

Mini Bullet Thermal IP Camera with Video Analyses

- 12 μm uncooled vanadium oxide microbolometer
- 206x156 Resolutions
- 9fps for global commercial applications
- Radiometric functionality
- Dual Audio transmission, burnt-in text / video motion detection
- 802.3af (PoE) simplified installation over a single network cable
- Integrated video analyses of VCA Technology
- Indoor/Outdoor IP66 Liquid Protection



Specifications

CAMERA		
Image Resolution	206 x 156	
Detection Type	Uncooled Vanadium Oxide Microbolometer	
Sensor Pixel Size	12 μm	
Spectral Response	7.8 ~14 μm	
Sensitivity (NETD)	Less than 100mK	
Lens (FOV)	RTS651-A20: 6.8mm, F1.2, (FOV: 20°) RTS651-A36: 4.0mm, F1.2, (FOV: 36°)	
Detectable Temperature Range	-40°C to 330°C (-40°F to 626°F)	
Accuracy According to Temperature Variation*	RTS651-A20	ROI at 5m $\pm 1^\circ\text{C}$ (16ft $\pm 1.8^\circ\text{F}$) ROI at 10m $\pm 3^\circ\text{C}$ (33ft $\pm 5.4^\circ\text{F}$)
	RTS651-A36	ROI at 4m $\pm 1^\circ\text{C}$ (13ft $\pm 1.8^\circ\text{F}$) ROI at 8m $\pm 3^\circ\text{C}$ (26ft $\pm 5.4^\circ\text{F}$)
VIDEO		
Video Compression	H.264 Baseline, Main, High profile(MPEG-4 Part 10/ AVC), MJPEG(Motion JPEG)	
Video Streaming	Dual Stream, Respective Configurable H.264: Controllable frame rate, image resolution, bandwidth limitation (CVBR/CBR) MJPEG: Controllable frame rate, image resolution, JPEG quality	
Resolutions ①	4:3 mode	QVGA(320x240), VGA(640x480), NTSC(720x480), PAL(720x576), SVGA(800x600), XGA(1024x768)
	16:9 mode	320x180, 480x270, 640x360, 800x450, 960x540, 1120x630, 1280x720
Frame Rate	Max. 9fps in all resolutions	
Image Orientation	Flip / Mirror / Corridor Mode(-90o,+90o)	
Motion Detection	Max. 8 zones with respective setting detection sensitivity and minimum object size	
Smart Bitrate Control	Supported for First/Second Stream	
Text Overlay	Free positioning of display for time/ data/ name (name up to 48 signs)	
Privacy Mask	4 configurable regions	

① Please Note:

The image resolutions are digital up-scaled from Microbolometer sensor source 206(H) x 156(V).

Audio	
Audio Streaming	Two-way
Audio Compression	G.711
Audio Interface	Line Input / output terminal
NETWORK	
Ethernet Standard/IP	10 / 100 Base-T / IPv4, IPv6
Protocol	QoS Layer 3 DiffServ, TCP/IP, UDP/IP, HTTP, HTTPS, FTP, RTSP, RTCP, RTP/UDP, RTP/TCP, mDNS, UPnP™, SMTP, DHCP, DNS, DynDNS, NTP, SNMP v2c/v3(MIB-II), IGMP, ICMP, SSLv2/v3, TLS, SRTP, RTMP, IEEE802.1X
Users connection	Live viewing for up to 10 clients
Security	HTTPS(SSL), SRTP, IP Filtering, Multi-level access with password protection
GENERAL	
I/O Terminal	1x Alarm In - max 50mA@5VDC, TTL 2x Alarm Out - max 50mA@24VDC, TTL
Application Programming Interface	Software Development Kit (SDK) available ONVIF compliant
Event Metadata Streaming RTSP/RTMP	Video Motion Detection (MD), Video Content Analytics(VCA)
ONVIF	Version: 2.41 (Support Profile S and G)
Event Sources	Input(DI), Output(DO), Video Motion Detection, Tamper Detection, Video Content Analytics(VCA), Network Loss/Detect, Network Setting Change, Time (Recurrence/Schedule)
Event Actions	Notification service via TCP/IP, HTTP, multicast or email text messages with snapshot, output (DO) switching, snapshot upload on external FTP server
Approvals	FCC, CE, KC, IP66, UL, RoHs
ELETRICAL	
Power Source	DC 12V, PoE (IEEE 802.3af)
Consumption	Max. 12W @ DC 12V

