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Experts in lightability™

SHUFFLE

SHUFFLE CAM GEN2
EXTERNAL
SOLUTION

SHUFFLE is a connected, modular approach to city hardware - with its plug-and-play rotatable modules that contain pre-certified hardware, it can be configured to suit your specific needs.

KEY ADVANTAGES

> **Seamless integration in the SHUFFLE column**

> **Professional camera network**

> **Easy installation with patented mounting system**

> **Compatible with the video management system**

The SHUFFLE CAM GEN2 (external) module offers a solution for integrating a camera in a discreet public CCTV solution. It is designed to offer cities a way to enhance and develop security in public areas.

Our selection of cameras support a broad range of applications from security to business intelligence and additional plug-ins offering new efficiencies and opportunities.

The range of full HD 1080 cameras with infrared capabilities are specifically chosen to provide excellent visibility under diverse conditions. IR LED can produce clear monochrome images in 0 lux conditions. The Intelligent Auto (iA) feature enables the camera to automatically adjust settings in real-time adapting to its' surroundings, reducing distortion or motion blur.
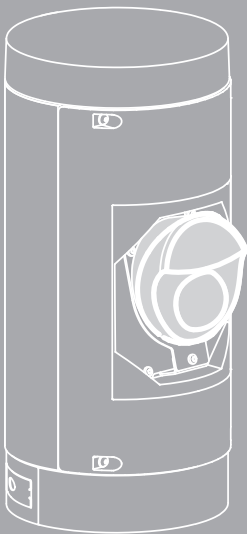
Modules are in high-grade, high-pressure, die-cast aluminium. An external embellishment was added around the camera providing a polished appearance and a higher impact resisitance to the module. All fasteners are in stainless steel. The housing is covered in the highest graded polyester powder paint supporting a variety of colours.

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SHUFFLE CAM GEN2 EXTERNAL | CHARACTERISTICS

KEY FEATURES

> **Resolution: full HD (1920 x 1080)**

> **Image optimisation (back-light, contrasts, night vision, high luminosity)**

> **Privacy layers**

> **ONVIF communication standard**

> **Event triggering: motion detection, video analytics, tampering...**

> **Digital zoom**

> **Data optimisation: selected and/or delayed transmission, on-site recording (SD memory slot)**
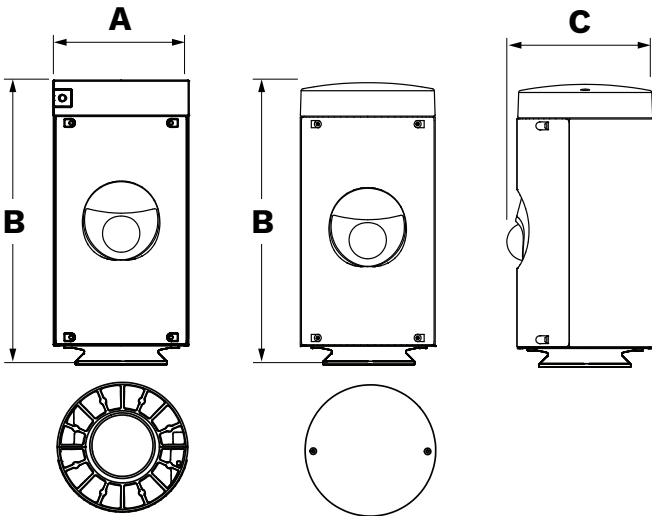
> **On-site tilting settings: 0 - 85°**

COMPARISON TABLE

	SH18C2-HK	SH18C2-GB	SH18C2-JH
Smart features	No	Yes	Yes
Angular field of view	Horizontal : 132° Vertical : 74°	Horizontal : 110° Vertical : 62°	Horizontal : 105° Vertical : 56°
IR	21m	No	10m
Power consumption	3.8W	6.4W	7.5W
UL Mark	No	Yes	Yes

