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## Bill of Materials

Datum:	24. Januar 2019
Zeit:	11:23:56
Variant:	None
Bezeichnung:	EMR Z8 UB8820 / UB8840 Dev.
Revision:	Board TB4 0.1

n.g. = optional- nicht geliefert

Quantity	Designator	Footprint	Bemerkung	Value	MFT	Order-code	shotech
20	C200, C201, C202, C203, C206, C208, C212, C217, C300, C301, C302, C303, C309, C310, C311, C312, C412, C413, C414, C415	CAP_Radial_5MM	Keramik-Vielschichtkondensator MLCC – bedrahtet 0.1uF 50volts 10% X7R 5mm LS	100nF/50V	Vishay / BC Components	K104K15X7RF53H5	
2	C204, C205	CAP_Radial_5MM	Keramik-Vielschichtkondensator MLCC – bedrahtet 330pF 630volts C0G +/-5% LS=5mm	330pF	TDK	FG26C0G2J331JNT06	n.g
1	C207	CAPPR2-5x11	Alu-Elektrolytkondensatoren - verdrahtet 50volts 2.2uF 20%	2.2uF/50V	Panasonic	EEU-EB1H2R2S8	
1	C218	CAPPR2-5x11	Alu-Elektrolytkondensatoren - verdrahtet 22uF 16 Volts 10%	22uF/16V	Nichicon	UKL1C220KDDANATA	
1	C304	CAP_Radial_5MM	Keramik-Vielschichtkondensator MLCC – bedrahtet 100pF 100volts C0G 5% Radial	100pF/100V	TDK	FG28C0G2A101JNT06	
1	C305	OS-CON-CAPPR5-6.3x5.5	Organische Polymer-Aluminiumkondensatoren 32volts 22uF ESR 35mohm	22uF/32V	Panasonic	32SEPF22M	
2	C306, C308	CAP_Radial_5MM	Keramik-Vielschichtkondensator MLCC – bedrahtet 390pF 50Vdc C0G 5%	390pF	Murata	RDE5C1H391J0K1H03B	
1	C307	CAPNT05.08-7.37x3.94	Tantalkondensator 10 µF, 16 V, Baureihe 489D, ± 20%, Radial bedrahtet	10uF/16V	VISHAY	489D106X0016C8VE3	
18	D300, D301, D302, D303, D304, D305, D306, D307, D308, D309, D311, D312, D314, D315, D316, D317	DO-35	Dioden (Allzweck, Leistung, Schaltung) Vr/75V Io/150mA T/R	1N4448	Vishay Semiconductors	1N4448TR	
1	D310	DO41	Schottky Dioden & Gleichrichter 1.0A 20V	1N5817-TP	Micro Commercial Components (MCC)	1N5817-TP	
1	D313	DO-35	Zener-Dioden 12 Volt 0.5W 2%	BZX55B12	Vishay	BZX55B12-TR	
10	D400, D401, D402, D403, D404, D405, D406, D407, D504, D505	LED3MM		LED_3mm	frei		
5	FB200, FB201, FB202	FERRIT-10-7.8X2.8		FBA04HA600BB-00	Taiyo Yuden	FBA04HA600BB-00	n.g
1	J200	AD-DIO-FS-06	6-pol. Mini-DIN-Buchse, violett, geschirmt	AD-DIO-FS-06		EB-DIOS M06V	n.g
1	L300	IND_9.5x13.5	Inductor 1mH, 330mA, 2.1Ohm	1mH	Murata Power Solutions	13R105C	
1	P200	918540x324	Wannenstecker, 40-polig, gerade	WSL 40G	frei		n.g
11	PP200, PP201, PP202, PP203, PP300, PP301, PP302, PP303, PP500, PP501, TP201	VERO_Testpoint_Blue	Prüfpunkt				
1	Q200	HC494H_SMX	Quarze 7.3728MHz 20pF 30ppm -40C 85C	7.3728MHz	CTS Electronic Components	ATS073-E	
1	Q300	SC_TO-92	Bipolartransistoren - BJT NPN 45V 800mA HFE/630	BC337-40	On-Semiconductor	BC33740BU	
7	R200, R201, R202, R203, R204, R317, R318	RES10-7.8X2.8	WIDERSTAND, 207, axial, 10k, 1%	10k			
