L-VIT 2500 – High Speed Camera

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.

AOS Technologies AG
Taefernstrasse 20
CH-5405 Baden-Daettwil

Tel. +41 (0)56 483 34 88
info@aostechnologies.com
www.aostechnologies.com

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

Memory Size	4 GB	8 GB	16 GB
1920 x1080 @1000 fps	2 sec	4 sec	8 sec

Optical/Sensor specifications

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

Camera and control features

Image Memory	4 GB standard up to 16 GB optional
Nonvolatile Memory	Optional CFast flash card interface. Camera can save image data on flash disk w/o PC attached, ideal when using WiFi for piloting camera
Power	10–36 VDC / 17–30 Watts depending on options and extensions
I/O Tolerance	TTL level, all I/O are 0–24 V tolerant
LED Control	LEDs on back and front indicates camera status
Reset	Reset function to reset camera status w/o affecting image memory
Power On/Off	Switch on/off, Remote Switch on
Battery 180° Version	Optional NiMH battery (see options)
Trigger Delay	Programmable up to 65 sec
Trigger Windowing/ De-bouncing	User programmable trigger window to eliminate false triggering by external devices
Trigger Modes, Positions	Pre-post recording, freely adjustable in steps of 1 frame of total camera memory
Timing	High precision time base, temperature compensated
Multi-Buffer	Split buffer for up to 100 individual buffers
Auto-Download	Auto download to PC for 24/7 recording or automatic download to optional flash card until flash card full
Pre-Program of Camera	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
OSD	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

Imaging Studio	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
Parameterization	Set all camera parameters for recording by convenient and easy-to-use software interface supports graphical setting of resolution
Display	Display multiple cameras simultaneously
Editing	Play back, edit and save sequences after recording with few clicks
OSD (on screen display)	OSD with camera parameters
Overlay	Overlay of recorded image with user adjustable opacity
Analysis	Simple 2D analysis for displacement, velocity angles with automatic tracking of up to 5 points included in Imaging Studio V4
Export	Export of AOS native file format to avi, mpeg, mpeg4, bmp, tif, png, jpg
Image Processing	Manual or automatic color correction and white balance functionality
Batch Converter	Convert native files to movie files using off-line batch conversion

Data interface

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

Physical specifications

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

Optional extensions (change of camera size)

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

Your local AOS partner:

AOS Technologies AG

Specifications are subject to change without prior notice – v10.2019