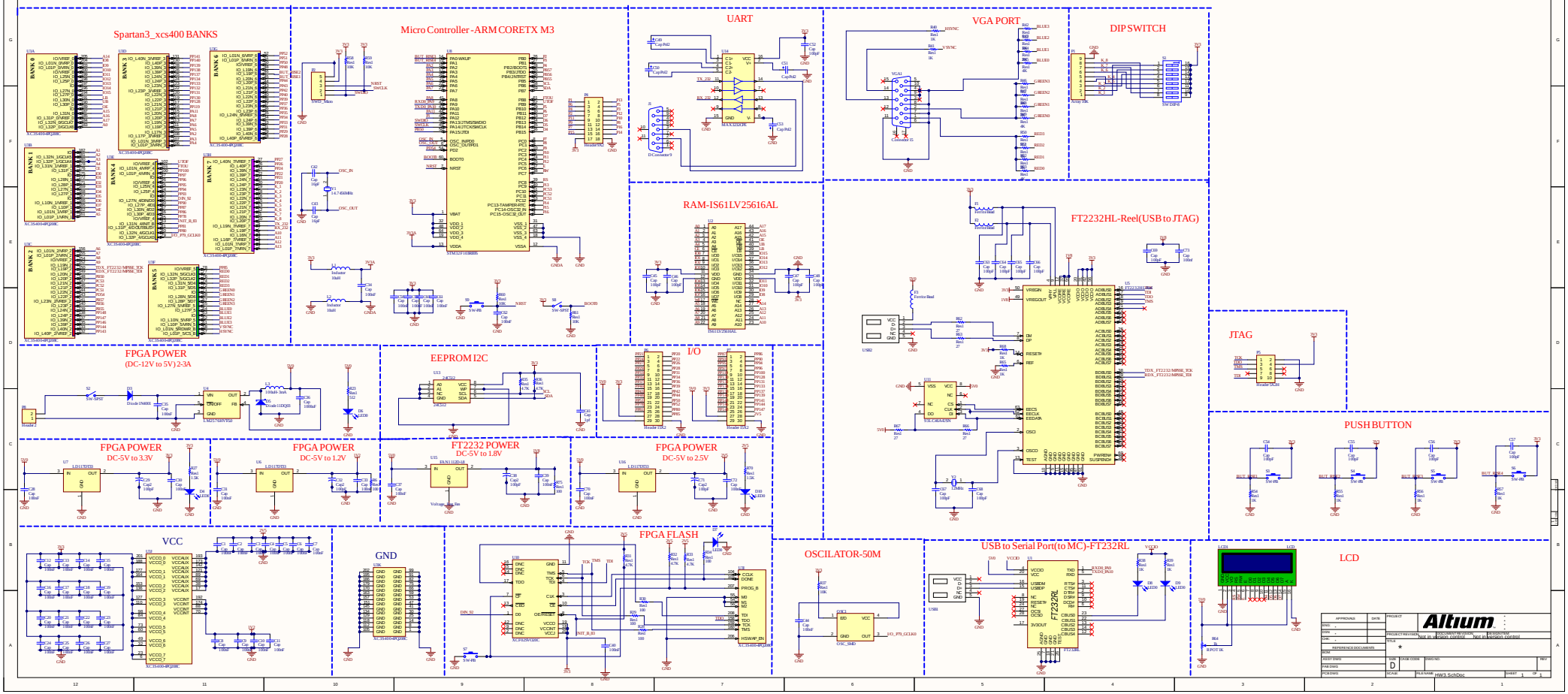
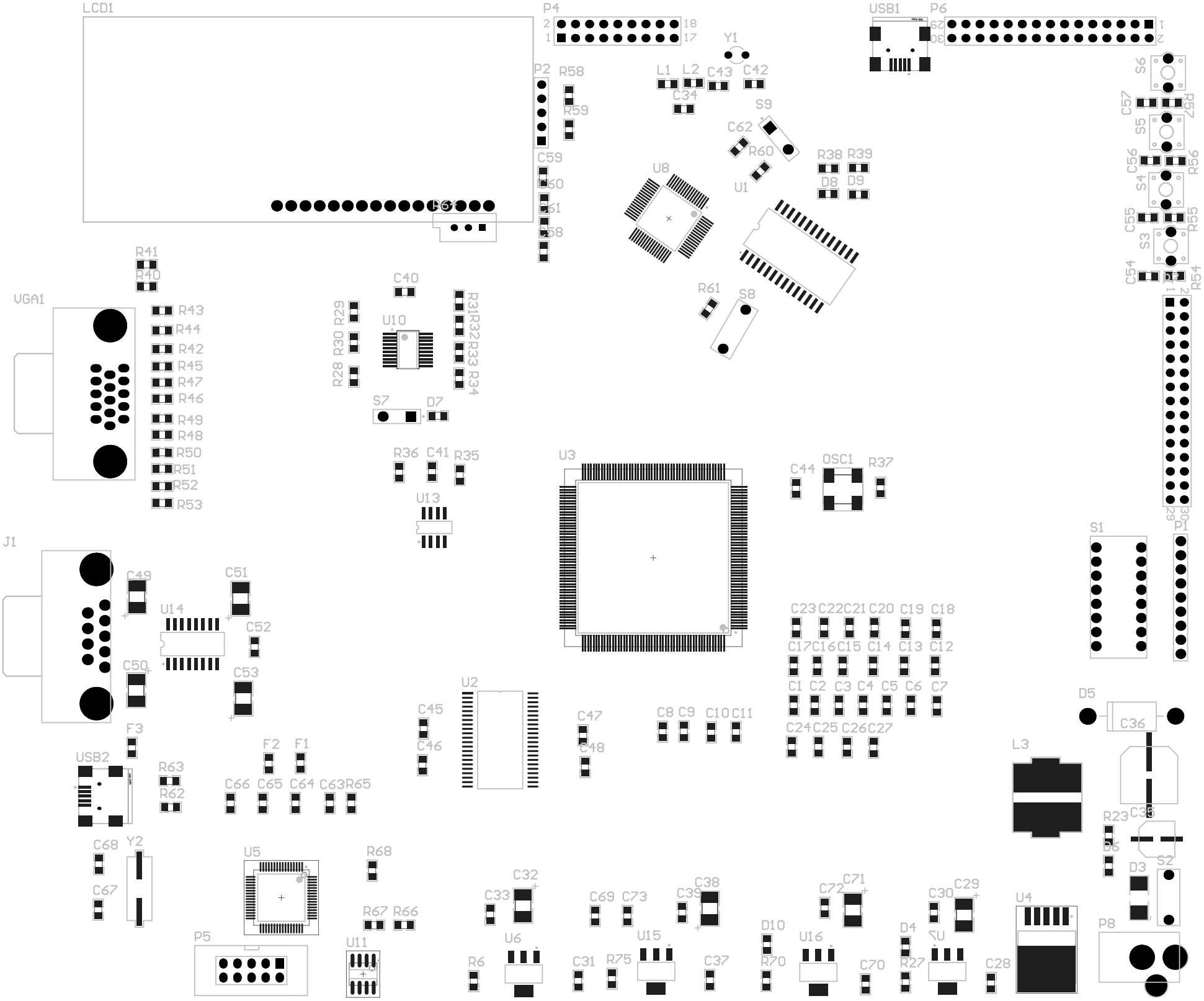
THIS DOCUMENT AND THE IDEAS DISCLOSED HEREIN OR HEREWITH IS THE PROPERTY OF ALTIUM LIMITED AND MAY BE FREELY DISTRIBUTED IN WHOLE. NO RIGHTS ARE RESERVED OR EXPRESS OR IMPLIED WARRANTIES GIVEN.

REVISION	DESCRIPTION	DATE	APPROVED




LCD1
P4
USB1
P6
Y1
P2
R58
R59
L1
L2
C43
C42
C34
S9
C62
R60
U1
R38
R39
D8
D9
U8
C59
C60
C61
C58
S6
C57
R57
S5
C56
R56
S4
C55
R55
S3
C54
R54
R41
R40
VGA1
R43
R44
R42
R45
R47
R46
R49
R48
R50
R51
R52
R53
C40
R29
R30
R28
U10
R31
R32
R33
R34
R61
S8
S7
D7
R36
C41
R35
U13
U3
C44
OSC1
R37
S1
P1
J1
C49
C51
U14
C52
C50
C53
C23
C22
C21
C20
C19
C18
C17
C16
C15
C14
C13
C12
C1
C2
C3
C4
C5
C6
C7
U2
C45
C46
C47
C48
C8
C9
C10
C11
C24
C25
C26
C27
D5
C36
F3
USB2
R63
R62
F2
F1
C66
C65
C64
C63
R65
L3
R23
C35
D6
C68
Y2
C67
U5
R68
C32
C33
C69
C73
C38
C39
C72
C71
C30
C29
D3
S2
U4
P8
R67
R66
P5
U11
U6
R6
C31
R75
U15
C37
D10
R70
U16
C70
D4
R27
U7
C28

Line #	Name	Description	Designator	Quantity	Manufacturer 1	Manufacturer Part Number 1	Manufacturer Lifecycle 1	Supplier 1	Supplier Part Number 1	Supplier Unit Price 1	Supplier Subtotal 1
	LCD		LCD1	1							
	OSC_SMD		OSC1	1							
	FT232RL		U1	1							
	IS61LV25616AL		U2	1							
	Voltage Regulator		U6, U7, U16	3							
	24CS12		U13	1							
	Voltage_Reg_Fan		U15	1							
	MICRO_USB		USB1, USB2	2							
	Diode 1N4001	1 Amp General Purpose Rectifier	D3	1							
