

# Toshiba IP Video Monitoring/Surveillance Cameras

## IP NETWORK CAMERAS

## ANALOG CAMERAS



CAMERA MODEL	IK-WB02A	WB02-KIT-3-8	IK-WD01A	IK-WR01A	IK-WB21A	IK-WB15A	IK-6210A	IK-6420A	IK-6550A	IK-64DNA	IK-65WDA
Image sensor	1/3" IT CCD	1/3" IT CCD	1/4" IT CMOS	1/3" IT CCD	1/4 Super CCD	1/4 Super CCD	1/3" IT CCD	1/3" IT CCD	1/3" IT CCD	1/3" IT CCD (IR)	1/3" IT CCD
Maximum resolution	640 x 480	640 x 480	640 x 480	640 x 480	1280 x 960	1280 x 960	350 TV Lines	540 TV Lines	540 TV Lines	570 TV Lines (B/W), 480 (C)	520 TV Lines
Minimum illumination	0.2 lux @ F=1.0	0.2 lux @ F=1.0	0.1 lux @ F=1.4	0.2 lux @ F=1.0	0.13 lux @ F=1.6	0.18 lux @ F=1.9	0.2 lux @ F=1.0	0.2 lux @ F=1.0	0.2 lux @ F=1.2	0.003 (B/W), 0.1 (C) @ F=1.2	0.001 lux @ F=1.2
Compression	Motion JPEG	Motion JPEG	Dual MPEG-4/JPEG	Motion JPEG	Motion JPEG	Motion JPEG	--	--	--	--	--
Frames per second	Up to 30	Up to 30	Up to 30	Up to 30	Up to 30	Up to 30	--	--	--	--	--
Lens	not included	2.9-8.0mm AI	Varifocal 2.0-4.0mm	3.0mm to 8.0mm	4.00mm to 88mm	2.8mm to 7.3mm Varifocal	not included	not included	not included	not included	not included
Zoom	--	Manual (2.75x optical)	2X optical, 4x digital	Manual (2.6x optical)	22x optical	2.6x optical	--	--	--	--	--
Lens changeable	CS-Mount	CS-Mount	na	CS-Mount	No	No	CS-Mount	CS-Mount	CS-Mount	CS-Mount	CS-Mount
Ethernet network	10 Base T/ 100 Base TX (RJ45)	10 Base T/ 100 Base TX (RJ45)	10 Base T/ 100 Base TX (RJ45)	10 Base T/ 100 Base TX (RJ45)	10 Base T/ 100 Base TX (RJ45)	10 Base T/ 100 Base TX (RJ45)	--	--	--	--	--
Power over Ethernet	802.3af	802.3af	802.3af	802.3af	--	802.3af	--	--	--	--	--
Auto white balance (AWB)	Yes	Yes	Yes	Yes	Normal/ wide	Normal/ wide	Yes	Yes	Yes	Yes	Yes
AWB range	2500° K to 10000° K	2500° K to 10000° K	2500° K to 10000° K	2500° K to 10000° K	--	--	2500° K to 10000° K	2500° K to 10000° K	2500° K to 10000° K	2500° K to 10000° K	2500° K to 10000° K
Synchronization system	Internal or AC line lock	Internal or AC line lock	Internal or AC line lock	Internal or AC line lock	--	--	Internal or AC line lock	Internal or AC line lock	Internal or AC line lock	Internal or AC line lock	Internal or AC line lock
Day/night imaging	Yes	Yes	--	--	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sharpness	--	--	--	--	Sharp/Standard/Off	Yes	--	--	Low/Mid/High	--	Low/Mid/High
Color gain	--	--	--	--	Yes	Yes	--	--	--	--	--
Digital noise reduction	--	--	--	--	--	Yes	Yes	Yes	Yes	--	Yes
Automatic gain control	--	--	Yes	--	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pan	--	--	±175°	Manual	350°	112°	--	--	--	--	--
Tilt	--	--	+85° to -35°	Manual	60°	54°	--	--	--	--	--
Optional external memory	SD card	SD card	--	--	SD card	SD card	--	--	--	--	--
Motion detection	Yes	Yes	Yes	Yes	Yes	Yes	--	--	--	--	--
Backlight compensation	Yes, Selectable	Yes, Selectable	Yes, Selectable	Yes, Selectable	Yes, selectable	Yes, selectable	Yes	Yes	Yes	Yes	Wide Dynamic (6 mode)
