

# Bill of Materials

HiFiveUnleashed.A00.PrjPcb

Source Data From: HiFiveUnleashed.A00.PrjPcb  
 Project: HiFiveUnleashed.A00.PrjPcb  
 Variant: None

Item #	Quantity	Manufacturer	Manufacturer PN	Description	Value	Designator
1	41	Murata Electronics	GRM155R60J475ME47D	CAP CER 4.7UF 6.3V X5R 0402	4.7uF	C1, C6, C9, C14, C21, C26, C29, C34, C41, C46, C49, C54, C57, C62, C70, C71, C76, C79, C84, C94, C95, C96, C97, C100, C108, C112, C130, C131, C151, C163, C213, C243, C244, C245, C246, C247, C248, C249, C250, C251, C252
2	163	Murata Electronics	GRM155R71C104KA88J	0.10µF 16V Ceramic Capacitor X7R 0402	0.1uF	C2, C3, C4, C5, C7, C8, C10, C11, C12, C13, C15, C16, C17, C19, C22, C23, C24, C25, C27, C28, C30, C31, C32, C33, C35, C36, C37, C39, C42, C43, C44, C45, C47, C48, C50, C51, C52, C53, C55, C56, C58, C59, C60, C61, C63, C64, C65, C67, C69, C72, C73, C74, C75, C77, C78, C80, C81, C82, C83, C85, C86, C87, C89, C90, C98, C99, C101, C102, C103, C104, C105, C106, C107, C109, C110, C113, C118, C123, C125, C126, C127, C129, C132, C133, C134, C135, C136, C146, C147, C153, C154, C155, C156, C157, C158, C159, C160, C161, C162, C164, C165, C166, C167, C168, C169, C170, C171, C172, C173, C174, C175, C176, C177, C178, C179, C181, C182, C183, C186, C188, C189, C190, C191, C192, C193, C194, C195, C199, C200, C201, C202, C206, C207, C208, C211, C214, C215, C216, C217, C220, C221, C224, C225, C228, C229, C232, C233, C236, C238, C253, C254, C255, C256, C257, C258, C259, C260, C261, C262, C263, C264, C282, C284
3	36	Murata Electronics	GRM155R70J105KA12J	CAP CER 1UF 6.3V X7R 0402	1uF	C18, C20, C38, C40, C128, C144, C145, C209, C210, C212, C222, C223, C226, C227, C230, C231, C234, C235, C237, C239, C240, C242, C268, C269, C270, C271, C272, C273, C274, C275, C276, C277, C278, C279, C280, C283
4	13	Murata Electronics	GRM188R60J106ME47J	10µF 6.3V Ceramic Capacitor X5R 0603	10uF	C66, C68, C91, C92, C93, C120, C122, C180, C184, C185, C187, C196, C218
5	1	Murata Electronics	GRM1555C1H102JA01D	CAP CER 1000PF 50V C0G/NP0 0402	1nF	C88
6	1	Murata Electronics	GRM188R61A475KE15D	4.7µF ±10% 10V Ceramic Capacitor X5R 0603	4.7uF	C111
7	6	Murata Electronics	GRM1555C1H180JA01D	CAP CER 18PF 50V C0G/NP0 0402	18pF	C114, C115, C137, C138, C197, C198
8	7	Murata Electronics	GRM21BR60J226ME39L	22µF 6.3V Ceramic Capacitor X5R 0805	22uF	C116, C121, C124, C139, C140, C141, C281
9	3	Murata Electronics	GRM21BR61E106KA73L	10µF ±10% 25V Ceramic Capacitor X5R 0805	10uF	C117, C149, C219
10	1	Murata Electronics	GRM155R71E333KA88D	33nF 25V Ceramic Capacitor X7R 0402	33nF	C119
11	7	Murata Electronics	GRM155R71H103KA88D	10nF 50V Ceramic Capacitor X7R 0402	10nF	C142, C143, C148, C152, C205, C241, C265
12	1	Panasonic Electronic Components	4TPE220MF	CAP TANT POLY 220UF 4V 2917	220uF	C150
13	2	Johanson Dielectrics Inc	202R18W102KV4E	CAP CER 1000PF 2KV X7R 1206	1000pF, 2KV	C203, C204
14	1	Murata Electronics	GRM1555C1H2R2BA01D	CAP CER 2.2PF 50V C0G/NP0 0402	2.2pF	C266
15	5	Lite-on Inc.	LTST-C190KGKT	LED GREEN CLEAR 0603 SMD	Green	D1, D2, D3, D4, D9
16	5	Littelfuse Inc	PGB1010603NRHF	TVS DIODE 24VWM 150VC 0603	PGB1010603NRHF	D5, D6, D10, D11, D12
17	1	Panasonic Electronic Components	DB2W40300L	Diode Schottky 40V 3A (DC) Surface Mount	DB2W40300L	D7
18	1	Littelfuse Inc	SMF12A	TVS DIODE 12VWM 19.9VC SOD123	SMF12A	D8
19	1	Diodes Incorporated	1N4148WT-7	Diode Standard 80V 125mA Surface Mount SOD-523	1N4148WT-7	D13
20	4	TDK Corporation	MPZ1005S121CT000	FERRITE BEAD 120 OHM 0402 1LN	120R	FB1, FB2, FB3, FB4
21	1	Molex, LLC	087381-4063	40 Position Receptacle Connector 0.079" (2.00mm) Surface Mount		J1

