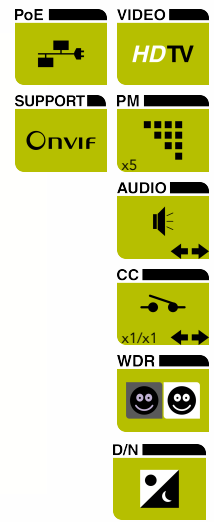## Features

- 1/2.7" Progressive scan CMOS imager
- 3.0 - 9.0 mm Motorised varifocal lens
- Full HD 1080p resolution
- Quad-stream H.264 and MJPEG video
- Day/night with IR-cut filter
- Optional IR illuminator (effective distance: 25 m)
- IP66 Ingress protection rating
- 24 Vac / 12 Vdc / 802.3af PoE
- ONVIF Profile S conformant

FD820M1
High-definition fixed dome camera with D/N

Description

The Siqura® FD820M1 is a 1080p fixed dome network camera in a vandal-resistant housing. The modular snap-in chassis and motorised lens make the FD820M1 easy to install, for both indoor and outdoor applications.

Multistream high definition

FD820M1 series cameras have quad-stream capability for simultaneous streaming of H.264/H.264 or H.264/MJPEG. Multiple combinations of resolution and frame rate can be configured to satisfy different live viewing and recording scenarios. Full frame rate, full HD 1080p streaming with a D1 second stream or dual 720p streaming is possible.

Open standards

Multiple options are available to easily integrate the FD820M1 to a video management system. In support of open standards, the FD820M1 is compliant with both the ONVIF specification and Siqura's Open Streaming Architecture (OSA) HTTP API.

Day/night, BLC, and WDR

The FD820M1 provides automatic day/night functionality, for use in low light situations. Backlight compensation (BLC) enhances image visibility in difficult lighting situations. This ensures quality pictures at all times. Wide dynamic range (WDR) solves the problem of overlit images by taking the better of two pictures with different light references.

Power source choices

The FD820M1 can be powered by 12 Vdc or 24 Vac (terminal block) or over the network with 802.3af-compliant PoE sources.
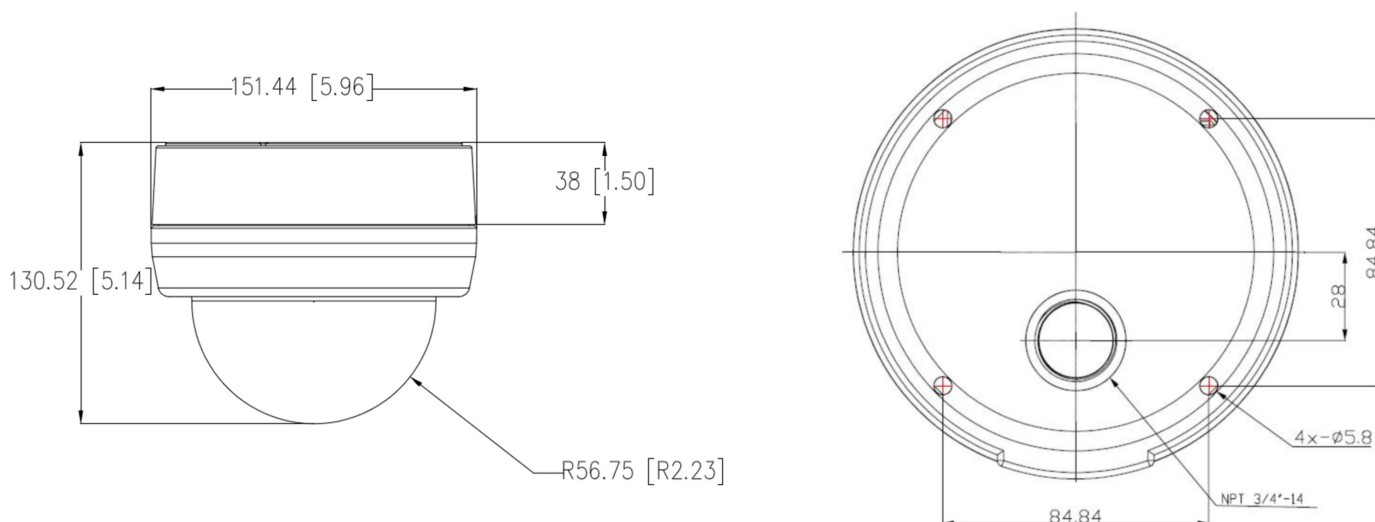
Privacy masks

Privacy masks cover sections of the image. This feature is often requested for such situations as city centre surveillance and point of sale keypads.