Audio	Mic in/ Line out	Mic in/ Line out	Mic in/ Line out	--	Mic in/ Line out	Mic in/ Line out	--	--	--	--	--
Alarm I/O	Yes	Yes	Yes (email, FTP)	--	Yes	Yes	--	--	--	--	--
Hybrid camera	IP and analog	IP and analog	--	IP and analog	--	--	--	--	--	--	--
Power	PoE, 24V AC & 12 V DC	PoE, 24V AC & 12 V DC	PoE, 12 V DC	PoE, 24V AC & 12 V DC	12 V DC	PoE, 12 V DC	24 V AC, 12 V DC	24 V AC, 12 V DC	24 V AC, 12 V DC	24 V AC, 12 V DC	24 V AC, 12 V DC
Power consumption	3 watts	3 watts	3.6 watts	4 Watts	10 Watts	10 Watts	4.5 Watts	4.5 Watts	4.5 Watts	4.5 Watts	4.5 Watts
Environmental rating	--	--	--	IP66	--	IPX3	--	--	--	--	--
Safety standard	UL2044	UL2044	UL2044	UL2044	UL2044	UL6500/cUL	UL2044	UL2044	UL2044	UL2044	UL2044
Emission standard	FCC Class A, DOC Class A	FCC Class A, DOC Class A	FCC Class A, DOC Class A	FCC Class A	FCC Class A	FCC Class B	FCC Class A	FCC Class A	FCC Class A	FCC Class A	FCC Class A
RoHS compliant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Software	Camera Finder	Camera Finder	ActiveX plug-in	Camera finder	Camera finder	Camera finder	--	--	--	--	--
Operating system	Linux	Linux	Linux	Linux	Linux	Linux	--	--	--	--	--
Vandal resistant	--	--	--	Yes	--	--	--	--	--	--	--
Transformer	--	24VAC, 20 VA	--	--	12V	12V	--	--	--	--	--
Mount (included)	--	6" universal mount (indoor)	Flush or Ceiling	Flush or Ceiling	Ceiling	Wall	--	--	--	--	--
<b>ACCESSORIES</b>											
Outdoor enclosure	FB-3010HB	FB-3010HB	--	--	FB-3610-92-HB-C	FB-3610-93-HB-C	FB-3010HB	FB-3010HB	FB-3010HB	FB-3010HB	FB-3010HB
Vandal resistant enclosure	--	--	--	--	FB-3612-92-HB-C	--	--	--	--	--	--
Ceiling Enclosure (2' x 2')	--	--	--	--	FBK1609-92-C	--	--	--	--	--	--
Wall bracket	--	--	--	FSM-WR01A	FSM-WB21	--	--	--	--	--	--
Wall mount	FSM-3009	FSM-3009	--	--	FSM-3610	FSM-3610	FSM-3009	FSM-3009	FSM-3009	FSM-3009	FSM-3009
Ceiling mount	FSP-3009	FSP-3009	--	--	FSP-3610	FSP-3610	FSP-3009	FSP-3009	FSP-3009	FSP-3009	FSP-3009
Pole mount	--	--	--	--	FSA-3610	FSA-3610	--	--	--	--	--
Corner mount	--	--	--	--	FSC-3610	FSC-3610	--	--	--	--	--
Parapet mount	--	--	--	--	FSRP3610 roof mount FSMP3610 wall mount FSCP3610 corner mount	FSRP3610 roof mount FSMP3610 wall mount FSCP3610 corner mount	--	--	--	--	--
Optional lens	YF2.8A-SA2LB, Y110X5B-SA2L, Y5X2.7R4B-SA2L, Y2.8X2.8LASA2L, Y2.2X1.4A-SA2L	YF2.8A-SA2LB, Y110X5B-SA2L, Y5X2.7R4B-SA2L, Y2.8X2.8LASA2L, Y2.2X1.4A-SA2L	--	YV3.3x15R4A-SA2 15mm to 50mm @ F=1.5	--	--	YF2.8A-SA2LB, Y110X5B-SA2L, Y5X2.7R4B-SA2L, Y2.8X2.8LASA2L, Y2.2X1.4A-SA2L	YF2.8A-SA2LB, Y110X5B-SA2L, Y5X2.7R4B-SA2L, Y2.8X2.8LASA2L, Y2.2X1.4A-SA2L	YF2.8A-SA2LB, Y110X5B-SA2L, Y5X2.7R4B-SA2L, Y2.8X2.8LASA2L, Y2.2X1.4A-SA2L	YF2.8A-SA2LB, Y110X5B-SA2L, Y5X2.7R4B-SA2L, Y2.8X2.8LASA2L, Y2.2X1.4A-SA2L	YF2.8A-SA2LB, Y110X5B-SA2L, Y5X2.7R4B-SA2L, Y2.8X2.8LASA2L, Y2.2X1.4A-SA2L



