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CoreOne-xCORE200-2.0 Bill of Materials
02 April 2019

Reference	Quantity	Footprint	Value	Description	Size	Tolerance	Type	Voltage	Power	Current
C101 C103 C105 C307 C309 C311 C506 C614 C703 C842	10	SMD-0805	10u	'Ceramic capacitor	'0805	'20%	'X5R	'10V		
C102 C104 C106 C201 C203 C205 C209 C211 C212 C214 C219 C223 C224 C301 C304 C305 C308 C310 C312 C313 C404 C502 C505 C507 C603 C604 C605 C608 C610 C611 C704 C841	32	SMD-0805	100n	'Ceramic capacitor	'0805	'10%	'X7R	'50V		
C107 C215 C401 C402 C405 C406 C701 C702 C705 C706 C707	11	SMD-0805	10n	'Ceramic capacitor	'0805	'10%	'X7R	'50V		
C202 C221		2CAP-TH-D6.3mmP2.5mm	220u	'Aluminium electrolytic capacitor			'2.5mm pitch, 6.3mm diameter	'16V		
C206		1SMD-0805	39p	'Ceramic capacitor	'0805	'10%	'X7R	'50V		
C207 C208 C217 C218 C303 C504 C607 C801 C807 C811 C814 C825	12	SMD-0805	22u	'Ceramic capacitor	'0805	'20%	'X5R	'10V		
C210 C220 C302 C503 C606 C810	6	CAP-TH-D6.3mmP2.5mm	220u	'Low impedance aluminium electrolytic capacitor - Panasonic FC, FR or similar			'2.5mm pitch, 6.3mm diameter	'10V		
C216		1SMD-0805	N/F	'Ceramic capacitor	'0805	'10%	'X7R	'50V		
C204 C213 C222	3	SMD-0805	22u	'Ceramic capacitor	'0805	'20%	'X5R	'25V		
C225 C306 C508 C609 C828	5	SMD-0805	100p	'Ceramic capacitor	'0805	'5%	'C0G	'50V		
C403	1	SMD-0805	2u2	'Ceramic capacitor	'0805	'10%	'X5R	'50V		
C509 C510 C612 C613	4	SMD-0805	33p	'Ceramic capacitor	'0805	'5%	'NP0	'50V		
C601 C602	2	SMD-0805	1u	'Ceramic capacitor	'0805	'10%	'X7R	'10V		
C802 C803 C804 C805 C806	5	SMD-0603	1u	'Ceramic capacitor	'0603	'10%	'X7R	'10V		
C808 C812 C816 C817 C818 C819 C820 C821 C822 C823 C824 C826 C829 C830 C831 C832 C833 C834	18	SMD-0603	100n	'Ceramic capacitor	'0603	'10%	'X7R	'50V		
C809 C813 C827 C835 C836 C837 C838 C839 C840	9	SMD-0603	10n	'Ceramic capacitor	'0603	'10%	'X7R	'50V		
CN301 CN302 CN501	3	CONN_SIL_2_1MM	COAX	'1x2 2.54mm pitch pin header - use with 75Ohm coax						
CN401	1	CONN-USB-B-61729-0010	CONN-USB-B-61729	'USB B Connector - Amphenol 61729 Series - eg: 61729-0010						
CN601	1	CONN-RJ45-ARJC02-111xxxx	ARJC02-111009D	'ARCJ02 series RJ45 connector with LED - ARJC02-111009D						
D201 D202 D601	3	DIODE-SOD-123	1N4148W-7-F	'Text description						
D203	1	DIODE-SMA	B240A	'B240A 2A 40V Schottky Rectifier - SMA (DO-214AC)						
D204	1	SMD-1206	Green LED 1206	'Green LED - SMD - Vf 1.8V to 2.2V	'1206					
D401 D402 D403 D404 D405 D406 D407 D408	8	IC-SOT23	BAV99	'100V 150mA Small Signal Switching Diode, Dual in Series						
JP301	1	CONN_SIL_3_1MM	CONN_3x1	'1x3 2.54mm pitch pin header						
L201	1	IND-TH-DR0608	DR0608-153L	'Coilcraft DR0608-153L DCR=0.052Ohm Isat=2.7A Irms=2.7A						2.7A
L202	1	IND-TH-DR0608	DR0608-332L	'Coilcraft DR0608-332L DCR=0.012Ohm Isat=5.3A Irms=5.0A						5.3A
L203	1	SMD-0805	600R@100MHz	'Ferrite bead, current rating 2A or higher, 600R@100MHz	'0805					=>2A
L301 L501 L601 L801	4	SMD-0805	600R@100MHz	'Ferrite bead, current rating 1A or higher, 600R@100MHz	'0805					=>1A
JP801 JP802 JP803 JP804 P201 P701	6	CONN_SIL_2_1MM	CONN_2x1	'1x2 2.54mm pitch pin header						
P202	1	CONN-2WAY-2.54mm-3.81mm-SPACING	CONN_2x1	'2 way screw terminal, any 2.54mm to 3.81mm pitch part						
P401 P404	2	CONN_DIL_2X6_BOX_1MM	CONN_02X06	'2x6 2.54mm pitch box header						
P402 P403	2	CONN_DIL_2X5_BOX_1MM	CONN_02X05	'2x5 2.54mm pitch box header						
P405	1	CONN_DIL_2X10_BOX_1MM	CONN_02X10	'2x10 2.54mm pitch box header						
P406 P408	2	CONN_DIL_2X04	CONN_02X04	'2x4 2.54mm pitch pin header						
P407 P409	2	CONN_DIL_2X4_BOX_1MM	CONN_02X04	'2x4 2.54mm pitch box header						
