



Bill of Materials – H4 EtherCAT 6-Port Module - REV 1.0

Part Number	Device	Description	Value	Package	QTY
IC					
U1	LT8619IMSE#PBF	LT8619 - 60V, 1.2A Synchronous Monolithic Buck Regulator with 6µA Quiescent Current		SOP50P490X110-17N	1
U2, U7, U9, U14	24FC512-I/MF	EEPROM Serial-2Wire 512K-bit 64K x 8 1.8V/2.5V/3.3V/5V 8-Pin DFN-S EP Tube		DFNS-MF8	4
U3, U10, U13, U15	SN74LVC2G06DBVR	Buffer/Driver 2-CH Inverting Open Drain CMOS 6-Pin SOT-23 T/R		FP-DBV0006A-IPC_C	4
U4	MCP1827-3302E/ET	MCP1827-3302E/ET; LDO Voltage Regulator; 1.5A; 3.3V +/-2%; 2.3 to 6Vin; 5-Pin D2PAK		5-DDPAK _Model2	1
U5, U6, U11, U12	LAN9254-I/JRX	2/3-PORT Ethercat Slave Controller With 32 Digios With Integrated Ethernet Phys		QFP50P1400X1400X120-81N	4
U8	74AHC1G14GW,125	74AHC1G14GW/UMT5/REELR//		NXP-SOT353-1_L_TSSOP5	1
XTAL & OSCILLATORS					
X4, X5, X7, X10	XRCGB25M000F3A00R0	Crystal 25MHz ±30ppm (Tol) ±35ppm (Stability) 6pF 1000hm Automotive 4-Pin SMD T/R		FP-XRCGB-MFG	4
MOSFET, IGBT, BJT					
Q1	2N7002A-7	MOSFET N-CH 60V 0.18A SOT23		SOT95P230X110-3N	1
DIODE					
D1, D6, D7, D8	LTST-C195KGJRKT	LED GREEN/RED CLEAR CHIP SMD		Dual_LED	4
D2	MBR10U150-TP	Diode Schottky 150V 10A T0277		T0-277	1
D3, D4	LTST-C193KGKT-5A	LED GREEN CLEAR CHIP SMD		LEDC1608X07N(0603)	2
D9, D10, D11, D12, D13, D14	TVS3V3L4UE6327HTSA1	Trans Voltage Suppressor Diode, 3.3V V(RWM), Unidirectional, 4 Element, Silicon		FP-SOT457-MFG	6
D5	LTST-C193KRKT-5A	LED RED CLEAR CHIP SMD		LEDC1608X07N(0603)	1
CONNECTOR & SWITCHES					
J1	BM05B-GHS-TBT	GH Series 5 Circuits 1.25 mm Pitch Disconnectable Top Entry Shrouded Header		FP-BM05B-GHS-TBT_LF_SN-MFG	1
J2, J3, J4, J5, J6, J7	BM06B-GHS-TBT	CONN HEADER GH TOP 6POS 1.25MM		JST_GH_6POS_STRAI	6
S1	B3U-1100P	Switch Tactile N.O. SPST Round Button Gull Wing 0.05A 12VDC 1.5N SMD Embossed T/R		FP-B3U-1100P-MFSWITCH_G	1