CAMERA MODEL	IK-1000	IK-VR01A	IK-DF02A	IK-DP30A
Image sensor	1/2" EMCCD, Peltier Cooled	1/3" IT CCD	1/3" IT CCD	1/4" IT CCD
Maximum resolution	420 TV Lines	480 TV Lines	520 TV Lines	480 TV Lines
Minimum illumination	0.00025 lux @ F=1.2	0.2 lux @ F=1.0	0.5 lux @ F=1.0	0.01 lux @ F=1.0
Compression	--	--	--	--
Frames per second	--	--	--	--
Lens	not included	3.0mm to 8.0mm	Verifocal 2.8mm to 10mm	4.1mm to 73.8mm
Zoom	--	Manual (2.6x optical)	Manual (3.5x optical)	18x Optical, 12X Digital
Lens changeable	C-Mount	CS-Mount	--	--
Ethernet network	--	--	--	--
Power over Ethernet	--	--	--	--
Auto white balance (AWB)	Yes	Yes	Yes	Yes
AWB range	--	2500° K to 10000° K	2500 K to 10000° K	3000 K to 7500° K
Synchronization system	Internal	Internal or AC line lock	Internal or AC line lock	Internal or AC line lock
Day/night imaging	Yes (Color)	Yes	Yes	Yes
Sharpness	--	--	--	--
Color gain	--	--	--	--
Digital noise reduction	Adaptive Recursive (pixel comparison)	--	Yes	--
Automatic gain control	Yes	--	Yes	Yes
Pan	--	Manual	Manual 350°	360° Continuous
Tilt	--	Manual	Manual 146°	92°
Optional external memory	--	--	--	--
Motion detection	--	--	--	--
Backlight compensation	7 Mode, 16 Area Photometry	Yes	Yes	Yes
Audio	--	--	--	--
Alarm I/O	--	--	--	--
Hybrid camera	--	--	--	--
Power	12 V DC	24 V AC, 12 V DC	24 V AC, 12 V DC	24 V AC
Power consumption	6W (77° F), 12W (104° F)	4 Watts	3.5 Watts	35 Watts
Environmental rating	--	IP66	--	--
Safety standard	UL2044	UL2044	UL2044	UL2044
Emission standard	FCC Class A	FCC Class A	FCC Class A	FCC Class A
RoHS compliant	--	Yes	Yes	Yes
Software	--	--	--	--
Operating system	--	--	--	--
Vandal resistant	--	Yes	--	--
Transformer	12V (optional)	--	--	--
Mount (included)	--	Flush or Ceiling	Flush	--

ACCESSORIES	IK-1000	IK-VR01A	IK-DF02A	IK-DP30A
Outdoor enclosure	FB-2811, FB-2816, FB-2820	--	--	JK-PHI/JK-PHO-S
Vandal resistant enclosure	--	--	--	JK-RPHI/JK-RPHO
Ceiling Enclosure (2' x 2')	--	--	--	JK-CTA (requires JK-H01A)
Wall bracket	--	FSM-WR01A	--	--
Wall mount	--	--	--	JK-WM
Ceiling mount	--	--	--	JK-H01A
Pole mount	--	--	--	JK-PMA
Corner mount	--	--	--	JK-CMA
Parapet mount	--	--	--	JK-PM
Optional lens	--	YV3.3x15R4A-SA2 15mm to 50mm @ F=1.5	--	--

### ANALOG CAMERAS



## Toshiba Software



- Designed for non-proprietary hardware and IT infrastructures
- Record up to 16 IP-based cameras
- Cameras need not be onsite to record
- Cost-effective solution to traditional DVRs
- Records image resolutions as high as the IP Camera supports
- Complete remote management; Setup control, user administration, video backup, live viewing, and search capabilities

### SW-IP NETWORK VIDEO RECORDING SOFTWARE

REQUIREMENTS	8 Channel	16 Channel
Processor	Pentium D	Pentium D
Memory	512 MB DDR	1 GB DDR
Memory (w/POS)*	1 GB DDR	1 GB DDR
Storage space	based on video retention needs	
Video card	8x 128 MB VGA	8x 128 MB VGA
Video output	SVGA Monitor	SVGA Monitor
Network connection	100 MB	1000 MB
Operating system	Windows XP® or 2003 Server®	
Removable storage	CD-RW, DVD-RW, 3.5" Floppy Drive	
Audio output	Microsoft compatible sound card and speakers	
SOFTWARE		
Video input	8 Network Cameras	16 Network Cameras
Recording rate	Up to 480 PPS	Up to 480 PPS
PTZ control	Yes	Yes
Image sizes	Determined By IP Camera	Determined By IP Camera
Password control	User Defined	User Defined
Upgradeable	1 Channel Upgrade(s)	--

\* NOTE: Minimum memory is 1GB for software if using POS devices.