Camera

Image sensor	1/2.7" Progressive scan 1080p CMOS
Pixel count	1920 (H) x 1080 (V)
Shutter speed	1 - 1/10000 s
Signal-to-noise ratio	>40 dB
Lens	3.0 - 9.0 mm, F1.2
Lens type	DC Auto iris, motorised zoom, focus
Minimum scene illumination (30 IRE)	0.2 Lux colour, 0.02 lux (b/w) at F1.2
Horizontal field of view	103.5° (W) - 34.3° (T)
Analogue output	BNC (1 Vpp)

Image control

Backlight compensation	On/off
Wide dynamic range	On/off
WDR value	69 dB
Contrast	Manual
Brightness	Manual
Saturation	Manual
Hue	Manual
Sharpness	Manual
White balance	Auto/manual
Noise reduction	2D/3D
Exposure	Auto/manual
Day/night (IR-cut filter)	Auto/on/off/smart
Digital zoom	Yes
Automatic gain control	Auto

Technical Specifications
FD820M1

Functions

Privacy masks	5
Image rotation	Flip, mirror, 90° (clockwise, counterclockwise), and 180° rotate
On-screen display	Date, time, and title (20 characters)
Local recording	Continuous, scheduled, alarm
Video motion detection	On/off (10 zones)
Tamper monitoring	Blocked/moved image

Video

Number of video streams	4x H.264 or 3x H.264 + 1x MJPEG			
Number of output streams	Up to 20 (RTSP)			
Frame rate	1 to 30 fps (NTSC) / 1 to 25 fps (PAL)			
Compression algorithm(s)	H.264 MP (ISO/IEC 14496-10); MJPEG			
Supported resolutions	1080p (1920x1080); 720p (1280x720); 1024x768; 800x600; D1 (720x480); CIF (352x240)			
Video formats	NTSC, PAL			
Encoder bit rate control	Constant bit rate (CBR), variable bitrate (VBR)			
Output bit rate (per H.264 stream)	Up to 8192 kbit/s			
Total output data rate	Up to 32 Mbit/s			
Maximum streaming capabilities	**1**	**2**	**3**	**4**
	H.264 1080p30	H.264 D1@30	-	-
	H.264 1080p30	H.264 CIF@30	H.264 CIF@30	H.264 CIF@30
	H.264 1080p15	H.264 1080p15	-	-
	H.264 1080p15	MJPEG 1080p15	-	-
	H.264 1080p15	H.264 720p30	H.264 D1@30	-
	H.264 1080p15	H.264 720p15	H.264 720p15	H.264 D1@30
	H.264 1080p15	H.264 D1@30	H.264 D1@30	H.264 D1@30
	H.264 720p30	H.264 720p30	H.264 D1@30	-
	MJPEG 1080p30	-	-	-

Audio

Compression	G.711, 8 kHz, A-law, µ-law, 64 kbit/s; G.726, 8 kHz, 40 kbit/s

Contact closures

Input	5 V 10 kΩ pull-up
Output	Photocoupler transistor output
Connector type	4-pin terminal block, pitch 3.5 mm

Storage

Storage options	Micro SD card, 64 GB

Network

Interface(s)	10/100 Ethernet (RJ-45)
Protocols	IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, NTP, PPPoE, UPnP, IGMP, SNMP, QoS, 802.1x, ONVIF
Password levels	User and administrator
Supported browsers	Internet Explorer (6.0+), Chrome, Firefox, Safari
User accounts	20

Powering

Power consumption	
System	Max. 5.5 W
IR LED	Max. 3.6 W
Heater	Max. 12 W
Motorised lens	Max. 3 W
Power	24 Vac / 12 Vdc / 802.3af PoE
Power connector	3-pin terminal block
Power adapter (included)	110 - 230 Vac to 12 Vdc, 1.5 A 50/60 Hz

Environmental

Operating temperature	
12 Vdc / 24 Vac	-40°C to +50°C (-40°F to +122°F)
FD820M1: PoE	-30 °C to +50 °C (-22 °F to +122 °F)
FD820M1IR: PoE	-10 °C to +50 °C (+14 °F to +122 °F)
Relative humidity	10% to 90%, no condensation
Ingress protection	IP66
Impact rating	IK10

Mechanical

Dimensions	Ø151.4 x 130 mm (Ø5.96 x 5.14 in)
Weight	1 kg (2.2 lbs)
Colour	RAL 9003 (Signal white)
Connector types	RJ-45, BNC
Built-in IR illuminator (optional)	
Working distance	Up to 25m
Wavelength	850 nm
Number of LEDs	23

Ordering information

Models	Description
FD820M1 M1	Network fixed dome camera, 1080p CMOS, H.264/MJPEG, motorised lens, IP66
FD820M1 M1IR	Network fixed dome camera, 1080p CMOS, H.264/MJPEG, motorised lens, IR, IP66
WM02/FD6	Tube adapter/pendant mount for FD6x/82x-series, indoor/outdoor
CM06	Flush mount kit for FD6x/82x-series
DC16FD	Smoked bubble accessory, FD6x/82x series

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