quantity in hand	quantity for 5 boards	quantity for 100 boards	line #	quantity per board	reference designators	part name	description	mfg part #	value	size / package	PCB decal	digikey part #	notes	dielectric type	cost
250	10	200	1	2	J1-2	2MM_SMD_8PIN_JUMPER_BLOCK	jumper block for 4 jumpers	57202-G52-04LF			2MM_SMD_8PIN_VERT	609-2623-ND			
do not install	10	200	2	2	BB0-1	5X7_BREADBOARD	5x7 breadboard area				5X7_BREADBOARD		do not install		
96	10	200	3	2	ADC0-1	AD7923	4 channel SPI ADC	AD7923BRUZ			TSSOP16	AD7923BRUZ-ND			
25	15	300	4	3	ABUF ABUF01 ABUF23	AMP_BUFFER	unity gain buffer	lmh6559			SOT23-5	LMH6559MF/NOPBCT-ND			
100	5	100	5	1	AND	AND_SN74AUP1G08	2 input AND gate	SN74AUP1G08DCKR			SOT323-5-SC70	296-19075-1-ND			
100	25	500	6	5	DBUF4 DBUF6 DBUF8 DBUF10 DBUF12	BUFFER-OPEN-DRAIN-SN74LVC2G07	open-drain buffer	SN74LVC2G07DCKR			SOT323-6-SC70	296-13495-1-ND			
100	15	300	7	3	DBUF1-3	BUFFER_DUAL_SN74LVC2G34	dual buffer	SN74LVC2G34			SOT323-6-SC70	296-13497-1-ND			
38240	455	9100	8	91	CG1-91	CAPACITOR,0.1uF	capacitor		0.1uF	402					
20000	45	900	9	9	C1-4 C18-19 C29 C31 C33	CAPACITOR,0.47uF	capacitor		0.47uF	402					
10000	10	200	10	2	CM1-2	CAPACITOR,100pF	capacitor		100pF	402					
6000	70	1400	11	14	CD1 CD3-5 CD7-16	CAPACITOR,100uF	capacitor		100uF	1210					
10000	140	2800	12	28	CC1-28	CAPACITOR,10nF	capacitor		10nF	402					
4000	155	3100	13	31	CH1-31	CAPACITOR,10uF	capacitor		10uF	603					
4000	10	200	14	2	CK1-2	CAPACITOR,12pF	capacitor		12pF	402					
2960	20	400	15	4	CL1-4	CAPACITOR,22uF	capacitor		22uF	603					
10000	25	500	16	5	CJ1-5	CAPACITOR,270pF	capacitor		270pF	402					
10000	60	1200	17	12	CA1-5 CA12 CA17-19 CA22-23 CA29	CAPACITOR,4.7uF	capacitor		4.7uF	402					
2500	20	400	18	4	CB1 CB4-6	CAPACITOR,47uF	capacitor		47uF	1812					
200	10	200	19	2	CF1-2	CAPACITOR_POLARIZED,680uF	capacitor		680uF	E					
25	5	100	20	1	FANOUT	CDCLVD1208-LVDS-FANOUT-2TO8	low additive jitter (~300fs)	CDCLVD1208		DFN28+1	DFN-28-WITH-THERMAL-PAD	296-27838-1-ND			
60	5	100	21	1	24MHZ	CRYSTAL	crystal	FA-128 24.0000MF10Z-W3		DFN4	CRYSTAL-SMD-2.0MMX1.6MM	SER3678CT-ND			$1.71
3000	15	300	22	3	DEMUX_F_BHL DEMUX_F_BHL1-2	DEMUX-1TO2-SN74LVC1G18	1:2 demux	SN74LVC1G18DCKR			SOT323-6-SC70	296-15569-2-ND			
do not install	10	200	23	2	CLK_TRIG JTAG_R	DIFF-PAIRS-4	solder points for 4 diff pairs				DIFF-PAIR-LANDING-4-PAIRS		do not install		
