

Item	Quantity	Reference of schematic							Do not stuff							Lager or Koelsh 齐通	Part Name	Value of schematic	Part Number	Maker	Device Size	Rated Voltage	Tolerance	Note
1	1	CN1													○	ARM EML 20pin CN	HTST-110-01-S-DV	HTST-110-01-S-DV	samtec					
2	1	CN2													○	Ex memory 100pin CN	52885-1074	52885-1074	molex					
3	2	CN3	CN4												×	EX-SPI CN	PSM-410336-09	PSM-410336-09	hirosugi-keiki					
4	1	CN5													○	PCI Express slot(x1) CN	87715-9006	87715-9006	molex					
5	3	CN6	CN23	CN29											×	EXIO 60pin CN	QSH-030-01-L-D-A	QSH-030-01-L-D-A	samtec					
6	1	CN7													○	SATA Drive Power CN	LC-04A	LC-04A	ist					
7	1	CN8													○	SATA CN	67491-0020	67491-0020	molex					
8	4	CN9	CN25	CN26	CN37										○	USB microAB CN	ZX62D-AB-5P8	ZX62D-AB-5P8	hrs					
9	1	CN10													×	USB2.0 TypeA CN	XM7A-0442-A	XM7A-0442-A	omron					
10	1	CN11													×	USB 3.0 A Receptacle CN	E8199-001-01	E8199-001-01 or 10117835-002LF	Pulse or FCI					
11	0														×	USB 3.0 Micro-B Receptacle CN	CMS1821-010010	CMS1821-010010	hosiden					
12	2	CN13	CN14												×	SD card Slot CN	SCDABA0801	SCDABA0801	alps					
13	1	CN15													○	AnalogRGB CN	D02-M15SAG-23L9E or KEY-15S-2A2A(LF)(SN)	D02-M15SAG-23L9E or KEY-15S-2A2A(LF)(SN)	jae or JST					
14	3	CN16	CN17	CN20											○	HDMI Type A CN	1747981-1	1747981-1	tyco					
15	1	CN18													○	LVDS 20pin CN	DF14A-20P-1.25H(55)	DF14A-20P-1.25H(55)	hrs					
16	1	CN19													○	LVDS Backlight CN	SM14B-SRSS-TB(LF)(SN)	SM14B-SRSS-TB(LF)(SN)	ist					
17	1	CN21													×	CVBS Input CN	LPR6520-1501F	LPR6520-1501F	smk					
18	1	CN22													×	RJ45 CN	0826-1G1T-23-F	0826-1G1T-23-F	bel					
19	0														○	Audio LINE In/Out CN	HSJ1003-016020	HSJ1003-016020	hosiden					
20	2	CN27	CN28												○	EXIO 80pin CN	QSE-040-01-F-D-A	QSE-040-01-F-D-A	samtec					
21	1	CN30													○	12V Power CN	53259-0429	53259-0429	molex					
22	0														○	AC Adapter CN	LGP6531-1000F	LGP6531-1000F	smk					
23	1	CN32													○	Power Supply CN for I/O board	B7B-PH-SM4-TB	B7B-PH-SM4-TB	ist					
24	0														×	CPU FAN CN	B2B-PH-SM4-TB	B2B-PH-SM4-TB	ist					
25	51	CP1 CP9 CP14 CP19 CP24 CP45 CP50 CP55 CP61 CP66 CP71	CP2 CP10 CP15 CP20 CP25 CP46 CP51 CP56 CP62 CP67	CP3 CP11 CP16 CP21 CP26 CP47 CP52 CP57 CP63 CP68	CP4 CP12 CP17 CP22 CP27 CP48 CP53 CP58 CP64 CP69	CP7 CP13 CP23 CP44 CP49 CP54 CP59 CP65 CP70	CP8							-	PAD	CP	SMD-CU1.00-SR0.90	-						
26	0									C506	C520				×	chip capacitor	1pF*	GCM1555C1H1R0CA16	murata	1005	50V			
27	3	C24	C27	C28											×	chip capacitor	10pF	GCM1555C1H100JA16	murata	1005	50V			
28	0									C19	C20	C522			×	chip capacitor	10pF*	GCM1555C1H100JA16	murata	1005	50V			
29	2	C324	C325												×	chip capacitor	30pF	GCM1555C1H300JA16	murata	1005	50V			
30	2	C437	C438												×	chip capacitor	20pF	GCM1555C1H200JA16	murata	1005	50V			
