



Bill of Materials for the STR-FAN65004C-GEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1 C47 C48 C50 C51 C52 C54 C56 C59 C62 C67	11	CAP CER 1uF 25V X6S 0402	1uF	25V	0402	Murata	GRM155C81E105KE11	Yes	Yes
C2	1	CAP CER 4.7uF 16V X7S 0603	4.7uF	16V	0603	Murata	GRM188C71C475KE21	Yes	Yes
C3 C4 C25 C26	4	CAP CER 1UF 100V X7S 0805	1uF	100V	0805	Murata	GRM21BC72A105KE01	Yes	Yes
C5 C44 C45 C69 C71 C74 C77 C79 C81	9	CAP CER 1UF 16V X5R 0402	1uF	16V	0402	Murata	GRM155R61C105KA12	Yes	Yes
C6 C8	2	CAP CER 10000PF 16V X7R 0402	10nF	16V	0402	Murata	GRM155R71C103KA01D	Yes	Yes
C7	1	CAP CER 0.033UF 100V X8R 0603	33nF	100V	0603	Murata	GCM188R92A333KA01D	Yes	Yes
C9 C11 C12 C13 C14 C34 C35 C36 C37 C38	10	CAP CER 10UF 50V X7R 1210	10uF	50V	1210	Murata	GRM32ER71H106MA12	Yes	Yes
C10	1	CAP CER 6.8nF 100V X7R 0603	6.8nF	100V	0603	Murata	GCM188R72A682KA37D	Yes	Yes
C15	0	DNI	DNI	DNI	DNI	DNI	DNI	Yes	Yes
C16	1	CAP CER 470PF 100V C0G/NP0 0603	470pF	100V	0603	Murata	GCM1885C2A471JA16D	Yes	Yes
C17	1	CAP CER 0.1UF 100V X7R 0603	0.1uF	100V	0603	Murata	GRM188R72A104KA35D	Yes	Yes
C18 C19 C20 C27 C31 C32 C33 C39	8	CAP CER 10UF 100V X7S 1210	10uF	100V	1210	Murata	GRM32EC72A106KE05L	Yes	Yes
C21 C22 C23	0	DNI	DNI	DNI	DNI	DNI	DNI	Yes	Yes
C24	0	DNI	DNI	DNI	DNI	DNI	DNI	Yes	Yes
C28 C40 C41 C42 C43 C49 C68	7	CAP CER 1UF 10V X7S 0402	1uF	10V	0402	Murata	GCM155C71A105KE38	Yes	Yes
C29 C30	2	CAP Aluminum Poly 20% 220uF 35V	220uF	35V	Radial 10.3x10.3mm	Wurth	875075661008	Yes	Yes
C46	0	DNI	DNI	DNI	DNI			Yes	Yes
C53 C58 C65 C73 C75 C76	6	CAP CER 4.7UF 6.3V X5R 0402	4.7uF	6.3V	0402	Murata	GRM155R60J475ME47D	Yes	Yes
C55 C57	2	CAP CER 12PF 50V C0G/NP0 0402	12pF	50V	0402	Murata	GJM1555C1H120JB01D	Yes	Yes
C60 C78	2	CAP CER 0.1UF 50V X7R 0402	0.1uF	50V	0402	Murata	GCM155R71H104KE02	Yes	Yes
C61 C64 C80	3	CAP CER 10UF 25V X5R 0603	10uF	25V	0603	Murata	GRM188R61E106MA73	Yes	Yes
C63 C66	2	CAP CER 7.5PF 50V C0G/NP0 0402	7.5pF	50V	0402	Murata	GJM1555C1H7R5CB01D	Yes	Yes
C70 C72	2	CAP CER 10000PF 100V X7R 0603	10nF	100V	0603	Murata	GCM188R72A103KA37D	Yes	Yes
D1	1	30 V Schottky Diode	NSR05F30NX	30V	DSN2 0402	ON Semiconductor	NSR05F30NXT5G	No	Yes
D2	1	Blue LED	150060BS75000	3.2V	0603	Wurth Elektronik	150060BS75000	Yes	Yes
D3	1	Red LED	150060RS75000	2V	0603	Wurth Elektronik	150060RS75000	Yes	Yes
D4	1	Green LED	150060GS75000	3.2V	0603	Wurth Elektronik	150060GS75000	Yes	Yes
