# **NVR-EL16-2U12MP1**

16 Channel 2U Network Video Recorder





- Multi-core embedded processor
- Smart H.265+/H.265/Smart H.264+/H.264/ MJPEG support
- Up to 12MP Resolution for Preview and Playback
- Supports up to 4K Display and dual HDMI output
- 320 Mbps Incoming Bandwidth, Dual Gigabit Ethernet ports
- 8 SATA III Ports, Up to 10TB capacity for each HDD, 1 eSATA, RAID Support
- Made in South Korea and conforms to the Trade Agreements Act (TAA)

## System Overview

IC Realtime's Elite NVR line starts with the NVR-EL16-2U12MP1. Combining 4K and H.265 encoding technology with high performance and flexibility, this 16 channel NVR features dual gigabit ethernet ports and 320 Mbps total bandwidth to handle the most demanding cameras up to 12MP. Storage is built to handle high resolution cameras, with storage for up to 8 HDDs at 10TB each with RAID support. This NVR also supports AI and IVS (by camera) such as Fisheye Dewarping, Perimeter Protection, Intelligent Motion Detect, Face Detect and Recognition.

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### **Functions**

#### IVS (Intelligent Video System) by camera

Working with IVS-enabled IP cameras, the NVR recognizes and records video that contains IVS data on all IP channels. The NVR records standard intelligence at-the-edge features, as well as premium IVS features that detect abandoned or missing objects, Tripwire violations, and intrusion violations. The NVR is also capable of recording business analysis data – Audio Detect, People Counting and Heat Map – from IP cameras with built-in Intelligent Business Analytics.

#### **Smart Fan Design**

The smart fan can automatically turn on or turn off according to the CPU temperature. This function can effectively reduce the fan noise to provide a better user experience.

#### **Smart H.265+**

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

#### **Fisheye Dewarp**

The NVR features multiple fisheye dewarping modes to make viewing video easy whether it's live or during playback.

#### 4K Resolution

4K resolution is a revolutionary breakthrough in image processing technology. 4K delivers four times the resolution of standard HDTV 1080p cameras and offers superior picture quality and image details. 4K resolution improves the clarity of a magnified scene to view or record crisp forensic video from large areas.