22	1	Amphenol FCI	55510-120LF	2x10 POS Header Female 2MM STR DL SMD		J2
23	1	CUI Inc	UJ2-MIBH2-4-SMT	USB - micro B USB 2.0 Receptacle Connector 5 Position Surface Mount, Right Angle, Horizontal		J7
24	1	CUI Inc	PJ-063BH	CONN POWER JACK 2.5X5.5MM		J8
25	1	Samtec Inc	ASP-134602-01	VITA 57.1 HPC Connector 40x10 MALE 8.5mm stack height		J9
26	1	Molex, LLC	5033981892	9 (8 + 1) Position Card Connector microSD Surface Mount, Right Angle Gold		J10
27	1	Samtec Inc	FTSH-105-01-L-DV-K	CONN HEADER 10 POS DUAL .05" SMD		J11
28	1	Amphenol Commerical Products	RJHSE5384	CONN MOD JACK 8P8C R/A SHIELDED		J12
29	1	Samtec Inc	FTS-111-01-L-DV	CONN HEADER 2x11POS DUAL .05" SMD		J14
30	1	Molex, LLC	0022232031	3 Positions Header Connector 0.100" (2.54mm) Through Hole Tin		J19
31	1	Murata Electronics	DFE252012F-1R0M=P2	1µH Shielded Inductor 3.3A 40 mOhm	1.0uH	L1
32	3	Murata Electronics	DFE252012P-2R2M=P2	2.2µH Shielded Wirewound Inductor 3A 84 mOhm	2.2uH	L2, L3, L6
33	1	Murata Electronics	DFE252010F-R47M=P2	FIXED IND 470NH 5.9A 20MOHM SMD	0.47uH	L4
34	1	Bourns Inc	SRN6045TA-1R0Y	FIXED IND 1UH 8A 10 MOHM SMD	1.0uH	L5
35	4	Diodes Inc	DMN63D8LDW-7	MOSFET 2N-CH 30V 0.22A SOT363	DMN63D8L DW-7	Q1, Q2, Q4, Q5
36	1	Infineon Technologies	IRLML6402TRPBF	MOSFET P-CH 20V 3.7A SOT-23	P-Channel	Q6
37	10	Yageo	RC0402FR-07240RL	RES SMD 240 OHM 1% 1/16W 0402	240R	R1, R2, R3, R4, R5, R6, R7, R8, R9, R70
38	6	Yageo	RC0402FR-0710KL	RES SMD 10K OHM 1% 1/16W 0402	10K	R10, R11, R107, R109, R111, R115
39	15	Yageo	RC0402FR-07100KL	RES SMD 100K OHM 1% 1/16W 0402	100K	R12, R20, R37, R40, R42, R44, R45, R62, R67, R69, R72, R74, R116, R161, R162
40	3	Yageo	RC0402FR-072KL	RES SMD 2K OHM 1% 1/16W 0402	2K	R13, R14, R93
41	1	Yageo	RC0402FR-0747KL	RES SMD 47K OHM 1% 1/16W 0402	47K	R15
42	7	Yageo	RC0402FR-07330RL	RES SMD 330 OHM 1% 1/16W 0402	330R	R16, R17, R18, R19, R36, R84, R86
43	15	Yageo	RC0402FR-074K7L	RES SMD 4.7K OHM 1% 1/16W 0402	4.7K	R21, R22, R24, R25, R47, R52, R53, R55, R56, R57, R58, R73, R96, R113, R114