D5	1	Yellow LED	150060YS75000	2V	0603	Wurth Elektronik	150060YS75000	Yes	Yes
D6 D7	2	Schottky Barrier Diode, 2.0 A, 20 V	NSR20F20NX	20V	DSN2 0603	ON Semiconductor	NSR20F20NX	No	Yes
D8	1	ESD Protection Diodes	SZESD7205	6V	SOT-723	ON Semiconductor	SZESD7205DT5G	No	Yes
FB1	1	Ferrite bead 220 Ohm 0805 1LN	220@100M		0805	Wurth Elektronik	782853221	Yes	Yes
J1	1	Standard 1x4pin 100mil Pitch Header	613 004 111 21		1x4pin 100mil	Wurth Elektronik	613 004 111 21	Yes	Yes

J2 J3 J4 J7 J9 J10 J11 J12 J13	9	Standard 1x2pin 100mil Pitch Header	613 002 111 21		1x2pin 100mil	Würth Elektronik	613 002 111 21	Yes	Yes
J5 J6 J15 J16	4	PLASTIC HEXAGON NUT M3	709940300		M3 Nut	Würth	709940300	Yes	Yes
J8	1	DLT 8 pin connector	IPBS-104-01-T-D-GP		2x4pin 165mil	Samtec	IPBS-104-01-T-D-GP	Yes	Yes
J14	1	Standard 1x3pin 100mil Pitch Header (I2C Specific)	613 003 111 21		1x3pin 100mil	Würth Elektronik	613 003 111 21	Yes	Yes
J17 J18 J25 J26	4	PLASTIC SPACER STUD METRIC THREAD M3 15MM F-M	971150365		M3 15MM Standoff	Würth	971150365	Yes	Yes
J19 J20	2	Red Insulated 4mm socket for banana plugs	571-0500		Red Banana Rec	Deltron	571-0500	Yes	Yes
J21 J22	2	Black Insulated 4mm socket for banana plugs	571-0100		Black Banana Rec	Deltron	571-0100	Yes	Yes
J23	1	Standard Arm Cortex Debug Connector	FTSH-105-01-F-DV-K		2x5pin 50mil Cortex Debug	Samtec	FTSH-105-01-F-DV-K	Yes	Yes
J24	1	Mini USB1/2 Type-B Connector	65100516121		Mini USB1/2 B	Würth Elektronik	65100516121	Yes	Yes
JP1	1	Surface Mount High Current Jumper Chip Resistor	31.6A		0805	Stackpole Electronics	HCJ0805ZT0R00	Yes	Yes
JP2 JP3	0	DNI	DNI		DNI	DNI	DNI	Yes	Yes
JP4	1	Surface Mount High Current Jumper Chip Resistor	6.5A		0402	Stackpole Electronics	HCJ0402ZT0R00	Yes	Yes
L1	1	FIXED IND 22UH 11A 14.6 MOHM SMD	22uH		18.3x18.3mm	Würth Elektronik	74435572200	Yes	Yes
L2	0	DNI	DNI		DNI			Yes	Yes
NT1 NT2 NT3 NT4 NT5	0	DNI	DNI		DNI			Yes	Yes
Q1	1	Automotive Small Signal MOSFET 60V 340mA 2.5 Ohm Single N-Channel SOT-323	2V7002W	60V	SOT-323	ON Semiconductor	2V7002WT1G	No	Yes
Q2	1	Small Signal MOSFET 60V 380mA 1.6 Ohm Single N-Channel SOT-23	2N7002K	60V	SOT-23	ON Semiconductor	2N7002K	No	Yes
Q3 Q4 Q5	3	Small Signal MOSFET 60V 340mA 2.5 Ohm Single N-Channel SOT-323	2N7002W	60V	SOT-323	ON Semiconductor	2N7002WT1G	No	Yes
R1	1	RES SMD 10 OHM 1% 1/16W 0402	10		0402	Vishay Dale	CRCW040210R0FKED	Yes	Yes
