

Sony Camera Technology for Intelligent Traffic Systems



See farther.



See smarter.



See clearer...

...with a Sony industrial camera.

- ▶ FCB E SERIES
- ▶ FCB-HD SERIES
- ▶ XCG GIGE SERIES
- ▶ XCI SMART SERIES



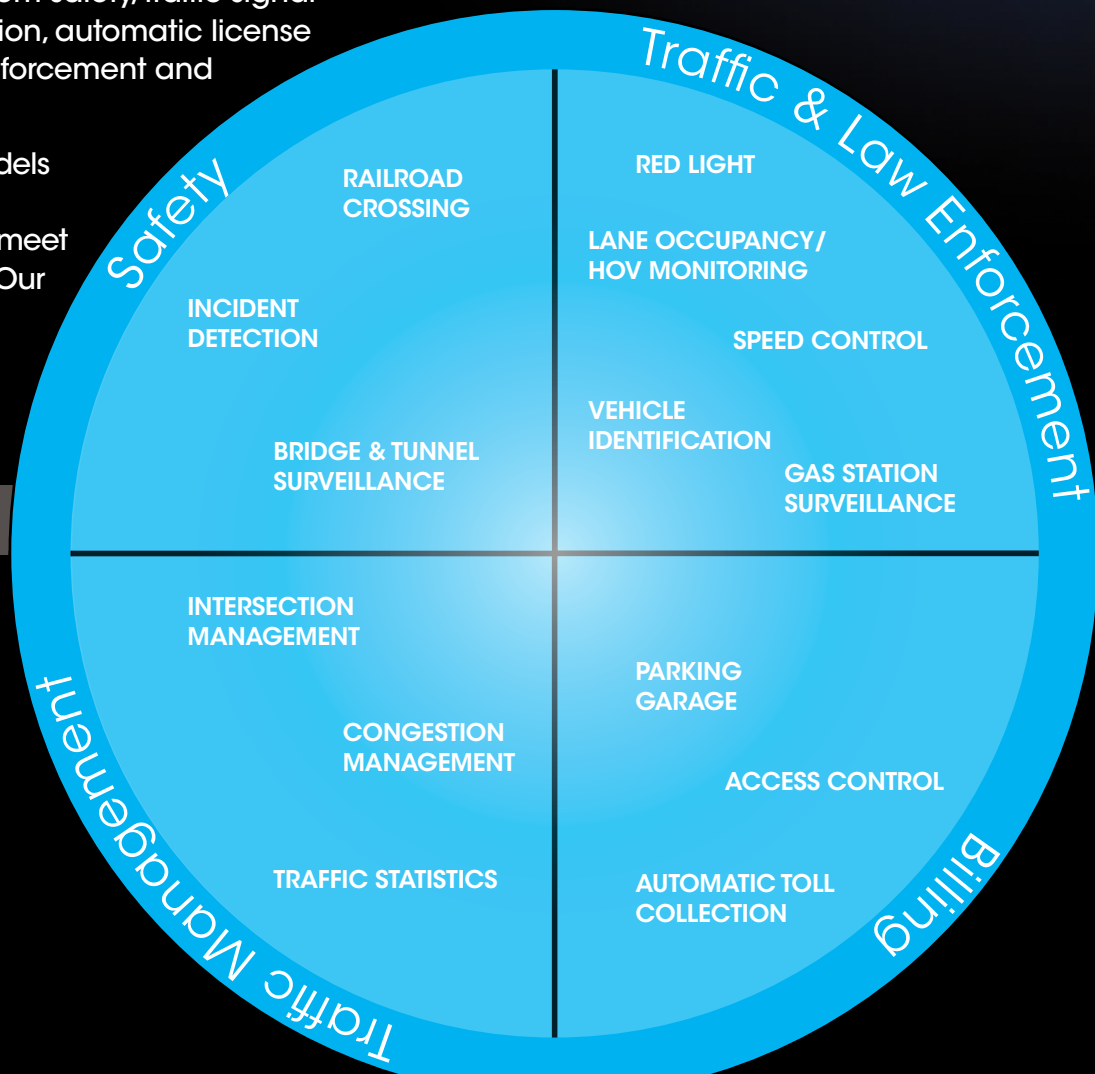
Smart Solutions for Intelligent Traffic Systems

Sony develops and manufactures a range of camera products, which are designed for the most challenging of applications. Through our wealth of experience and available camera technology, we are able to understand both the special traffic environments and critical imaging requirements in order to provide industrial cameras with maximum reliability, superb image quality and performance benefits.