	93LC46A-E/SN	1K, 128x8-bit, 2.5V Microwire Serial EEPROM, 8-Pin SOIC 150mil, Extended Temperature	U11	1	Microchip	93LC46A-E/SN	Volume Production	Digi-Key	93LC46A-E/SN-ND		
	MAX3232CPE	3.0V TO 5.5V, Low-Power, up to 1Mbps, True RS-232 Transceiver Using Four 0.1µF External Capacitor	U14	1							
	100uH: 3mA	100uH: 3mA	L3	1							
	Cap	Capacitor	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C30, C31, C33, C34, C35, C37, C39, C44, C58, C59, C60, C61, C62, C70, C72	43							
	Cap2	Capacitor	C29, C32, C38, C71	4							
	Cap	Capacitor	C36	1							
	Capacitor	Capacitor	C40	1							
	Cap	Capacitor	C41	1							
	Cap	Capacitor	C42, C43	2							
	Cap	Capacitor	C45, C46, C47, C48, C52, C54, C55, C56, C57, C63, C64, C65, C66, C67, C68, C69	16							
	Cap	Capacitor	C73	1							
	14.7456MHz	Crystal Oscillator	Y1	1							
	12MHz	Crystal Oscillator	Y2	1							
	SW DIP-8	DIP Switch, 8 Position, SPST	S1	1							
	FT2232HL-Reel	Dual High Speed USB To Multipurpose UART/FIFO IC, LQFP-64, Tape and Reel	U5	1							
	Header 2	Header, 2-Pin	P8	1							
	SWD_Micro	Header, 5-Pin	P2	1							
	Header 5X2H	Header, 5-Pin, Dual row, Right Angle	P5	1							
	Array 10K	Header, 9-Pin	P1	1							
	Header 9X2	Header, 9-Pin, Dual row	P4	1							
	Header 15X2	Header, 15-Pin, Dual row	P6, P7	2							
	Ferrite Bead	Inductor	F1, F2, F3	3							
	Inductor	Inductor	L1, L2	2							
