

# ME20F-SHN

## A PROFESSIONAL FULL HD NETWORK CAMERA FOR LOW LIGHT CAPTURE

A professional network camera with a maximum ISO in excess of 4 million from a full-frame 2.26MP CMOS sensor, the ME20F-SHN offers Full HD colour video in almost total darkness.



- **Sharp, low noise colour video in extreme low light**  
The 2.26MP 35mm CMOS sensor captures clear, colour Full HD video at 0.0005 lux, with over 4 million ISO
- **Network capable remote configuration and monitoring**  
Ethernet connection allows remote operation of camera settings, monitoring and recording
- **Supports a wide range of surveillance applications**  
ME20F-SHN streams video simultaneously via Ethernet, SDI and HDMI port. Event trigger provides unmanned operation
- **High quality Full HD output**  
Ethernet, 3G/HD-SDI and HDMI output up to 1080P video. Enjoy high quality processing with DIGIC DV 4
- **Flexible installation**  
ME20F-SHN supports a wide range of EF and Cine Servo lenses and can be powered and controlled by a single LAN cable



### PRODUCT RANGE



ME20F-SHN



ME20F-SH



ME200S-SH

**ME20F-SHN**  
ME20F-SH  
ME200S-SH  
RC-V100

**Canon**

# TECHNICAL SPECIFICATIONS

# ME20F-SHN

## CAMERA

### IMAGE SENSOR

Sensor	35mm Full Size CMOS Sensor
Filter	RGB Primary Colour Filter (Bayer array)
Effective pixels per sensor	Approx. 2.26MP (2000 x 1128)
Minimum illumination	0.0005 lux or less (Gain 75dB, f/1.2, shutter speed 1/30, 50 IRE, custom picture [Off])
Horizontal Resolution	Depending on selected lens

### LENS

Lens Mount	Canon EF mount with Cinema Lock
ND filter	Yes, 2 density (1/8, 3 stops or 1/64, 6 stops) Manually selected electronic control
Focus control	Manual Focus, One Shot AF*

### Iris control

\* Enables to adjust the focus on the subject in the area set. Manual; 1/2 stop increments, 1/3 stop increments, fine adjustment. Push Auto Iris via assignable button. Auto (combined function combining Iris, Gain, Shutter and ND filter operation)

### Aperture range

Depending on selected lens

### Filter diameter

Depending on selected lens

### Image stabilization system

### Digital Tele Converter

No

Yes : X2/X3/X4 tele converter

### IMAGE PROCESSOR

#### Type

DIGIC DV 4

#### Sampling accuracy

YbCbCr 422 via 3G/HD-SDI; RGB 444, YCbCr 444,

YCbCr 422 via HDMI

#### Bit depth

10 bit (8 bit effective)

### NETWORK PROCESSOR

#### Type

DIGIC NET II

## SERVER

### Simultaneous Client Access

Max. 30 Clients + 1 Admin Client

– H.264: Max. 10 Clients

### Bit Rate Control

Variable bit rate / Constant bit rate

Target Bit Rate:

64/128/256/384/512/768/1024/1536/2048/3072/4096/6

144/8192/10240/12288/14336/16384 kbps

Number of Specified Areas: Max. 8 areas

Data Size Reduction Level: 3 levels

Camera Control: Administrator, Authorized user,

Guest user (level of control varies depending on user)

Access Control: User authority (user name and password), Host Access Restrictions (IPv4, IPv6)

IEEE802.1X: EAP-MD5, EAP-TLS, EAP-TTLS, EAP-PEAP

Encrypted Communications: SSL/TLS, IPsec

### Protocol

IPv4, IPv6, TCP/IP, UDP, HTTP, FTP, SNMPv1/v2c/v3

(MIB2), DHCP, DNS, AutoIP, mDNS, ARP, ICMP, POP3,

NTP, SMTP, RTP/RTCP, RTSP, SSL/TLS, IPsec, ONVIF, WV-

HTTP (Canon proprietary)