31	2	C512	C528												×	chip capacitor	22pF	GCM1555C1H220JA16	murata	1005	50V			
32	2	C744	C745												×	chip capacitor	24pF	GCM1555C1H240JA16	murata	1005	50V			
33	0														×	chip capacitor	33pF	GCM1555C1H330JA16	murata	1005	50V			
34	2	C478	C481												×	chip capacitor	39pF	GCM1555C1H390JA16	murata	1005	50V			
35	2	C390	C397												×	chip capacitor	47pF	GCM1555C1H470JA16	murata	1005	50V			
36	74	C131 C638 C644 C650 C656 C662 C693 C699 C705 C711 C717 C723 C729	C134 C639 C645 C651 C657 C663 C694 C700 C706 C712 C718 C724 C730	C137 C640 C646 C652 C658 C664 C695 C701 C707 C713 C719 C725 C731	C950 C641 C647 C653 C659 C665 C696 C702 C708 C714 C720 C726 C732	C642 C648 C654 C660 C666 C697 C703 C709 C715 C721 C727 C733	C643 C649 C655 C661 C698 C704 C710 C716 C722 C728							×	chip capacitor	1000pF	GCM155R71H102KA37	murata	1005	50V				
37	0									C306					×	chip capacitor	1000pF*	GCM155R71H102KA37	murata	1005	50V			
38	16	C513 C632 C687	C529 C633 C688	C171 C634 C689	C172 C635 C690	C636 C691	C637 C692								×	chip capacitor	4700pF	GCM155R71H472KA37	murata	1005	50V			
39	0														×	chip capacitor	6.8nF	GCM155R71H682KA55	murata	1005	16V			
40	83	C58 C102 C116	C61 C104 C117	C74 C106 C121	C80 C111 C122	C86 C112 C125	C88								×	chip capacitor	0.01uF	GCM155R71E103KA37	murata	1005	25V			

[illegible]

[illegible]

207	1	X1															×	crystal oscillator	NZ2520SB[14.7456MHz/50ppm]	NZ2520SB-14.7456MHz-RNA3043A or SG-210SCBA 14.745600 MHz L	ndk or seiko epson						3.3V	
208	0																×	crystal oscillator	NX2016SA[16.6666MHz/10pF/15ppm]*	NX2016SA-16.6666MHz-CHP-CZS-4	ndk							
209	0																×	crystal oscillator	NZ2520SB[16.6666MHz/50ppm]	NZ2520SH-16.6666MHz-RNA3048B or SG-210SEBA 16.666600 MHz L	ndk or seiko epson						1.8V	
210	1	X5															×	crystal oscillator	NZ2520SB[32.768kHz/50ppm]	NZ2520SB-32.768kHz-RNA3045A or KC2520M32K7680CM3E00	ndk or kyocera						1.8V	
211	1	X6															×	crystal oscillator	NX2016SA-[50.0000MHz/10pF/15ppm]	NX2016SA-50MHz-CHP-CZS-38 or FA-2016AA[50MHz/10PF/15ppm]	ndk or seiko epson							
212	3	X7	X9	X23													×	crystal oscillator	NX2016SA[25MHz/20pF/15ppm]	NX2016SA-25MHz-EXS00A-CS08742 or FA2016AA[25MHz/20PF/15ppm]	ndk or seiko epson							
213	1	X8															×	crystal oscillator	NX2016SA[28.63636MHz/30pF/15ppm]	NX2016SA-28.63636MHz-EXS00A-CS08741 or FA-2016AA [28.63636MHz/30PF/15ppm]	ndk or seiko epson							
214	1	X10															×	crystal oscillator	NZ2520SB[125MHz/50ppm]	NZ2520SB-125MHz-RNA3035C or MC2520K125.000C16ESH or SG-8003CG 125.000000MHz SC B or SG8101CGA 125.000000MHz	ndk or kyocera or seiko epson						3.3V	
215	1	X11															×	crystal oscillator	NZ2520SB[22.5792MHz/50ppm]	NZ2520SB-22.5792MHz-RNA3046A or SG-210SCBA 22.579200 MHz Y	ndk or seiko epson						3.3V	