ENVIRONMENT	
Temperature	DC12V/PoE: -40°C ~ 50°C (-40°F ~ 122°F)
Humidity	Up to 85% rel. humidity non-condensing
MECHANICAL	
Material	Aluminum Die-Casting
Color	White
Dimension	61(w) x 76(H) x 208(D) mm 2.4"x3.1"x8.2"
Weight (Approx)	0.65kg (1.5lb)
VIDEO CONTENT ANALYSIS (Included as Standard)	
High Performance	Advanced tracking algorithm and low false alarm rate
Easy to Use	Intuitive web browser interface
Detection Zones and Rules	Up to 40 zones (multi-segment polygons and lines) 60 VCA filter rules in total
On-screen Display	Real-time display of tracking data and events via activeX plug-in in IE browser
Burnt in Annotation	Allows the VCA annotation to be burnt into the raw video stream for displaying on third party application
Tamper Detection	Recognize camera tampering via VCA detection (defocusing, lens covering, camera moving)

* A black body has been used for the temperature measurement test with the 10°C variation (0°C to 100°C).

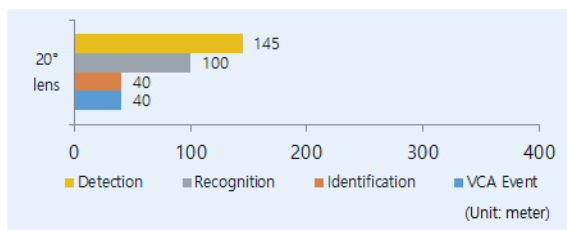
VCA DETECT LICENSE (Included as Standard)	
3D VCA Calibration	Camera Scene Settings will be configured with innovative graphical controls and tools to optimize VCA output
Object Classification	Design of different Object classes to include in VCA Alarm Rules
Included VCA Detection Filters	Direction, Speed, Dwell, Stop, Object Classification
VIDEO CONTENT ANALYSIS (Option extension License)	
Additional Functions	VCAcountIP, VCAadvancedIP, VCAprofessionalIP
VCA Detection Filter	Objekt: Enter, Exit, Appear, Disappear, Stop, Direction, Dwell, Speed, Unauthorized Access, Counting Line, Color Filter, Object Classification
VCA Functions	<ul style="list-style-type: none"> - Up to 20 Onscreen Counter Displays - Counting-Line for accuracy people and vehicle counting with local database and reporting service - VCA calibration via 3D tools for right object size detection - Several definable object class to include into the detection rules for the VCA alarm - 10 colors in total to distinguish objects by color - People tracking mode to tracks individuals separately among overlapped multiple people - Heatmap Report shows relative crowd density of the 24 hour period (criterion: midnight)
Logical Rules	Extension of alarm rules using logical operators (AND, OR..) for the VCA detection filters of created zones / lines

Detection Range

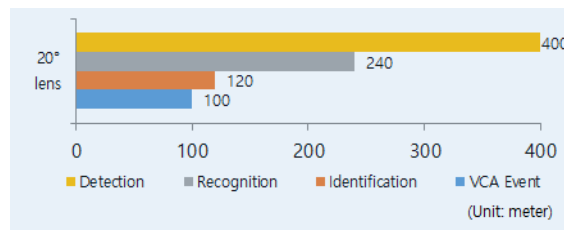
Please Note! Released distance are based on theoretical calculation. In practical application reached distance can diverse depending environment conditions.