### SURVEILLIX POS SOFTWARE



Software provides complete record of customer, cashier and merchandise purchased with text overlaid on video. POS/ATM data is stored on Surveillix DVR for access and search using several criteria. Below is a list of POS devices that are supported by Surveillix POS software. Please regularly check for the most current list by visiting [www.toshibasecurity.com](http://www.toshibasecurity.com).

- AVE (VSI-PRO)\*
- AVE (VSSI-PRO for ATM)\*
- VeriFone (Ruby/Sapphire)
- Vardells
- SIDG
- Aloha
- POSitouch
- PC Based POS (RS-232)
- HAT (Honeywell Text Inserter)
- TEC

\* A Cable 078 from AVE required for POS/ATM software integration

## TOSHIBA Leading Innovation >>>

Toshiba America Information Systems, Inc.  
Surveillance & IP Video Products Group  
9740 Irvine Boulevard  
Irvine, CA 92618 877-855-1349  
[www.toshibasecurity.com](http://www.toshibasecurity.com)

## Compatibility

### IP CAMERAS SUPPORTED

Toshiba	IK-WB01A, IK-WB02A, IK-WB11A, IK-WB21A, IK-WB15A, IK-WR01A
ACTI	ACTI IP Camera, ACTI+CAM models: 5301, 5321, 7201, 7301, 7321, 6510, 6610; ACTI+ACM models: 1431, 1311, 1100, 3211, 3311, 3100, 4100, 2140
Arecont Vision	AV2100, AV3131, AV1300, AV2000, AV3100, AV5100
AXIS	206, 207, 207MVF, 207W, 209FD, 209MFD, 210, 210A, 216FD, 216FD-V, 216MFD, 216MFD-V, 211, 211A, 211M, 211W, 221, 223M, 225FD, 212PTZ, 213PTZ, 214PTZ, 215PTZ, 231D+, 232D+
Brans	BNT100, BNT200
D-Link	DCS2000, 3220, 5300, 6620, 900
Honeywell	HD6i+VIP, AcuIX
Lumenera	LE175C
Mobotix	M1M
Panasonic	BB-HCM381, WV-NM100, WV-NP472
Pixord	120/126, 200/206, 261
Samsung	SCC-C6475
Securgen	NE-VS100, NE-VS104, NE-VS400
Sony	SNC-CS10, SNC-CS11, SNC-CS3N, SNC-DF40N, SNC-DF70, SNC-P1, SNC-P5, SNC-RX550, SNC-RZ25, SNC-RZ30, SNC-RZ50, SNC-Z20N, SNT-704
Vantage	VIP Series: S5301P, S5321P, S7201P, S7301P, S7321P, S6510F, S6610F, S1431EP, S1311EP, S1100E, S3211EP, S3311EP, S3100E, S4100E, S4100K
VivoTek	IP6122, FD6112V, PT7135, VS3100P

### ACCESS CONTROL SUPPORTED

CanSec	Maestro, SmartLock
Dice Systems	Aegis
DSX	WinDSX, WinDSX-SQL, DSX-Soft I/O
Galaxy	Galaxy Version 7 and Version 4
Hartmann Controls	Protector Series
Keyscan	Keyscan Management System VII, Vantage
MAXxess	AXXess, EndPoint

### INTEGRATION PLATFORMS SUPPORTED

Cernium	Perceptrak
Vidient	SmartCatch

### MANAGEMENT SYSTEM SOFTWARE INTEGRATION - TOSHIBA IP CAMERAS

Milestone	XProtect, RemoteManager
OnSSI	NetDVMS, NetDVR, NetGuard, ProSight
Genetec	Omnicast, Synergist, Autovu
ControlWare	CWare Prime
Broadware	--
Strand USA	--
IP Video Corp.	Dynaview
Video Protein	--

For updates on compatibility please visit the Toshiba website: [www.toshibasecurity.com](http://www.toshibasecurity.com)

## Video Servers



Video Server Digital Encoders and Decoders are an easy way to access video over the Internet. Take up to 4 analog cameras and stream video to a centralized server for recording.