### ONVIF Profile

Profile-S, Profile-G

### Audio Compression Method

G.711  $\mu$ -law (64 kbps)

### Audio Communication Method

Full-duplex (two-way)/half-duplex

### Privacy Mask

RTP, Sound Transfer Protocol by Canon

### Preset

Number of registration: Max. 8 places, Number of

mask colors: 1 (select from 9 colors)

### Intelligent Function (Video)

Digital PTZ and Camera setting

Number of registration: Max. 20 positions (+Home

Position)

Moving Object Detection, Abandoned Object

Detection, Removed Object Detection, Camera

Tampering Detection, Passing Detection, Intrusion

Detection

Number of registration: Max. 15

Non-detection Area Settings: Available

### Event Trigger Type

External Device Input, Intelligent Function (Video),

Timer, Infrared Switching

### Image Upload

FTP/HTTP/SMTP (e-mail)

### Event Notification

HTTP/SMTP (e-mail)

### Log Notification

SMTP (e-mail)

### Image Cropping Function

Cropping sizes: 640 x 360/512 x 288/384 x 216/256 x

144/128 x 72

### On-Screen Display

Available

German/English/Spanish/French/Italian/Russian/Turkis

h/Japanese

### Daylight Saving Time

Available

## VIDEO OUTPUT

### NETWORK TERMINAL

#### Video Compression Method

JPEG, MPEG4-AVC/H.264

#### Video Quality

10levels

#### Video size and Frame Rate

JPEG: 1920 x 1080: 0.1 – 30 fps

MPEG4-AVC/H.264: 1920 x 1080: 1/2/3/5/6/10/15/30

fps

– Only the following combination is available for

video output via a network. System frequency: 59.94

Hz, Frame rate: 29.97P, Resolution: 1920 x 1080

– Values represent streaming performance from the

camera.

– The frame rate may be reduced due to Viewer

computer's specs, the number of clients accessing at

the same time, network loads, video quality setting,

type or movement of the subject or other reasons.

Maximum frame rate when used in the following

combinations:

When streaming H.264(1) (1920 x 1080) and H.264(2)

(all sizes) simultaneously: 15 fps

When streaming H.264(1) (all sizes) and H.264(2) (1920

x 1080) simultaneously: 15 fps

0.5/1/1.5/2/3/4/5 sec.

#### I-Frame Interval

### 3G/HD-SDI OR HDMI

#### TERMINAL

#### Video size and Frame Rate

3G/HD-SDI Output:

1920x1080: 59.94P/59.94I/50P/50I/29.97P/25P/23.98P

1280x720: 59.94P/50P/29.97P/25P/23.98P

HDMI Output:

1920x1080: 59.94P/59.94I/50P/50I/29.97P/25P/23.98P

1280x720: 59.94P/50P

640x480: 59.94P

768x576: 50P

\* A 1920 x 1080 black video is output on the network connection

when selecting a frame rate other than 29.97P

## SYSTEM

### INPUTS/OUTPUTS

#### Automatic Exposure Setting

Shutter Priority, Aperture Priority, Auto Gain Control

(AGC)

#### Audio IN

3.5mm stereo mini jack, plug-in power mic supported

#### Headphone output

No

#### Video output

Yes, Ethernet x 1 (RJ45, 100Base-TX (auto/full-

duplex/half-duplex)), 3G/HD-SDI (BNC), HDMI.

Yes (RJ45, 100Base-TX (auto/full-duplex/half-duplex))

Yes

#### Ethernet

#### HDMI output

#### USB

No

#### 3G/HD-SDI output

Yes, OSD compatible.

#### Time code

No

#### Genlock

No

#### Component out

No

#### AV terminal

No

#### DC input

Yes, 2-Pin connection. Input voltage 11 - 17V

#### Lens Terminal

Yes, 12-pin connector

#### Remote Control Terminal

Yes, 2.5mm mini jack (Canon Unique Protocol)

#### Alarm IN/OUT

Input x 1, Output x 1

#### Serial Port

RS-422/RS-485 x 1

#### Memory Card connector

1x microSD Memory Card (for recording)

– microSD Memory Card, microSDHC Memory Card,

microSDXC Memory Card Compatible.