44	2	Yageo	RC0402FR-0712KL	RES SMD 12K OHM 1% 1/16W 0402	12K	R23, R33
45	4	Yageo	RC0402FR-071KL	RES SMD 1K OHM 1% 1/16W 0402	1K	R26, R31, R32, R34
46	1	Yageo	RC0402FR-07210KL	RES SMD 210K OHM 1% 1/16W 0402	210K	R38
47	3	Yageo	RC0402FR-0733K2L	RES SMD 33.2K OHM 1% 1/16W 0402	33.2K	R39, R41, R156
48	17	Yageo	RC0402JR-070RL	RES SMD 0.0OHM JUMPER 1/16W 0402	0R	R43, R63, R64, R65, R66, R68, R92, R94, R95, R117, R172, R173, R174, R175, R177, R183, R186
49	1	Yageo	RC0402FR-0780K6L	RES SMD 80.6K OHM 1% 1/16W 0402	80.6K	R60
50	1	Yageo	RC0402FR-07160KL	RES SMD 160K OHM 1% 1/16W 0402	160K	R61
51	1	Yageo	RC0402FR-0782KL	RES SMD 82K OHM 1% 1/16W 0402	82K	R71
52	15	Panasonic Electronics Components	EXB-N8V330JX	RES ARRAY 4 RES 33 OHM 5% 0804	33R	R75, R76, R80, R82, R85, R145, R146, R147, R151, R152, R153, R154, R155, R158, R159
53	14	Yageo	RC0402FR-0733RL	RES SMD 33 OHM 1% 1/16W 0402	33R	R77, R78, R79, R91, R139, R140, R141, R142, R143, R144, R148, R149, R150, R160
54	1	Yageo	RC0402FR-0739RL	RES SMD 39 OHM 1% 1/16W 0402	39R	R81
55	2	Yageo	RC0402FR-071ML	RES SMD 1M OHM 1% 1/16W 0402	1M	R83, R182
56	5	Yageo	RC0402FR-0775RL	RES SMD 75 OHM 1% 1/16W 0402	75R	R87, R88, R89, R90, R178
57	22	Yageo	RC0402FR-0710RL	RES SMD 10 OHM 1% 1/16W 0402	10R	R118, R119, R120, R121, R122, R123, R124, R125, R126, R127, R128, R129, R130, R131, R132, R133, R134, R135, R136, R137, R157, R176
58	1	Yageo	RC0402FR-07154KL	RES SMD 154K OHM 1% 1/16W 0402	154K	R138
59	6	Yageo	YC124-FR-0749R9L	RES ARRAY 4 RES 49.9 OHM 0804 1%	49R9	R163, R164, R165, R166, R167, R168
60	7	Yageo	RC0402FR-0749R9L	RES SMD 49.9 OHM 1% 1/16W 0402	49R9	R169, R170, R171, R179, R180, R181, R184
61	3	Vishay Dale	WSKW06121L000FEA	Current Sense Resistors - SMD 1watt 0.001ohms 1%	0R001	RS1, RS2, RS10
62	7	Rohm Semiconductor	UCR03EVPFLR200	RES SMD 0.2 OHM 1% 1/4W 0603	0R20	RS3, RS4, RS5, RS6, RS7, RS8, RS9
63	1	Vishay Dale	WSP0603R0200FEB	RES SMD 0.02 OHM 1% 0.4W 0603	0R02	RS11