300	5	100	24	1	EEPROM	EEPROM-I2C-WITH-ADDRESS-PINS	i2c eeprom w/address	24LC64T-I/MC			DFN8+1	24LC64T-I/MC (avnet)			
3000	60	1200	25	12	Q2 Q6-8 Q11 Q30 Q32 Q34-36 Q38 Q42	FET-N	n-channel FET	AO7400		SC-70	SOT323	785-1084-1-ND			$0.24
3000	95	1900	26	19	Q1 Q3-5 Q10 Q12 Q14 Q16 Q18 Q20 Q24 Q26 Q33 Q37 Q39-41 Q44-45	FET-P	p-channel FET	AO7401			SOT323	785-1085-1-ND			$0.30
100	10	200	27	2	FF FF1	FLIP-FLOP-D	D flip-flop	SN74LVC1G175DCKR			SOT323-6-SC70	296-16998-1-ND			
10	10	200	28	2	FF2-3	FLIP-FLOP-D-INVERTING		SN74LVC1G80DCKR			SOT323-5-SC70	296-9852-1-ND			
18	5	100	29	1	FMC-LPC	FMC_LPC_VITA57	FMC LPC connector	asp-134603-01		VITA57	FMC-LPC-VITA57-MOTHERBOARD				
17	15	300	30	3	T1-3	FX8C-100S-SV	100 pin board-to-board connector	FX8C-100S-SV5			FX8C-100S-SV		FX8C-100S-SV5		
10	5	100	31	1	HUM	HUMIDITY-SENSOR-HTU21D	humidity sensor	htu21d		DFN6	DFN-6-EXPOSED-PAD-3MMX3MM	223-1144-1-ND	not washable		
100	5	100	32	1	INV1	INVERTER	inverter	SN74AUP1G14DCKR		SC70-5	SOT323-5-SC70	296-19076-1-ND			
10	5	100	33	1	JTAG	ALL_ONE PL_AUX PL_AUXIO PL_BRAM PL_GTX1V0 PL_GTX1V2 PL_INT PL_VCCO PS_DDR_VCCO PS_INT_PLL_AUX	JTAG connector	878311421			JTAG_14PIN_2MM_VERT	WM4224-ND	through-hole		
9500	50	1000	34	10	LED	LED	LED	SML-P11MTT86		402	0402_LED	511-1652-1-ND			$0.27
200	50	1000	35	10	1V0_BRAM 1V0_PINT 1V8_AUX 1V8_AUXIO 1V8_PLL_PAUX 1V8_VCCO 2V5 2V5_MIO 2V5_VCCO 4V0	LT3055	LDO reg with Imon, shdn, pwrgood	LT3055EMSE#PBF		MSOP16	MSOP-16	LT3055EMSE#PBF-ND			
100	25	500	36	5	1V0_GTX 1V0_INT 1V2_DDR 1V2_GTX 3V3	LT3086	LDO reg with Imon, shdn, pwrgood	LT3086EDHD#PBF		DFN16+1	DFN16+1	LT3086EDHD#PBF-ND			
10	5	100	37	1	LVDS1	LVDS_RECEIVER		SN65LVDT2DBVR		SOT23-5	SOT23-5	296-6896-1-ND			
100	5	100	38	1	SN65LVDT348PW	LVDS_SN65LVDT348PW	4 channel LVDS receiver	SN65LVDT348PW			TSSOP16	296-12650-5-ND			
100	5	100	39	1	U3	LVDS_TRANSMITTER	LVDS transmitter	SN65LVDS1DBVR			SOT23-5	296-6919-1-ND			
10	5	100	40	1	MINIUSB	MINIUSB	vertical mini USB				MINIUSB-VERTICAL2	WM2072-ND	through-hole		$3.77
20	15	300	41	3	CAL TTL_TRIG_IN TTL_TRIG_OUT	MMXC_VERTICAL_THROUGH_HOLE	MMCX connector	734151471			MMCX_VERTICAL_THROUGH_HOLE	WM5557-ND	through-hole		
do not install	30	600	42	6	X5-6 X8 X10 X12 X14	MOUNTING-HOLE	mounting hole for 6-32				MOUNTING-HOLE-6-32-SKINNY		do not install		
96	5	100	43	1	LPDDR2	MT42L64M32D1KL-25	LPDDR2 RAM	MT42L64M32D1KL-25 IT:A		BGA168	BGA-MICRON-168-BALL-KL	04X6637 (newark)			
