1.0 Manufacturer

Merit LILIN Ent. Co., Ltd.
No. 20, Wugong 6th Road,
Wugu District, New Taipei City 248

Manufacturer shall warrant the camera to be free from defects in material and workmanship for two years from the purchase date.

2.0 Description

- High speed, programmable dome with high resolution color camera
- 36X optical zoom, 256X digital zoom, and 92126X total zoom capabilities
- Dome to conform to RoHS initiative standards

IPS9364 / IPS9368 is a professional IP network outdoor speed-dome camera capable of making 360 degree continuous rotation at up to 255 degrees per second, ensuring direct and accurate target positioning. IPS9364 / IPS9368 uses Internet Protocol (IP) to transmit video streams and control signals over networks, and is capable of operating over both LANs and WANs. IPS9364 / IPS9368 provides a complete budget-conscious remote surveillance solution that is ultra clear and highly integrated. IPS9364 / IPS9368 combines a user-friendly interface and simplified installation with a powerful feature set, including Motion Detection and Alarm Detection to provide users an easy upgrade path to new digital surveillance system in a virtual environment. These highlights make IPS9364 / IPS9368 an ideal choice for environments that require remote surveillance or video transmission.

3.0 Performance Specifications

The dome assembly must be comprised of a high-speed pan/tilt assembly, high-resolution color camera with 36X optical zoom, 256X digital zoom permitting up to 9216X total zoom. The camera/lens assembly must provide for continuous, full-time, autofocus capabilities.

The pan mechanism must incorporate a sealed precision slip ring to provide 360° of continuous pan rotation. The tilt mechanism must provide for 120° of travel. Precise manual panning and tilting must be achievable through a combination of variable-speed operator control (speed ranges) and automatic adjustment of these speed ranges dependent upon zoom factor. Manual pan and tilt speeds must range from 0.15° to 120° per second. Preset pan speeds must range from 1° to 255° per second, and preset tilt operating speeds must be from 1° to 255° per second. Pan and tilt speeds will be automatically adjusted by the zoom factor to allow the user the same ease of control, regardless of the field of view. High-speed, DC direct-drive motors must be used to maintain high torque through the entire operating range. These motors must use pulse-width modulation and encoder feedback to control the acceleration, speed, and

deceleration of the motors to ensure smooth, precise, accurate, and fluid movement. The design shall use DC direct-drive motors and no belt to ensure long-term, reliable operation.

4.0 Bid Specification

4.1 The camera shall have 3.3 mm (WIDE) to 119 mm lens, with maximum aperture of 1: 1.4 (Wide) ～ 4.2 (Tele).

4.2 The camera shall support 360 degree continuous panning at speeds up to 255 degrees per second.

4.3 The camera shall support tilt functions from -6 to 96 degrees at speeds up to 255 degrees per second.

4.4 The camera shall be H.264, Motion JPEG compliant.

4.5 The camera shall have triple standard compression support with simultaneous streaming of H.264 and Motion JPEG formats.

4.6 The camera shall have multi-streaming support of up to 2 non-identical concurrent streams (different frame rate, bit rate, resolution, quality, and compression format).

4.7 The camera shall have bit rate control for full view, multi view, and archiving.

4.8 The camera shall have Real Time Streaming Protocol (RTSP) support allowing for compatibility with media players such as RealPlayer, Apple QuickTime, VLC Player and others.

4.9 The camera's H.264 implementation shall maintain full real time video frame rates.

4.10 The camera shall output at a maximum resolution of H.264 : up to 30/25 FPS at 960H resolution.

4.11 It shall be possible to program the camera to output a variety of lower resolution images. For example, 960H : 960 x 480 (NTSC) / 960 x 576 (PAL) , D1 : 720 x 480 , CIF : 352 x 240.

4.12 The camera shall support a minimum HTTP, and RTSP/RTCP network protocols.

4.13 The camera shall feature automatic exposure, automatic white balance, shutter speed control, programmable brightness, saturation, contrast, instantaneous digital zoom, and electronic image mirror and flip.

