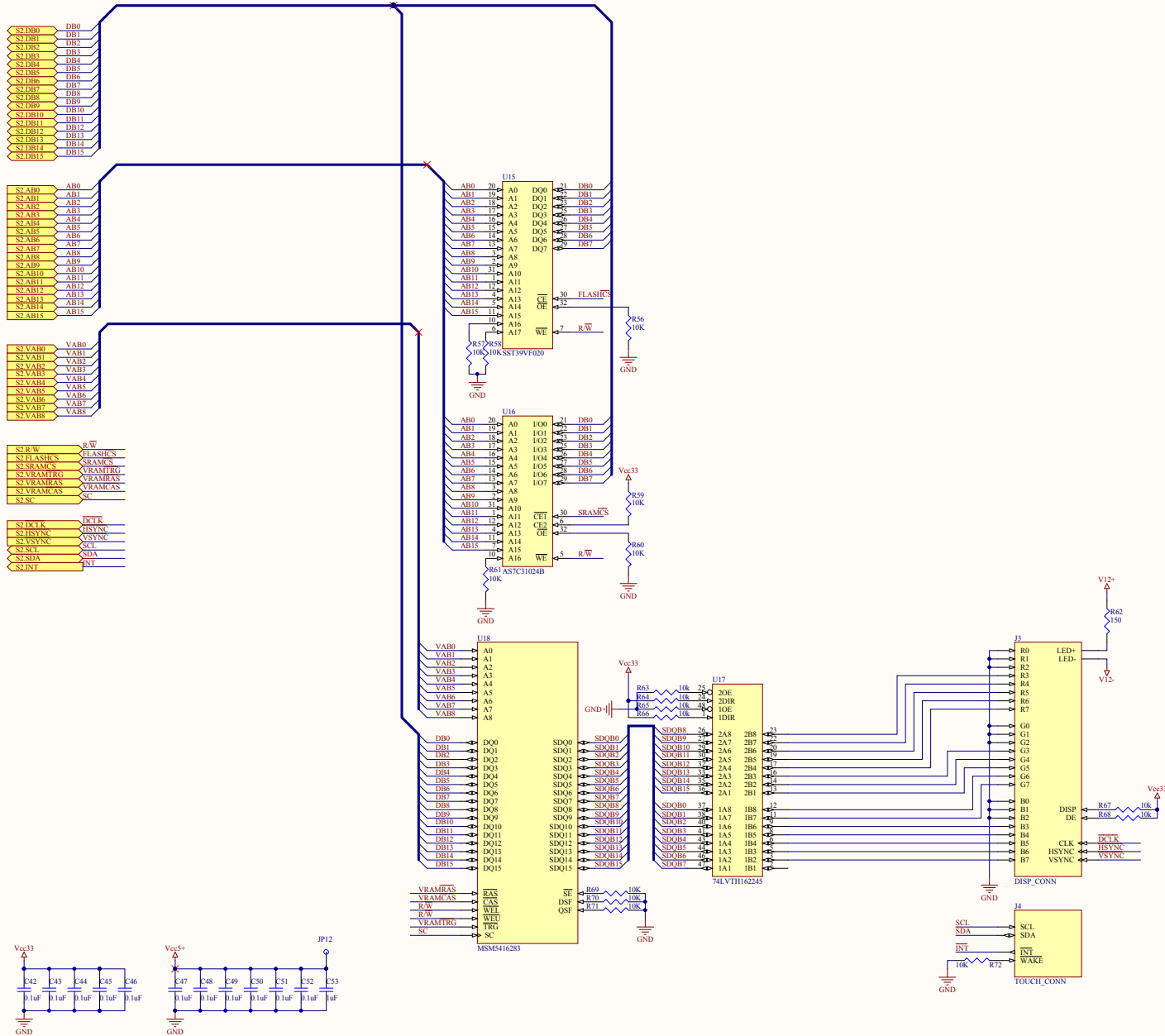
