2012

Creativity Progress & Excellence

Network Product

🔴 LILIN®

Introducing LILIN's standalone NVR capable of recording 16 channels of 1080P at 25FPS; a real world's first

The past

When we look back at the way DVRs came to dominate the CCTV sector, we can learn a little from history; the first Digital Video Recorders on the market were PCs with capture cards and recording software. As demand increased manufacturers invested in developing "stand-alone" appliances. These DVRs used hardware to digitise the video channels and store the data on hard drives without using a PC. As time went on the prices came down the functions improved and most importantly, end users became comfortable using these devices.

The present

Skip forward to the IP recording solutions of today and the vast majority are PC based running Network Video Recording software. In some of the very large systems this may always be the case but the majority of camera systems are 36 channels or less. If we look at the biggest users of cameras – retailers - they typically have less than 16 cameras per store, generally these users prefer not to have to rely on PCs for operating their systems.

The future

So now the time has come for the standalone NVR; an appliance capable of recording HD quality IP video streams but offering the familiarity and ease of use that DVR users expect. However this is more of a challenge than most realise; recording and displaying 16 HD channels in real time requires some heavy duty processing power, hence why PCs have remained dominant to date.

Meet Steve Hu

4 years ago Steve and his R&D team realised that history would probably repeat itself so they decided to do the difficult thing and to develop a hardware based solution that would be as easy to operate as a DVR but deliver the HD quality that IP now offered. It would also be simple to install and configure enabling security installers to transition to IP technology.

The challenge

Back then there were no Application Specific Processors capable of decoding that many channels of HD and displaying them simultaneously on one screen. Undaunted, Steve and his team began working on the architecture and operating system whilst collaborating with the leading chip developers to bring the technology to life. This period enabled some other ideas to flourish; a touch screen interface that allows multi-touch operation like digital zoom and image panning with an icon based menu system that will be familiar to smart phone users around the world.

The right thing

It hasn't been easy, it has taken a long time and a massive R&D investment by LILIN, but as a manufacturer of DVRs and IP cameras, we only had to look back a few years to see where the future might lead. It would have been easier to develop software or rely on third party software developers but we had a strong feeling we knew what the market would want, we knew what the installers were comfortable with and we knew what end users liked.

LILIN

We chose to do the difficult thing, to take on the challenge and deliver what the customer wants

You must see this

The NVR Touch offers stunning HD quality recordings at real time for up to 16 channels; multiple NVRs can be controlled by our free CMX central management software providing 72 channels across two monitors. It can be controlled by the front panel like a traditional DVR, by the IR remote control, our standard joystick keyboard or the wonderful touch screen option. Users can also connect directly via a web browser or a wide range of mobile devices and tablets. The difficult thing for us now is to explain to you how well this all works. It is one of those products that has to be seen; you have to play with it to understand what we've done. We'd love to show it to you in the flesh so why not give us a call and we will come by and show you the future.

The solution

In May this year LILIN unveiled the NVR Touch. Steve's team have developed a single PCB to deliver all this functionality. It has been packaged into a DVR form with front buttons and a jog shuttle control, plus a DVD writer and USB socket for copying recordings. The board can support 8 SATA drives so the larger HD format files can be stored for long periods. We were able to carefully cost engineer the hardware meaning the end product is not much more expensive than a good quality DVR and less expensive than PC based NVRs. As with DVRs there are no license costs at all for this NVR.

Steve Hu
Product Manager

NVR Touch highlights

• 4/9/16 channel versions
• Records each channel at 1080P up to 25FPS
• Auto camera detection
• Up to 16TB storage
• VGA and HDMI monitor outputs
• DVD and USB backup
• Broad remote device support
• Simple user operation
• No licences required

Creativity
Progress &
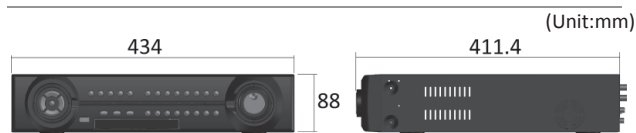Excellence

NVR116D / NVR116

1080P real-time multi-touch
16 channel standalone NVR

Features

- Multi-touch screen supported
- 1080P 16 channel real-time NVR up to 48 Mbps throughput
- Full HD 1920×1080 HDMI output
- Support 8 SATA HDDs, 1 eSATA
- 3G mobile phone (iPhone, iPad, Android, and Blackberry) solutions provided.
- Slim DVD/RW or external USB DVD/RW (Optional).
- CMX Software HD 3.6 supported.