Unit: meter					
RTS651-A20					
Lens	Object	Detection	Recognition	Identification	VCA Event
20°- 6.8mm	Person	145	100	40	40
	Vehicle	400	240	120	100

Person



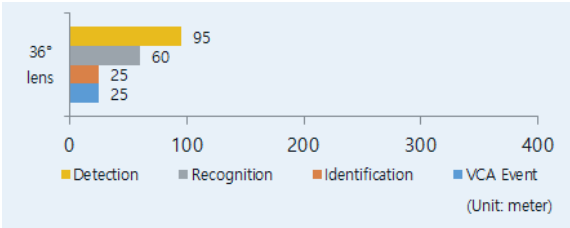
Vehicle



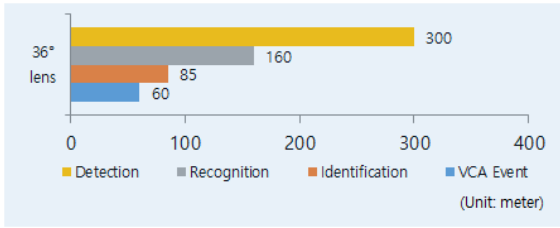
RTS651

Unit: meter					
RTS651-A36					
Lens	Object	Detection	Recognition	Identification	VCA Event
36°- 4mm	Person	95	60	25	25
	Vehicle	300	160	85	60