1x microSD Memory Card (for firmware update only,

no recording capability)

#### Colour Bars

Yes, SMPTE, EBU and ARIB depending on system

frequency

# TECHNICAL SPECIFICATIONS

# ME20F-SHN

<b>MISC</b>	
Tally lamp	No
Custom key	No
User Assigned Functions	Yes, 4 buttons. Assignable items: One-Shot AF / Push Auto Iris / ABB / AE Shift + / AE Shift - / Color Bars / Aspect Marker / Set WB / Tele-converter / Infrared / External Rec / Custom Picture / Camera Mode A/M. Assignable button 4 is located on the optional RC-V100 Remote Controller.
Custom Dial	No
<b>SHOOTING FUNCTIONS</b>	
<b>EXPOSURE</b>	
Exposure metering	Backlight, Standard, Spotlight, Selectable* * Enables automatic exposure adjustment to optimize the brightness of the area set.
Exposure compensation	Yes: $\pm 2.0, \pm 1.75, \pm 1.50, \pm 1.25, \pm 1.0, \pm 0.75, \pm 0.50, \pm 0.25$ or $\pm 0$
Exposure Lock	No
Auto Gain Control setting	Yes, OFF (75dB) or value from 36dB to 75 dB (in 3 dB increments)
ISO Sensitivity	Maximum in excess of ISO 4,000,000 equivalent at -75dB
Dynamic Range	Canon Log/Wide DR mode: 800%/12 stops at +9.0dB (Approx. ISO2300)
Gain setting	0dB to -75dB in 3dB intervals.
<b>SHUTTER SPEED</b>	
Control Modes	Manual 1/4 stop increments, Auto (combined function combining Iris, Gain, Shutter and ND filter operation)
Shutter speed	1/3 sec - 1/2000 sec depending on system frequency and frame rate
Shutter Angle	No
Slow Shutter (SLS)	Yes
Scan Reverse	Yes
Clear Scan	No
<b>INFRARED</b>	
Infrared shooting mode	Yes: IR Cut-out filter, electrically operated, manual only
Built-in IR lamp	No
<b>WHITE BALANCE</b>	
Auto	YES
Preset	Daylight/Tungsten/Color Temperature
Shockless WB	Yes, via Custom Function Menu
Manual setting	Set A, Set B (Default 5,500K) Kelvin (2,000K - 15,000K)
<b>CUSTOM PICTURE</b>	
Custom Picture Options	Ten Custom Picture options: Canon Log, Wide DR, EOS Standard, Blue Scr, Green Scr, Crisp Img, CP1 - CP4. User customisable settings: Black, Black Gamma, Knee, Sharpness, Noise Reduction, White Balance
<b>TIME CODE</b>	
Countup system	No
Start value setting	No
<b>AUDIO</b>	
Input	Linear PCM 48 kHz 16-bit digital conversion, 2 channels
<b>ACCESSORIES</b>	
Supplied	Power connector (L-shaped) Power connector (straight)
Optional	RC-V100 remote Control Unit, Tripod Adapter RB-1

## POWER INPUT

### Power Supply

PoE+ power supply via Ethernet connector (IEEE802.3at Type2 compliant)  
DC 11 - 17 V  
- Some lens operates only on DC power supply  
PoE+: Max. approx. 17.5 W \* (TBC)  
DC: Max. approx. 15.0 W (TBC)  
\* Class 4 power sourcing equipment0 (requests 30.0 W)

### Power Consumption (camera body only)

## MISCELLANEOUS

### Dimensions (excluding protrusions)

Approx. 102mm x 116mm x 113mm (W x H x D)  
4.0 x 4.6 x 4.4 inches

### Weight (camera only)

Approx. 1.3 kg (2.87 lb)

