# Rialto™ R-Series IP and Analog Video Analytics Appliance

## Self-Learning Video Analytics For IP, Analog & Thermal Security Cameras

The Rialto™ R-Series 1U rack-mount analytics appliance analyzes and records up to 16 security cameras per unit. Letting you build it your way, it is configurable with IP and analog modules.

There is no complicated per camera license fee or registration process. The R-Series is designed to be easily installed and retrofitted to existing or new camera deployments. Industry leading pattern based video analytics deliver real-time analysis and alarms to ensure your team maintains full situational awareness.

## Self-Learning Video Analytics

Avigilon's field proven video analytics classify people and vehicles while eliminating normal scene activity such as moving trees, leaves, shadows, or reflections from water or glass. Advanced video pattern-based analytics detect, track and classify activities of interest. Even in the most challenging outdoor environments customers experience extremely low false positive rates while receiving instant notification when interesting activity occurs. Additionally, the Rialto appliance's advanced self-learning technology continuously improves the system's performance over time.

The R-Series supports full 30 fps 1080p (1920 x 1080) video. Objects are detected at up to 200 ft for D1 and 500 ft for 1080p resolutions cameras. The R-Series also supports thermal cameras for critical perimeter protection requirements for a maximum range up to 2000 ft. Detection range performance are camera, lens, and lighting dependent.

## Instant Notification

Within seconds of a suspect triggering a user defined analytics rule, an instant notification is sent to your security personnel's workstation. Officers can view live video and use audio talk down directly from their PC.

## Fast Install

The R-Series is easy to use and install. Simply connect the R-Series to your network and add or set up your cameras. It's ready to use right out of the box. IP cameras communicate with the R-Series via the network; analog cameras are connected directly via BNC ports on the back of each analog blade. Self-learning and an intuitive rules interface make it straightforward to integrate our award winning analytics with either your existing cameras and VMS system or as a stand-alone system.
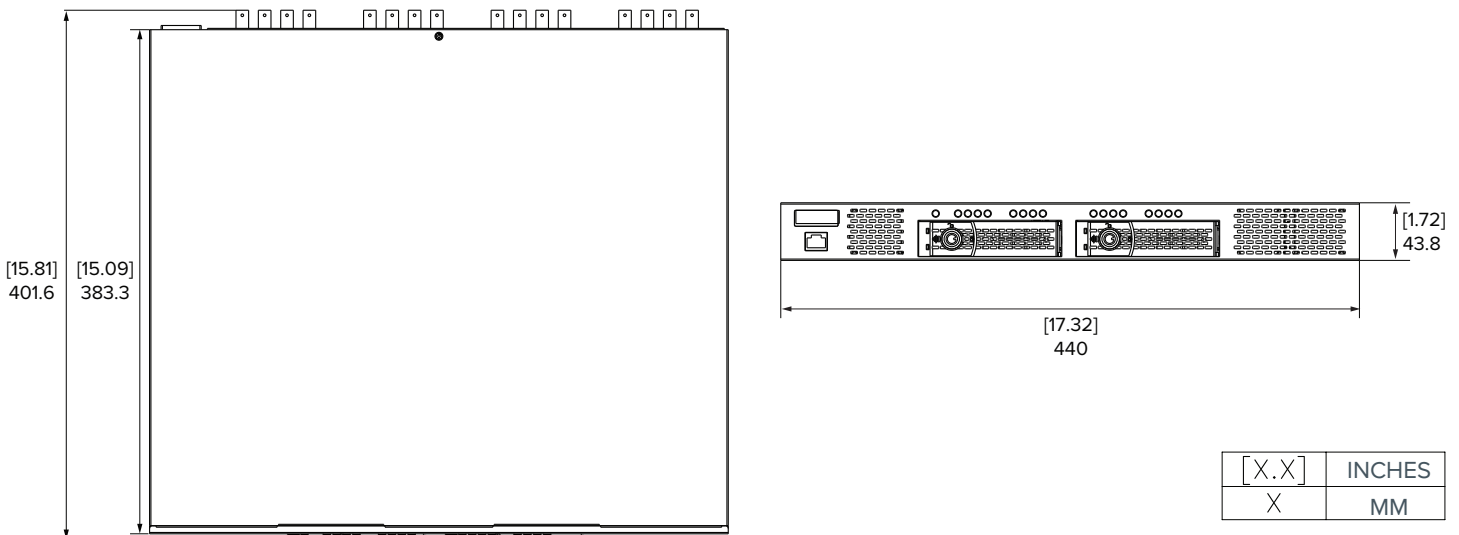
## Optimized Bandwidth & Storage

Like all Avigilon devices, the Rialto R-Series appliance is designed for optimal network bandwidth and storage usage – the R-Series includes two 1 TB 3.5" hot swappable HDDs for local storage.

