

parallella_gen1 Revised: Monday, December 30, 2013

Parallella-I Board Revision: D

BILL OF MATERIALS

Item	Quantity	Reference
1	1	CR1
2	2	CR4,CR6
3	1	CR5
4	2	CR8,CR10
5	69	C7,C9,C10,C11,C16,C24,C25,C26,C
6	12	C17,C71,C84,C134,C143,C168,C17
7	5	C12,C70,C216,C194,C281,
8	31	C13,C18,C19,C72,C73,C74,C97,C9
9	51	C14,C15,C20,C21,C22,C75,C76,C7
10	10	C23,C82,C95,C230,C231,C233,C23
11	13	C33,C34,C38,C40,C48,C49,C53,C1
12	4	C54,C61,C62,C85
13	2	C57,C66
14	1	C63
15	17	C103,C268,C269,C270,C271,C272,
16	12	C104,C105,C106,C107,C108,C109,
17	8	C198,C200,C202,C204,C206,C208,
18	2	C236,C237
19	1	C238
20	9	C241,C243,C245,C247,C248,C250,
21	3	C251,C252,C254
22	1	C287
23	1	C288
24	1	D1
25	3	FB1,FB2,FB12
26	10	FB3,FB4,FB5,FB6,FB7,FB14,FB15,F
27	1	F1
28	2	J2,J14
29	1	J3
30	1	J5
31	1	J6
32	1	J7
33	4	J8,J9,J11,J13
34	1	J10
35	1	J12
36	1	J15

37	4 L8,L9,L10,L11
38	5 R1,R3,R30,R119,R120
39	25 R4,R8,R9,R10,R12,R18,R19,R20,R2
40	22 R11,R28,R62,R63,R66,R67,R69,R70
41	24 R32,R302,R303,R304,R305,R306,R
42	10 R41,R42,R44,R55,R56,R82,R94,R95
43	7 R43,R45,R47,R49,R50,R51,R52
44	2 R46,R48
45	30 R59,R60,R71,R74,R75,R96,R97,R98
46	41 R72,R73,R180,R181,R182,R183,R1
47	9 R76,R77,R78,R80,R81,R85,R95,R2
48	1 R79
49	2 R84,R100
50	1 R89
51	2 R90,R106
52	20 R103,R240,R241,R242,R243,R244,
53	3 R112,R113,R115
54	6 R156,R158,R159,R161,R162,R163
55	2 R165,R171
56	11 R206,R226,R227,R228,R229,R230,
57	1 R224
58	1 R225
59	1 R278
60	1 R279
61	1 R281
62	1 R282
63	1 R288
64	1 R325
65	1 SW2
66	2 TP12,TP14
67	2 TP13,TP15
68	1 U2
69	3 U5,U11,U14
70	1 U7
71	1 U9
72	2 U12,U17
73	1 U13
74	1 U20
75	1 U23
76	1 U26
77	1 U29
78	1 U30
79	2 U33,U36