### Operating Temperature range

0 to 40°C

### Storage Temperature range

Temperature  
-30°C - +60°C

### Certifications and Compatibility

Humidity  
5% - 90% (without condensation)  
EN55032 Class A, FCC part15 subpart B Class A, ICES-003 Class A, VCCI Class A, RCM AS/NZS EN55032 Class A, CNS13438 Class A, EN55024, EN50581, CNS15663, IEC/UL/EN60950-1

## APPLICATION

### Operating Environment Language

Setting page, Viewer

German/English/Spanish/French/Italian/Russian/Turkish/Japanese

### PC

CPU (Recommended): Intel Core i7-2600 or higher  
Graphics Board (Recommended): Not specified  
Memory (Recommended): 2 GB or higher  
Viewer Display (Recommended): 1920 x 1080 or higher

### OS and Compatible Web Browser

Windows 7 Ultimate/Windows 7 Professional/Windows 7 Enterprise/Windows 7 Home Premium SP1 32/64-bit; Internet Explorer 11 32/64-bit, Chrome 74\*2  
Windows 8.1/Windows 8.1 Pro/Windows 8.1 Enterprise 32/64-bit\*1; Internet Explorer 11 32/64-bit, Chrome 74\*2  
Windows 10 Pro/Windows 10 Enterprise/Windows 10 Education/Windows 10 Home 32/64-bit; Internet Explorer 11 32/64-bit, Microsoft Edge\*2, Chrome 74\*2  
Windows Server 2008 Standard SP2 32/64-bit; Internet Explorer 9 32-bit  
Windows Server 2008 R2 Standard SP1 64-bit; Internet Explorer 11 32/64-bit, Chrome 74\*2  
Windows Server 2012 Standard 64-bit\*1; Internet Explorer 10 32/64-bit, Chrome 74\*2  
Windows Server 2012 R2 Standard 64-bit\*1; Internet Explorer 11 32/64-bit, Chrome 74\*2  
Windows Server 2016 Standard 64-bit; Internet Explorer 11 64-bit, Chrome 74\*2  
Windows Server 2019 Standard 64-bit\*3; Internet Explorer 11 64-bit

\*1 Cannot be started from the Windows start screen

\*2 Does not support playback of Video (H.264) or audio transmission/reception

\*3 Does not support the Camera Management Tool or the Recorded Video Utility

- Must be configured to allow use of JavaScript, IFRAME (html tag), and web storage

- For Camera Viewer only, cookies must be enabled

German/English/Spanish/French/Italian/Russian/Turkish/Japanese

### Operating System Language

### Mobile Environment

iOS 12.2, iOS 11.4.1; Safari, Android 9.0; Chrome 74

- Must be configured to allow use of JavaScript, IFRAME (html tag), and web storage

- For Camera Viewer only, cookies must be enabled

- Does not support playback of Video (H.264) or audio transmission/reception

- Setting Page and Camera Viewer are not supported for the mobile device where the display size is smaller than 7".

All specifications are subject to change without notice



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canon.com  
Canon Europe  
canon-europe.com  
English edition  
Canon Europa NV 2019

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A professional network camera with a maximum ISO in excess of 4 million from a full-frame 2.26MP CMOS sensor, the ME20F-SHN offers Full HD colour video in almost total darkness.

Sales Start Date: January 2018



#### PRODUCT DETAILS:

Product Name	Mercury Code	EAN Code
ME20F-SHN	9914B001	4549292114997

#### OPTIONAL ACCESSORIES:

Product Name	Mercury Code	EAN Code
REMOTE CONTROLLER RC-V100	9660B001	4549292014013

#### MEASUREMENT / LOGISTIC INFORMATION:

Product Name	Mercury Code	Pack type	Pack description	Quantity per pack	Length (mm)	Width (mm)	Height (mm)	Gross Weight (kg)	Net Weight (kg)
ME20F-SHN	9914B001	EA	Each	1	274	247	263	Approx. 1800g (TBD)	Approx. 1300g
		CT	Carton (outer)	2	513	293	302		
		EP	Pallet	36	1026+	879+	906+		

**Canon**