# Technical Specification

Main Processor         Multi-core embedded processor           Operating System         Embedded LINUX, ICR 4.0           Video         Max IP Channels         16 Channel (up to 12MP)           Audio         Two-way Talk         1 Channel Input, 2 Channel Output, RCA           Display           Interface         2 HDMI, 2 VGA           HDMI: 3840×2160, 1920×1080, 1280×1024, 1280×720           HDMI2/VGA2: 1920 x 1080           Display Split         2st Screen: 16CH: 1/4/8/9/16           OSD         Camera title, Time, Video loss, Camera lock, Motion detection, Recording           Display Output Max Decode         4-ch@4K(30fps), 16-ch@1080P(30fps)           Recording         Video/Audio Compression           Video/Audio Compression         Smart H.265+H.265/Smart H.264+/H.264/MJPEG           Image Resolution         12MP, BMP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc           Bandwidth         320Mbps           Bit Rate         16Kbps - 20Mbps Per Channel           Record Mode         Manual, Schedule (Regular, Motion Detection, Alarm, IVS), Stop           Record Interval         1 - 120 min (default: 60 min), Pre-record: 1 - 30 sec. Post-record: 10 - 300 sec           Intelligence           General IVS         Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distributio	System	
Video           Max IP Channels         16 Channel (up to 12MP)           Audio         Two-way Talk         1 Channel Input, 2 Channel Output, RCA           Display         Interface         2 HDMI, 2 VGA           HDMI: 3840×2160, 1920×1080, 1280×1024, 1280×720         4DMI2VGA2: 1920 × 1080           Posplay Split         1st Screen: 16CH: 1/4/8/9/16           OSD         Camera title, Time, Video loss, Camera lock, Motion detection, Recording           Video/Audio Compression         Smart H.265+/H.265/Smart H.264+/H.264/MJPEG           Property Signal         12MP, BMP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc           Bandwidth         320Mbps           Bit Rate         16Kbps ~ 20Mbps Per Channel           Record Mode         Manual, Schedule (Regular, Motion Detection, Alarm, IVS), Stop           Record Interval         1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec           Intelligence         Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)           Intelligent Motion Detect         16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)           Intelligent Motion Detect         16 channels, Human/ Vehicle Recognition (Supported by camera)           Al Search: Pictures by channel, time and face attributes           Fishe	Main Processor	Multi-core embedded processor
Audio Two-way Talk  1 Channel Input, 2 Channel Output, RCA  Display Interface  2 HDML 2 VGA HDML: 3840×2160, 1920×1080, 1280×1024, 1280×720 Resolution  VGA: 1920×1080, 1280×1024, 1280×720 HDMI2/VGA2: 1920 × 1080  Display Split  2 Ist Screen: 16CH: 1/4/8/9/16 2nd Screen: 1/4/8/9/16 OSD  Camera title, Time, Video loss, Camera lock, Motion detection, Recording  Video/Audio Compression  Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  Image Resolution  Display Output Max Decode  Recording  Video/Audio Compression  Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  Image Resolution  Display Output Max Decode  Record Interval  12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc  Bandwidth  320Mbps  Bit Rate  16Kbps ~ 20Mbps Per Channel  Record Mode  Manual, Schedule (Regular, Motion Detection , Alarm, IVS), Stop  Record Interval  Record Interval  1 - 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Post-record: 10 ~ 300 sec  Intelligence  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Al Search: Search by target classification (human, vehicle)  Face Recognition  Face Recognition  Video Metadata  ANPR (Automatic Number Plate  Supported by camera)  Al Search: Search by target video by metadata	Operating System	Embedded LINUX, ICR 4.0
Audio Two-way Talk  1 Channel Input, 2 Channel Output, RCA  Display Interface  2 HDMI, 2 VGA  HDMI: 3840×2160, 1920×1080, 1280×1024, 1280×720  HDMI2/VGA2: 1920 × 1080  Display Split  2 St Screen: 16CH: 1/4/8/9/16  2nd Screen: 1/4/8/9/16  OSD  Camera title, Time, Video loss, Camera lock, Motion detection, Recording  Video/Audio Compression  Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  Image Resolution  Display Split  12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc  Bandwidth  320Mbps  Bit Rate  16Kbps ~ 20Mbps Per Channel  Record Mode  Record Interval  Record Interval  1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Intelligence  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  1 6 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  Al Search: Search by target classification (human, vehicle)  Face Recognition  Face Recognition  Al Search: Search by target classification (human, vehicle)  Video Metadata  ANPR (Automatic Number Plate  Supported by vamera)  Al Search: Search by target video by metadata	Video	
Display	Max IP Channels	16 Channel (up to 12MP)
Display	Audio	
Interface   2 HDMI, 2 VGA   HDMI: 3840×2160, 1920×1080, 1280×1024, 1280×720   YGA: 1920×1080, 1280×1024, 1280×720   HDMI2/VGA2: 1920 × 1080   Ist Screen: 16CH: 1/4/8/9/16   2nd Screen: 14/8/9/16   2nd Screen: 14/8/9/16		1 Channel Input, 2 Channel Output, RCA
