



## L-VIT 2500 – the rugged, ultra-compact high speed camera

**Hi-G-rated for 150+ G, Full HD @ 2500 fps, ready to be used in the most severe environments. A robust high resolution camera for demanding applications in research and development.**

The L-VIT is particularly suited for all applications where a compact, portable, high resolution and robust camera is essential. The highly light-sensitive sensor covers the most ambitious application. The L-VIT is designed and certified to withstand G-forces in excess of 150 G /10 msec (all axes) and spikes of up to 200 G. Offering a wide range of signals for external control or feedback on camera status during tests, the L-VIT is a genuine all-in-one camera. To round it all up, the comprehensive Imaging Studio software allows easy piloting from PC, laptop or tablet PC.

### Unique features and benefits

- **Superior image quality** – with 1920 x 1080 Full HD resolution at up to 2500 fps L-VIT delivers crisp clear images.
- **Ultra compact and all in one** – L-VIT is an ultra-compact camera ready to shoot in rugged environments.
- **WLAN** – L-VIT is available with WLAN connectivity.
- **Extensions** – Extensions such as CFast Flash Disk or HDMI output on camera are available.

# L-VIT 2500 – Key Specifications

## Typical frame rates vs resolution

1920	1080	2500 fps
1920	720	3740 fps
1920	536	5000 fps
1920	260	10100 fps

Table shows typical resolution vs. fps, Resolution is freely adjustable within limitations of camera/sensor

## Recording time

<b>Memory Size</b>	4 GB	8 GB	16 GB
<b>1920 x1080 @1000 fps</b>	2 sec	4 sec	8 sec

## Optical/Sensor specifications

<b>Image Sensor</b>	CMOS Sensor
<b>Pixel Size</b>	10 micron
<b>Light Sensitivity</b>	ISO 5000 (monochrome), ISO 3600 (color)
<b>Dynamic Range</b>	10 Bit
<b>Shutter Type</b>	Global, independent of frame rate
<b>Exposure Time</b>	Free adjustable from 2 µsec to 1 / framing rate by software
<b>Lens Mount</b>	C-Mount or optional F-Mount

## Camera and control features

<b>Image Memory</b>	4 GB standard up to 16 GB optional
<b>Nonvolatile Memory</b>	Optional CFast flash card interface. Camera can save image data on flash disk w/o PC attached, ideal when using WiFi for piloting camera
<b>Power</b>	10–36 VDC / 17–30 Watts depending on options and extensions
<b>I/O Tolerance</b>	TTL level, all I/O are 0–24 V tolerant
<b>LED Control</b>	LEDs on back and front indicates camera status
<b>Reset</b>	Reset function to reset camera status w/o affecting image memory
<b>Power On/Off</b>	Switch on/off, Remote Switch on
<b>Battery 180° Version</b>	Optional NiMH battery (see options)
<b>Trigger Delay</b>	Programmable up to 65 sec
<b>Trigger Windowing/De-bouncing</b>	User programmable trigger window to eliminate false triggering by external devices
<b>Trigger Modes, Positions</b>	Pre-post recording, freely adjustable in steps of 1 frame of total camera memory
<b>Timing</b>	High precision time base, temperature compensated
<b>Multi-Buffer</b>	Split buffer for up to 100 individual buffers
<b>Auto-Download</b>	Auto download to PC for 24/7 recording or automatic download to optional flash card until flash card full
<b>Pre-Program of Camera</b>	L-VIT may be pre-programmed with a specific set of commands. Ideal when camera can no longer be accessed before test and switch on is possible only by remote switch on
<b>OSD</b>	Information on camera, recording features, time stamp, and event marker may be added in image data. Position of OSD is set by user

## Imaging studio features

<b>Imaging Studio</b>	Software suite to parameterize and control camera, handle data download and conversion of native files into most common single images and movie formats. Runs on Win 7/10, 32/64 Bit
<b>Parameterization</b>	Set all camera parameters for recording by convenient and easy-to-use software interface supports graphical setting of resolution
<b>Display</b>	Display multiple cameras simultaneously
<b>Editing</b>	Play back, edit and save sequences after recording with few clicks
<b>OSD (on screen display)</b>	OSD with camera parameters
<b>Overlay</b>	Overlay of recorded image with user adjustable opacity
<b>Analysis</b>	Simple 2D analysis for displacement, velocity angles with automatic tracking of up to 5 points included in Imaging Studio V4
<b>Export</b>	Export of AOS native file format to avi, mpeg, mpeg4, bmp, tif, png, jpg
<b>Image Processing</b>	Manual or automatic color correction and white balance functionality
<b>Batch Converter</b>	Convert native files to movie files using off-line batch conversion

## Data interface

<b>Data Interface</b>	Gigabit Ethernet (10/100/1000) with lockable RJ45 connector Optional: Ethernet on 8 pin LEMO connector
<b>WiFi</b>	Optional: Wireless interface to setup and pilot camera 2,4 Ghz / 5 Ghz, 802.11a/g/n (option)
<b>I/O Interface</b>	Solid 14 pin LEMO connector
<b>Synchronization</b>	Sync in / Sync out for phase-locked master-slave operation with other cameras or synchronization to external frequency
<b>Armed Out</b>	Armed out indicates camera is in recording mode and ready to receive trigger
<b>Trigger In</b>	Trigger input, rising, falling edge, TTL, switch closing/opening
<b>Triggered Out</b>	Indicates camera is triggered
<b>Set_To_Rec</b>	Used to set the camera from idle mode into recording
<b>Remote Switch On</b>	Switch on camera by simple 2 wire connection over a distance of up to 100 m (300 feet)
<b>Event Marker</b>	Event marker to record/mark events during image data acquisition
<b>Strobe</b>	Strobe out to synchronize external equipment to camera. Pulse width represents shutter time
<b>HDMI</b>	HDMI interface for live view on camera (option)
<b>IRIG-B</b>	IRIG-B 122 input

## Physical specifications

<b>Size &amp; Weight</b>	width: 75 mm / height: 75 mm / length: 75 mm / 950 gr width: 2.95" / height: 2.95" / length: 2.95" / 1.5 lb
<b>Operating Temperature</b>	-10 ... +45 °C / +14 ... +113 °F
<b>Storage Temperature</b>	-40 ... +70 °C / -40 ... +158 °F
<b>Shock Resistance</b>	150 G / 10 msec all axis, spikes up to 200 G
<b>I/O Connector</b>	LEMO type ref. FGG.2B.314.CLAD72Z (cable type)
<b>CE</b>	In compliance with relevant standards
<b>Mounting</b>	¼" UNC thread, bottom / M6 mounting threads on 4 sides

## Optional extensions (change of camera size)

<b>Non-volatile Storage Devices</b>	CFast flash card interface	width / height / length: 75 mm / 75 mm / 124 mm 2.95" / 2.95" / 4.88"
<b>WiFi Interface</b>	Wireless interface for setup and piloting of camera	width / height / length: 75 mm / 75 mm / 124 mm 2.95" / 2.95" / 4.88"
<b>HDMI</b>	HDMI interface on camera	width / height / length: 75 mm / 75 mm / 124 mm 2.95" / 2.95" / 4.88"
<b>Battery</b>	Built in NiMH battery for up to 30 mins autonomous time	size 75 mm / 75 mm / 124 mm
<b>AK Interface</b>	Single push-pull connector interface carrying discrete I/O and Ethernet link according recommendations of German Arbeitskreis	

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