Speed, Resolution, and More Speed

The 716 has the same great features as the i-SPEED 7 Series: 12-bit mono/36-bit high resolution images, external swappable 1TB SSD's, i-FOCUS, i-CHEQ, and up to 288 GB of optional memory. The i-SPEED 716 features 16 gigapixels per second throughput along with optional IRIG time code and rugged environmental package.

Each i-SPEED 716 also comes with the i-SPEED Software Suite 2.0. Upgrade to the premium bundle for advanced control, analysis, editing and playback. When your application demands exceptional performance from your camera, the i-SPEED 716 is the ideal partner.

i-SPEED 716R shown in heavy duty, rugged environmental package

Choose from the sleek new instrumentation package or elect to upgrade your camera to the high-G rated rugged package with its environment resistant aluminum casing.

Data can be transferred by fast SSD or Ethernet to a PC using the i-SPEED Software Suite 2.0

FEATURES + OPTIONS

- **High-resolution 2048x1536 pixel sensor**
- **Full resolution to 5,315 frames/second**
- **1080p resolution at 7,960 frames/second**
- **Up to 288 GB of on-board memory for long recordings**
- **Internal or external SSD drive for fast data transfer**
- **Ultra-fast 16 GP/sec throughput**
- **Microlens sensor for exceptional light sensitivity**
- **Wide Dynamic Range recording**
- **Global electronic shutter to 1 µs**
- **1 hour battery life**
- **Compatible with all Nikon F and Canon EF mount lenses**
- **Maximum frame rate – 500,000 fps**
- **Flexible frame synchronization from 10 Hz to 200 kHz**
- **Environmentally rugged package available**
- **32 point integrated real-time health monitoring system**

ix-cameras.com

SPECIFICATIONS

IMAGER

Sensor type	Custom CMOS
Sensor resolution	2048 x 1536 pixel
Sensor size	27.972 mm x 20.736 mm
Sensor diagonal	34.82 mm
Pixel size	13.5 μm
Bit depth	12 bit (36 bit color)
ISO (12232-2:2006, D, sat)	Mono 5,000 / 40,000 (max)
	Color 1,800 / 14,400 (max)
Maximum frame rate	500,000 fps
Shutter type	Global exposure
Shutter time, standard	1 μs minimum
Shutter time, fast mode	289 ns
WDR	Wide Dynamic Range

SYNCHRONIZATION and CAPTURE

Trigger	TTL T0 to 0-100%
Trigger modes	Circular, ROC, BROC
Sync	10 Hz – 200 kHz
Luminance histogram	Iris setting aid tool
i-CHEQ 360	Camera status LEDs
i-FOCUS	Focusing aid tool
i-EXPOSE	High/low exposure highlight
Control	PC or CDUe
IRIG input	IRIG – B to sub 1 μs
IRIG sync	Camera sync to IRIG
Internal memory	36 GB standard, upgrade to 288 GB

PHYSICAL and ENVIRONMENTAL

Dimensions inches	14.3 (W) x 6.2 (H) x 6.2 (L)
Dimensions mm	363 (W) x 157 (H) x 154 (L)
Weight	18.7 lb (8.5 kg) with battery
Input voltage	12-36 V
Power consumption	150 W nominal, 200 W max
Mounting	¼x20 and 3/8x16 tripod plate
Battery	2x 14.4 V 90 Wh
Battery life	1 hour
Lens mount	Custom, swappable lens plate
EMC	EN55032-A, EN55024
Safety	BS EN61010-1 (camera), IEC60950 (PSU)
CE marking	EMC directive (camera),
	EMC directive, LV directive (PSU)
Lead free	RoHS directive
WEEE	Compliant
IP rating	IP 20
Temperature °F	32 to 104 operation, -4 to 140 storage
Temperature °C	0 to 40 operation, -20 to 60 storage
Pressure	71 kpa to 106 kpa
Relative humidity	95% at 104°F non-condensing
G-shock, Instrumentation package	10 G
G-shock, Rugged package	30 G @ 11 ms IEC 68-2-27 Ea,
	30 G @ 2 ms IEC 68-2-29 Eb
Power input connector	6 pin Lemo
Trigger input	BNC 75 Ω
Feature connector	18 pin Lemo, trigger in / sync / sync out / exposure out /remote power

