

SP16160CH1RB BOM Rev 2.4										
Item	Quantity	Schematic Reference	Part Name	Description	PCB Footprint	Manufacturer	Unit Cost	Price Break (# Units)	Total Cost	Notes
1	2	-	3p	CAP CER 3PF 50V COG 0402		Murata Electronics	\$0.0220	10	\$0.04	Place capacitors across R41/R42 and R46/R47 pads on the filter side (not the DVGA side) Place AFTER the resistors have been placed
2	6	C74, C75, C78, C84, C85, C88	4p	CAP CERAMIC 4PF 50V COG 0402	smd_size0402	Murata Electronics	\$0.0220	10	\$0.13	
3	1	C174	10p	CAP CER 10PF 50V 5% COG 0402	smd_size0402	Murata Electronics	\$0.0220	10	\$0.02	
4	2	C73, C83	16p	CAP CER 16PF 50V S 0402 UHI Q	smd_size0402	Johanson Technology Inc.	\$0.1940	10	\$0.39	
5	1	C176	20p	CAP CER 20PF 50V 5% COG 0402	smd_size0402	Murata Electronics	\$0.0330	10	\$0.03	
	14	C101, C102, C103, C104, C105, C106, C107, C121, C122, C123, C124, C125, C144, C156	100p	CAP 100PF 50V CERAMIC X7R 0402	smd_size0402	Panasonic - ECG	\$0.0260	10	\$0.36	
6										
7	3	C214, C248, C268	2.2n	CAP CERM 2200PF 5% 100V X7R 0603	smd_size0603	AVX Corporation	\$0.2970	10	\$0.89	
8	1	C163	12n	CAP .012UF 16V CERAMIC X7R 0402	smd_size0402	Panasonic - ECG	\$0.0260	10	\$0.03	
9	19	C21, C23, C25, C27, C31, C33, C35, C62, C64, C71, C72, C76, C81, C82, C86, C146, C213, C247, C267	0.01u	CAP .01UF 25V CERAMIC X7R 0402	smd_size0402	Panasonic - ECG	\$0.0260	10	\$0.49	
10	2	C242, C262	0.01u	CAP CER 10000PF 50V X7R 10% 0603	smd_size0603		\$0.0480	10	\$0.10	
11	2	C1, C11	0.1u	CAP CERAMIC .1UF 6.3V X5R 0201	smd_size0201	Panasonic - ECG	\$0.0430	10	\$0.09	
	61	C2, C4, C5, C6, C7, C8, C9, C12, C14, C15, C16, C17, C18, C19, C22, C24, C26, C28, C30, C32, C34, C36, C39, C41, C42, C44, C45, C51, C52, C53, C54, C55, C56, C57, C58, C61, C63, C77, C87, C111, C112, C113, C114, C115, C116, C117, C126, C127, C128, C129, C130, C132, C145, C148, C149, C151, C155, C157, C158, C175, C177, C252	0.1u	CAP .1UF 10V CERAMIC X5R 0402	smd_size0402	Panasonic - ECG	\$0.0380	10	\$2.32	
12										
13	10	C202, C204, C206, C217, C219, C226, C236, C238, C251, C271	0.1u	CAP .1UF 16V CERAMIC X7R 0603	smd_size0603	Panasonic - ECG	\$0.0360	10	\$0.36	
14	1	C152	0.68u	CAP CER .68UF 6.3V Y5V 0402	smd_size0402	Murata Electronics	\$0.0780	10	\$0.08	
15	2	C133, C134	1u	CAP 1UF 6.3V CERAMIC Y5V 0402	smd_size0402	Panasonic - ECG	\$0.1040	10	\$0.21	
	7	C212, C222, C224, C232, C234, C246, C266	1u	CAP 1UF 16V CERAMIC Y5V 1206	smd_size1206	Panasonic - ECG	\$0.1220	10	\$0.85	
16										
17	23	C3, C13, C29, C43, C46, C131, C201, C203, C205, C211, C216, C218, C221, C223, C225, C231, C233, C235, C237, C245, C250, C265, C270	10u	CAP TANTALUM 10UF 6.3V 20% SMD	smd_size3216	Kemet	\$0.0160	10	\$0.37	