DIMENSIONS AND MOUNTING

AxBxC (mm | inch)	194x403x216 | 7.6x15.9x8.5
Weight (kg | lbs)	6.4 | 14.1
Aerodynamic resistance (CxS)	0.08
Mounting possiblilities	Clamps

SHUFFLE CAM GEN2 EXTERNAL SH18C2-HK | CHARACTERISTICS

GENERAL

Recommended installation height	2,3m to 6,8m | 7,5' to 22,3'
CE mark	Yes
UKCA mark	Yes
ROHS compliant	Yes

HOUSING AND FINISH

Housing	Aluminum
Camera support	Polycarbonate
Embellishment	Aluminum
Housing finish	Polyester powder coating
Standard colour	AKZO grey 900 sanded
Tightness level	IP 66
Impact resistance	IK 10
Ta	-40°C to +50°C -40°F to +122°F

ELECTRICAL

Electrical class	Class I EU, Class II EU, Class I US
Power consumption	3.8W

SHUFFLE

SHUFFLE Pole Versions	2 doors same side | 3 doors
SHUFFLE Components	Mains box | Beyond light supply box
	Support plate network
	Network cable
Location on pole	Any position

CAMERA

Resolution H.265/ H.264 JPEG (MJPEG)	[16:9 mode(60 fps mode/ 30 fps mode/ 50 fps mode/ 25 fps mode)]1920x1080/ 1280x720/ 640x360/ 320x180
	[4:3 mode(30 fps mode/ 25 fps mode)] 1280x960/ VGA/ QVGA
	[4:3 mode(15 fps mode/ 12.5 fps mode)] 2048x1536* / 1280x960/ VGA/ QVGA
	*Used by super resolution techniques
	2 mega pixel [16:9]
Focal length	2.4mm {3/32inches}
Angular field of view	[16:9 mode] Horizontal: 132° | Vertical: 74° [4:3 mode] Horizontal: 99° | Vertical: 74°
Maximum aperture ratio	1 : 2.1
Minimum Illumination	Color : 0.02 lx (30IRE, F2.1, 1/30 s) Color : 0.03 lx (50IRE, F2.1, 1/30 s) BW : 0.02 lx (50IRE, F2.1, 1/30 s) BW : 0 lx (50IRE, F2.1, 1/30 s with IR LED)
Focus range	0.5m {19-11/16 inches} - ∞
Adjusting angle	Horizontal (PAN) angle: ±45° Vertical (TILT) angle: 0 to +90° Azimuth (YAW) angle: ±90°
Memory card	microSDXC / microSDHC / microSD
Power source	PoE (IEEE802.3af Compliant)
No. of simultaneous users	Up to 14 users (depends on network conditions)
Network protocol	IPv6 : TCP/IP, UDP/IP, HTTP, HTTPS, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6, MLD, ICMP, ARP, IEEE 802.1X, DiffServ
	IPv4 : TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP, IEEE 802.1X, DiffServ
	SSL/TLS, SNMPv1/v2/v3, LLDP, SFTP, MQTT
Network connector	RJ45
Image sensor	Approx.1/2.8 type CMOS image sensor

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SHUFFLE CAM GEN2 EXTERNAL SH18C2-GB | CHARACTERISTICS

GENERAL

Recommended installation height	2,3m to 6,8m | 7,5' to 22,3'
CE mark	Yes
UKCA mark	Yes
UL mark	Yes
ROHS compliant	Yes

HOUSING AND FINISH

Housing	Aluminum
Camera support	Polycarbonate
Embellishment	Aluminum
Housing finish	Polyester powder coating
Standard colour	AKZO grey 900 sanded
Tightness level	IP 66
Impact resistance	IK 10
Ta	-40 °C to 55°C -40 °F to 131°F

ELECTRICAL

Electrical class	Class I EU, Class II EU, Class I US
Power consumption	6.4 W

SHUFFLE

SHUFFLE Pole Versions	2 doors same side | 3 doors
SHUFFLE Components	Mains box | Beyond light supply box
	Support plate network
	Network cable
Location on pole	Any position