CONNECTIVITY

Video outputs	2x HD-SDI, HDMI
USB	USB 3
Network	1 Gb RJ45
Video	AVI (compressed or uncompressed)
Image sequence	TIFF, JPG, RAW
Ethernet control	1 Gb
Remote control	Via supplied software

PC SOFTWARE

Standard control	Control ONE
Premium control	Control MULTI-DAQ
Editing	i-SPEED Movie Maker
Analysis	ProAnalyst® Lite by Xcitex
Viewer	i-SPEED Viewer
Utilities	i-SPEED Lens Calculator, i-SPEED Viewer
Software Developers Kit	C++, LabView
Synchronized data acquisition	USB DAQ, 8 options

PURCHASING OPTIONS

CDUe	Portable Control Unit
Sensor	Color / Mono
Memory	36 GB (std) / 72 GB / 96 GB / 144 GB / 192 GB / 288 GB
Shutter time	1 μs (std) / 289 ns (subject to export restrictions)
Internal SSD	500 GB / 1 TB
External SSD	250 GB / 500 GB / 1 TB
Lens mounts	F mount (Nikkor D) / F mount (Nikkor G) C mount / EF mount
Package type	Instrumentation / Rugged
Warranty	1 yr (std) / 2 yr / 3 yr
Internal Batteries	Set of 2 batteries

FRAME RATES, RESOLUTION and DURATION

FPS	Resolution	36GB	72GB	96GB	144GB	288GB
100	2048x1536	81 sec	162 sec	216 sec	324 sec	648 sec
200	2048x1536	40 sec	81 sec	108 sec	162 sec	324 sec
300	2048x1536	27 sec	54 sec	72 sec	108 sec	216 sec
500	2048x1536	16 sec	32 sec	43 sec	65 sec	130 sec
1,000	2048x1536	8.1 sec	16 sec	22 sec	33 sec	65 sec
2,000	2048x1536	4.0 sec	8.1 sec	10.8 sec	16 sec	32 sec
5,000	2048x1536	1.6 sec	3.2 sec	5.4 sec	6.5 sec	13.0 sec
5,315	2048x1536	1.5 sec	3.0 sec	4.0 sec	6.1 sec	12.2 sec
7,960	1920x1080	1.5 sec	3.1 sec	4.1 sec	6.1 sec	12.2 sec
10,000	1512x1098	1.5 sec	3.1 sec	4.1 sec	6.2 sec	12.4 sec
15,000	1232x888	1.5 sec	3.1 sec	4.1 sec	6.3 sec	12.6 sec
20,000	1064x762	1.6 sec	3.2 sec	4.2 sec	6.4 sec	12.7 sec
30,000	840x624	1.6 sec	3.3 sec	4.4 sec	6.6 sec	13.1 sec
50,000	672x456	1.7 sec	3.4 sec	4.5 sec	6.7 sec	13.5 sec
100,000	672x216	1.8 sec	3.6 sec	4.7 sec	7.1 sec	14.2 sec
200,000	672x96	2.0 sec	4.0 sec	5.3 sec	8.0 sec	16.0 sec
300,000	672x54	2.4 sec	4.7 sec	6.3 sec	9.5 sec	18.9 sec
500,000	672x24	3.2 sec	6.4 sec	8.5 sec	12.8 sec	25.6 sec

Note: Other resolutions and speeds are available.

info@ix-cameras.com • ix-cameras.com

United Kingdom
iX Cameras
Bradley House
Locks Hill
Rochford
Essex, SS4 1BB
T: +44 (0) 1702 540 669

United States
iX Cameras
8 Cabot Rd.
Suite 1800
Woburn,
MA, 01801
T: 339 645 0778

China
iX Cameras
Room 1402, Unit 65,
No 399 Hangting Road,
Oriental Hong Jing Garden,
ZhuQiao Town, Shanghai,
T: +86 186 215 60553

India
iX Cameras
J2-101
Swiss County Thergaon
Pune,
411033
T: 0955 256 5021