- 1 and 4 Channel Units Available (4-ch encoder only)
- Embedded Linux operating system
- MPEG-4 Compression
- Wireless B and G with Wireless Encryption
- Pre- and Post-Alarm Recording
- Supports Dynamic IP and Dynamic DNS Addresses
- Up to 4 Sensor Inputs / Outputs
- Remote Operation and Configuration
- Up to 120 PPS Real Time Display
- Supports PAN / TILT / ZOOM Cameras
- Dual-stream Technology (Supports two simultaneous video streams)
- Compatible with most major IP device manufacturers



### NE-VS100E Encoder

One Channel MPEG-4 encoder features 32 bit RISC 200 MHz CPU, 704 x 480, 352 x 240/288 resolution (PAL/NTSC), 32MB SDRAM and Flash Memory.



### NE-VS104E Encoder

Four Channel MPEG-4 encoder features 32 bit RISC 200 MHz CPU, 704 x 480, 352 x 240/288 resolution (PAL/NTSC), 32MB SDRAM and Flash Memory.



### NE-VS100EW (Wireless)

One Channel Wireless MPEG-4 encoder features 32 bit RISC 200 MHz CPU, 704 x 480, 352 x 240/288 resolution (PAL/NTSC), 32MB SDRAM and Flash Memory. 802.11 a/b/g 54 MBps



### NE-VS104EW (Wireless)

Four Channel Wireless MPEG-4 encoder features 32 bit RISC 200 MHz CPU, 704 x 480, 352 x 240/288 resolution (PAL/NTSC), 32MB SDRAM and Flash Memory. 802.11 a/b/g 54 MBps



### NE-VS100D

One Channel video decoder makes it easy to convert digital video back to analog for display on a standard security monitor, and has the ability to output via either S-Video or BNC. Features audio out, LAN connectivity, no signal detection, USB 2.0 port, NTSC/PAL, RS485 and PTZ communication. 32MB Flash and 32MB SDRAM memory.



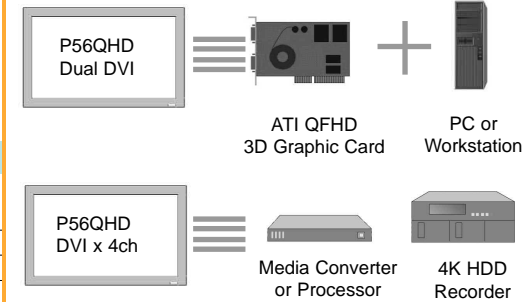
# Toshiba LCD Monitors



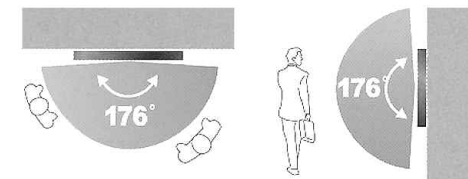
**24 HOUR CONTINUOUS OPERATION**  
Toshiba LSA and P56QHD displays provide the reliability required to withstand 24-hour continuous operation. The long-life backlight and a rugged aluminum cabinet assures excellent heat dissipation, along with lower power consumption so the displays can work longer at a lower cost. The fanless design also enables quiet operation.

	P1730A	P1930A
LCD screen	17 inch	19 inch
Aspect ratio	5:4	5:4
Resolution scan	640 x 480 @ 56/60/75 Hz 800 x 600 @ 56/60/72/75 Hz 1024 x 768 @ 60/70/75 Hz 1280 x 1024 @ 60/75 Hz	640 x 480 @ 56/60/75 Hz 800 x 600 @ 56/60/72/75 Hz 1024 x 768 @ 60/70/75 Hz 1280 x 1024 @ 60/75 Hz
Brightness	300cd/m2	300cd/m2
Contrast	500:1	700:1
Viewing angle	left 70°/right 70° up 63°/down 67°	left 70°/right 70° up 63°/down 67°
Response time	8ms	6ms
Sync format	NTSC/PAL	NTSC/PAL
Frequency (H)	PC:31.5K - 80KHz Video: 15750/15625 (NTSC/PAL)	PC:31.5K - 80KHz Video: 15750/15625 (NTSC/PAL)
Frequency (V)	PC: 56Hz-75Hz Video 50/60Hz	PC: 56Hz-75Hz Video 50/60Hz
Input interfaces		
Video	D-SUB 15" x 1, in/out x 1 BNC	D-SUB 15" x 1, in/out x 1 BNC
Audio	In x 1, Out x 1 (stereo)	In x 1, Out x 1 (stereo)
Termination	75 ohm (auto termination)	75 ohm (auto termination)
Built-in speakers	Stereo (right, left)	Stereo (right, left)
Picture in picture	Yes	Yes
Front panel button	Auto, Menu, Up/Down, In, Power	Auto, Menu, Up/Down, In, Power
OSD language	English, Spanish	English, Spanish
VESA mounting	VESA 100	VESA 100
Weight	12.35 lb (5.6g)	13.89 lb (6.3g)
Dimensions (W x D x D)		
inches	15.35 x 13.96 x 2.92	16.73 x 15.59 x 2.98
mm	390 x 354.5 x 74.2	425 x 396 x 75.6
Safety & EMI	UL, CUL, FCC/B	UL, CUL, FCC/B
Power	AC 100-240V 50/60Hz	AC 100-240V 50/60Hz
Power consumption	0.75 - 0.4A	0.75 - 0.4A
Operating temperature	0°C - 40°C (32°F - 104°F)	0°C - 40°C (32°F - 104°F)
Humidity	20% - 80%	20% - 80%
Accessories	Power cord, VGA cable, Manual	Power cord, VGA cable, Manual
Optional accessories	HS-RM17: Rack mount bracket	HS-RM19: Rack mount bracket
RoHS	Yes	Yes

