K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R2	3M3	1206	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	
R20	0R0	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	MODIF. VALUE
R21	39R	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R22	0R47	PTH	SFR25 AXIAL STAND. FILM RES - 0.4W - 5% - 250ppm/°C	VISHAY	
R23	0R68	PTH	SFR25 AXIAL STAND. FILM RES - 0.4W - 5% - 250ppm/°C	VISHAY	MODIF. VALUE
R24	1Meg	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R25	56R	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R26	1Meg	0805	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	
R27	470R	1206	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	
R28	33K	0805	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	
R29	1K0	1206	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	
R3	1Meg	1206	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	
R30	10R	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R31	33K	0805	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	
R32	47R	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R33	N.M.	0805	NOT MOUNTED		
R34	5K1	1206	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	MODIF. VALUE
R35	180K	0805	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	
R36	N.M.	0805	NOT MOUNTED		
R37	220K	1206	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	
R38	56R	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	

R39	180R	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	MODIF. VALUE
R4	4M7	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	MODIF. VALUE
R40	0R0	1206	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	
R41	100R	PTH	SFR25 AXIAL STAND. FILM RES - 0.4W - 5% - 250ppm/°C	VISHAY	
R42	10K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	MODIF. VALUE
R43	N.M.	0805	NOT MOUNTED		
R44	12K	1206	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	MODIF. VALUE
R45	N.M.	0805	NOT MOUNTED		
R46	100K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R47	1K5	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	MODIF. VALUE
R48	120K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R49	39K	0805	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	
R5	10R	1206	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	
R50	6K2	0805	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	
R51	120K	0805	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	
R52	12K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R53	2K2	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R54	0R0	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R55	2K7	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R56	18K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R57	47R	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R58	100K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R59	100K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R6	NTC 2R5-S237	DWG	NTC RESISTOR P/N B57237S0259M000	EPCOS	
R60	10K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R61	2K7	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	MODIF. VALUE
R62	4K7	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R65	47K	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R66	2K2	1206	SMD STANDARD FILM RES - 1/4W - 5% - 250ppm/°C	VISHAY	
R67	N.M.	0805	NOT MOUNTED		
R68	N.M.	1206	NOT MOUNTED		
R69	4K7	0805	SMD STANDARD FILM RES - 1/8W - 5% - 250ppm/°C	VISHAY	
R7	1Meg	1206	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	
R8	1Meg	1206	SMD STANDARD FILM RES - 1/4W - 1% - 100ppm/°C	VISHAY	
R9	62K	0805	SMD STANDARD FILM RES - 1/8W - 1% - 100ppm/°C	VISHAY	
T1	1860.0032	DWG - ETD34	RESONANT POWER TRANSFORMER	MAGNETICA	FIXED P/N ERROR
U1	L6563H	SO-16	HIGH VOLTAGE START-UP TM PFC CONTROLLER	ST	
U2	L6599AD	SO-16	IMPROVED HV RESONANT CONTROLLER	ST	
U3	SFH617A-4	DIP-4 - 10.16MM	OPTOCOUPLER	INFINEON	MODIF. VALUE
U4	TL431AIZ	TO-92	PROGRAMMABLE SHUNT VOLTAGE REFERENCE	ST	
Z1	PCB REV. 1.0				