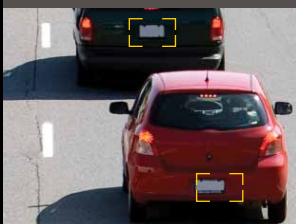
Intelligent traffic systems cover a wide variety of applications in which Sony imaging technology is commonly used. The applications are diverse — from safety, traffic signal control, electronic toll collection, automatic license plate recognition to traffic enforcement and management.

Sony has over 30 camera models varying in resolution, speed, technology and interfaces to meet these challenging demands. Our product offering is continually evolving in order to provide the latest imaging solutions.

ITS Market



Sony's ITS Market Experiences



**AUTOMATIC LICENSE
PLATE RECOGNITION**



**ELECTRONIC TOLL
COLLECTION**



MOBILE POLICE CAR



**TUNNEL
SURVEILLANCE**



**TRAFFIC
MANAGEMENT**

Product Offerings for ITS Applications

GigE Vision Cameras



XCG-5005E

- ICX-625 (Super HAD) Sensor
- 2/3" IT Progressive Scan CCD
- GigE Technology
- 5 MPixels Resolution
- B/W
- 15 fps @ 5M pixels



XCG-SX99E

- ICX-285 (EXview HAD) Sensor
- 2/3" IT Progressive Scan CCD
- GigE Technology
- SXGA Resolution
- B/W
- 27 fps @ full resolution (1360 x 1024)
- Vertical Binning

Color Block Cameras



FCB-EX20D/P

- 1/3" (Super HAD CCD II) Sensor
- PAL/NTSC
- Day/Night
- Slow AE
- Privacy zone masking
- Zoom 10x optical 12x digital



FCB-EX1020/P & FCB-EX990D/DP

- 1/4" EXview HAD™ Progressive Scan CCD (FCB-EX1020/P only)
- 1/4" EXview HAD CCD (FCB-EX990D/DP only)
- 36x Optical Zoom Lens (FCB-EX1020/P only)
- 28x Optical Zoom Lens (FCB-EX990D/DP only)
- NTSC/PAL
- Wide D
- Image Stabilization
- Outdoor Auto Mode
- Sodium Vapor Lamp Mode
- Additional models available: 36x, 28x, 18x, 12x and 10x versions



FCB-EX11D/DP

- 1/4" EXview HAD CCD
- 10x Optical Zoom Lens
- NTSC/PAL
- Advanced DSP
- Video Motion Detection
- Slow AE
- Privacy Zone Masking

HD Color Block Cameras



FCB-H11

- 1/3" HD CMOS Sensor
- 10x Optical Zoom Lens
- 1080/60i Resolution
- Day/Night Function
- Compact & Lightweight



FCB-EH430

- 1/3" HD CMOS Sensor
- 20x Optical Zoom Lens
- 1080/30p Resolution
- Day/Night Function
- Wide Dynamic Range
- Spot AE Function

Smart Cameras



XCI-V100/XP & XCI-V100C/XP

- ICX-424 (HAD) Sensor
- 1/3" IT Progressive Scan CCD
- VGA Resolution
- B/W & Color Versions
- Windows XPe
- FPGA & 1GHz VIA
- 90 fps @ VGA



XCI-SX100/XP & XCI-SX100C/XP

- ICX-447 (EXview HAD) Sensor
- 1/3" IT Progressive Scan CCD
- SXGA Resolution
- B/W & Color Versions
- Windows XPe
- FPGA & 1GHz VIA
- 30 fps @ SXGA