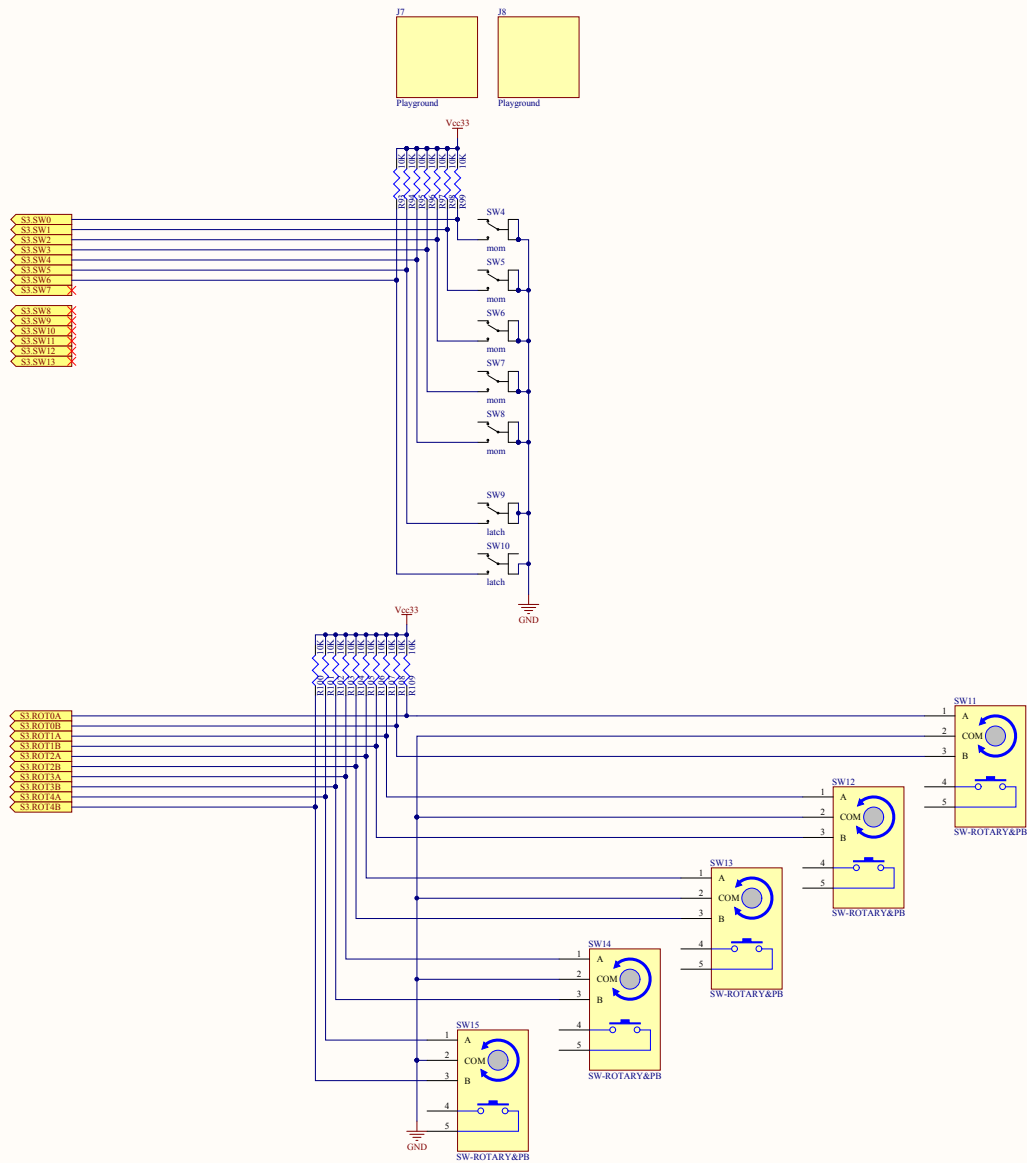