The R-Series supports Triple Stream Encoding - an intelligent recording stream, which varies compression quality and frame rate, based on whether or not the video contains an event that the user is interested in. A low bandwidth network stream - allows the user to view live video across low bandwidth networks (i.e. 3G/4G cellular networks) and a mobile MJPEG Stream – allows easy decoding and display on mobile devices.

## Modular Design

The R-Series chassis is a true modular design enabling you to build it your way. Each chassis can support any mix of up to 4 analog and IP analytics processing blades.

## Outline Dimensions



[15.81]
401.6

[15.09]
383.3

[1.72]
43.8

[17.32]
440

| [X.X] | INCHES |
|-------|--------|
| X | MM |

## Supported Video Analytics Events

| Objects in Area | The event is triggered when the selected object type moves into the region of interest. If the number of objects is exceeded, a new event is not triggered until the number of objects falls below the defined value. |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Object Loitering | The event is triggered when the selected object type stays within the region of interest for an extended amount of time. The event is reset when the object leaves the region of interest. |
| Objects Crossing Beam | The event is triggered when the specified number of objects have crossed the directional beam that has is configured over the camera's field of view. The beam can be unidirectional or bidirectional. If the number of objects is exceeded, a new event is not triggered until the event timesout. |
| Object Appears or Enters Area | The event is triggered by each object that enters the region of interest. This event can be used to count objects. |
| Object Not Present in Area | The event is triggered when no objects are present in the region of interest. |
| Objects Enter Area | The event is triggered when the specified number of objects have entered the region of interest. |
| Objects Leave Area | The event is triggered when the specified number of objects have left the region of interest. |
| Object Stops in Area | The event is triggered when an object in a region of interest stops moving for the specified threshold time. |
| Direction Violated | The event is triggered when an object moves in the prohibited direction of travel. |
| Tamper Detection | The event is triggered when the scene unexpectedly changes. |

# Rialto R-Series Analytics Bridge Specifications

## VIDEO ANALYTICS SUPPORT

Advanced Video Pattern Detection

## ENCODER DIMENSIONS, WEIGHT, POWER, ENVIRONMENTAL

401.6mm (L) x 440mm (W) x 43.8mm (H)
15.81" x 17.32" x 1.72" (including connectors)

9 kg / 20 lbs (fully populated chassis)

120v 60hz / 220v 50hz AC power

Typical power consumption for fully loaded chassis:
100W

0°C - 50°C (32°F - 122°F ) operating temp,
20-80% RH (non-condensing)

## NETWORKING & COMMUNICATIONS

(1) GigE port for standard communications

(1) 10/100T port maintenance interface

HTTP/HTTPS for standard communications

RTSP video streaming over TCP/UDP

NTP for time synchronization

## ANALOG ANALYTICS MODULE

Supports D1 resolution at 30fps

Works with color, B/W, Day/Night and thermal cameras with NTSC/PAL outputs Supports PTZ control via RS-485 bus, PTZ analytics work when PTZ is in home position, PTZ control is handled by operator

(2) Audio inputs

(2) Audio outputs

(4) TTL inputs

(4) Open-collector outputs

(1) Relay output (500ma max)

## IP ANALYTICS MODULE

Supports D1 and 1080p (1920 x 1080) resolutions at 30fps utilizing RTSP H.264 video streaming

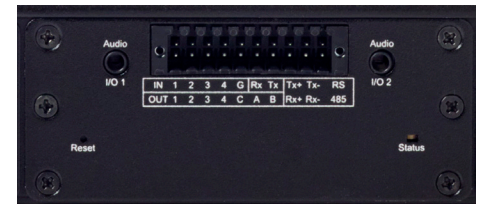Works with color, B/W or thermal images

(2) Audio inputs (line-level)

(2) Audio outputs (line-level)

(4) TTL inputs

(4) Open-collector outputs

(1) Relay output (500ma max)

## COMPATIBLE AVIGILON CAMERAS

| | |
|---|---|
| Resolution 1, 1.3 and 2 MP | HD Dome cameras |
| HD Cameras | HD Micro Dome cameras |
| HD Bullet cameras | |

## ORDERING INFORMATION

| | |
|---|---|
| VAA-1U-2TB | Rialto™ R-Series system 1U rack-mount analytics appliance with 2 TB of hard disk drive storage |
| VAA-I4-1U | Rialto™ R-Series analytics appliance module, 4 channel IP digital encoder |
| VAA-A4-1U | Rialto™ R-Series analytics appliance module, 4 channel analog encoder |
| VAA-1USHLF | Rialto™ R-Series rack-mount shelf |