H.264	HDMI	PIP 01 02	CAMERA GUI	Motion	FTP	File Backup	Power Saving
Mobile	Web viewer	Audio	DVD/RW	Mouse	USB		

Dimensions 434mm x 411.4mm x 88mm

(Unit:mm)

434   411.4   88

NVR	
H.264 1080P real-time multi-touch standalone NVR	

Model		NVR116D / NVR116
		D: Internal SATA HDD and built-in Slim DVD/RW -: Internal SATA HDD
IP video supports		Network camera, network speed dome, and video server
IP video input		Up to 16-channels 1080P
Max network throughput		48 Mbps
HDD disk supported		SATA Port x8
External RAID supported		e-SATA Port x1
Recording	Recording mode	External alarm / motion detection / schedule / manual
	Resolution	1080P/ 720P/ D1/ VGA
	Recording video	1080P/ 720P/ D1/ VGA
	Schedule	7 day x 24 hrs time table, recording mode configurable
Backup	Backup	USB 2.0 flash disk / HTTP file download / Audio supported
	DVD/RW	Slim DVD/RW or External USB DVD/RW
Playback	Resolution	1080P/ 720P/ D1/ VGA
	Playback video	1080P/ 720P/ D1/ VGA
	Speed	FR: 2X, 4X, 8X,16X, 32X, 64X FF: 2X, 4X, 8X,16X, 32X, 64X
Video output	HDMI output	1920 x1080P
	VGA output	Up to 1920 x1080P
	Backlight saving	LCD backlight saving mode
	Multi-touch	Support USB multi-touch screen
Multiplexer	Multiplexer	Freeze
	Split screen	4, 8, 9,13,16
	Digital zoom	Up to 64X on live and playback
Management	Reports	Full alarm, configuration, and operation reports exporting over HTTP or USB
	Authentication	User authentication with feature configurable
	Recording day	Recording day calculator
Alarm/event	Alarm/event	DI x 8 and DOx 2 (NO/NC)
	Motion	Motion grid 20x12 each channel, 8 sensitivities
	Event	External alarm, video loss, stop recording, power recovery, motion detection, schedule, logon, HDD format
	Email	Alarm notification with JPEG attachments

NVR		
Accessories	Accessories	Remote controller addressable up to 255 NVRs
	P/T/Z protocol	LILIN MLP1/ 2 and pelco D/ P
	Keyboards	PIH-931D keyboard
	IR receiver	Extra IR extension connector
	RS-485/RS-232	RS-485 keyboard connector, Input and output x 2, 12V output, RS-485 PTZ output x 1
	Jog & shuttle	FF, FR, step, instant rewind, menu setup
	Mouse	USB, mouse-click, mouse scroll, mouse drag
	Audio out	RCA, 1 output
	Remote control	Yes
Network Ports	Network ports	Gigabit LAN, RJ45 x1
	Network	Direct Internet browser access / multiple users access
	Protocols	ARP / TCP/IP / UDP / HTTP / SMTP / FTP / DDNS
	Web	Live / event log & time search playback / AVI
	NVR status	HTML NVR status
	IPScan	IP scan supported, automatically quick IP address setup for IP cameras and NVRs
Software	Backup manager	Multiple NVRs FTP file download and multi-channel playback
	Mobile phone	iPhone, iPad, Android and Blackberry mobile phone supported
Others	WDT	Hardware watchdog timer
	DST	Daylight saving time
	Multilanguage	English, Chinese, Spanish, German, French, Portuguese, Italian, Turkish
	CPU/OS	ARM Cortex A9 Processor @ 600 MHz, Linux 2.6 kernel
Power	Power	DC 12V, 10A / 120W
	Working env.	Temp: 0°C ~ +45°C / Humidity: 0%~80%
	Dimension	434 x 411.4 x 88 mm
	Weight	5.0 Kg (w/o HDD)

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