80	1 U34
81	1 U35
82	1 U37
83	1 U38
84	1 Y1
85	1 Y2
86	1

87	1
88	1
89	1

552

Description	Vendor
LED, 0603, 5MA, SMT, RED	LITE-ON INC
LED, 0603, 5MA, SMT, GREEN	LITE-ON INC
LED, 0603, 5MA, SMT, RED	LITE-ON INC
LED, 0603, 5MA, SMT, GREEN	LITE-ON INC
CAP, 0402, 0.1UF, X5R, 35V	TAIYO YUDEN
CAP, 1210, 100UF, X5R, 6.3V, LOW ESR	MURATA
CAP, 1210, 100UF, X5R, 6.3V, LOW ESR	MURATA
CAP, 0402, 4.7UF, X5R, 6.3V	TDK
CAP, 0402, 0.47UF, X5R, 16V	TDK
CAP, 0402, 10NF, X7R, 16V	TDK
CAP, 0603, 10UF, X5R, 10V	TAIYO YUDEN
CAP, 0402, 6PF, NPO, 50V	TDK
CAP, 0402, 2.2UF, X5R, 6.3V	TDK
CAP, 0603, 4.7UF, X5R, 16V	TDK
CAP, 0402, 0.47UF, X5R, 16V	TDK
CAP, 0402, 0.047UF, X5R, 25V	TDK
CAP, 0402, 10NF, X7R, 16V	TDK
CAP, 0805, 6800PF, X7R, 100V	TDK
CAP, 0805, 10UF, X5R, 16V	TDK
CAP, 0805, 10UF, X5R, 16V	TDK
CAP, 0603, 1UF, X5R, 16V	KEMET
CAP, 0603, 4.7UF, X5R, 16V	TDK
CAP, 0402, 0.1UF, X5R, 35V	TAIYO YUDEN
DIODE, SWITCH, 200mA, 75V, SOD523	ON SEMICONDUCTOR
FERRITE, BEAD, FILTER, 0603, 3A	MURATA
FERRITE, BEAD, 0402, 120 OHM@ 100M	MURATA
FUSE, 4A, 32V, FAST, 0603	PANASONIC
HDR, 1ROW, 3POS, VERT, TH, 1X3, 0.10	SULLINS
CONN, MICRO SD CARD, PUSH-PUSH	ALPS
RJ45 JACK, INTEGRATED MAG AND LED	BEL FUSE
CONN, USB, RCPT, MICRO AB, RA, SMT	FCI
CONN, USB, RCPT, MICRO B, RA, SMT	FCI
CONNECTOR	SAMTEC
CONN, HDMI, RCPT, MICRO D, RA, SMT	MOLEX
CON, PWR, BARREL, PCB, PJ002A_TH	CUI
HDR, 1ROW, 2POS, VERT, TH, 1X2	MOLEX

IND, 1.5uH, 2A	TDK
RES, 0402, 240, 1%	VISHAY/DALE
RES, 0402, 4.75K, 1%	VISHAY/DALE
RES, 0402, 1K	VISHAY/DALE
RES, 0402, 33, 1%	VISHAY/DALE
RES, 0402, 22.1, 1%	VISHAY/DALE
RES, 0402, 20K	VISHAY/DALE
RES, 0402, 20K	VISHAY/DALE
RES, 0402, 0 OHM, 1%	VISHAY/DALE
RES, 0402, 100, 1%	VISHAY/DALE
RES, 0402, 0 OHM, 1%	VISHAY/DALE
RES, 0402, 4.99K, 1%	VISHAY/DALE
RES, 0402, 620, 1%	VISHAY/DALE
RES, 0402, 240, 1%	VISHAY/DALE
RES, 0402, 8.06K	VISHAY/DALE
RES, 0402, 10K	VISHAY/DALE
RES, 0402, 80.6, 1%	VISHAY/DALE
RES, 0402, 4.75K, 1%	VISHAY/DALE
RES, 0402, 1K	VISHAY/DALE
RES, 0402, 100, 1%	VISHAY/DALE
RES, 0402, 887	VISHAY/DALE
RES, 0402, 27.4K	VISHAY/DALE
RES, 0603, 24.9K	VISHAY/DALE
RES, 0603, 100K	VISHAY/DALE
RES, 0402, 56.2K	VISHAY/DALE
RES, 0603, 69.8K	VISHAY
RES, 0402, 620, 1%	VISHAY/DALE
RES, 0402, 10, 1%	VISHAY/DALE
SW, PUSHBUTTON, SPST, NORMALLY OPOMRON	
PC Test Point Miniature	Keystone
PC TEST POINT MINIATURE	KEYSTONE
IC, EPP, XILINX, ZYNQ, 7Z020, CLG400	XILINX
IC, LOGIC	FAIRCHILD
SPI FLASH, QUAD, 128M-BIT, VPDFN8, 1.MICRON	
IC, GIGE PHY, QFN48	MARVELL
IC, USB ULPI XCVR, SINGLE SUPPLY, QFN5MSC	
IC, USB DISTRIBUTION SW, 1 CH, SOIC8	MICREL
IC, DDR3, 8Gb, 256M32, BGA136	MICRON
IC, 16-CORE MICROPROCESSOR, ADAPTIADAPTEVA	
IC, HDMI/DVI TRANSMITTER, PQFP64	ANALOG DEVICES
IC, dual step-down converters + dual LDINTERSIL	
IC, dual step-down converters + dual LDINTERSIL	
Tristate Buffers	FAIRCHILD