Person

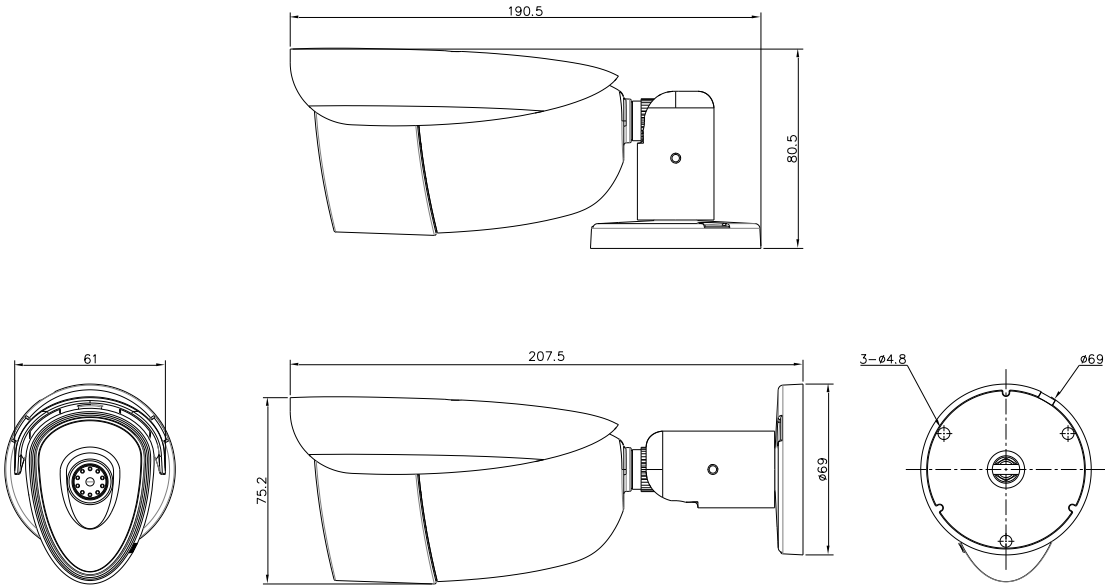


Vehicle

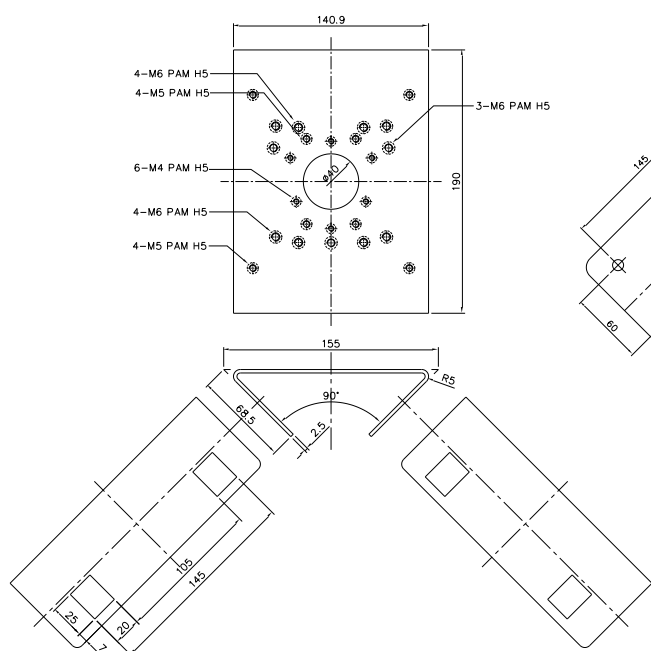


Dimensions

(Unit: mm)

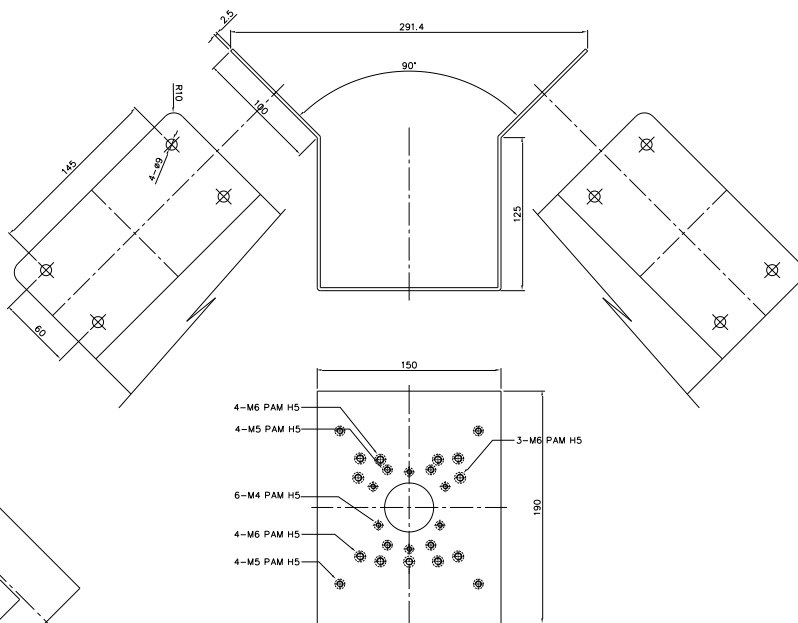


Accessories



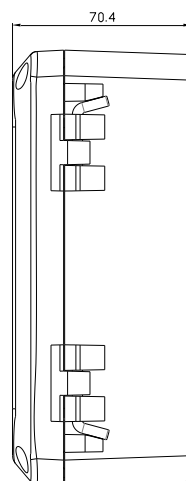
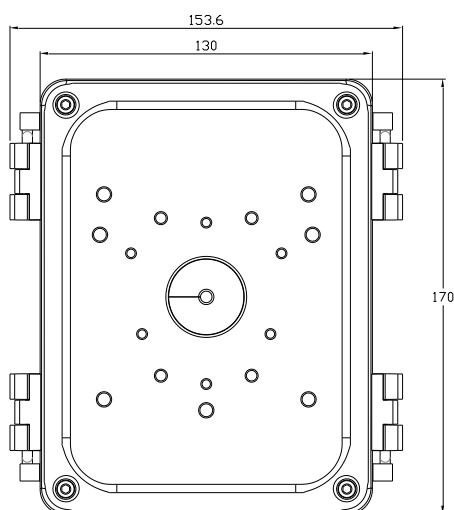
Pole Mount Adaptor

Model: PMA-U100
Weight: 2,28Kg (5.0lbs)



Corner Mount Adaptor

Model: CMA-U100
Weight: 946g (2.1lbs)



Junction Box

Model: JBK-U100
Weight: 1.02Kg (2.2lbs)