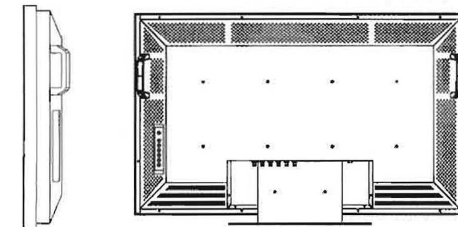
	LSA SERIES MONITORS	P56QHD MONITORS
LCD	26" (P26LSA), 32" (P32LSA), 42" (P42LSA), 47" (P46LSA), 52" (P52LSA)	P56QHD-2: 56" (Dual DVI x 2) P56QHD-4: 56" (Single DVI x 4)
LCD panel type	Super MVA TFT	Super MVA TFT
Maximum resolution	26"-32": 1366 x 768, 42" - 52": 1920 x 1080	3840 x 2160 (0.324 mm pixel)
Colors (in millions)	16.77	16.77
Response time	6.5ms	6.5ms
Brightness	26"-47": 550cd/M <sup>2</sup> , 52": 500cd/M <sup>2</sup>	500cd/M <sup>2</sup>
Contrast	26"-47": 1000:1, 52": 2000:1	1200:1
Viewing angle	176° (H), 176° (V)	176° (H), 176° (V)
Power voltage	AC100-240V (±10%) 50/60 Hz	AC100-240V (±10%) 50/60 Hz
Power consumption		
Operating	<130W (26"), <150W (32"), <250W (42"), <350W (47"), <400W (52")	<550W
Stand-by	<20W (all models)	<20W
Dimensions (W x H x D inch)	P26: 26.1" x 16.18" x 3.23" P32: 31.1" x 18.9" x 3.2" P42: 40.18" x 24.15" x 4.1" P47: 45.3" x 27.25" x 4.98" P52: 50" x 29" x 5"	P56QHD-2: 52.8" x 31.4" x 5.2" P56QHD-4: 52.8" x 31.4" x 5.2"
Weight (lbs)	P26: 33 lbs, P32: 43 lbs, P42: 77 lbs, P47: 128 lbs, P52: 131lbs	P56QHD-2: 154 lbs P56QHD-4: 154 lbs
Operating temperature	41°F to 140°F	41°F to 140°F
Videowall processor	Yes (up to 6 x 6)	No
Input connectors		
Analog RGB	D-Sub 15 pin	--
Digital	DVI-D	Single DVI x 4 (P56HD-4)
Video (composite)	RCA x 1	--
S-video (Y/C)	S-video DIN	--
Component (Y/Cb/Cr)	8 pin DIN with RCA breakout	--
Dual DVI	--	Dual DVI x 2 (P56HD-2)
Control	RS232C (except P26LSA)	RS232C
Input signals		
Video	NTSC, PAL	NTSC, PAL
RGB	VGA, SVGA, XGA, SXGA	--
HDTV	480p, 720p (all models), 1080i (P42, P47, P52)	1080i (x4)
Display management	VESA DPMS/DVI DMPM	VESA DPMS/DVI DMPM
Key switch	Power, input, menu, down, up, +	--
Link control	RJ45 (except P26LSA)	RJ45
Mount	VESA	VESA
Warranty	3 year full replacement (shipping 1 way)	3 year
Accessories	AC cord, manual, stand, remote, cables: 15-pin RGB, S-video, YCbCr, RCA, DVI-D, RGB-YcbCr	AC cord, DVI-D cable, dual stand, manual
Option	HD-SDI Interface	ATI QFHD 3D Graphic Card (PCI Express x 16)
	Note 1: 26", 32" monitors support 640 x 480, 800 x 600, 1024 x 768, 1366 x 768, 1280 x 1024 (compressed), 1600 x 1200 (compressed) input. The 42", 47" and 52" support all of above, plus 1280 x 1024, 1920 x 1080 input signals. LSA monitors are RoHS compliant.	Note 1: The Dual DVI version of the P56QHD (P56QHD-2) is optimal for picture files and motion picture files. The Single DVI x 4 channel model (P56QHD-4) is for 3840 x 2160 full motion video when used with a media converter or process and HDD. P56QHS monitors are RoHS compliant.



