

Book Your SPECIM FX17 Camera

Demo Loan



Rent the Specim Hyperspectral FX17 for a week or a month at a time for your next research project at competitive rates.

If you buy a camera within 9 months of the loan, we'll take a portion of the loan cost off the purchase price.

"We're offering you the opportunity to hire a Specim FX17 camera for a week or a month (or possibly longer) at a time. Use our camera for your upcoming research project, without having to commit to buying one."

Dr. Luke Nicholls, Technical Sales Manager, QDUKI

FEATURES FX17:

- 900 1700 nm spectral range 670 fps (full frame)
- 8 nm spectral resolution
- CL or GigE models
- 230 spectral bands
- 1000:1 SNR (peak)

• F/1.7 optics

FX17 INFORMATION:

The FX17 is a small footprint hyperspectral camera built around an InGaAs detector. It operates in the NIR spectral range (900 - 1700 nm). As with the FX10 camera, FX17 optics enables excellent light throughput, high sensitivity, short integration times and high singral-to-noise ratio. The FX17 operates with a frame rate of 670 spatial pixels and 230 spectral bands. By reducing the number of spectral bands, the frame rate can be increased up to 15,000 fps. The camera is supplied with a high quality lens (38 deg FOV) and includes an integrated shutter. The camera is also IP52 rated, making it suitable for use in harsh environments.

IDEAL FOR:

- Food & feed quality
- Waste sorting
- Recycling

- Moisture measurement
- Threat detection
- Security

Get in touch today

01372 378822 | luke@qd-uki.co.uk | www.qd-.uki.co.uk



SPECIFICATIONS | SPECIM



Spectral resolution (FWHM) Spectral sampling/pixel 3.5 mm Spectral sampling/pixel 3.5 mm With default linning With default lens Optics magnification 0.00 Effective pixel size 18.7 um At fore lens image plane Effective pixel size 18.7 um At fore lens image plane Effective sits width Physical width 42 um. Projection on sersor 32 µm (M=1.3) At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits length 12.0 mm At fore lens image plane Effective sits ambige at lens lens image plane Effective sits ambige at lens image plane			
Spectral sampling/pixel 3.5 mm	Spectral Range	900-1700 nm	
Spectral bands 224 With default binning Numerical aperture 1.7 With default lens Optics magnification 0.50 Effective pixel size 1.8.7 µm At fore lens image plane Effective six width Physical width 42 µm. Projection on sensor 32 µm (M=1.3) Effective six length 1.20 µm At fore lens image plane Effective six length 1.20 µm At fore lens	Spectral resolution (FWHM)	8 nm (mean)	
Numerical aperture 1.7 With default lens Optics magnification 0.80 At fore lens image plane Effective pixel size 1.87 Jum At fore lens image plane Effective six width Physical with 42 Jun. Projection on sensor 32 µm (Mo-1.3) At fore lens image plane Effective six length 1.20 mm At fore lens image plane Effective six length 1.20 mm At fore lens image plane Bit depth 1.2 Maximum frame rate S70 (SCLT) Maximum frame rate S70 (SCLT) S77 (SCLT) FFS full range Binning 1.2,4 spectral and spatial Default: 2 spectral x 1 spatial ROI Freely selectable multiple bands of interest defermined by total number of rows Maximum frame rate in the selection of the selec	Spectral sampling/pixel	3.5 nm	
Optics magnification 0.80 Effective pixel size 18.7 µm At fore lens image plane Effective silt width Physical width 42µm. Projection on sensor 32 µm (M=1.3) At fore lens image plane Effective silt width Physical width 42µm. Projection on sensor 32 µm (M=1.3) At fore lens image plane Effective silt length 12.0 mm At fore lens image plane SNR @ max. signal 1000-1 SNR @ max. signal 1000-1 Bit depth 12 Maximum frame rate 670 (FX17) 527 (FX17e) FF5 full range Binning 1.2.4 spectral and spatial Default: 2 spectral x 1 spatial Freely selectable multiple bands of interest demander of special permitted by four interest of special	Spectral bands	224	With default binning
Effective pixel size 18.7 µm At fore lens image plane Effective six width Physical width 42µm Projection on servior 32 µm (M-1.3) At fore lens image plane Effective six length 12.0 mm At fore lens image plane 3000-1 Bit depth 12 Maximum frame rate 570 [X17] 527 [X170 FF5 full range Binning 1.2.4 spectral and spatial Default: 2 spectral x1 spatial NOI Freely selectable multiple bands of interest determined by total number of rows. Maximum frame rate is determined by total number of rows between first row of first mROI are row or last mROI and the total number of rows included in the mMIOI Size 2-6 pixels: NA Size 2-6 pixels: Size 2-6 pixels: NA Size 2-6 pixels: NA Size 2-6 pixels: NA Size 2-3 pixels: Size 2-6 pixels: NA Size 2-6 pixels: NA Size 2-6 pixels: Size 2-6 pixels: NA Size 2-6 pixels: NA Size 2-6 pixels: NA Size 2-6 pixels: Size 2-6 pixels: NA Size 2-6 pixels: Size 2-6 pixels: NA Size 2-6 pixels: Size 2-6 pixels: Size 2-6 pixels: NA Size 2-6 pixels: Si	Numerical aperture	1.7	With default lens
Effective silt width Physical width 42 µm. Physical width 42 µm. At fore lens image plane Effective silt length 12 mm At fore lens image plane SNR @ max. signal 1000:1 Bit depth 12	Optics magnification	0.80	
Projection on sensor 32 µm (M+1.3)	Effective pixel size	18.7 μm	At fore lens image plane
SNR @ max. signal 1000:1 Bit depth 12 Maximum frame rate 670 (EXIZ) 527 (EXIZP) FPS full range Binning 1,2,4 spectral and spatial Default: 2 spectral x 1 spatial Minimum height of ROI is two 1-binned rows. Maximum frame rate is determined by total number of rows between first row of first mROI are row of last mROI and the total number of rows included in the mMROI row of last mROI and the total number of rows included in the mMROI size 2-12 plonels: 8 Size 2-0 55 plonels: 13 Size 3-12 plonels: 6 Size 2-0 55 plonels: 13 Size 3-35: 0 Size 2-0 55 plonels: 21 Size 3-12 Size 3-12 Size 3-12 Si	Effective slit width		At fore lens image plane
Bit depth	Effective slit length	12.0 mm	At fore lens image plane
Maximum frame rate S70 (FX17) S72 (FX17e) FPS full range S72 (FX17	SNR @ max. signal	1000:1	
Binning 1,24 spectral and spatial Default: 2 spectral x 1 spatial	Bit depth	12	
Freely selectable multiple bands of interest determined by total number of rows between first row of first mROI are row of last mROI and the total number of rows between first row of first mROI are row of last mROI and the total number of rows between first row of first mROI are row of last mROI and the total number of rows between first row of first mROI are row of last mROI and the total number of rows included in the mMROI word last mROI and the total number of rows included in the mMROI specified by the property of last mROI and the total number of rows included in the mMROI word last mROI and the total number of rows included in the mMROI specified by the property of last mROI and the total number of rows between first row of first mROI are row of last mROI and the total number of rows between first row of first mROI are row of last mROI and the total number of rows between first row of first mROI are row of last mROI and the total number of rows between first row of first mROI are row of last mROI and the total number of rows between first row of first mROI are row of last mROI and the total number of rows between first row of first mROI are row of last mROI and the total number of rows between first row of first mROI are row of last mROI and the total number of rows included in the mMROI and the mMROI and the total number of rows included in the mMROI and the mMROI and the mMROI are related by the size 2.2	Maximum frame rate		
determined by total number of rows between first row of first mROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of rows included in the mMROI arr row of last mROI and the total number of row last arr row of last mROI and the total number of row last mROI and the total number of row last arr row of last mROI and the total number of row last arr row of last mROI and the total number of row last arr row of last mROI and the total number of row last arr row of last mROI and the total number of row last arrelation and the total number of row last	Binning	1,2,4 spectral and spatial	Default: 2 spectral x 1 spatial