	Cap Pol2	Polarized Capacitor (Axial)	C49, C50, C51, C53	4							
	R POT 1K	Potentiometer	R64	1							
	D Connector 9	Receptacle Assembly, 9 Position, Right Angle	J1	1							
	Connector 15	Receptacle Assembly, 15-Pin, Sim Line Connector	VGA1	1							
	Res1	Resistor	R6, R28, R29, R30, R34, R75	6							
	Res1	Resistor	R23, R42, R46, R50	4							
	Res1	Resistor	R27, R70	2							
	Res1	Resistor	R31, R32, R33, R35, R36	5							
	Res1	Resistor	R37, R58, R59, R60, R61	5							
	Res1	Resistor	R38, R39, R40, R41, R43, R47, R51, R54, R55, R56, R57, R65, R68	13							
	Res1	Resistor	R44, R48, R52	3							
	Res1	Resistor	R45, R49, R53	3							
	Res1	Resistor	R62, R63, R66, R67	4							
	Diode 11DQ03	Schottky Rectifier	D5	1							
	LM2576HVT-5.0	SIMPLE SWITCHER, 3A Step-Down Voltage Regulator	U4	1							
	SW-SPST	Single-Pole, Single-Throw Switch	S2, S8	2							
	XC3S400-4PQ208C	Spartan-3 1.2V FPGA, 141 User I/Os, 208-Pin PQFP, Standard Performance, Commercial Grade	U3	1				Digi-Key	XC3S400-4PQ208C-ND		
	STM32F103RBT6	STM32 ARM-based 32-bit MCU with 128 Kbytes Flash, 64-pin LQFP, Industrial Temperature	U8	1							
	SW-PB	Switch	S3, S4, S5, S6, S7, S9	6							
	LED0	Typical INFRARED GaAs LED	D4, D6, D7, D8, D9, D10	6							
	XCF02SVO20C	XCF00S Series, Platform Flash In-System Programmable Configuration 3.3V PROM, 20-Pin TSOP, 2-Megabit, Commercial Grade	U10	1				Digi-Key	XCF02SVO20C-ND		