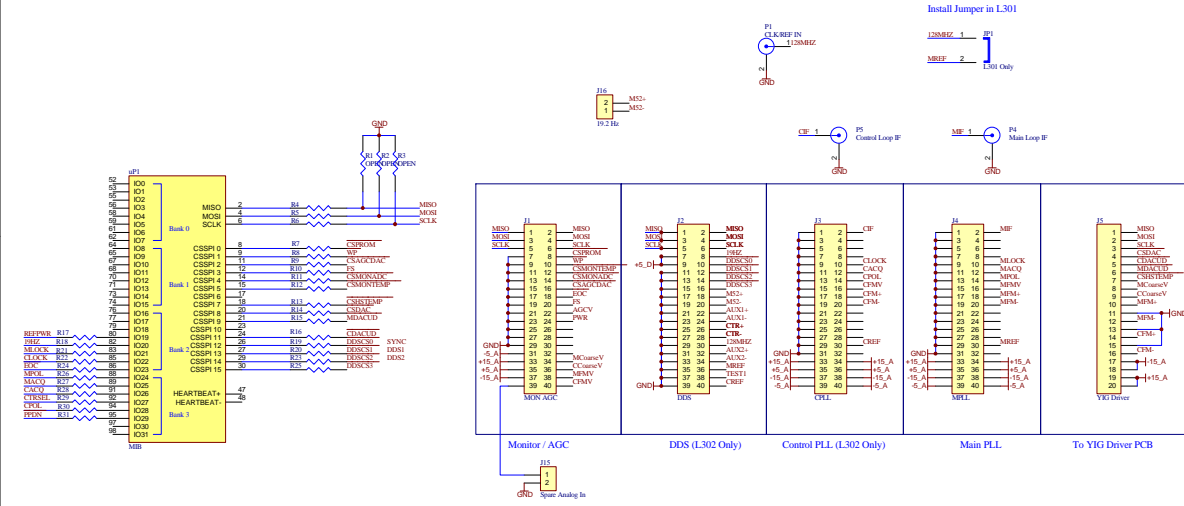
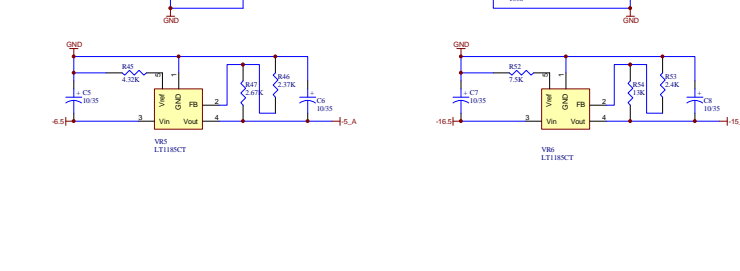
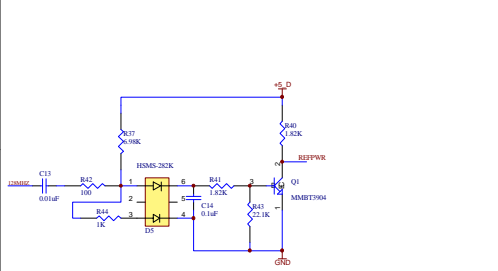
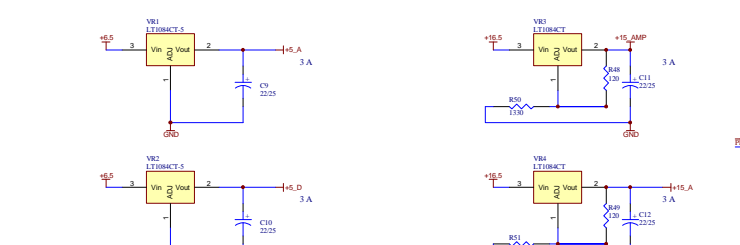
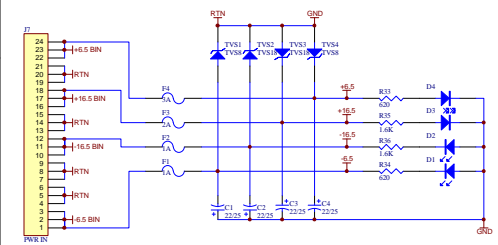


REV	DATE	DRAWN BY	APPRVD BY	DESCRIPTION
3.0				
3.1	3/2/05	JEM	JEM	Removed P7, CP1 and R2z



### Signal Name Legend

(A) Analog	(D) Digital	(D) MMSD	Master In Slave Out (in Data TO MIB)	(D) MMSI	Master Out Slave In (in Data FROM MIB)	(D) SCLK	Shift Clock	(D) CSSTRM	Chip Select (Cache Timing) DAC(s)	(D) CSSTRM1	Control Loop DAC 1 (Data)	(A) MCCaseV	Control Loop DAC Voltage	(A) CMV	Control Loop PM Cal Positive	(A) CMN	Control Loop PM Cal Negative	(A) MPM	Main Loop PM Cal Positive	(A) CPM	Control Loop P# Signal	(A) CREF	Control Loop Reference Signal	(D) MLOCK	Control Loop Lock Indicator	(D) CCLK	Control Loop Clock	(D) MACQ	Control Loop Acquire Line	(D) CPMV	Control Loop High Low Lock Select	(A) MPMV	Main Loop PM Cal Voltage	(D) DSDSP	Direct Digital Synthesizer Sys. Register	(D) DSDSP1	Direct Digital Synthesizer Chip Select DDS1	(D) DSDSP2	Direct Digital Synthesizer Chip Select DDS2	(D) DSDSP3	Direct Digital Synthesizer Chip Select DDS3	(D) DSDSP4	Direct Digital Synthesizer Chip Select DDS4	(D) M2S	Master 192 Hz (52Hz) Heartbeat LVDS Positive	(D) M2S-	Master 192 Hz (52Hz) Heartbeat LVDS Negative	(D) CTR+	Prescaler Input LVDS Positive	(D) CTR-	Prescaler Input LVDS Negative	(D) CSSTRM	Chip Select EEPROM	(D) MIP	EEPROM Write Protect	(D) PS	EEPROM Frame Sync	(D) CSSTRMTEMP	Chip Select Monitor Board Temperature Sensor	(D) CSSTRMTEMP	Chip Select YIG Temperature Sensor	(D) CSSTRMTEMP	Chip Select Monitor Board A to D	(D) DCK	Monitor Board A to D End of Conversion Flag	(D) CSAGCDAC	Chip Select Auto Gain Control D to A Converter	(A) AGCV	AGC DAC output voltage	(A) ANIN0	Analog Input A to D ch 00	(D) REFPWR	128 Site Reference Present	(A) PWR	Synch Power Output Detector	(D) PPRST	Prescaler Power Down	(D) CTRSEL	Course Select (Main Control Loop)
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E V L A C T	L301/L302 Synthesizer	NATIONAL RADIO ASTRONOMY OBSERVATORY NRAO	SOCORRO, NEW MEXICO 87801				
			DRAWN BY [drawn by]	DATE 11/2004			
T I T L E	L301, L302 Mother Board	DESIGNED BY [designed by]	DATE 11/2003				
			APPROVED BY [Approved by]	DATE			
SHEET NUMBER	1 of 1	DRAWING NUMBER	C23250Q0001	REV.	3.0	SCALE	

PROTEL: C23250Q0001Rev3\_1.Sch

UNLESS OTHERWISE SPECIFIED:  
All Resistances are in Ohms  
All Capacitors are in microfarads  
Component tolerances are 5%