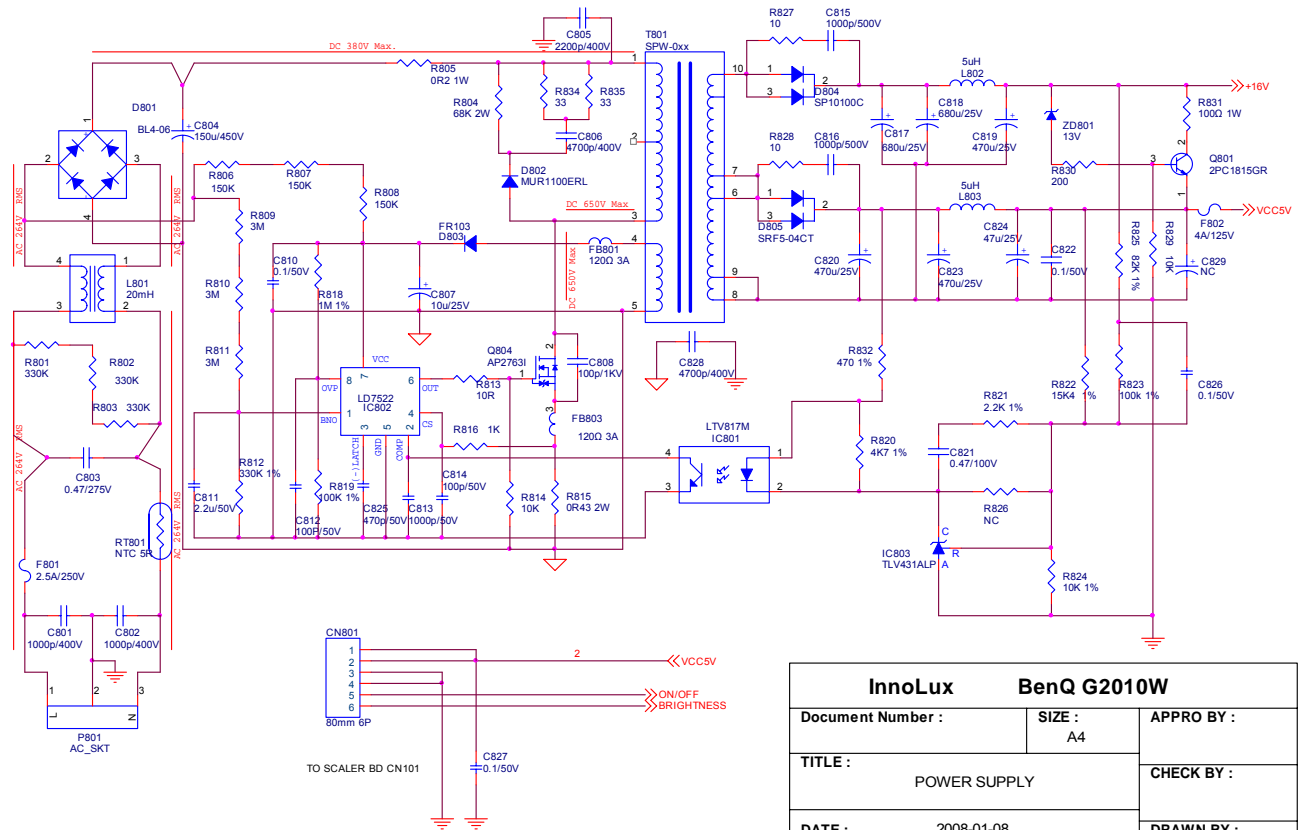


5.4 Block Diagram

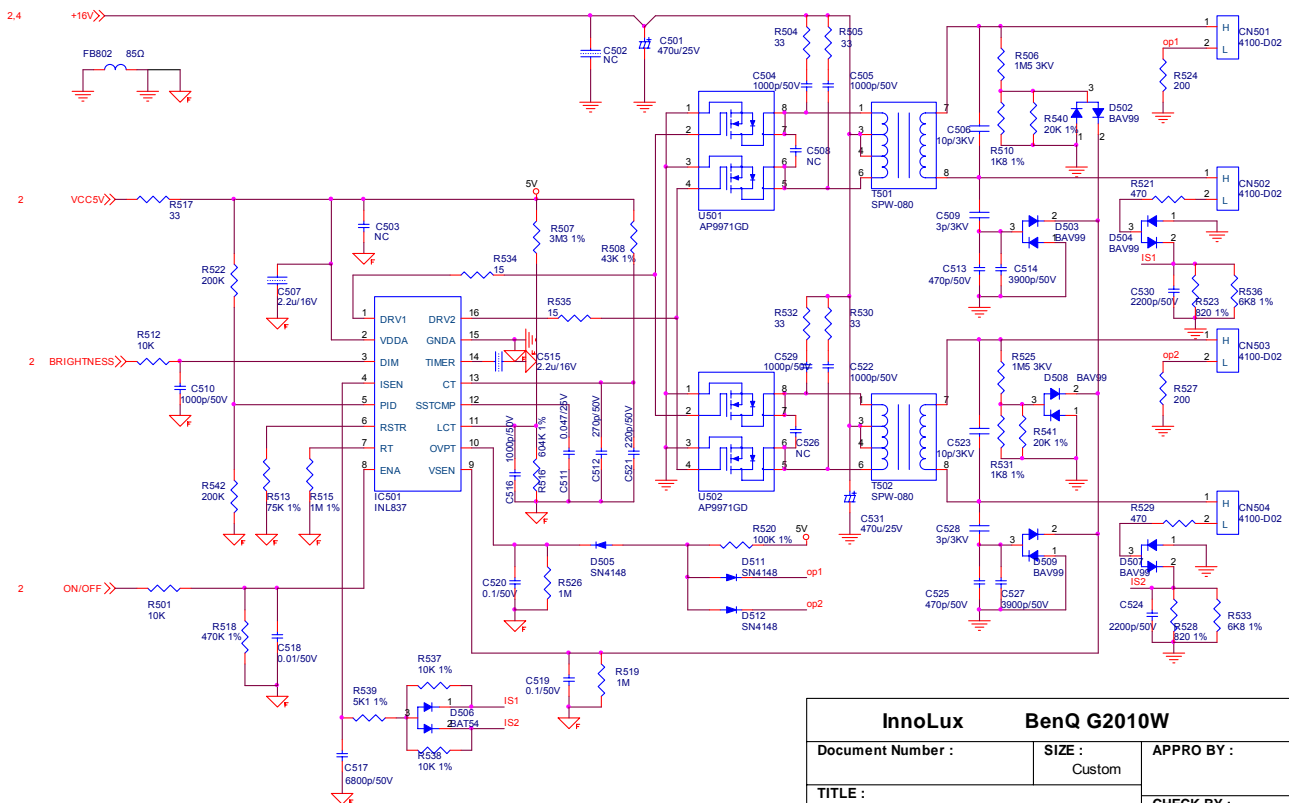
Power Board



InnoLux		BenQ G2010W	
Document Number :	SIZE :	APPRO BY :	
	A4		
TITLE :	POWER SUPPLY		CHECK BY :
DATE :	2008-01-08		DRAWN BY :
SHEET 2 OF 3	Rev :	V01	

IF Board

Inverter board



InnoLux		BenQ G2010W	
Document Number :		SIZE : Custom	APPRO BY :
TITLE : Inverter		CHECK BY :	
DATE : 2008-01-08		DRAWN BY :	
SHEET 3	OF 3	Rev : V01	

5.5 Circuit Operation Theory

5.5.1. Electronic Circuit Theory

Low voltage to high voltage circuit

16VDC provides the power for IC501; the control signals Brightness and ON/OFF come from I/F board. ON/OFF signal connect to R501 to control pin1 of IC501 and makes IC501 enable. Brightness signal connect to pin3 of IC501 and regulates the panel brightness, delaying time circuit is setting by the IC501 internal , C510 is used to dump noise. The operation frequency is determined by the external Resistor R508 and Capacitor C512,C521 connected to pin13 of IC501. BURST MODE regulated dimming frequency is determined by the external resistor R516 and capacitor C516 connected to pin11 of IC501. C511 is used for soft start and compensation, C518, C519 are used for dump noise.

The output drives, include DRV1, DRV2 (pins1,16 respectively) output square pulses to drive MOSFET U501, U502, and each of U501, U502 , is consist of dual N channel MOSFET. U501,OR U502 work as Push-Pull- topology, it is high efficient, PWM switching.

During start up, R519 senses the voltage at the transformer secondary. When OVP reaches Vense 3v Level, the output voltage is regulated. If no current is sensed approximately 2seconds IC501 shut off.