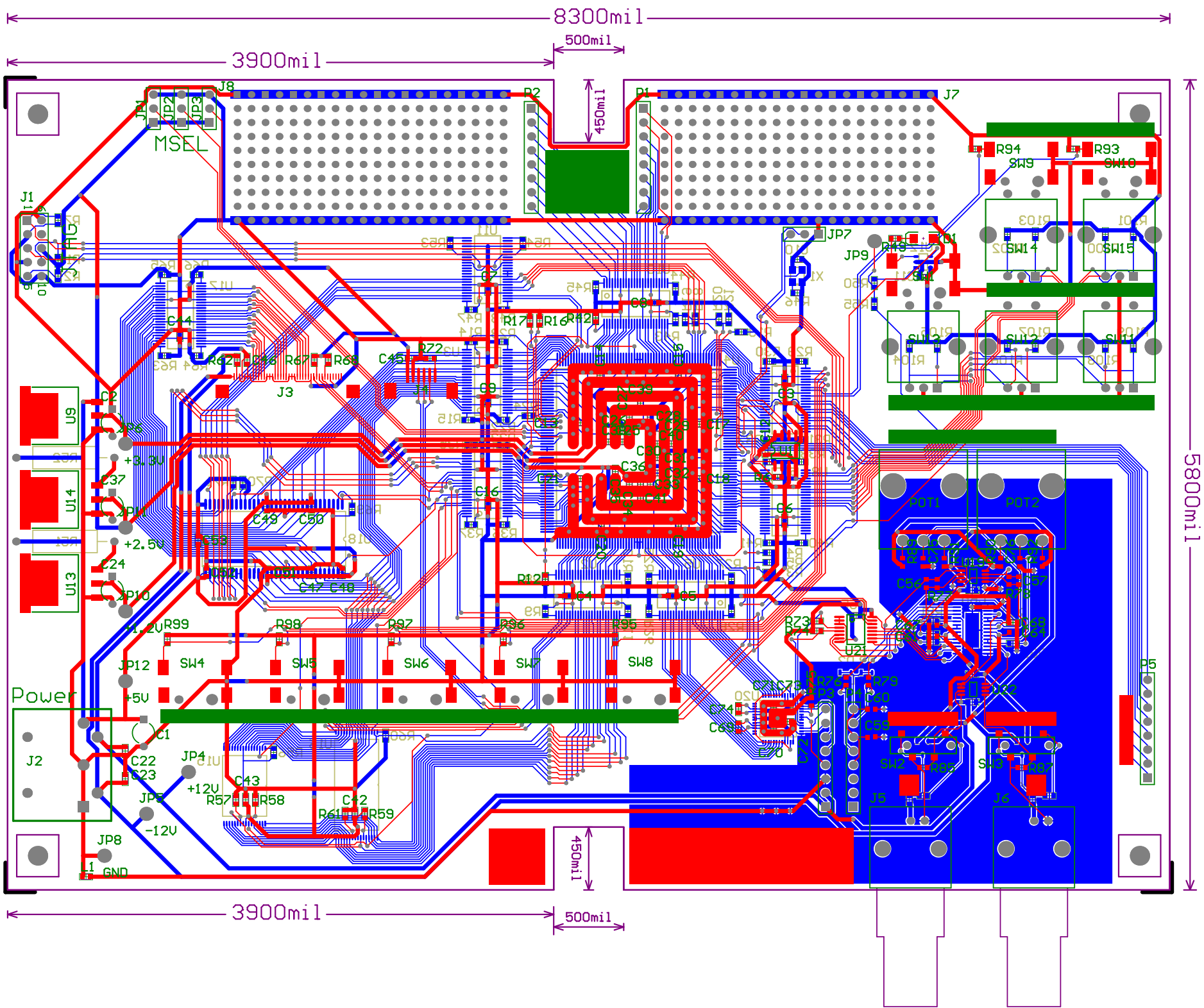
Title		
Altera Cyclone III FPGA Oscilloscope		
Size	Number	Revision
C	1	0.10
Date:	4/2/2014	Sheet 4 of 4
File:	C:\Users\JFPGA\Documents\Altera\Altera Cyclone III\Altera Cyclone III FPGA Oscilloscope\Altera Cyclone III FPGA Oscilloscope.sch	Author: Albert Gural