IC, SUPPLY MONITOR, 4 INPUTS, TSSOP	ST MICROELECTRONICS
IC, PROGRAMMABLE CLOCK GEN, 3 OUT	SILICON LABS
IC, HDMI ESD PROT AND LEVEL SHIFT, T	TEXAS INSTRUMENTS
IC, LINE RECEIVER, DIFFERENTIAL LVDS,	TEXAS INSTRUMENTS
XTAL, 2X1.6MM, 24MHZ, 4PIN, SMT	MURATA
XTAL, 2X1.6MM, 25MHZ, 4PIN, SMT	MURATA
PCB FAB	VIA

Cardboard Box: Indestructo Mailers	ULINE
Anti static foam pouches	ULINE
Heatsink	AAVID

Part Number	Value
LTST-C193KRKT-5A	RED
LTST-C193KGKT-5A	GREEN
LTST-C193KRKT-5A	RED
LTST-C193KGKT-5A	GREEN
GMK105BJ104KV-F	0.1UF
GRM32ER60J107ME20L	100uF
GRM32ER60J107ME20L	100uF
C1005X5R0J475K	4.7UF
C1005X5R1C474K	0.47UF
C1005X7R1C103K	10nF
LMK107BJ106MALTD	10UF
C1005COG1H060D050BA	6pF
C1005X5R0J225M	2.2UF
C1608X5R1C475K080AC	4.7UF
C1005X5R1C474K	0.47UF
C1005X5R1E473M	0.047UF
C1005X7R1C103K	10nF
C2012X7R2A682KT5	6800PF
C2012X5R1C106M085AC	10UF
C2012X5R1C106M085AC	10UF
C0603C105K4PAC	1UF
C1608X5R1C475K080AC	4.7UF
GMK105BJ104KV-F	0.1UF
BAS16XV2T1G	2mA_75V
BLM18SG121TN1D	120-OHM_3A
BLM15AG121SN1D	120-OHM@100MHz
ERB-RE4R00V	4A
PBC03SAAN	HDR_1X3_TH_VER
SCHA5B0200	MicroSD_CARD
L829-1J1T-43	RJ-45
10104111-0001LF	USB_MICRO_AB_RA
10118193-0001LF	USB_MICRO_B_RA
BSH-030-01-F-D-A	BSH-030-01-F-D-A
46765-1001	HDMI_MICRO_D_RA
PJ-002A	PJ-002A
22102021	HDR_1X2_TH_VER