For a full list of product offerings, please visit our web site: sony.com/its



SPEED CONTROL



PARKING & ACCESS CONTROL



SURVEILLANCE



INCIDENT DETECTION



CONGESTION MANAGEMENT

Sony Industrial Cameras for ITS Applications

| Model | Image Device | Pixel Resolution | Lens Mount | Size/Mass | Key Features |
|----------------------------|--------------------------------------|---|--------------------------------------|---|--|
| Color Block Cameras | | | | | |
| FCB-EH4300 | 1/3" HD CMOS Sensor | Approximately 2,000,000 pixels | 20x Optical Zoom 10x Digital Zoom | 1.97 x 2.36 x 3.50 in / less than .60 lb (50.0 x 60.0 x 89.0 mm / less than 270 g) | Superb Picture Quality (up to 1080/30p HD), Multi-format Video Outputs (NTSC/PAL to full 1080/30p, 1080/60i, 720/60p and 720/30p Digital HD), Auto ICR for Day/Night function, 200x Zoom ratio, Wide Dynamic Range, Digital Noise Reduction, Spherical Privacy Zone Masking, Motion Detection, Color Enhancement, Spot AE, Electric/Slow Shutter, Temperature Readout, and Low Power Consumption |
| FCB-H11 | 1/3" HD CMOS Sensor | Approximately 2,000,000 pixels | 10x Optical Zoom 12x Digital Zoom | 1.86 x 1.70 x 2.84 in / .26 lb (47.2 x 43.1 x 72.2 mm / 120 g) | Superb Picture Quality (up to 1080/60i HD), Day/Night function, Multi-format Video Outputs (NTSC/PAL to full 1080/60i and 720/60p HD), High-Speed Serial Interface and TTL Signal-Level Control, 120x Zoom ratio, Compact and Lightweight Design, Picture Freeze, Spot AE, Slow Shutter and Low Power Consumption |
| FCB-EX1020* | 1/4" EXview HAD Progressive Scan CCD | 380,000 pixels (NTSC) 440,000 pixels (PAL) | 36x Optical Zoom 12x Digital Zoom | 1.97 x 2.26 x 3.46 in / .51 lb (50.0 x 57.5 x 87.9 mm / 230 g) | High Resolution 550 TVL, Advanced Wide Dynamic Range Modes, Auto ICR, Image Stabilization, Outdoor Auto White Balance, Sodium Vapor Lamp Mode, Slow AE Response, True Progressive Scan, Digital Output, Enhanced Noise Reduction |
| FCB-EX995E* | 1/4" EXview HAD Progressive Scan CCD | 380,000 pixels (NTSC) 440,000 pixels (PAL) | 28x Optical Zoom 12x Digital Zoom | 1.97 x 2.26 x 3.48 in / .51 lb (50.0 x 57.5 x 88.5 mm / 230 g) | High Resolution 550 TVL, Advanced Wide Dynamic Range Modes, Auto ICR, Image Stabilization, Outdoor Auto White Balance, Sodium Vapor Lamp Mode, Slow AE Response, True Progressive Scan, Digital Output, Enhanced Noise Reduction |
| FBC-EX985E* | 1/4" EXview HAD CCD | 380,000 pixels (NTSC) 440,000 pixels (PAL) | 28x Optical Zoom 12x Digital Zoom | 1.97 x 2.26 x 3.48 in / .51 lb (50.0 x 57.5 x 88.5 mm / 230 g) | High Resolution 550 TVL, Auto ICR, Image Stabilization, Outdoor Auto White Balance, Sodium Vapor Lamp Mode, Slow AE Response, Digital Output, Enhanced Noise Reduction, Minimum Illumination 0.25 lux |
| FCB-EX11D/P* | 1/4" EXview HAD™ CCD | 380,000 pixels (NTSC) 440,000 pixels (PAL) | 10x Optical Zoom 12x Digital Zoom | 1.41 x 1.61 x 2.33 in / .21 lb (35.9 x 40.8 x 59.2 mm / 95 g) | Ultra Compact & Lightweight Design, Minimum Illumination 1.0lux, High Resolution 530 TVL, Advanced Spherical Privacy Zone Masking with Mosaic Effect |
| FCB-EX20D/P* | 1/3" Super HAD CCD II | 380,000 pixels (NTSC) 440,000 pixels (PAL) | 10x Optical Zoom 12x Digital Zoom | 1.81 x 1.70 x 2.65 in / .31 lb (45.9 x 43.1 x 67.2 mm / 140 g) | Superb Picture Quality, High Sensitivity and Resolution, Wide Dynamic Range, Day/Night function, Slow AE Response function, 530 TVL, Auto ICR, Video Motion Detection, Advanced Spherical Privacy Zone Masking with Mosaic Effect, Compact & Lightweight |
