



Bill of Materials for the STR-PWRNCV6357-R0-GEVK Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
Vin Vout	2	10A; 4mm; TH; Red; 571-0500-01 ; DELTRON	Red			DELTRON	571-0500-01	Yes	Yes
Utmp	1	Industry Standard Digital Temperature Sensor with 2 wire Interface; SO-8; ON Semiconductor			SO-8	ON Semiconductor	NCT375DR2G	No	Yes
Us	1	NCV8664C; 5V/150mA, 2.0% Very Low Iq, Low Dropout Linear Regulator; DPAK-3; ON Semiconductor			DPAK-3	ON Semiconductor	NCV8664CDT50RKG	No	Yes
Ulin Ulout	2	Current-Shunt Monitors, Voltage Output, Bidirectional Zero-Drift, Low- or High-Side Current Sensing; SO-8; ON Semiconductor			SC-88/ SC70-6/ SOT-363	ON Semiconductor	NCS213RSQT2G	No	Yes
Uee	1	EEPROM Serial 512-Kb I2C; SO-8; ON Semiconductor			SO-8	ON Semiconductor	CAT24C512WI-GT3	No	Yes
U3	1	PCB Footprint for 2 x 2 inch PCB Module						Yes	Yes
U2	1	PCB Footprint for 1 x 1 inch PCB Module						Yes	Yes
U1	1	PCB Footprint for 0.5 x 0.5 inch PCB Module						Yes	Yes
RtrG	1	General Purpose Chip Resistors, 220 Ohm, +/- 1%, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel			603	Yageo	RC0603FR-07220RL	Yes	Yes
Rpus	1	RES SMD 0 OHM JUMPER 0603; Yageo	0R		2512	Yageo	RC2512JK-070RL	Yes	Yes
Rpds	1	51; 1/10W; 1%; 0603; Yageo	51		603	Yageo	RC0603FR-0751RL	Yes	Yes
Rpdlt1 Rpdlt2	2	Chip Resistor, 50 Ohm, +/- 1%, 0.1 W, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel	50		603	Vishay Dale	CRCW060350R0FKEA	Yes	Yes
Rpd0 Rpd1 Rpd2 Rpd3 RpdEN RpdPG Rsc1 Rsd1 Rtmp	9	10k; 1/10W; 1%; 0603; Yageo	10k		603	Yageo	RC0603FR-0710KL	Yes	Yes
Rload1 Rload2 Rload3	3	3R3 1W 5% 2512 (6432 Metric) SMD	3.30 Ohm		2512	Vishay Dale	CRCW25123R30JNEG	Yes	Yes
Riu Rou	2	18 kOhms ± 0.1% 0.1W, 1 / 10W chip resistance 0603 (1608 metric) thin film	18k		603	Yageo	RT0603BRD0718KL	Yes	Yes
Rin Rout	2	RES SMD 0.007 OHM 2W 2512; Yageo	0.007R		2512	Yageo	PE2512FKE7W0R007L	Yes	Yes
Rim Rip Ron Rop	4	4.7; 1/10W; 1%; 0603; Yageo	4R7		603	Yageo	RC0603FR-074R7L	Yes	Yes
Ril Rol	2	RES SMD 2K OHM 0.1% 1 / 10W 0603	2k		603	Yageo	RT0603BRD072KL	Yes	Yes
Rgsp	1	RES SMD 10K OHM 1% 1/4W 1206			1206	Samsung Electro-Mechanics	RC3216F103CS	Yes	Yes
ReuG	1	Chip Resistor, 1.2 KOhm, +/- 5%, 0.1 W, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel			603	Yageo	RC0603JR-071K2L	Yes	Yes
Ren2	1	Chip Resistor, 10 KOhm, +/- 1%, 0.1 W, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel			603	Yageo	RC0603FR-0710KL	Yes	Yes
Ren1	1	Chip Resistor, 4.7 KOhm, +/- 1%, 0.1 W, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel			603	Yageo	RC0603FR-074K7L	Yes	Yes
RdG	1	Chip Resistor, 100 KOhm, +/- 1%, 0.1 W, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel			603	Yageo	RC0603FR-07100KL	Yes	Yes
QL	1	Single N-Channel Logic Level Power MOSFET, 30 V, 230 A, 1.15 mΩ			DFN-5-488AA	On Semiconductor	NTMFS4C302NT1G	No	Yes
Qenpmos Qrp	2	P-Channel Power MOSFET, -40 V, -70 A, 10.4 mOhm, Single, 3-Pin ATPAK, Pb-Free, Tape and Reel			DPAK (Single Gauge) / A	On Semiconductor	ATP108-TL-H	No	Yes
Qen	1	Amplifier Transistor, NPN Silicon, 3-Pin TO-92, Bulk Box				On Semiconductor	BC546BTF	No	Yes
LOAD TRANSIENT SYNC	2	SMB JACK STR; 50 OHM; TH; 1-1337482-0			SMB	TE Connectivity	1-1337482-0	Yes	Yes