R2 R8 R14 R37	4	RES SMD 0 OHM JUMPER 1/16W 0402	0		0402	Vishay Dale	CRCW04020000Z0ED	Yes	Yes
R3 R6	2	RES SMD 1 OHM 1% 1/16W 0402	1		0402	Vishay Dale	CRCW04021R00FKED	Yes	Yes
R4	1	RES SMD 6.81K OHM 1% 1/10W 0603	6.81K		0603	Vishay Dale	CRCW06036K81FKEA	Yes	Yes
R5	0	DNI	DNI		DNI	DNI	DNI	Yes	Yes
R7	1	RES SMD 324 OHM 1% 1/10W 0603	324		0603	Vishay Dale	CRCW0603324RFKEA	Yes	Yes
R9	1	RES SMD 20K OHM 1% 1/10W 0603	20K		0603	Vishay Dale	CRCW060320K0FKEA	Yes	Yes
R10	0	DNI	DNI		DNI	DNI	DNI	Yes	Yes
R11 R21 R24	3	RES SMD 255K OHM 0.1% 1/10W 0603	255K		0603	Panasonic	ERA-3AEB2553V	Yes	Yes
R12 R20	2	RES SMD 11.5K OHM 0.1% 1/10W 0603	11.5K		0603	Panasonic	ERA-3AEB1152V	Yes	Yes
R13	0	DNI	DNI		DNI	DNI	DNI	Yes	Yes
R15 R17	2	RES SMD 6.81K OHM 0.1% 1/16W 0402	6.81K		0402	Panasonic	ERA-2AEB6811X	Yes	Yes
R16 R18	2	RES SMD 5.76K OHM 0.1% 1/16W 0402	5.76K		0402	Panasonic	ERA-2AEB5761X	Yes	Yes
R19	1	RES SMD 29.4K OHM 1% 1/16W 0402	29.4K		0402	Vishay Dale	CRCW040229K4FKED	Yes	Yes
R22 R23	2	RES SMD 1K OHM 1% 1/10W 0603	1K		0603	Vishay Dale	CRCW06031K00FKEA	Yes	Yes
R25	1	RES SMD 10.7K OHM 0.1% 1/10W 0603	10.7K		0603	Panasonic	ERA-3AEB1072V	Yes	Yes
R26 R27	2	RES 0.002 OHM 1% 5W 2512	0.002		2512	Vishay Dale	WSLF25122L000FEA	Yes	Yes
R28 R30 R31 R33	4	RES SMD 1M OHM 1% 1/16W 0402	1M		0402	Vishay Dale	CRCW04021M00FKED	Yes	Yes
R29	1	RES SMD 2.21K OHM 1% 1/10W 0603	2.21K		0603	Vishay Dale	CRCW06032K21FKEA	Yes	Yes
R32	1	RES SMD 523 OHM 1% 1/10W 0603	523		0603	Vishay Dale	CRCW0603523RFKEA	Yes	Yes
R34	1	RES SMD 60.4K OHM 1% 1/10W 0603	60.4K		0603	Vishay Dale	CRCW060360K4FKEA	Yes	Yes
R35 R38 R42 R44 R45 R46 R47 R48 R49 R50 R51 R56 R59 R62	14	RES SMD 10K OHM 1% 1/16W 0402	10K		0402	Vishay Dale	CRCW040210K0FKED	Yes	Yes
R36	1	RES SMD 35.7K OHM 1% 1/10W 0603	35.7K		0603	Vishay Dale	CRCW060335K7FKEA	Yes	Yes
R39	1	RES SMD 332 OHM 1% 1/10W 0603	332		0603	Vishay Dale	CRCW0603332RFKEA	Yes	Yes
R40	1	RES SMD 3.09K OHM 1% 1/16W 0402	3.09K		0402	Vishay Dale	CRCW04023K09FKED	Yes	Yes
R41	1	RES SMD 100K OHM 1% 1/16W 0402	100K		0402	Vishay Dale	CRCW0402100KFKED	Yes	Yes
R43	1	RES SMD 499 OHM 1% 1/4W 1206	499		1206	Vishay Dale	CRCW1206499RFKEA	Yes	Yes
R52 R53 R54 R55	4	RES SMD 4.75 OHM 1% 1/10W 0603	4.75		0603	Vishay Dale	CRCW06034R75FKEA	Yes	Yes
R57	1	RES SMD 4.99K OHM 1% 1/16W 0402	4.99K		0402	Vishay Dale	CRCW04024K99FKED	Yes	Yes