216	1	X12															×	crystal oscillator	NX2016SA[24.576MHz/20pF/15ppm]	NX2016SA-24.576MHz-EXS00A-CS08743	ndk or seiko epson							
217	2	X21	X22														×	crystal oscillato	NZ2520SB[33MHz/50ppm]	NZ2520SB-33MHz-RNA3047A or SG-210SEBA 33.000000 MHz L	ndk or seiko epson						1.8V	
218	3	D37	D38	D39													×	Zener Diode	DZ2S033M0L	DZ2S033M0L	panasonic							
219	12																×	Chip resistor	24.9	MCR01MZPF24R9	rohm	1005				1%		
		R642 R724	R648 R725	R654 R726	R660 R727	R665 R728	R669 R729																					
220	5	U73	U74	U75	U76	U77											×	SWITCH	PI3PCIE3212ZBE	PI3PCIE3212ZBE	pericom							
221	-	SKT1															×	U1用ソケット用穴	SIP SOCKET HOLE									
222	1	(CN7)															○	Housing clamp	(LC-04A)	LCC-04	ist							
223	1	(JP2)															○	Jumper Socket	(HWP-3P-G)	JS-1	mac8							
224	5	L75	L76		L4	L5	L6										×	Ferrite Chip Beads	600ohm@100MHz	BLM15AX601SZ1D	murata	1005						
225	10	L78 L84	L79 L85	L80 L86	L81 L87	L82 L83											×	Ferrite Chip Beads	BLM18PG330SH1D	BLM18PG330SH1D	murata							
226	14	L88 L94 L100	L89 L95	L90 L96 L102	L91 L97	L92 L98	L93 L99										×	Ferrite Chip Beads	BLM18AG102SH1D	BLM18AG102SH1D	murata							
227	0																×	Power Inductors	5.6uH	NS12575T5R6NN	taiyo yuden							
228	1		L73														×	Inductor	120ohm@100MHz	BLM15BB121SH1D	murata	1005						
229	1	L77															×	Inductor	600ohm@100MHz	BLM18AG601SH1D	murata	1608						
230	3	R737	R738	R739													×	Chip resistor	30k	MCR01MZPF3002	rohm	1005				1%		
231	1	U79															×	2-Wire Bus Buffers	LTC4313CMS8-1#PBF	LTC4313CMS8-1#PBF	linear technology							
232	3	D40	D41	D42													×	Diodes	RB520SM-30FH	RB520SM-30FHT2R	rohm							
233	1	TP9															×	Terminal Pin	HW-1-G	HW-1-G	mac8							
234	1	U78															×	Giga Ethernet Transceiver	KSZ9031RNXVB	KSZ9031RNXVB	microchip							
235	2	CN34	CN38														×	CPU FAN CN	22-04-1031	22-04-1031	molex							
236	1	D43															×	Shottky Barrier Diode	TCH20A15	TCH20A15	phion inter elect							
237	0								C896	C897	C935	C937					×	chip capacitor	1uF*	GCM188R71C105KA49	murata	1608		16V				
238	0																×	chip capacitor	0.068uF	GCM155R71C683KA55	murata	1005		16V				
239	0								R750	R751	R773	R775					×	Chip resistor	1k*	MCR03EZPJ102	rohm	1608						
240	0																×	AC Adapter CN	PJ-063AH	PJ-063AH	cui inc							
241	1	VR2															×	Resistor	100k	ST-2TA104	copal					20%		
242	1	CN36															×	AC Adapter CN	PJ-063AH	PJ-063AH or PJ-063BH	cui inc							
243	3	L103	L105	L107													×	Ferrite Chip Beads	BLM18KG260TZ1	BLM18KG260TZ1	murata	1608						
244	2	L104	L106														×	EMIFIL	NFM31HK223R1H3	NFM31HK223R1H3	murata	3216						
245	0								U81								×	IC	TestIC									
246	2	C878	C877														×	chip capacitor	4.7uF	CGA3E1X5R0J475KT	tdk	1608		6.3V				