Allowed clusters: Size 2-6 pixels: NA Size 7-12 pixels: SA Size 2-13 pixels: SA Size 2-13 pixels: SA Size 2-13 pixels: SA Size 2-3 si	ROI	Freely selectable multiple bands of interest	Minimum height of ROI is two 1-binned rows. Maximum frame rate is determined by total number of rows between first row of first mROI and last row of last mROI and the total number of rows included in the mMROI's.
Bad pixel replacement AlE: Unified spectral calibration + corrected smile and keystone aber	Pixel operability	Allowed clusters: Size 2-6 pixels: N/A Size 7-12 pixels: ≤ 6 Size 13-19 pixels: ≤ 2 Size 20-35 pixels: ≤ 1	
Sensor material InGaAs InGaAs Sensor cooling TEC Individual capacity Full well capacity 1.44 Me- Individual capacity Read-out modes IWR/ITR Individual capacity Optics temperature Passive Default is 20 degrees Celsius Lens mount Custom mount Individual capacity For lens FOV options 12 deg 38 deg (default) side	Image corrections	Bad pixel replacement	One point NUC AIE: Unified spectral calibration + corrected smile and keystone aberrations
Full well capacity 1.44 Me- Read-out modes IWR / ITR Optics temperature Passive Default is 20 degrees Celsius Lens mount Custom mount Fore lens FOV options 12 deg 38 deg (default) 53 deg 69 deg 75 deg 92 deg Camera digital data output/control interface GigE Vision, CameraLink Camera control protocols GenlCam, ASCII Power input 12 V DC (+-10%) Power consumption Max 24 W Connectors Industrial Ethernet OR CameraLink (standard MDR 26-pin) Power - Fischer 12pin DBPLU10312012 130G IP Dimensions (L x W x H) 1.56 kg Default is 20 degrees Celsius Default is 20 degrees Celsius Only the default lens is specifically designed for FX17. With other lens optical parameters may vary. Only the default lens is specifically designed for FX17. With other lens optical parameters may vary. Only the default lens is specifically designed for FX17. With other lens optical parameters may vary. Only the default lens is specifically designed for FX17. With other lens optical parameters may vary. Only the default lens is specifically designed for FX17. With other lens optical parameters may vary. Only the default lens is specifically designed for FX17. With other lens optical parameters may vary. Only the default lens is specifically designed for FX17. With other lens optical parameters may vary. Only the default lens is specifically designed for FX17. With other lens optical parameters may vary. Only the default lens is specifically designed for FX17. With other lens optical parameters may vary. Only the default lens is 20 degrees Celsius Only the default lens is 20 degrees Celsius Only the default lens is 20 degrees Celsius Only the default lens is 20 degrees Only the defau	Sensor material		
Read-out modes Default is 20 degrees Celsius	Sensor cooling	TEC	
Optics temperature Passive Default is 20 degrees Celsius Lens mount Custom mount Fore lens FOV options 12 deg 38 deg (default) 53 deg 69 deg 75 deg 92 deg Only the default lens is specifically designed for FX17. With other lens is good pitical parameters may vary. Camera digital data output/control interface GigE Vision, CameraLink Image: Control protocols Image: Control protocols GenlCam, ASCII Image: Control protocols Imag	Full well capacity	1.44 Me-	
Lens mount Custom mount Image: Company of the properties of	Read-out modes	IWR / ITR	
Fore lens FOV options 12 deg 38 deg (default) 53 deg 69 deg 75 deg 92 deg Camera digital data output/control interface GigE Vision, CameraLink Camera control protocols GenlCam, ASCII Power input 12 V DC (+-10%) Power consumption Max 24 W Connectors Industrial Ethernet OR CameraLink (standard MDR 26-pin) Power – Fischer 12pin DBPLU10312012 130G IP IPS2 Dimensions (L x W x H) 150 x 75 x 85 mm Mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting to the sides. Mounting kit adds 24 mm distance on mounting to the sides. Mounting kit adds 24 mm distance on mounting to the sides. Mounting kit adds 24 mm distance on mounting kit add	Optics temperature	Passive	Default is 20 degrees Celsius
Sadeg (default) Sadeg Sa	Lens mount	Custom mount	
Camera control protocols GenlCam, ASCII 12 V DC (+-10%) Power consumption Max 24 W Connectors Industrial Ethernet OR CameraLink (standard MDR 26-pin) Power – Fischer 12pin DBPLU1031Z012 130G IP IP52 Dimensions (L x W x H) 150 x 75 x 85 mm Mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting the mounting kit adds 24 mm distance on mounting the mounting kit adds 24 mm distance on mounting the mounting kit adds 24 mm distance on mounting the mounting kit adds 24 mm distance on mounting the mounting kit adds 24 mm distance on mounting the mounting kit adds 24 mm distance on mounting the mounting kit adds 24 mm distance on mountin	Fore lens FOV options	38 deg (default) 53 deg 69 deg 75 deg	Only the default lens is specifically designed for FX17. With other lens options, optical parameters may vary.
Power input 12 V DC (+-10%) Power consumption Max 24 W Connectors Industrial Ethernet OR CameraLink (standard MDR 26-pin) Power – Fischer 12pin DBPLU1031Z012 130G IP IP52 Dimensions (L x W x H) 150 x 75 x 85 mm Mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting kit adds	Camera digital data output/control interface	GigE Vision, CameraLink	
Power consumption Max 24 W Industrial Ethernet OR CameraLink (standard MDR 26-pin) Power – Fischer 12pin DBPLU10312012 130G IP IP52 Dimensions (L x W x H) 150 x 75 x 85 mm Mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting the mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting the mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting the mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting surface option on three sides.	Camera control protocols	GenlCam, ASCII	
Connectors Industrial Ethernet OR CameraLink (standard MDR 26-pin) Power – Fischer 12pin DBPLU10312012 130G IP IP52 Dimensions (L x W x H) 150 x 75 x 85 mm Mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting the sides. Mounting kit adds 24 mm distance on mounting kit adds 24	Power input	12 V DC (+-10%)	
MDR 26-pin) Power – Fischer 12pin DBPLU10312012 130G IP IP52 Dimensions (L x W x H) 150 x 75 x 85 mm Mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting kit adds 24 mm dist	Power consumption	Max 24 W	
Dimensions (L x W x H) 150 x 75 x 85 mm Mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting kit adds 24	Connectors	MDR 26-pin)	
Weight 1.56 kg	IP	IP52	
	Dimensions (L x W x H)	150 x 75 x 85 mm	Mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting side.
Storage temperature -20 +50 °C (non-condensing)	Weight	1.56 kg	
	Storage temperature	-20 +50 °C (non-condensing)	
Operating temperature +5 +40 °C (non-condensing)	Operating temperature	+5 +40 °C (non-condensing)	
Relative humidity 5% – 95% (non-condensing)	Relative humidity	5% – 95% (non-condensing)	