R58	1	RES SMD 9.31K OHM 1% 1/16W 0402	9.31K		0402	Vishay Dale	CRCW04029K31FKED	Yes	Yes

R60	1	RES SMD 681 OHM 1% 1/16W 040	681		0402	Vishay Dale	CRCW0402681RFKED	Yes	Yes
R61 R64	2	RES SMD 100 OHM 1% 1/16W 040	100		0402	Vishay Dale	CRCW0402100RFKED	Yes	Yes
R63	1	RES SMD 2.32K OHM 1% 1/16W 040	2.32K		0402	Vishay Dale	CRCW04022K32FKED	Yes	Yes
R65	1	RES SMD 100 OHM 1% 1/10W 060	100		0603	Vishay Dale	CRCW0603100RFKEA	Yes	Yes
SW1	1	WITCH TACTILE SPST-NO 0.05A 1	434153017835	12V	MOM1 SMD	Wurth Elektronik	434153017835	Yes	Yes
TP10 TP12 TP13 TP15 TP16 TP17 TP19 TP21 TP22 TP23 TP25 TP2	0	DNI	DNI		DNI			Yes	Yes
TP11 TP14 TP18	0	DNI	DNI		DNI			Yes	Yes
TP20 TP24 TP29 TP30 TP31 TP32	6	PC TEST POINT COMPACT	5016		Test Loop	Keystone	5016	Yes	Yes
TP34 TP36 TP38 TP40 TP42	0	DNI	DNI		DNI			Yes	Yes
U1 U9 U10	3	SPDT 10hm Ron Digital Switch	NLAS4157		SOT-363	ON Semiconductor	NLAS4157	No	Yes
U2	1	65V, 6A Voltage Mode Sync PWM	FAN65004C		PQFN35 6x6	ON Semiconductor	FAN65004C	No	Yes
U3	1	Temperature Sensor with 2-wire In	NCT375		DFN8 2x2mm	ON Semiconductor	NCT375MNR2G	No	Yes
U4	1	Power, Zero-Drift Operational Amp	NCS333A		SOT23-5	ON Semiconductor	NCS333ASN2T1G	No	Yes
U5	1	Potentiometer (POT), 256-Tap, I2C Com	CAT5171		SOT23-8	ON Semiconductor	CAT5171TBI-00GT3	No	Yes
U6	1	Potentiometer (POT), Dual 256-Tap, with I2C	MAX5419L		TDFN8	Maxim	MAX5419LETA+	Yes	Yes
U7	1	20Mb/s Dual-Supply Level Transl	NLSX4401		UDFN6	ON Semiconductor	NLSX4401MU1TCG	No	Yes
U8	1	20Mb/s Dual-Supply Level Transl	NLSX4402		UDFN8	ON Semiconductor	NLSX4402FMUTCG	No	Yes
U11	1	M32 Giant Gecko 32-bit Microcontr	EFM32GG380F1024		QFP100 14x14	Silicon Labs	FM32GG380F1024G-E-QFP100	Yes	Yes
U12	1	Charge Pump Regulated 1Mhz DC	FAN5602	5V	MLP-8 3x3	ON Semiconductor	FAN5602MP5X	No	Yes
U13 U14	2	, Voltage Output, Bi-Directional Zer	NCS214R		SC-70-6	ON Semiconductor	NCS214RSQT2G	No	Yes
U15	1	regulator, LDO, Ultra Low Noise, Ultra	NCP705	3.3V	WDFN6	ON Semiconductor	NCP705MT33TCG	No	Yes
U16	1	USB to BASIC UART IC	FT230X		QFN16 4x4	FTDI	FT230XQ-R	Yes	Yes
Y1	1	32.768 kHz 12.5 pF +/-20 PPM -4	32.768 kHz		2 pin w/ shell	Micro Crystal	1R-32.768kHz-12.5pF-20PPM-T/	Yes	Yes
Y2	1	CRYSTAL 48.0000MHZ 8PF SMD	48MHz		5x3.2mm	NDK	K5032GA-48.000000MHZ-LN-CE	Yes	Yes
Y2	1	CRYSTAL 48.0000MHZ 8PF SMD	48MHz		5x3.2mm	NDK	K5032GA-48.000000MHZ-LN-CE	Yes	Yes