4.14 The camera shall incorporate necessary algorithms and circuits to detect motion in low light with clarity.

4.15 The camera shall support a minimum illumination of 0.1 lux at F1.3 in color mode or 0.05 lux at F1.4 in mono mode.

4.16 The camera's primary power source shall be AC24V or AC100 ～ 240V power supply.

4.17 The camera's operating ambient temperature shall be -10°C ° ～ +50°C (-14°F ～122°F) for warm start conditions.

4.18 The camera shall be CE compliant.

4.19 The camera shall have total unit dimensions of ø 155 mm x 245 mm.

4.20 The camera shall have a total unit weight of 2300g.

5.0 Quick-Spec

36X Day & Night WDR 650TVL Speed Dome IP Camera (Indoor)					
General	Model	**IPS9364N**	**IPS9368N**	**IPS9364P**	**IPS9368P**
	System	NTSC		PAL	
	Power Supply	AC24V	AC100～240V	AC24V	AC100～240V
	Power Consumption	15W			
	Image Pick-up Device	Sony 1/4" 960H			
	Effective Pixels	976(H) x 494 (V)		976(H) x 582(V)	
	Total number of pixel	1028(H) x 508(V)		1028(H) x 596(V)	
	Scanning System	2:1 Interface			
	Scanning Frequency	15.734KHz(H) / 60Hz(V)		15.625KHz(H) / 50Hz(V)	
	Synchronization	Internal / Line Lock Selectable			
	Video Output	CVBS 1.0 Vp-p / 75Ω BNC			
	Horizontal Resolution	Color: 650 TV Lines, Mono: 700 TV Lines			
	Signal to Noise Ratio	More than 50 dB (AGCL Off)			
	Minimum Illumination	Color : 0.1 Lux at F1.4 , Mono : 0.05 Lux at F1.4			
	Ambient Operating Temperature	-10°C～ +50°C (-14°F～ 122°F)			
	Operating Humidity	0%～90%			
	Dimension	Φ 155 mm x 245 mm			
	Weight	2300g			
Pan & Tilt	Panning Range	360° Endless			
	Panning Mode	Manual, Auto, Manual Position, Sequential Position			
	Panning Speed	Manual Approx. 0.15°/s ~ 120°/s 8 Steps, Preset Approx. 1°/s ~ 255°/s, Alarm Trigger Speed 360°/s			
	Tilting Range	- 6°～ + 96°			
	Tilting Mode	Manual, Auto, Manual Position, Sequential Position			
	Tilting Speed	Manual Approx. 0.15°/s – 120°/s 8 Steps, Preset Approx. 1°/s – 255°/s, Alarm Trigger Speed 360°/s			
LENS	Zoom Ratio	36x Optical Zoom			
	Focal Length	3.3mm～119mm			
	Minimum Aperture Ratio	1 : 1.4 (Wide) – 4.2 (Tele)			
	Minimum Object Distance	1.5m (Tele)			
	Iris Range	F1.6～ 360 , Close			
	Angle Field of View	Wide : 69.52° (D) 58.00° (H) 45.30° (V) / Tele : 2.20° (D) 1.72°			

		(H) 1.38° (V)	
Main Functions	Control Interface	RS-485 Transmission	
	Protocol	LILIN (MLP1,MLP2) / PELCO-D / PELCO-P / Panasonic / Kalatel	
	Control Function	Pan and Tilt / Zoom and Focus / Iris and ICR / 128 Preset Position / Home Position / Patrol	
	Character Display	On / Off (Preset ID : 16 Alphanumeric Characters , Zoom Ratio , Alarm Message , Date / Time , Pan / Tilt Angle)	
	Password Lock	Function Setup	
	Digital Zoom Ratio	256X	
	Zoom Speed	Slow / MID. / Fast Selectable [Fast : Approx. 7.0 Second (Tele to Wide) in Manual Mode]	
	Focus Speed	Slow / MID. / Fast Selectable [Fast : Approx. 7.0 Second (Tele to Wide) in Manual Mode]	
	Auto Focus	Auto / One Push	
	Iris	ALC (Adjustable Output Target Level) / Manual	
	Day & Night	Day / Night / Auto / Schedule	
	Electronic Image Stabilizer	Off/On	
	Electronic Shutter Speed	1/60 to 1/100,000	1/50 to 1/100,000
	Slow Shutter Speed	Up to 15 field	
	Exposure Mode	Auto / Manual	
	Wide Dynamic Range	Off / On (60dB)	
	BLC (Back Light Compensation)	Off / On	
	Sharpness	Adjustable	
	HLC (High Light Compensation)	Off / On / Auto	
	White Balance	ATW / AWC / Manual (1800K ~10500K)	
	Auto Gain Control	Off / Low / Middle / High	
	Digital Effect	Off / V-Flip / Mirror / Rotate	
	Alarm Input / Output	3 Input [Alarm In 1 ~ 3 (NC / NO) (TTL 5Vdc)] , 1 Output (Alarm Out NC / NO) (0.5A 120Vac,1A 24Vac	
	Privacy Zone	Off / On Selectable (Up to 8 zones settings)	
	2-Way audio supported	G.711	
	Schedule Setting	Alarm Input / Auto Mode / Daylight Saving Time	
	ATR (Adaptive tone reproduction)	Off / On (Low / Middle / High)	
NETWORK			

Video compression	H.264, Motion JPEG
Resolution	960H : 960 x 480 (NTSC) / 960 x 576 (PAL) , D1 : 720 x 480 , CIF : 352 x 240
Frame rate	H.264 : up to 30/25 FPS at 960H resolution
	Motion JPEG : up to 30/25 FPS at D1 resolution
Video streaming	RTP/HTTP, RTP/TCP, RTP/UDP/Multicast
Video bitrate	128 Kbps to 5 Mbps
	Frame rate and bitrate controllable on-the-fly
	VBR / CBR / GOP supported
Security	Base64 HTTP encryption
	Multiple user access levels with password protection
	10 user accounts available
Users	8 simultaneous users
Alarm Function	Image upload over FTP and email by alarm / motion detection
CPU, memory	Embedded SoC ARM11, 528MHz, 256MB DDR2, 256MB flash memory
Web PTZ control	Pan, tilt, zoom in / out, absolute position, and video-click-n move
PTZ preset scheduling	Yes, via Web interface
Maintenance	Firmware update via HTTP
	Firmware available at Website
Network Interface	10Mbps / 100Mbps, RJ-45
Client PC requirement	OS: Windows 2000, Windows XP, Windows Vista, Windows 7
	Browser: Windows Internet Explorer 6, 7, 8
	CPU: Intel Pentium 4 1.8GHz or above
	RAM: 1GB or above, independent display card
Network protocols	IP, TCP, UDP, HTTP, SMTP, NTP, DDNS, UPnP, FTP, ARP, DHCP, PPPoE, DNS, Telnet, RTSP, RTCP, ONVIF, ICMP, IGMP
Mobile phone	iPhone, iPad, and Android support
System integration	ONVIF & LILIN HTTP API
CMX	CMX HD 3.6 support
Video display	LILIN Universal ActiveX & LILIN Java Applet
OS	Embedded Linux 2.6.32