CAMERA

Resolution H.265/ H.264 JPEG (MJPEG)	2 mega pixel [16:9] (25/30 fps) 1,920x1,080 1 mega pixel [16:9] (45 fps) 1,280x720
Focal length	2.8 mm {1/8 inches
Angular field of view	[16 : 9 mode] Horizontal : 110° | Vertical : 62°
Maximum aperture ratio	2.8mm F1.6
Minimum Illumination	Color: 0.06 lux at 30 IRE F1.6 B/W: 0.01 lux at 30 IRE F1.6 Color: 0.12 lux at 50 IRE F1.6 B/W: 0.02 lux at 50 IRE F1.6
Adjusting angle	Horizontal (PAN) angle: ±30° Vertical (TILT) angle: 15 to +90° Azimuth (YAW) angle: ±175°
Memory card	microSDXC / microSDHC / microSD
Power source	PoE (IEEE 802.3af)
Multi-view streaming	Up to 8 individually cropped out view areas
Network protocol	IPv4, IPv6 USGv6, HTTP, HTTPS, HTTP/2, TLS, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SSH, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)
Network connector	RJ45
Image sensor	1/2.9" Progressive scan RGB CMOS
Image optimisation	WDR mode
Smart features	Included AXIS Video Motion Detection, active tampering alarm, blocked view detection, shock detection Supported AXIS Motion Guard, AXIS Loitering Guard, AXIS Fence Guard Support for AXIS Camera Application Platform enabling installation of third-party applications.

SHUFFLE CAM GEN2 EXTERNAL SH18C2-JH | CHARACTERISTICS

GENERAL

Recommended installation height	2,3m to 6,8m | 7,5' to 22,3'
CE mark	Yes
UKCA mark	Yes
UL mark	Yes
ROHS compliant	Yes

HOUSING AND FINISH

Housing	Aluminum
Camera support	Polycarbonate
Embellishment	Aluminum
Housing finish	Polyester powder coating
Standard colour	AKZO grey 900 sanded
Tightness level	IP 66
Impact resistance	IK 10
Ta	-30 °C to 75°C -22°F to 167°F

ELECTRICAL

Electrical class	Class I EU, Class II EU, Class I US
Power consumption	7.5 W

SHUFFLE

SHUFFLE Pole Versions	2 doors same side | 3 doors
SHUFFLE Components	Mains box | Beyond light supply box
	Support plate network
	Network cable
Location on pole	Any position

CAMERA

Resolution H.265/ H.264 JPEG (MJPEG)	2 mega pixel [16:9] (30 fps) 1,920x1,080
Lens type	Fixed lens, 2/2.8/4/6/8 mm
Angular field of view	2.8 mm, horizontal FOV 105°, vertical FOV 56°
Maximum aperture ratio	2mm: F2.25 2.8 /4/6 /8mm: F1.6
Minimum illumination	Color: 0.01 Lux @ (F1.6, AGC ON)
Adjusting angle	Horizontal (PAN) angle: -30° to +30° Vertical (TILT) angle: 0° to 75° Azimuth (YAW) angle: 0° to 360°
Memory card	Built-in micro SD/SDHC/SDXC slot, up to 256 GB
Power source	PoE (IEEE 802.3af)
Simultaneous live view	Up to 8 channels
User/Host	Up to 16 users, 3 levels: Administrator, Operator and User
Network protocol	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, Email ,RTP, RTSP, RTCP, NTP, UPnP, SMTP, SNMP, ICMP 802.1X, QoS, IPv6, Bonjour, ISUP5.0
Network connector	RJ45
Image sensor	1/2.8" CMOS Progressive Scan
Image optimisation	WDR mode
Smart features	Motion detection, video tampering alarm, Line crossing detection, Configurable intrusion detection, Unattended baggage detection, Object removal detection Face detection