3000	10	200	44	2	MUX_FB_HL MUX_FB_HL1	MUX-2TO1-SN74AUP1T157	2:1 mux	SN74AUP1T157DCKR			SOT323-6-SC70	296-27393-2-ND			
2	5	100	45	1	127MHZ	OSCILLATOR-DIFFERENTIAL-OUTPUT	oscillator			DFN6	KC7050T-L2		do not install		
60	5	100	46	1	MOSFET1	POWER-MOSFET	power mosfet	IRLR7821TRPBF		DPAK	TO-252AA_DPAK	IRLR7821PBFCT-ND			
do not install	5	100	47	1	RAW1	POWER_INPUT_PAIR	power entry solder points				POWER_INPUT_PAIR_18AWG		do not install		
do not install	5	100	48	1	RAW2	POWER_INPUT_PAIR	power entry solder points				POWER_INPUT_PAIR_16AWG		do not install		
do not install	5	100	49	1	RAW3	POWER_INPUT_PAIR	power entry solder points				POWER_INPUT_PAIR_20AWG		do not install		
10	10	200	50	2	PS_RESET SOC_RESET	PUSHBUTTON-NO	button				PUSHBUTTON-NO	SW1020CT-ND			$0.91
10	10	200	51	2	QSPI-FLASH0-1	QSPI-FLASH-S25FL128SAGBHIA	QSPI flash	S25FL128SAGBHI200		BGA24	BGA-T-PBGA-24B05-6MMX8MM	1274-1078-ND			
9168	20	400	52	4	RV1-4	RESISTOR,1	resistor		1	402					
10000	5	100	53	1	RB1	RESISTOR,100	resistor		100	402					
9792	195	3900	54	39	R1-5 R7-22 R25-26 R34-40 R43-44 R47-49 R51-54	RESISTOR,10k	resistor		10k	402					
do not install	15	300	55	3	R41 R50 R42	RESISTOR,10k	resistor		10k	402			do not install		
10000	50	1000	56	10	RE1-9 RE11	RESISTOR,121	resistor		121	402	402				
10000	20	400	57	4	RG1-4	RESISTOR,121k	resistor		121k	402	402				
9974	15	300	58	3	RH1-3	RESISTOR,12k	resistor		12k	402	402				
10000	10	200	59	2	RR1-2	RESISTOR,13.7k	resistor		13.7k		402				
10000	10	200	60	2	RJ1-2	RESISTOR,16k	resistor		16k	402	402				
10000	20	400	61	4	RAH0-3	RESISTOR,174	resistor		174		402				
10000	15	300	62	3	RM1-3	RESISTOR,196k	resistor		196k	402	402				
10000	100	2000	63	20	RL1-7 RL12-16 RL18-25	RESISTOR,1k	resistor		1k	402	402				
10000	55	1100	64	11	RC1-10 RC12	RESISTOR,200k	resistor		200k	402	402				
do not install	5	100	65	1	RC11	RESISTOR,200k	resistor		200k	402	402		do not install		
9142	45	900	66	9	RAC0-8	RESISTOR,20k	resistor		20k	402	402				
10000	30	600	67	6	RZ1-6	RESISTOR,240	resistor		240	402	402				
2000	5	100	68	1	RAA1	RESISTOR,330	resistor		330	402	402				
10000	5	100	69	1	RQ1	RESISTOR,340k	resistor		340k	402	402				
10000	70	1400	70	14	RS1-6 RS9-16	RESISTOR,4.7k	resistor		4.7k	402	402				
10000	10	200	71	2	RY1-2	RESISTOR,40.2	resistor		40.2	402	402				