18	R205, R300, R301, R302, R303, R305, R306, R311, R314, R316	RESADV200W55L630D240P	Metallisch, 0207 1/4W 1% 1K lose	1k		RMK001.5	
3	R206, R505, R506	RES10-7.8X2.8	WIDERSTAND, 207, axial, 47k, 1%	47k			
1	R304	RESADV200W55L630D240P	WIDERSTAND, 207, axial, 560R, 1%	560R			
2	R307, R313	RESADV200W55L630D240P	Metallisch, 0207 1/4W 1% 1K5 lose	1.5k		RMK001.5	
1	R308	RES10-7.8X2.8	Metallisch, 0207 1/4W 1% 8k2 lose	8.2k		RMK001.5	
2	R309, R315	RES10-7.8X2.8	Metallisch, 0207 1/4W 1% 1K lose	1k		RMK001.5	
1	R310	T93YA	Carnet Spindeltrimmer 5k	5k	Vishay	T93YA502KT20	
1	R312	RES10-7.8X2.8	WIDERSTAND, 207, axial, 27k, 1%	27k			
9	R406, R407, R408, R409, R410, R411, R412, R413, R507	RES10-7.8X2.8	WIDERSTAND, 207, axial, 680R, 1%	680R			
1	R508	RES10-7.8X2.8	WIDERSTAND, 207, axial, 560R, 1%	560R			
3	RN300, RN400, RN401	SIP240W50P254L2276H508O9P	Widerstandnetzwerke u. -Arrays 9pins 10Kohms Bussed	RN10k	Bourns	4609X-101-103LF	
4	U200, U308, U407, U409	N020	OCIAL D-TYPE TRANSPARENT LATCHES AND EDGE-TRIGGERED FLIP-FLOPS	SN74LS373N	Texas Instruments	SN74LS373N	
1	U201	PDIP24	EPROM 4KbX8	U2732C/2716	DDR	U2732C	
1	U202	CQUIL64	8bit DDR Controller ( Z8 )	UB8840/UB8820		UB8840	
1	U204	PLCC-44	CPLD - komplexe programmierbare Logikbausteine 32 MC 32 IO JTAG ISP 5V 10ns	M4A5-32/32-10JNC	Lattice Semiconductor	M4A5-32/32-10JNC	001006
1	U205	N020	Bustransceiver Octal Bus	SN74LS245N	Texas Instruments	SN74LS245N	
1	U300	PDIP32	SRAM 1Mb, 2.7V-5.5V, 55ns 128K x 8 Asynch SRAM	AS6C1008-55PCN	Alliance Memory	AS6C1008-55PCN	
1	U301	PDIP28	EEPROM 256K 32K x 8 150 ns 4.5V-5.5V	AT28C256-15PU	Microchip Technology / Atmel	AT28C256-15PU	
2	U302, U304	N014	Operationsverstärker Quad 2.7V	MCP604-I/P	Microchip	MCP604-I/P	
1	U303	N028	Analog-in-Digital-Wandler - ADC 8B MPU Compatible ADC	ADC0808CCN	Texas Instruments	ADC0808CCN/NOPB	
1	U305	P008	Operationsverstärker OP Amp	LM301AN	Texas Instruments	LM301AN/NOPB	
1	U306	P008	Zeitgeber & Support-Produkte CMOS	TLC555CP	Texas Instruments	TLC555CP	
1	U307	SC_TO-92	Spannungsreferenzen PRECISION REFERENCE	LM329DZ	Texas Instruments	LM329DZ/NOPB	
3	U309, U406, U408	N0020A	Puffer u. Leitungstreiber Octal Buff/Line Dnvr W/3-State Otp	SN74LS244N	Texas Instruments	SN74LS244NE4	
2	W200, W401	2X8		CON-2x8			
1	W201	JP2	Jumper 3pin	JP-WE/A11	frei		
6	W202, W300, W301, W302, W303, W500	JP2	Jumper 3pin	Jumper 3pin	frei		
6	W203, W204, W205, W400, W501, W502	JP1	Jumper RM2.54, rot	JUMP-RT		JUMP-RT	
1	W207	JP1	Jumper RM2.54, rot	JUMP-RT		JUMP-RT	
1	W208	JP1	Jumper RM2.54, rot	JUMP-RT		JUMP-RT	
6	X200, X300, X400, X401, X402, X403	1X10	Buchsenleiste 2.54mm pitch 10pol.	Buchse 10 pol.	frei		
1	X202	1x1					
1	Y200	P008	Clock-Standardoszillatoren 3.6864MHz 5V , 30ppm	3.6864MHz	Abracon	ACH-3.6864MHZ-EK	n.g
161							