**USE FOR VIDEO OR STILL IMAGE FILES**  
The Dual DVI version of the P56QHD (P56QHD-2) is optimal for picture files and motion picture files. The Single DVI x 4 channel model (P56QHD-4) is ideal for 3840 x 2160 full motion video when used with a media converter or process and HDD.



**WIDE 176° VIEWING ANGLE**  
Toshiba LSA and P56QHD displays have viewing angles that are 176 degrees both vertically and horizontally, providing sharp, clear, high contrast images even viewed at a wide angle.



**SLIM BODY**  
Toshiba displays feature a unique design that is flat and compact. The displays come with VESA mounting holes that allow use of any commercial ceiling mount or wall mount.

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**TOSHIBA**  
Leading Innovation >>>

## Toshiba Digital Video Recorders (Windows® XP Embedded)

### ANALOG RECORDERS

### HYBRID RECORDER

### IP RECORDERS



RECORDER MODEL	XVR 4, 16 CH OPT 4 CH	DVR 8, 16 CH OPT 4, 8, 12, 16	EVR 8, 16, 32 CH OPT 4, 8, 12, 16	HVR 8, 16, 32 CH 4, 16 CH	IPR -- 8, 16 CH	NVR -- 8, 16 CH
Analog Channels						
IP Channels						
<b>Resolutions</b>	720 x 480 (NTSC) 720 x 240 (NTSC) 360 x 240 (NTSC) 640 x 480 (NTSC) 640 x 240 (NTSC) 320 x 240 (NTSC)	720 x 480 (NTSC) 720 x 240 (NTSC) 360 x 240 (NTSC) 640 x 480 (NTSC) 640 x 240 (NTSC) 320 x 240 (NTSC)	720 x 480 (NTSC) 720 x 240 (NTSC) 360 x 240 (NTSC)	720 x 480 (NTSC) 720 x 240 (NTSC) 360 x 240 (NTSC) 640 x 480 (NTSC) 640 x 240 (NTSC) 320 x 240 (NTSC)	Resolutions depend upon the IP camera resolution	Resolutions depend upon the IP camera resolution
<b>Video input</b>	BNC x 4, 16	BNC x 8, 16	BNC x 8, 16, 32	BNC x 8, 16, 32	Up to 16	Up to 16
<b>Video output</b>	BNC x 16, SVGA x 1 (required)	BNC x 8, 16, SVGA x 1	BNC x 8, 16, SVGA x 1	BNC x 8, 16, SVGA x 1	SVGA x 1 (monitor not included)	SVGA x 1 (monitor not included)
<b>Recording rate</b>	<b>120 PPS</b> 120 PPS=CIF 120 PPS=2CIF 60 PPS=4CIF <b>60 PPS</b> 60 PPS=CIF 60 PPS=2CIF 30 PPS=4CIF	<b>480 PPS</b> 480 PPS=CIF 240 PPS=2CIF 120 PPS=4CIF <b>240 PPS</b> 120 PPS=CIF 60 PPS=2CIF 60 PPS=4CIF	<b>480 PPS</b> 480 PPS=CIF 240 PPS=2CIF 120 PPS=4CIF <b>240 PPS</b> 240 PPS=CIF 120 PPS=2CIF 60 PPS=4CIF	<b>480 PPS</b> 480 PPS=CIF 240 PPS=2CIF 120 PPS=4CIF <b>240 PPS</b> 120 PPS=CIF 60 PPS=2CIF 60 PPS=4CIF	Up to 480 PPS (30 PPS x 16 cameras)	Up to 480 PPS (30 PPS x 16 cameras)
<b>PTZ controls and protocols</b>	RS-232/422/485 (75+ protocols)	RS-232/422/485 (75+ protocols)	RS-232/422/485 (75+ protocols)	RS-422/232/485 (75+ protocols)	via IP protocols	via IP protocols
<b>Storage media</b>	Up to 1 TB internal	Up to 2 TB internal	Up to 4 TB internal	Up to 4 TB internal	Up to 1 TB internal	Up to 4 TB internal