	7	C215, C241, C243, C249, C261, C263, C269	10u	CAP CER 10UF 6.3V X5R 20% 1206	smd_size1206	TDK Corporation	\$0.4950	10	\$3.47	
18										
19	2	D2, D4	BAT54WS	DIODE SCHOTTKY 30V 200MW SOD-323	sod323	Diodes Inc	\$0.9000	10	\$1.80	
20	2	D3, D5	MBR0530	DIODE SCHOTTKY 30V 0.5A SOD123	sod_123	ON Semiconductor	\$0.2490	10	\$0.50	
21	2	L3, L6	33n	33nH Chip Inductor 0603CS Series	smd_size0603	Coilcraft	\$1.0000	200	\$2.00	
22	4	L1, L2, L4, L5	110n	110nH Chip Inductor 0603CS Series	smd_size0603	Coilcraft	\$1.0000	200	\$4.00	
23	4	L7, L8, L9, L10	200n	200nH Chip Inductor 0603CS Series	smd_size0603	Coilcraft	\$1.0000	200	\$4.00	
24	1	L11	EXC-CL4532U1	BEAD CORE 4.5X3 2X1.8 SMD	I4532	Panasonic - ECG	\$0.6140	10	\$0.61	
25	2	L12, L13	100u	INDUCTOR UNSHIELDED 100UH SMD	smd_size1812r	API Delevan	\$1.2200	10	\$2.44	
26	2	L21, L23	4.7u	4.7uH LPS3008 Series Low Profile Power Inductor	lps3008_472ml	Coilcraft	\$0.8900	250	\$1.78	
27	25	R22, R25, R32, R34, R35, R36, R71, 0 R73, R78, R91, R92, R93, R94, R95, R96, R98, R115, R116, R125, R127, R135, R148, R202, R206, R208	0	RES ZERO OHM 1/16W 5% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0810	10	\$2.03	
28	4	R212, R232, L22, L24	0	RES 0.0 OHM 1/8W 5% 0805 SMD	smd_size0805	Panasonic - ECG	\$0.0770	10	\$0.31	Place 0805 resistor across footprint of L22 and L24
29	10	R1, R2, R3, R4, R5, R7, R41, R42, R46, R47	10	RES 10 OHM 1/10W 5% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0810	10	\$0.81	
30	2	R45, R50	24.9	RES 24.9 OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.20	
31	1	R171	49.9	RES 49.9 OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.10	
32	4	R43, R44, R48, R49	100	RES 100 OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.39	
33	6	R111, R112, R123, R124, R132, R134	200	RES 200 OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.59	
34	2	R172, R173	402	RES 402 OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.20	
35	1	R238	806	RES 806 OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.10	
36	4	R121, R203, R219, R239	1k	RES 1.00K OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.39	
37	1	R149	1.8k	RES 1.80K OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.10	
38	1	R218	2k	RES 2.00K OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.10	
39	3	R113, R114, R204	2.32k	RES 2.32K OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.29	
	7	R34, R102, R104, R106, R216, R220, R236	11k	RES 11.0K OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.69	
40										
41	6	R33, R101, R103, R105, R221,	24k	RES 24.0K OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.59	
42	2	R126, R215	39k	RES 39.0K OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.20	