Interface 2 HDMI, 2 VGA  HDMI: 3840×2160, 1920×1080, 1280×1024, 1280×720  VGA: 1920×1080, 1280×1024, 1280×720  HDMI2/VGA2: 1920 × 1080  Display Split 1st Screen: 16CH: 1/4/8/9/16 2nd Screen: 1/4/8/9/16  OSD 2camera title, Time, Video loss, Camera lock, Motion detection, Recording  Display Output Max Decode 4-ch@4K(30fps), 16-ch@1080P(30fps)  Recording  Video/Audio Compression Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  Image Resolution 12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc  Bandwidth 320Mbps  Bit Rate 16Kbps ~ 20Mbps Per Channel  Record Mode NS), 5top  Record Interval 1-20 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Intelligence  Intelligence  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Intelligent Motion Detect 16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  Al Search: Search by target classification (human, vehicle)  Face Recognition 4l Supported by camera)  Al Search: Search by target classification (human, vehicle)  Video Metadata ANPR (Automatic Number Plate Supported by camera)  Al Search: Search by target video by metadata		
Resolution  HDMI: 3840×2160, 1920×1080, 1280×1024, 1280×720  VGA: 1920×1080, 1280×1024, 1280×720  HDMI2/VGA2: 1920 × 1080  Display Split  1st Screen: 16CH: 1/4/8/9/16 2nd Screen: 1/4/R/9/16  OSD  Camera title, Time, Video loss, Camera lock, Motion detection, Recording  Video/Audio Compression  Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  Image Resolution  12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc  Bandwidth  320Mbps  Bit Rate  16Kbps ~ 20Mbps Per Channel  Manual, Schedule (Regular, Motion Detection , Alarm, IVS), Stop  Record Interval  1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Intelligence  Intelligence  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/Recognition, Crowd Distribution, Audio Detection (Supported by camera)  16 channels, Tripwire: intrusion (Recognition of human and vehicle) (Supported by camera)  Al Search: Search by target classification (human, vehicle)  Face Recognition  Face Recognition  Video Metadata  ANPR (Automatic Number Plate  Supported by camera)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate		3 HDMI 3 V/C A
Resolution  VGA: 1920×1080, 1280×1024, 1280×720  HDMI2/VGA2: 1920 × 1080  Display Split  1st Screen: 16CH: 1/4/8/9/16 2nd Screen: 1/4/8/9/16  OSD  Camera title, Time, Video loss, Camera lock, Motion detection, Recording  Display Output Max Decode  Recording  Video/Audio Compression  Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  Image Resolution  Bandwidth  320Mbps  Bit Rate  16Kbps ~ 20Mbps Per Channel  Record Mode  Manual, Schedule (Regular, Motion Detection , Alarm, IVS), Stop  Record Interval  1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Intelligence  General IVS  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Perimeter Protection  16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  Al Search: Search by target classification (human, vehicle)  Face Recognition  Face Recognition  Video Metadata  ANPR (Automatic Number Plate  Supported by camera)  Al Search: Search by target video by metadata	Interrace	
HDMI2/VGA2: 1920 x 1080  Display Split  Display Split  Display Split  Display Output Max Decode  Recording  Video/Audio Compression  Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  Image Resolution  Bandwidth  Bit Rate  16Kbps ~ 20Mbps Per Channel  Record Interval  Pescord Interval  T 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Intelligence  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Al Search: Search by target classification (human, wehicle)  Face Recognition  Video Metadata  ANPR (Automatic Number Plate  Supported by camera)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate  Supported by camera)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate		
Display Split  1st Screen: 16CH: 1/4/8/9/16 2nd Screen: 1/4/8/9/16  OSD  Camera title, Time, Video loss, Camera lock, Motion detection, Recording  Display Output Max Decode  Recording  Video/Audio Compression  Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc  Bandwidth  320Mbps  Bit Rate  16Kbps ~ 20Mbps Per Channel  Record Mode  Manual, Schedule (Regular, Motion Detection , Alarm, IVS), Stop  Record Interval  1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Intelligence  General IVS  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  Al Search: Search by target classification (human, vehicle)  Face Recognition  Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Supported by NVR  16 channels, Human Body, Vehicle and Non-motor Vehicle (Supported by camera)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate  Supported by camera)  Al Search: Search by target video by metadata	Resolution	VGA: 1920×1080, 1280×1024, 1280×720
Display Split  2nd Screen: 1/4/8/9/16  Camera title, Time, Video loss, Camera lock, Motion detection, Recording  Display Output Max Decode  Recording  Video/Audio Compression  Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  Image Resolution  Bandwidth  320Mbps  Bit Rate  16Kbps ~ 20Mbps Per Channel  Record Mode  Manual, Schedule (Regular, Motion Detection , Alarm, IVS), Stop  Intelligence  General IVS  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Intelligent Motion Detect  16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  Al Search: Search by target classification (human, vehicle)  Face Recognition  Video Metadata  ANPR (Automatic Number Plate  Supported by camera (Reta)  Supported by camera (Reta)  Supported by camera)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate		HDMI2/VGA2: 1920 × 1080