VLS252012ET-1R5N	1.5uH
CRCW0402240RFKED	240
CRCW04024K75FKED	4.75K
CRCW04021K00FKED	1K
CRCW040233R0FKED	33
CRCW040222R1FKED	22.1
CRCW040220K0FKED	20K
CRCW040220K0FKED	20K
CRCW04020000Z0ED	0
CRCW0402100RFKED	100
CRCW04020000Z0ED	0
CRCW04024K99FKED	4.99K
CRCW0402620RFKED	620
CRCW0402240RFKED	240
CRCW04028K06FKED	8.06K
CRCW040210K0FKED	10K
CRCW040280R6FKED	80.6
CRCW04024K75FKED	4.75K
CRCW04021K00FKED	1K
CRCW0402100RFKED	100
CRCW0402887RFKED	887
CRCW040227K4FKED	27.4K
CRCW060324K9FKEA	24.9K
CRCW0603100KFKEA	100K
CRCW040256K2FKED	56.2K
CRCW060369K8FKEA	69.8K
CRCW0402620RFKED	620
CRCW040210R0FKED	10
B3U-1000P	SW_PB_VERT
5001	BLACK
5000	RED
XC7Z020-1CLG400C	7Z020-CLG400
NC7WZ16P6X	NC7WZ16
N25Q128A13EF840E	SPI-FLASH-QUAD
88E1318-A0-NNB2C000	88E1318_1.8V IO
USB3320C-EZK-TR	USB_ULPI_XCVR
MIC2025-1YM	USB PWR DIST
MT41K256M32SLD-125:E	DDR3_256MX32
E16G301	16-CORE MICROPROCESSO
ADV7513BSWZ	HDMI/DVI XMTR
ISL9307IRTAANFZ-T	DC-TO-DC PWR SUPPLY
ISL9305IRTHWBNLZ-T	DC-TO-DC PWR SUPPLY
NC7SZ125M5X	NC7SZ125

STM6904TWEDS6F	VOLT_MONITOR
SI51219-A14BFT	CLOCK GENERATOR
TPD12S016PWR	ESD PROT & LEVEL SHIFT
SN65LVDS4RSER	DIFF LINE RECEIVER
XRCGB24M000F0L00R0	24MHZ
XRCGB25M000F0L00R0	25MHZ
PARALLELLA-I-REVD	3.4" x 2.5"

S-15073


S-15905

646403B00660G

Package	Install Option
LED_0603	
LED_0603	DNI
LED_0603	DNI
LED_0603	
C0402	
C1210	
C1210	DNI
C0402	
C0402	
C0402	
C0603	
C0402	
C0402	
C0603	
C0402	DNI
C0402	
C0402	DNI
C0805	DNI
C0805	DNI
C0805	
C0603	
C0603	DNI
C0402	DNI
SOD-523	DNI
BEAD_0603	
FBEAD_0402	
F0603	
HDR_1X3_TH_VER	
SDMICRO_8PIN_REV_15SQX1P51MMH	
RJ45_17PINS_2LED	
USB_MICRO5P_5X7X3P07MMH	
USB_MICROB_5P05X7P86X3P1MMH_R	
CONN_BSH60P_13P59X25P88_P5P_V	
HDMI_MICRO19_6P5X7P5X2P9H_P4P	
DC_PWR_JCK_9X14P4X11MMH	
HDR_1X2_TH_VER	DNI

IND2_2X2P5X1P2MMH	
R0402	
R0402	
R0402	
R0402	
R0402	
R0402	
R0402	DNI
R0402	
R0402	
R0402	DNI
R0402	
R0402	DNI
R0402	DNI
R0402	
R0402	
R0402	
R0402	DNI
R0402	DNI
R0402	DNI
R0402	
R0402	DNI
R0603	
R0603	
R0402	
R0603	
R0402	
R0402	
SWITCH_2P5X4X1P6MMH	
TP55	DNI
TP55	DNI
CBGA400_17SQ_1P6H_P8MMP	
SC_70_6PSMT	
VPDFN-8_6X8XP85H_1P27MMP	
QFN48_7SQXP5PX1MMH_3P1PAD	
QFN32_5SQXP9H_P5MMP_3P45PAD	
SOIC8_33P94X4P93X1P63H_P65P	
FBGA136_11X14X1P1_P8MMP	
BGA324_15SQX1P5_P8MMP	
LQFP64_10SQX1P6MMH_P5MMP	
TQFN16_4SQXP75H_P65P	
TQFN16_4SQXP75H_P65P	
SOT_5PIN	

TSSOP8_3SQX1P1H_P65P
TSSOP8_3X4P4X1P2H_P65MMP
TSSOP24_6P4X7P9X1P2MMH_P65P
QFN-10_1P55X2P05XP6XP5MMP
OSC4_1P6X2X7MMH
OSC4_1P6X2X7MMH
BLUE



w/T410