Title		
Altera Cyclone III FPGA Oscilloscope		
Size	Number	Revision
C	1	0.10
Date:	4/2/2014	Sheet 2 of 4
File:	C:\Users\JFPGA\Documents\Memory\KSH\Bn By: Albert Gural	



Title		
Altera Cyclone III FPGA Oscilloscope		
Size	Number	Revision
C	1	0.10
Date:	4/2/2014	Sheet 3 of 4
File:	C:\Users\JFPGA\Documents\U_Sch\Drawn By: Albert Gural	



Bill of Materials

FPGA Oscilloscope

Source Data From: FPGA-Oscilloscope.PrjPcb  
Project: FPGA-Oscilloscope.PrjPcb  
Variant: None

Creation Date: 4/2/2014 8:38:21 PM  
Print Date: 41731 41731.86006

Footprint	Comment	LibRef	Designator	Description	Quantity
CAPR5-4X5 1608[0603]	47uF	Cap Pol1	C1, C2, C24, C37	Polarized Capacitor (Radial)	4
	0.1uF	Cap Semi	C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52	Capacitor (Semiconductor SIM Model)	46
1608[0603]	10uF	Cap Semi	C22, C23	Capacitor (Semiconductor SIM Model)	2
1608[0603]	1uF	Cap Semi	C53	Capacitor (Semiconductor SIM Model)	1
1608[0603]		Cap Semi	C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76	Capacitor (Semiconductor SIM Model)	23
3.2X1.6X1.1	LED2	LED2	D1	Typical RED, GREEN, YELLOW, AMBER GaAs LED	1
SOT-23-3	SMP1307	SMP1307-005LF	D2, D3, D4, D5		4
HDR2X5_CEN	Header 5X2A	Header 5X2A	J1	Header, 5-Pin, Dual row	1
DIN5	PS_CONN	PS_CONN	J2	Elpac Compatible Power Supply Connector	1
MOLEX-40	DISP_CONN	NHD-4.3-Display connector	J3		1
MOLEX-6	TOUCH_CONN	NHD-4.3-Touch-connector	J4		1
AMP31-5540	BNC	BNC	J5, J6	BNC Connector	2
20x20	Playground	Playground	J7, J8		2
HDR1X3	Header 3	Header 3	JP1, JP2, JP3, JP7	Header, 3-Pin	4
TestPoint	TestPoint	TestPoint	JP4, JP5, JP6, JP8, JP9, JP10, JP11, JP12		8
1608[0603]	Ferrite Bead	Inductor	L1	Inductor	1
HDR1X8	Header 8	Header 8	P1, P2, P3, P4, P5	Header, 8-Pin	5
POT-3	10K	Potentiometer	POT1, POT2		2
1608[0603]	1K	RES1	R1, R2, R7, R76, R79, R84, R86		7
1608[0603]	10K	RES1	R3, R4, R5, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R50, R53, R54, R55, R56, R57, R58, R59,		87
1608[0603]	25	RES1	R6		1
1608[0603]	100	RES1	R49		1
AXIAL-0.7	1	RES1	R51, R52		2
1608[0603]	150	RES1	R62		1
1608[0603]	2K	RES1	R80, R82		2
1608[0603]	20K	RES1	R81, R83		2
1608[0603]	1M	RES1	R85, R87		2
1608[0603]	47K	RES1	R89, R90, R91, R92		4
SPDT	mom	PVB4-MOM	SW1, SW4, SW5, SW6, SW7, SW8		6
SP3T	CL-SB-13B-02T	CL-SB-13B-02T	SW2, SW3		2
SPDT	latch	PVB4-LATCH	SW9, SW10		2
ROTENCPB	SW-	SW-	SW11, SW12, SW13, SW14, SW15	Rotary Encoder with Built-In Push Button	5
	ROTARY&PB	ROTARY&PB			
SO-8	EPSC1	EPSC1	U1	Altera Serial Configuration Device	1
TSSOP48	74LVTH162245	74LVTH162245	U2, U3, U5, U6, U7, U8, U10, U11, U17	16-Bit Bus Transceiver	9
POFP240	EP3C25Q240	EP3C25Q240	U4	Cyclone III EP3C-25 FPGA PQFP240	1
TO-263	LM1086	LM1086	U9, U13, U14	1.5A Low Dropout Positive Regulator	3
SOT-23	ADM8316	ADM8316	U12	Analog Devices Watchdog Timer and Reset IC	1
TSOP-32 8x14mm	SST39VF020	SST39VF020	U15	Microchip 2 Mbit (256k x 8 bit) Multi-Purpose Flash	1
TSOP-32 8x20mm	AS7C31024B	AS7C31024B	U16	Alliance 1 Mbit (128k x 8bit) SRAM	1
SSOP64	MSM5416283	MSM5416283	U18	256K x 16bit VRAM	1
MSOP-8	AD8066	AD8066	U19, U22		2
QFP24-7x7	AD9288	AD9288	U20	Dual Channel ADC	1
TSSOP16	PCA9534	PCA9534	U21		1
SOP28	THS7002	THS7002	U23		1
OSC-3.2x2.5	OSCOE	OSCOE	X1	Oscillator with Active High Output Enable	1

Approved	Notes