JStrata	1	THT Angled Socket Header WR-PHD, Pitch 2.54 mm, Dual Row, 16 pins				WUERTH ELECTRONIC	Wuerth_613016243121	Yes	Yes
Jin Jout	2	Large Screw Terminal, TERM BLK 2P SIDE ENT 5.08MM PCB				On Shore Technology Inc.	OSTTC022162	Yes	Yes
J8 J9 J10 J11 J12 J13 J14 J15 J16 J17	10	TestPoint; 1.6mm; TH; Keystone 5010	5010			Keystone Electronics	5010	Yes	Yes
J4 J5 J6 J7	4	TestPoint; 2.37mm; TH; CAMBION 160-1026-02-01-00 TERMINAL				CAMBION	160-1026-02-01-00, [NoValue]	Yes	Yes
GND_in GND_out	2	10A; 4mm; TH; Black; 571-0100-01 ; DELTRON	Black			DELTRON	571-0100-01	Yes	Yes
EN EN/IO2 IO0 IO1 IO2 IO3 PG PG/IO3 Vaux	9	Board-To-Board Connector; Header; 36; 22-28-4360	3 POS			Würth electronics	Wuerth_61300311121	Yes	Yes

Dz	1	36V, 3 W Zener Voltage Regulator, 2-Pin SMB, Pb-Free, Tape and Reel		SMB-2-403A-03_H	On Semiconductor	SZ1SMB5938BT3G	No	Yes
DpzL	1	Zener Voltage Regulator, 225 mW, 3-Pin SOT-23, Pb-Free, Tape and Reel		SOT-23-3-318-08			Yes	Yes
Dpz	1	Zener Voltage Regulator, 500 mW, 2-Pin SOD-123, Pb-Free, Tape and Reel		SOD-123-2-425-04	On Semiconductor		No	Yes
Dii Div Doi Dov	4	MMSZ52xxxT1G; 3.0V/0.5W; SOD-123; ON Semiconductor		SOD-123	ON Semiconductor	MMSZ5225BT1G	No	Yes
Csi Cso	2	0.1uF; 50V; X7R; 10%; 0603; GRM188R70J474KA01D; Murata	0.1u	603	Murata	GCJ188R71H104KA12D	Yes	Yes
Cout2	1	4.7uF; 10V; X7R; 10%; 0805; GCM21BR71C475KA73L; Murata	4.7u	805	Murata	GCM21BR71C475KA73L	Yes	Yes
Cout1	1	22uF; 10V; X7R; 10%; 1206; GCM31CR71A226KE02L; Murata	22u	1206	Murata	GCM31CR71A226KE02L	Yes	Yes
Cout	1	100uF; 63 V; 20%; EEUF1J101B; Panasonic	100u	Rad 5	Panasonic	EEU-FR1J101B	Yes	Yes
CL	1	Current Loop Wire for Oscilloscope Current Probe	0.005	2.5 sqmm Cu Wire	N/A		Yes	Yes
Cin2 Csmem Cstmp	3	1uF; 50V; X7R; 10%; 0805; GCM21BR71H105KA03L; Murata	1u	805	Murata	GCM21BR71H105KA03L	Yes	Yes
Cin1	1	10uF; 25V; X7R; 10%; 1206; GRT31CR71E106KE13; Murata	10u	1206	Murata	GRM32EE70G107ME19L	Yes	Yes
Cin	1	100uF; 63 V; 20%; EEUF1J101B; Panasonic	100u	Rad 5	Panasonic	EEUF1J101B	Yes	Yes
Cfi	1	0.1uF; 50V; X7R; 10%; 0603; GRM188R70J474KA01D; Murata	0.1u	603	Murata	GCJ188R71H104KA12D	Yes	Yes
Cfi Cfo	2	10nF; 50V; X7R; 10%; 0603; GCJ188R71H103KA01D; Murata	10n	603	Murata	GCJ188R71H103KA01D	Yes	Yes
Cen Cgsp	2	Chip Capacitor, 10 nF, +/- 10%, 50 V, -55 to 125 degC, 0603 (1608 Metric), RoHS, Tape and Reel		603	Yageo	CC0603KRX7R9BB103	Yes	Yes
Cin1	1	10uF ±10% 10V Ceramic Capacitor X7R 0805 (2012 Metric)	10u	805	Murata	GCM21BR71A106KE22K	Yes	Yes
Cin2	1	4.7µF ±10% 16V Ceramic Capacitor X7R 0805 (2012 Metric)	4.7u	805	Murata	GCM21BR71C475KA73L	Yes	Yes
Cout1 Cout2 Cout3 Cout4	4	22µF ±10% 10V Ceramic Capacitor X7R 1206 (3216 Metric)	22u	1206	Murata	GCM31CR71A226KE02L	Yes	Yes
L1	1	330nH Shielded Wirewound Inductor 4.6A 23mOhm Max 1008 (2520 Metric)	0.33u	2520	Murata	DFE252012PD-R33M = P2	Yes	Yes
Rpg Rscl Rsda	3	100 kOhms ±1% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Thick Film	100k	603	Yageo	RC0402FR-07100KL	Yes	Yes
U1	1	Automotive, AEC-Q100 Converter, Automotive Voltage Regulator IC 1 Output 14-WDFNW (4x3)		WDFNW14	On Semiconductor	NCV6357MTWATXG	No	Yes