<b>LAN</b>	10/100 (1 GB Optional)	10/100 (1 GB Optional)	10/100 (1 GB Optional)	10/100 (1 GB Optional)	100/1000 MB Ethernet	100/1000 MB Ethernet
<b>Average image size</b>	720 x 480 = 12K 720 x 240 = 6K 360 x 240 = 4K	720 x 480 = 12K 720 x 240 = 6K 360 x 240 = 4K	720 x 480 = 12K 720 x 240 = 6K 360 x 240 = 4K	720 x 480 = 12K 720 x 240 = 6K 360 x 240 = 4K	Dependent on IP Camera	Dependent on IP Camera
<b>Password control</b>	User-defined access control	User-defined access control	User-defined access control	User-defined access control	User-defined access control	User-defined access control
<b>Power interruption recovery</b>	Automatic restart	Automatic restart	Automatic restart	Automatic restart	Automatic restart	Automatic restart
<b>Remote connection</b>	TCP/IP, UDP, Internet, LAN, WAN, ISDN, PSTN	TCP/IP, UDP, Internet, LAN, WAN, ISDN, PSTN	TCP/IP, UDP, Internet, LAN, WAN, ISDN, PSTN	TCP/IP, UDP, Internet, LAN, WAN, ISDN, PSTN	TCP/IP, UDP, Internet, LAN, WAN, ISDN, PSTN	TCP/IP, UDP, Internet, LAN, WAN, ISDN, PSTN
<b>RAID 5 support</b>	--	Optional	Optional	Optional	--	Optional
<b>Critical recording archive</b>	DVD/RW, LAN, Internet (TCP/IP)	DVD/RW, LAN, Internet (TCP/IP)	DVD/RW, LAN, Internet (TCP/IP)	DVD/RW, LAN, Internet (TCP/IP)	DVD/RW, LAN, Internet (TCP/IP)	DVD/RW, LAN, Internet (TCP/IP)
<b>Alarm inputs/outputs</b>	4 on 4 ch, Up to 16 on 16 ch	Up to 16 inputs/outputs	Up to 16 inputs/outputs	Up to 16 inputs/outputs	--	--
<b>Audio recording</b>	4 on 4 ch, 2 on 16 ch, 16 ch optional	Up to 4, 16 ch optional	4 on 8/16 ch, 8 on 32 ch, 16 ch optional	Up to 8, 16 ch optional	1 ch	2 ch
<b>Power input</b>	100-240 V AC (50 Hz/60 Hz)	100-240 V AC (50 Hz/60 Hz)	100-240 V AC (50 Hz/60 Hz)	100-240 V AC (50 Hz/60 Hz)	100-240 V AC (50 Hz/60 Hz)	100-240 V AC (50 Hz/60 Hz)
<b>Mounting rack</b>	3U Rack Mount Chassis	4U Rack Mount Chassis	5U Rack Mount Chassis	4U and 5U Rack Mount Chassis	3U Rack Mount Chassis	4U and 5U Rack Mount Chassis
<b>Image compression</b>	Proprietary MJPEG	Proprietary MJPEG	Proprietary MJPEG	Proprietary MJPEG	Proprietary MJPEG	Proprietary MJPEG
<b>RAM</b>	512 MB	512 MB	512 MB	512 MB	1 GB	1 GB
<b>CPU</b>	Celeron D 3.2 Ghz	Celeron D 3.2 Ghz	Celeron D 3.2 Ghz	Celeron D 3.2Ghz, Pentium D 3.4 Ghz	Pentium D 3.4 Ghz	Pentium D 3.4 Ghz
<b>SCS Multi-Site Software:</b> Remotely connect up to 100+ DVR units	Yes	Yes	Yes	Yes	Optional	Yes
<b>Remote Software:</b> View live video search export and save	Yes	Yes	Yes	Yes	Yes	Yes
<b>Emergency Agent:</b> Installs on client desktop, opens if alarm event occurs	Yes	Yes	Yes	Yes	Yes	Yes
<b>MDVR:</b> View video, control PTZ, search video on Pocket PC device	Yes	Yes	Yes	Yes	--	Yes
<b>Backup Viewer:</b> Play video saved in the DVR proprietary format	Yes	Yes	Yes	Yes	Yes	Yes

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