10000	15	300	72	3	RF1-2 RF5	RESISTOR,40.2k	resistor		40.2k	402	402				
5000	15	300	73	3	RAF1-3	RESISTOR,50	resistor	RNCP1206FTD49R9	50	1206	1206				
1664	30	600	74	6	RT1-6	RESISTOR,50	resistor		50	402	402				
10000	5	100	75	1	RAB1	RESISTOR,57.6k	resistor		57.6k	402	402				
10000	35	700	76	7	RD1-6 RD11	RESISTOR,60.4k	resistor		60.4k	402	402				
10000	15	300	77	3	RN1-3	RESISTOR,61.9k	resistor		61.9k	402	402				
10000	20	400	78	4	RAJ0-3	RESISTOR,69.8	resistor		69.8		402				
19870	50	1000	79	10	RU1-10	RESISTOR,7.5k	resistor		7.5k		402				
10000	15	300	80	3	RK1-3	RESISTOR,7150	resistor		7150		402				
10000	5	100	81	1	RW1	RESISTOR,8.06k	resistor		8.06k		402				
do not install	20	400	82	4	RL8-11	RESISTOR,DNI	resistor		DNI	402	402		do not install		
25	15	300	83	3	D1-3	RF_PROTECTION_DIODE	protection diodes	BAP64-04W,115		SOT323	SOT323	568-1932-1-ND			$0.29
10	10	200	84	2	DATA TRIG	SFP_CAGE_SINGLE	SFP+ cage + connector	0747540101, 1367073-1			SFP_CAGE_SINGLE	WM8591-ND, A97430CT-ND	surface mount + press-fit		$4.46
10	5	100	85	1	TEMP	TEMPERATURE_SENSOR_I2C	i2c temperature sensor	STTS751-1		SOT-23-6	SOT23-6L	497-10662-1-ND			$1.24
95	1900	86	19	RAW3+	1P0_BRAM 1P0_GTX 1P0_INT 1P0_PINT 1P2_DDR 1P2_GTX 1P8_AUX 1P8_AUXIO 1P8_PLL_PAUX 1P8_VCCO 2P5 2P5_MIO 2P5_VCCO 3P3 4P0 GND RAW1+ RAW2+	TEST_POINT	test point				TEST_POINT_THROUGH_HOLE_SMALL	various	through-hole		$0.24
do not install	10	200	87	2	PS_CLOCK 4A0	TEST_POINT	test point				TEST-POINT-SURFACE-MOUNT	various	do not install		$0.24
100	5	100	88	1	USB	USB3320	USB transceiver (ULPI)	USB3320C-EZK-TR		QFN32	QFN-32	USB3320C-EZK-CT-ND			
3	5	100	89	1	SOC	ZYNQ-XC7Z045-FFG900	FPGA w/dual ARM cores	XC7Z045-2FFG900E		BGA900	BGA-FFG900-1MM	XC7Z045-2FFG900E-ND	assembly variant: install these on 2 boards and omit them from 2 boards		

purple = from SLAC	536	number of components per board
yellow = ordering now	23	number of things not to install
red = not enough	10	number of types of things not to install
	25	number of BGA, QFN, DFN, etc
	79	number of lines in BoM (excluding do not install lines)
	25	number of through-hole components per board
	4	number of boards to assemble
	488	number of SMT components per board
	25	number of through-hole components per board
	25	number of leadless devices (BGA, QFN, etc)
	69	number of lines in BoM (excluding do not install lines)
	2	number of sides for assembly