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CAPACITOR					
C1, C3, C4, C50, C105, C110, C124, C125, C128, C129, C130, C144, C149	CL10B104KC8NNNC	CAP CER 0.1UF 100V X7R 0603	0.1uF	CAPC1608X09N(0603)	13
C2	C3216X7S2A225K160AB	CAP CER 2.2UF 100V X7S 1206	2.2uF	CAPC3216X16N(1206)	1
C5, C8, C17, C18, C19, C23, C24, C25, C27, C28, C30, C32, C36, C38, C44, C45, C46, C48, C52, C53, C57, C58, C59, C63, C65, C68, C69, C70, C73, C74, C75, C78, C79, C80, C82, C83, C87, C88, C89, C92, C99, C100, C101, C104, C107, C111, C112, C115, C116, C117, C119, C137, C138, C139, C143, C145, C147, C148, C150, C154, C155, C156	GRM155R71C104JA88D	CAP CER 0.1UF 16V X7R 0402	100nF	CAPC1005X03N(0402)	62
C6, C11, C21, C39, C60, C84, C96, C98, C103, C118, C120, C121, C133, C135, C141, C153, C157, C158	C0603C105K3PACTU	MLCC - SMD/SMT 25volts 1uF X5R 10%	1uF	CAPC1608X09N(0603)	18
C7, C13, C20, C22, C26, C31, C33, C35, C37, C40, C43, C47, C49, C51, C56, C61, C62, C66, C67, C71, C72, C76, C77, C81	C0402C100J5GAC7411	Cap Ceramic 10pF 50V C0G 5% SMD 0402 125°C Punched Paper T/R	10pF	0402_C	24
C10	C1608X5R1A226M080AC	CAP CER 22UF 10V X5R 0603	22uF	CAPC1608X09N(0603)	1
C14	CL10A475KP8NNNC	CAP CER 4.7UF 10V X5R 0603	4.7uF	CAPC1608X09N(0603)	1
C15, C16, C41, C42, C54, C55, C85, C86	GRM0225C1H130GA03L	Cap Ceramic Monolithic 13pF 50VDC 2% SMD Emboss T/R	13pF	0402_C	8
C29, C123, C131, C160	GCM1555C1H471JA16D	CAP CER 470PF 50V C0G/NP0 0402	470pF	CAPC1005X03N(0402)	4
C34, C64, C91, C108, C127, C146	GCM155R71H223KA55D	CAP CER 0.022UF 50V X7R 0402	22nF	CAPC1005X03N(0402)	6
C90, C106, C109, C126, C134, C142	CC1206KKX7RDBB102	CAP CER 1000PF 2KV X7R 1206	1nF	CAPC3216X16N(1206)	6
C93, C97, C113, C122, C132, C136, C151, C159	LMK107BJ105KA-T	Multilayer Ceramic Capacitors (High dielectric type), 10V, 1 uF, ± 10 %, 0603, X5R, RoHS	1uF	0603_C	8
C94	GRM188R61A225KE34D	CAP CER 2.2UF 10V X5R 0603	2.2uF	CAPC1608X09N(0603)	1
C95	GRM319R6YA106KA12D	MLCC - SMD/SMT 1206 10uF 35volts	10uF	CAPC3216X16N(1206)	1
C102, C114, C140, C152	CL31B475KBHNNNE	CAP CER 4.7UF 50V X7R 1206	4.7uF	CAPC3216X16N(1206)	4