R101 R401 R402 R403 R404 R405 R406 R407 R408 R409 R410 R426 R428 R803 R804 R805 R806 R807 R808 R809 R810 R814 R817 R818 R824 R825	26	SMD-0805	0	'Thick or thin film resistor	'0805	'1%			100mW	
R102 R103 R104 R105 R106 R107 R604 R605 R606 R607 R608 R611 R612 R811 R815 R816 R819 R820 R821 R826 R827 R828 R829 R830 R831 R832 R833 R836	28	SMD-0805	33	'Thick or thin film resistor	'0805	'1%			100mW	
R201 R202 R206	3	SMD-0805	100k	'Thick or thin film resistor	'0805	'1%			100mW	
R203	1	SMD-0805	22k	'Thick or thin film resistor	'0805	'1%			100mW	
R204	1	SMD-0805	75k	'Thick or thin film resistor	'0805	'1%			100mW	
R205 R301 R303 R308 R421 R626 R802	7	SMD-0805	10k	'Thick or thin film resistor	'0805	'1%			100mW	
R207 R704	2	SMD-0805	15k	'Thick or thin film resistor	'0805	'1%			100mW	
R208 R602 R603	3	SMD-0805	220	'Thick or thin film resistor	'0805	'1%			100mW	
R209 R211	2	SMD-0805	10	'Thick or thin film resistor	'0805	'1%			100mW	
R210 R302 R501 R601 R801	5	SMD-0805	47	'Thick or thin film resistor	'0805	'1%			100mW	
R304 R702 R703 R705	4	SMD-0805	100	'Thick or thin film resistor	'0805	'1%			100mW	
R305 R306 R307 R309 R310	5	SMD-0805	75	'Thick or thin film resistor	'0805	'1%			100mW	
R311	1	SMD-0805	360	'Thick or thin film resistor	'0805	'1%			100mW	
R312	1	SMD-0805	91	'Thick or thin film resistor	'0805	'1%			100mW	
R411 R412 R413 R414 R415 R416 R417 R418 R419 R420 R502 R506 R507 R613 R614 R615 R623 R624 R625 R834 R835	21	SMD-0805	N/F	'Thick or thin film resistor	'0805	'1%			100mW	
R422	1	SMD-0805	47k	'Thick or thin film resistor	'0805	'1%			100mW	
R423 R424 R425 R427 R429 R430 R431 R432 R510 R609 R610 R618 R620 R621 R622 R812 R813 R822 R823	19	SMD-0805	1k	'Thick or thin film resistor	'0805	'1%			100mW	
R503 R504 R505	3	SMD-0805	33R	'Thick or thin film resistor	'0805	'1%			100mW	
R508	1	SMD-0805	1Meg	'Thick or thin film resistor	'0805	'1%			100mW	
R509	1	SMD-0805	0R	'Thick or thin film resistor	'0805	'1%			100mW	
R616 R617	2	SMD-0805	4k7	'Thick or thin film resistor	'0805	'1%			100mW	
R619	1	SMD-0805	6K49	'Thick or thin film resistor	'0805	'1%			100mW	
R701 R707 R837 R838	4	SMD-0805	2k2	'Thick or thin film resistor	'0805	'1%			100mW	
R706	1	SMD-0805	10k7	'Thick or thin film resistor	'0805	'1%			100mW	
R839	1	SMD-0805	43R2	'Thick or thin film resistor	'0805	'1%			100mW	
SW701	1	SW_TACT_SMD	SWITCH	'6mm x 6mm SMD tactile switch - e.g. TE FSM2JSMA						
U101 U102 U103	3	IC-SC70-6	NC7WZ16P6X	'NC7WZ16P6X TinyLogic UHS Dual Buffer						
U201 U202	2	IC-SOT23-6	RT7285C	'Richtek RT7285C 1.5A 18V Step Down Converter						
U301	1	IC_SPDIF_OPTO	IC-SPDIF-RX-OPTO	'TOSLINK receiver e.g. CLIFF FC684205R						
U302	1	IC_SOIC_14	74HC04	'74HC04 Hex Inverter - SOIC-14						
U303	1	IC-SC70-6	NC7WZ16P6X	'NC7WZ16P6X TinyLogic UHS Dual Buffer						
U304	1	IC_SPDIF_OPTO	IC-SPDIF-TX-OPTO	'TOSLINK transmitter e.g. CLIFF FC684205T						
U501	1	IC-SC70-6	NC7WZ04P6X	'NC7WZ04 TinyLogic UHS Dual Inverter						
U502	1	IC-MSOP-10	CS2200-CP	'Cirrus Logic CS2200-CP Fractional-N Frequency Synthesizer						
U601	1	IC-LQFP48_7x7	KSZ8081MLX	'Microchip KSZ8081MLXCA LQFP-48 10Base-T/100Base-TX Ethernet PHY						
U701	1	IC-SOT23-6	NCP308	'On Semi NCP308 SOT-23-6 TSOP-6 Supervisor						
U801	1	IC_SOIC_8	IC-FLASH-SPI	'SPI/Quad SPI Flash Memory - SOIC 8 - For use with XE-216-TQ128, XEF216-512-TQ128 has internal flash						
U802	1	IC-TQ128-XMOS-HF	XE216-512-TQ128	'XMOS 200 XE216-512-TQ128 Microcontroller						
X501	1	XTAL_HC49_TH	24M000	'HC49 24.000MHz Crystal 30ppm or better 18pF						
X601	1	XTAL_HC49_TH	25M000	'HC49 25.000MHz Crystal 50ppm or better 18pF						