JCAT USB 3.0 host controller

The JCAT board uses a NEC uDP720201 USB controller. The board has two USB 3.0 connectors supporting the following data rates: Low Speed (1.5 Mbps), Full-Speed (12 Mbps), Hi-Speed (480 Mbps) and Super-Speed (5 Gbps).

The driver for Windows XP and 7 can be downloaded from the Adnaco website by clicking on the following link http://www.adnaco.com/doc/USB3-201-202-DR-WIN-20120928.zip (link is case sensitive).
For Linux, Windows 8 and 8.1 use the built-in driver

The 5V voltage for USB connectors can be supplied from the computer connecting the J6 LP4 to the computer's power supply. If clean 5V power is required then an external power supply can be connected via the J3 power jack. The jack is 2.1/5.5 mm. The card itself does not require 5V power so for self-powered USB devices the 5V power supply is not required but **for noise sensitive and audio applications it is recommended to connect either an external 5V power supply via the J3 power jack or connect 5V via the J6 connector from the computer power supply.** The 5V voltage is additionally filtered by low noise LDOs on the JCAT board and only clean voltages are applied to the USB controller. The power selection configuration is described in Table 1.

Table 1 USB connectors power source selection

USB connector	Connector	Description
J1	J5	Selects 5V power source for J1 USB connector 1-2 – 5V from J3 power jack 2-3 – 5V from J6 LP4
	J4	1-2 – low noise LDO is used to filter noise from selected 5V power supply (max 900mA) to J1 USB connector 2-3 – selected 5V is connected directly to J1 USB connector
J2	J7	Selects 5V power source for J2 USB connector 1-2 – 5V from J3 power jack 2-3 – 5V from J6 LP4
	J8	1-2 – low noise LDO is used to filter noise from selected 5V power supply (max 900mA) to J2 USB connector 2-3 – selected 5V is connected directly to J2 USB connector