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Part Number	Device	Description	Value	Package	QTY
RESISTOR					
R2, R17	RC0603FR-071ML	RES SMD 1M OHM 1% 1/10W 0603	1M	RESC1608X09N(0603)	2
R3, R7, R9, R14, R117, R122, R123, R125, R127, R132, R133, R140, R214, R221, R226, R248	CRGCQ0402F100R	Res Thick Film 0402 100 Ohm 1% 0.063W(1/16W) ±200ppm/C Pad SMD Automotive T/R	100R	0402	16
R4, R21, R42, R53, R63, R69, R71, R77, R83, R89, R90, R115, R121, R135, R146, R173, R174, R180, R184, R187, R190, R197, R198, R217, R269, R271, R273, R274, R301, R302, R305, R306	CRCW040249R9FKED	RES SMD 49.9 OHM 1% 1/16W 0402	49.9	RESC1005X06N(0402)	32
R8, R11, R25, R26, R91, R102, R112, R147, R148, R205, R206, R222, R225, R261, R277, R294, R308, R311	RCS04020000Z0ED	VISHAY - RCS04020000Z0ED - SMD Chip Resistor, 0402 [1005 Metric], 0 ohm, RCS Series, 50 V, Thick Film, 200 mW	0R	0402	18
R10	RC0603JR-070RL	RES SMD 0 OHM JUMPER 1/10W 0603	0R	RESC1608X09N(0603)	1
R12, R52	RC0603FR-07680RL	RES SMD 680 OHM 1% 1/10W 0603	680R	RESC1608X09N(0603)	2
R13, R19, R116, R120, R134, R141, R216, R220	CRCW04022K20JNED	Vishay CRCW Series Thick Film Resistor 0402 Case 2.2k 5% 0.063W 200ppm/K	2k2	0402	8
R15	ERJ-2RKF2002X	RES SMD 20K OHM 1% 1/10W 0402	20k	0402	1
R16	ERJ-2RKF1913X	Thick Film Resistors - SMD 0402 191Kohms 1% Tol	191k	0402	1
R23, R32, R34, R43, R49, R50, R59, R60, R73, R80, R82, R92, R99, R101, R114, R142, R155, R157, R164, R171, R172, R181, R182, R194, R203, R204, R224, R234, R236, R250, R260, R266, R276, R285, R293, R299, R310, R322	RC0402FR-0710KL	RES SMD 10K OHM 1% 1/16W 0402	10k	RESC1005X06N(0402)	38
R24, R44, R57, R62, R65, R66, R70, R76, R88, R103, R145, R165, R178, R185, R188, R189, R192, R199, R218, R244, R323, R324, R325, R326	CRGP0402F22R	Res Thick Film 0402 22 Ohm 1% 0.125W(1/8W) ±200ppm/C Pad SMD T/R	22R	0402	24
R33, R100, R156, R235	RC0402FR-074K75L	RES SMD 4.75K OHM 1% 1/16W 0402	4k75	RESC1005X06N(0402)	4



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R111	RC0603FR-072K2L	RES SMD 2.2K OHM 1% 1/10W 0603	2k2	RESC1608X09N(0603)	1
R129, R144, R213, R246, R251, R252, R318, R319	CRCW0402470RJNED	Vishay CRCW Series Thick Film Resistor 0402 Case 470 5% 0.063W 200ppm/K	470	0402	8
R130, R138, R215, R223, R254, R255, R312, R313	CRCW04021M50JNED	RES SMD 1.5M OHM 5% 1/16W 0402	1M5	0402	8
R253, R262, R270, R275, R278, R286, R288, R295, R300, R304, R309, R314	CRCW040275R0FKEDC	RES SMD 75 OHM 1% 1/16W 0402	75R	RESC1005X06N(0402)	12
R267	CRCW06031K00FKEA	MD 1/10watt 1.0Kohms 1%	1k	RESC1608X09N(0603)	1
R268, R272, R303, R307	RC0402FR-0712K1L	RES SMD 12.1K OHM 1% 1/16W 0402	12k1	RESC1005X06N(0402)	4
R287	RC0603FR-073KL	RES SMD 3K OHM 1% 1/10W 0603	3k	RESC1608X09N(0603)	1
R289	RT0603BRB0710KL	RES SMD 10K OHM 0.1% 1/10W 0603	10k	0603	1
INDUCTOR, TRANSFORMERS & FERRITE BEADS					
FB2, FB3, FB4, FB5, FB6, FB7, FB8, FB9, FB10, FB11, FB12, FB13, FB14, FB15, FB16, FB17, FB18	BKP2125HS600-T	TAIYO YUDEN - BKP2125HS600-T - Ferrite Bead, 0805 [2012 Metric], 60 ohm, 3 A, BKP Series, 0.025 ohm, ± 25%		FP-BKP2125-IPC_C	17
TR1, TR2, TR3, TR4, TR5, TR6	H1102NL	Telecom Transformer 1:1/1:1 16Term. Gull Wing SMD		FP-H1102NL-MODEL2	6
L1	XGL4030-472MEC	Inductor Power Shielded Wirewound 4.7uH 20% 1MHz Composite 6.6A 31.5mOhm DCR Automotive T/R	4u7	FP-XGL4030-472MEC-MFG	1

Total number of components

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