2.4 Power Control Signals

Two outputs are used to control power in the projector. PWR-EN* is driven LOW to turn on both the low voltage power supply (LVPS) and the high voltage power supply (HVPS). HTR-STBY is driven LOW during power-on to switch the heater voltage for the CRTs from a standby voltage of 4.0V to the normal operating voltage of 6.3V. Both outputs are open-drain. Applicable logic levels for both are given below.

Logic LOW level:	0.8Vdc max
Logic HIGH level:	2.4Vdc min (unloaded)

The CLM routes power from the LVPS to several different devices in the projector. KEYPAD-PWR supplies power to the built-in keypad and IR-sensor. It also powers devices plugged into the REMOTE jack. CHIP-PWR supplies power to a chip (U1) on the Backplane Board.

KEYPAD-PWR	Voltage:	+12V +/-10%
	Current:	100 mA max (shared by IR-sensor, keypad and REMOTE jack)
CHIP-PWR	Voltage:	+5V +/- 5%
	Current:	25 mA max

2.5 Diagnostic Signals

Three diagnostic signals are input on backplane connector P1; EHT-FAIL, EHT-INHIBIT and CASE-COVER. The EHT-FAIL input is driven LOW when the HVPS comes on. The EHT-INHIBIT input is driven HIGH by a scan failure or an overcurrent condition. The CASE-COVER input is currently unsupported.

2.6 Keypad Inputs

The CLM receives user input from remote and built-in keypads. The KEYPAD and IR-SENSOR inputs on backplane connector P1 and the 'REMOTE' jack on the panel expect bi-phase encoded serial data with the following specifications:

Sub-carrier frequency:	35 kHz +/- 5 kHz (IR-SENSOR input expects no sub-carrier)
Main carrier period:	761.9 us
Packet length:	10 bits (4 preamble + 6 data)
Packet duration:	7.6 ms
Packet period:	46 ms
LOW level:	0.4V max
HIGH level:	5.0V min

Two different "protocols", A and B are supported. They are identified by the fourth bit of the 10-bit packet. The bit is 0 for protocol A and 1 for protocol B. (Note: Protocol A is identical in form to protocol 2 from B09 keypads. Likewise, protocol B is identical to protocol 1.)

A waveform (in protocol B) for the data code 011001 is shown below.