| FCB-IX11A/P* | 1/4" EXview HAD™ CCD | 380,000 pixels (NTSC) 440,000 pixels (PAL) | 10x Optical Zoom 4x Digital Zoom | 1.55 x 1.76 x 2.56 in / .21 lb (39.3 x 44.8 x 65 mm / 95 g) | Ultra Compact & Lightweight, Minimum Illumination 1.5lux, On-screen Display, Custom Preset Function, Position Preset Function, TTL and RS232 Signal Level Control (VISCA Protocol) |
| GigE Vision Cameras | | | | | |
| XCG-V60E | 1/3" IT Progressive Scan CCD (B/W) | 640 x 480 (VGA) (3,07,200 pixels) | C mount | 1.73 x 1.30 x 2.66 in / .32 lb (44 x 33 x 67.5 mm / 145 g) | Transmission of uncompressed image data at 1000Mbps, over distances of 100m; high resolution, 90 fps |
| XCG-SX97E | 2/3" IT Progressive Scan CCD (B/W) | 1360 x 1024 (SXGA) (1,392,640 pixels) | C mount | 1.73 x 1.30 x 2.66 in / .32 lb (44 x 33 x 67.5 mm / 145 g) | Transmission of uncompressed image data at 1000Mbps, over distances of 100m; high resolution, 16 fps |
| XCG-SX99E | 2/3" IT Progressive Scan CCD (B/W) | 1360 x 1024 (SXGA) (1,392,640 pixels) | C mount | 1.73 x 1.30 x 2.66 in / .32 lb (44 x 33 x 67.5 mm / 145 g) | Transmission of uncompressed image data at 1000Mbps, over distances of 100m; high resolution, 27 fps |
| XCG-U100E | 1/1-8" IT Progressive Scan CCD (B/W) | 1600 x 1200 (UXGA) (1,920,000 pixels) | C mount | 1.73 x 1.30 x 2.66 in / .32 lb (44 x 33 x 67.5 mm / 145 g) | Transmission of uncompressed image data at 1000Mbps, over distances of 100m; high resolution, 15 fps |
| XCG-5005E | 2/3" IT Progressive Scan CCD (B/W) | 2448 x 2048 (5 Mega) (5,018,400 pixels) | C mount | 1.73 x 1.30 x 2.66 in / .32 lb (44 x 33 x 67.5 mm / 145 g) | Transmission of uncompressed image data at 1000Mbps, over distances of 100m; high resolution, 15 fps |
| Smart Cameras | | | | | |
| XCI-V100/XP | 1/3" IT Progressive Scan CCD (B/W) | 640 x 480 (VGA) | C mount / CS mount | 3.70 x 2.76 x 5.51 in / 1.68 lb (94 x 70 x 140 mm / 760 g) | High Performance Processor, various interfaces, Excellent Picture quality / High frame Rates, C/CS Mount Lens, Full range of Pre-processing functions, Customizable FPGA, dual Readout by Wide-D Technology, Microsoft Windows XP Embedded Support |
| XCI-V100C/XP | 1/3" IT Progressive Scan CCD (Color) | 640 x 480 (VGA) | C mount / CS mount | 3.70 x 2.76 x 5.51 in / 1.68 lb (94 x 70 x 140 mm / 760 g) | High Performance Processor, various interfaces, Excellent Picture quality / High frame Rates, C/CS Mount Lens, Full range of Pre-processing functions, Customizable FPGA, dual Readout by Wide-D Technology, Microsoft Windows XP Embedded Support |
| XCI-SX100/XP | 1/3" IT Progressive Scan CCD (B/W) | 1280 x 960 (SXGA) | C mount / CS mount | 3.70 x 2.76 x 5.51 in / 1.68 lb (94 x 70 x 140 mm / 760 g) | High Performance Processor, various interfaces, Excellent Picture quality / High frame Rates, C/CS Mount Lens, Full range of Pre-processing functions, Customizable FPGA, dual Readout by Wide-D Technology, Microsoft Windows XP Embedded Support |
| XCI-SX100C/XP | 1/3" IT Progressive Scan CCD (Color) | 1280 x 960 (SXGA) | C mount / CS mount | 3.70 x 2.76 x 5.51 in / 1.68 lb (94 x 70 x 140 mm / 760 g) | High Performance Processor, various interfaces, Excellent Picture quality / High frame Rates, C/CS Mount Lens, Full range of Pre-processing functions, Customizable FPGA, dual Readout by Wide-D Technology, Microsoft Windows XP Embedded Support |
| *PAL model also available | | | | | |