43	2	R213, R233	100k	RES 100K OHM 1/16W 1% 0402 SMD	smd_size0402	Panasonic - ECG	\$0.0980	10	\$0.20	
44	2	SAM_AMP_Q, SMA_AMP_I	WM5534	CONN JACK SMA 50 OHM EDGE MOUNT	rf_sma_end_launch	Molex/Waldom Electronics	\$4.4700	1	\$8.94	
45	2	T1, T2	TCM4-19+	SURFACE MOUNT RF TRANSFORMER 50 OHM 10 TO 1900 MHz	db714	MINI-CIRCUITS	\$2.0900	10	\$4.18	
46	1	U1	ADC16DV160	Dual 16-bit 160 MSPS ADC with LVDS outputs	sc-mkt-lqa68a	National Semiconductor	\$140.00	1000	\$140.00	
47	1	U2	24C02/SO8	2K SERIAL EEPROM	soic8_050_wg244_I200	ATMEL	\$0.3200	25	\$0.32	
48	1	U3	LMH6517	Multi Standard, IF and Baseband Dual DVGA	32LLP_SQA32A	National Semiconductor	\$6.90	1000	\$6.90	
49	1	U4	LMK04031B	IC CLOCK CONDITIONER W/PLL 48LLP	llp48_p5m_7x7_ep	National Semiconductor	\$20.7000	1	\$20.70	
50	1	U5	TSF153F	153.6 MHz SAW Filter	tfs153f	Vectron	-	-	-	Special order request through Vectron
51	1	U6	NC7WV125	Tinylogic Buffer 3-STATE Out	nc7wv125_8p	Fairchild Semiconductor	\$0.2900	100	\$0.29	
52	3	U11, U13, U15	LP3878SD-ADJ	IC VREG 800MA ADJ 8-LLP	sc-mkt-sdc08a_llp	National Semiconductor	\$2.98	1	\$8.94	
53	2	U12, U14	LM2734Y	IC PWM STP-DWN REG 1A TSOT23-6	tsot-6	National Semiconductor	\$2.98	1	\$5.96	
54	1	U16	LP5900SD-1.8	IC REG 1.8V LDO 100MA RF/ANLG 6-LLP	llp6_65m_wg2p5_l2p2_ep	NATIONAL SEMICONDUCTOR	\$1.6200	1	\$1.62	
55	1	U17	LP5900SD-3.3	IC REG 3.3V LDO 100MA RF/ANLG 6-LLP	llp6_65m_wg2p5_l2p2_ep	NATIONAL SEMICONDUCTOR	\$1.6200	1	\$1.62	
56	1	Y2	OSC 76.8MHz CVHD-950-76.800	76.8 MHz Voltage Controlled Crystl Oscillator	soic6_100_wg272_I560	Crystek	\$21.92	1	\$21.92	Special order request through Crystek
57	1	Y3	OSC 61.44MHz CCHD-950-25-61.44	61.44 MHz Crvstal Oscillator	soic6_100_wg272_I560	Crystek	\$21.32	1	\$21.32	
58	6	Z1, Z2, Z3, Z4, Z5, Z6	NFM41PC204F1H3	FILTER LC HIGH FREQ .2UF 1806	nfm41p	Murata Electronics	\$0.7250	10	\$4.35	
59	1	H3	HDR2x5	2X5 JUMPER BLOCK HEADER	blkcon_5x2	Samtec	-	-	-	
60	1	H4	4 - 6x4 FutureBus Connector	Z-PACK 2mm FB (Futurebus+) RIGHT ANGLE HEADER CONNECTOR	fbus_rs_96_ecl	AMP	\$6.9000	-	\$6.90	
61	1	JP1	HDR-1x2	1X2 JUMPER BLOCK HEADER	blkcon_2x1	Samtec	-	-	-	
62	1	POWER	Power Connector Terminal Block	CONN HEADER RT ANG 2POS 5.08MM	mstba_ra_200_2	Phoenix Contact	\$0.5000	1	\$0.50	
63	1	-	Power Connector Plug	CONN TERM BLOCK PLUG 2POS 5.08MM	-	Phoenix Contact	\$1.5300	1	\$1.53	
64	1	-	2-position Jumper	2-POSITION JUMPER	-	FCI Electronic	\$0.0630	1	\$0.06	PLACE JUMPER ON JP1 PLACE BUMP ONS AT THE 5 CORNERS, ON BOTTOM OF BOARD
65	5	-	Rubber Bump-ons	PLACE BUMP ONS AT THE 4 CORNERS, ON BOTTOM OF BOARD	-	3M	\$0.0911	56	\$0.46	

PCB	\$56.00
Assembly	\$149.00
Total Cost	\$495.95