247	1		R398														×	Chip resistor	49.9k	MCR01MZPF4992	rohm	1005			1%			
248	2	U82	U83														×	Audio Amp	MAX9813LEKA+T	MAX9813LEKA+T	maxim							
249	0	C533 C543	C534 C942	C535 C943	C536 C944	C537 C945											×	chip capacitor	100uF	GRT32ER60J107ME13	murata	3225		6.3V				
250	0																×	chip capacitor	GCM188R71C104KA37	GCM188R71C104KA37	murata	1608		16V				
251	2	U84	U85														×	MOSFET	IPG20N04S4L-08	IPG20N04S4L-08 or sqj912aep	infineon or vishay							
252	0																×	chip capacitor	47uF*	GCM32ER70J476KE19	murata	3225		6.3V				
253	0								C947								×	chip capacitor	10uF	GCM21BC71C106KE36	murata	2012		16V				
254	1	U86															×	Level Translator	LSF0101DRYR	LSF0101DRYR	ti							
255	0																×	Chip resistor	100	MCR01MZPF1000	rohm	1005			1%			
256	0																×	chip capacitor	4.7uF	GRM155R61A475MEAA	murata	1005		10V				
257	1	D44															×	Diode	AD1580ARTZ	AD1580ARTZ	analog devices							
258	2	VR3	VR4														×	Resistor	20k	ST-2TA203	copal					20%		
259	1	R425															×	Chip resistor	820	MCR01MZPF8200	rohm	1005			1%			
260	0								R426								×	Resistor	10k	MCR01MZPF1002	rohm	1005			1%			
261	2	CN39	CN40														×	Audio IN/OUT CN	SJ-3523-SMT	SJ-3523-SMT	cui inc							
262	0																×	Chip resistor	62	MCR01MZPJ620	rohm	1005						
																	×											
263	7	U87	U88	U90	U91	U93	U94	U95									×	ESD Protection Device	TPD4E05U06DQAR	TPD4E05U06DQAR	ti							
264	2	U89	U92														×	HDMI Companion Chip	TPD5S116YFFR	TPD5S116YFFR	ti							
265	1	U97															×	PCIe Switch	MAX4888BETI+	MAX4888BETI+	maxim							
266	0																×	crystal oscillator	NX2016SA[16.66MHz/10pF/15ppm]*	NX2016SA-16.66MHz-CHP-CZS-41	ndk							
267	0																×	crystal oscillator	NZ2016SH[16.66MHz/50ppm]	NZ2016SH-16.66MHz-NSC5021A or SG210SEBA 16.6600MHz or MC2520K16.6600C1XESX	ndk or seiko epson or kyocera						1.8V	
268	0								GND1	GND2	GND3	GND4					×	GND Connector	GND	GND	-							
269	0																×	chip capacitor	0.015uF	GCM155R71E153KA55	murata	1005		25V				
270	0																×	chip capacitor	0.033uF	GCM155R71E333KA55	murata	1005		25V				
271	0																×	chip capacitor	0.068uF	GCM155R71C683KA55	murata	1005		25V				
272	0								X3								×	crystal oscillator	NX2016SA[16.64MHz/10pF/15ppm]*	NX2016SA-16.64MHz-CHP-CZS-53	ndk							
273	1	X4															×	crystal oscillator	NZ2016SH[16.64MHz/45ppm]	NZ2016SH-16.64MHz-RNA5013C or SG2016CAA 16.64MHz TTJA or MC2016K16.6400C16ESH	ndk or seiko epson or kyocera						1.8V	
274	1	L110															×	Inductor	0.15uH	SPM6545VT-R15M-D	tdk	7065						
275	1	L111															×	Inductor	0.15uH	SPM5030VT-R15M-D	tdk	5550						
276	2	L55	L56														×	Inductor	0.24uH	TFM201610ALMAR24MTAA	tdk	2016						
277	2	L57	L58														×	Inductor	0.33uH	TFM201610ALMAR33MTAA	tdk	2016</						