64	1	CTS Electrocomponents	219-6MST	Dip Switch SPST 6 Position Surface Mount Slide (Standard) Actuator 100mA 20VDC		S1
65	1	C & K Components	PTS645SK43SMTR92 LFS	Red Tactile Switch SPST-NO Top Actuated Surface Mount		S2
66	1	NKK Switches	BB16AH-FC	Pushbutton Switch SPDT Standard Through Hole, Right Angle		S4
67	1	Halo Electronics	TG111-MSC13LF	Audio Transformers / Signal Transformers Genesis 0-70C Mini 1G For MiniPhy		T1
68	1	SiFive	FU540-C000	SiFive Freedom-U540 SoC	FU540-C000	U1
69	9	SK Hynix Inc.	H5AN8G8NAFR-UH	DDR4-2400 8Gb (1Gx8) 78-FBGA	8Gb	U2, U3, U4, U5, U6, U7, U8, U9, U10
70	1	Texas Instruments	TPS51200DRCR	IC CONV DDR DDR2 DDR3 DDR4 10SON	TPS51200D RCR	U11
71	1	ISSI	IS25WP256D-JMLE	FLASH - NOR Memory IC 256Mb (32M x 8) SPI 104MHz 16-SOP2 1.8V	256Mbit	U12
72	1	FTDI	FT2232HL-REEL	IC USB Bridge, USB to UART,FIFO USB 2.0 UART Interface 64-LQFP	FT2232HL	U13
73	2	Texas Instruments	TLV62080DSGR	IC REG BUCK ADJ 1.2A SYNC 8WSON	TLV62080D SGR	U14, U50
74	1	Texas Instruments	TLV62084DSGT	IC REG BUCK ADJ 2A SYNC 8WSON	TLV62084D SGT	U15
75	1	Texas Instruments	TLV62095RGTR	IC REG BUCK ADJ 4A SYNC 16QFN	TLV62095R GTR	U16
76	1	Texas Instruments	LP5907MFX-1.8/NOPB	Linear Voltage Regulator IC Positive Fixed 1 Output 1.8V 250mA SOT-23	LP5907MFX-1.8/NOPB	U17
77	1	Texas Instruments	TPS51363RVER	Buck Switching Regulator IC Positive Adjustable 0.6V 1 Output 8A 28-VFQFN Exposed Pad	TPS51363R VER	U18
78	1	Texas Instruments	LM3880MFE-1AA/NOPB	IC PWR SUPPLY SEQUENCER SOT23-6 1-2-3 3-2-1 10ms delay	LM3880MFE-1AA/NOPB	U19
79	14	Texas Instruments	SN74AUP1T34DCKR	IC V-LEVEL XLATR UNIDIR SC70-5	SN74AUP1T34DCKR	U20, U21, U22, U23, U24, U25, U28, U29, U30, U31, U32, U33, U37, U38
80	1	Texas Instruments	TPD6F003DQDR	6 CH EMI + ESD FILTER RC(PI) 100 OHM/8.5PF SMD	ESD	U26
81	1	Texas Instruments	TPS62133RGTT	Buck Switching Regulator IC Positive Fixed 5V 1 Output 3A 16-VFQFN Exposed Pad	TPS62133R GTT	U27
82	1	Microsemi Solutions	VSC8541XMV-01	IC Gigabit ETHERNET RGMII/RMII/GMII 68QFN	VSC8541XM V-01	U34
83	1	Microchip Technology	MIC5353-2.5YMT-TR	IC REG LINEAR 2.5V 500MA 6TMLF	MIC5353-2.5YMT-TR	U35
84	1	ON Semiconductor	NCP133AMX100TCG	IC REG LINEAR 1V 500MA 6XDFN	NCP133AM X100TCG	U36
85	1	AVX Corporation	KC3225K33.3333C1GE00	33.3333MHz XO (Standard) CMOS Oscillator 1.6 V ~ 3.63 V Standby (Power Down) 4-SMD, No Lead	33.3333 MHz	X1
86	1	SiTime	SIT8008BC-23-18E-1.000000G	OSC MEMS 1.0000MHZ LVC MOS SMD	1.0 MHz	X2
87	1	AVX Corporation	CX3225GB33333P0HPQCC	CRYSTAL 33.3330MHZ 18PF SMD 3.2x2.5	33.333 MHz	Y1
88	1	Abracon LLC	ABM8G-12.000MHZ-B4Y-T	12MHz ±30ppm Crystal 10pF 120 Ohm -20°C ~ 70°C	12 MHz	Y2
89	1	Epson	FA-238 25.0000MB-K3	CRYSTAL 25.0000MHZ 10PF SMD	25 MHz	Y3

<b>Approved</b>	<b>Notes</b>