Lumenera corporation

Lt365R, Lt665R, Lt965R, Lt1265R Cameras

IMPORTANT NOTES FOR Lt365R, Lt665R, Lt965R, and Lt1265R Cameras

The latest revision of the Lt365R, Lt665R, Lt965R, and Lt1265R cameras support full power over USB at any frame rate using a USB 3.0 Y cable and enabling High Power USB Mode via software. The USB 3.0 Y cable is included with Ltx65R camera series.

POWER OVER USB 3.0 REQUIREMENTS

Note: According to the USB 3.0 specification, a certified host port can provide 900mA of power. The Ltx65R cameras can draw up to 1200 mA when operating at the faster frame rates (in 1, 2 or 4 tap modes). If you plan to use the camera at a slower frame rate, you can use a standard USB 3.0 cable for power and the entire system will be USB 3.0 compliant. In cases where the customer wants to simplify OEM integration or have specific deployments, the USB Y cable can be used to draw full power from the host computer's USB 3.0 port (data and power) and another USB 3.0 port (power only) on the same USB card/controller. In order to take advantage of this feature, the **High Power USB Mode** setting must be enabled which will allow the camera to draw power from the USB Y cable and operate at faster frame rates.

To enable the High Power USB Mode, please contact Lumenera's Technical Assistance Center (TAC) to download the utility to configure the camera. Once enabled, the camera will retain this setting even if it is rebooted.

CAMERA CONFIGURATION

The cameras support multiple sensor taps to increase the read rate of the data off the image sensor and increase the frame rate. There are also 3 clock configurations – Quarter (approx.), Half (approx.), and Full. The camera can be configured to operate off standard USB power, USB Y power or External Power under the conditions shown below.

SENSOR CONFIGURATION	CLOCK SPEED / FRAME RATE		
	QUARTER	HALF	FULL
4 Taps	Standard USB Cable	USB Y* or External Power	USB Y* or External Power
2 Taps	Standard USB Cable	Standard USB Cable	USB Y* or External Power
1 Tap	Standard USB Cable	Standard USB Cable	USB Y* or External Power

* To use USB Y cable the camera must be set to High Power USB Mode by contacting Lumenera TAC

Operation of the camera in the high power mode state can be done with one of the optional power supply options you may have ordered with your camera: La2000PK (GPIO Adapter + International Power Supply) or La2000PIOK (GPIO Adapter with IO leads + International Power Supply) OR you can use the USB Y cable provided with the camera enabled in High Power USB mode.

Note: Not all USB cards/controllers are designed to support this type of power configuration for a Y cable. If the camera is not operating at full power (LED is solid green when idle) then try alternate USB ports or cards.

LUMENERA TECHNICAL ASSISTANCE CENTER

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