Display Output Max Decode  Recording  Video/Audio Compression  Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  Image Resolution  Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc  Bandwidth  320Mbps  Bit Rate  16Kbps ~ 20Mbps Per Channel  Record Mode  Manual, Schedule (Regular, Motion Detection , Alarm, IVS), Stop  Record Interval  1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Intelligence  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Perimeter Protection  The Channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  16 channels, Human/ Vehicle Recognition (Supported by camera)  Al Search: Search by target classification (human, vehicle)  Face Recognition  Face Recognition  Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Video Metadata  ANPR (Automatic Number Plate  Supported by camera (Reta)  ANPR (Automatic Number Plate	Display Split	
Recording         Video/Audio Compression       Smart H.265+/H.265/Smart H.264+/H.264/MJPEG         Image Resolution       12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc         Bandwidth       320Mbps         Bit Rate       16Kbps ~ 20Mbps Per Channel         Record Mode       Manual, Schedule (Regular, Motion Detection , Alarm, IVS), Stop         Record Interval       1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec         Intelligence         General IVS         Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)         Perimeter Protection       16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)         Intelligent Motion Detect       16 channels, Human/ Vehicle Recognition (Supported by camera)         Al Search: Search by target classification (human, vehicle)       14 channels (Supported by camera)         Al Search: Pictures by channel, time and face attributes       Fisheye Dewarp         Video Metadata       16 channels, Human Body, Vehicle and Non-motor Vehicle (Supported by camera)         Al Search: Search by target video by metadata         ANPR (Automatic Number Plate       Supported by camera (Reta)	OSD	
Video/Audio Compression  Smart H.265+/H.265/Smart H.264+/H.264/MJPEG  Image Resolution  12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc  Bandwidth  320Mbps  Bit Rate  16Kbps ~ 20Mbps Per Channel  Record Mode  Manual, Schedule (Regular, Motion Detection , Alarm, IVS), Stop  Record Interval  1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Intelligence  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Perimeter Protection  16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  Al Search: Search by target classification (human, vehicle)  Face Recognition  Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Video Metadata  ANPR (Automatic Number Plate  Supported by camera (Reta)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate	Display Output Max Decode	4-ch@4K(30fps), 16-ch@1080P(30fps)
Image Resolution  12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 1080P, 1.3MP, 720P, D1 etc  Bandwidth  320Mbps  Bit Rate  16Kbps ~ 20Mbps Per Channel  Manual, Schedule (Regular, Motion Detection , Alarm, IVS), Stop  Record Interval  1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Intelligence  General IVS  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Perimeter Protection  16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  Al Search: Search by target classification (human, vehicle)  Face Recognition  Al Search: Search by target classification (human, vehicle)  Fisheye Dewarp  Video Metadata  ANPR (Automatic Number Plate  Supported by camera (Reta)  Al Search: Search by target video by metadata  Supported by camera (Reta)	Recording	
Bandwidth   320Mbps	Video/Audio Compression	Smart H.265+/H.265/Smart H.264+/H.264/MJPEG
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Record Mode  Manual, Schedule (Regular, Motion Detection , Alarm, IVS), Stop  1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Intelligence  General IVS  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Perimeter Protection  16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  Al Search: Search by target classification (human, vehicle)  Face Recognition  Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Video Metadata  ANPR (Automatic Number Plate  Supported by camera (Reta)  Al Search: Search by target video by metadata  Supported by camera (Reta)	Bandwidth	320Mbps
Record Mode  IVS), Stop  1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec  Intelligence  General IVS  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Perimeter Protection  16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  16 channels, Human/ Vehicle Recognition (Supported by camera)  Al Search: Search by target classification (human, vehicle)  14 channels (Supported by camera)  Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Video Metadata  ANPR (Automatic Number Plate  Supported by camera (Reta)  Supported by camera (Reta)	Bit Rate	16Kbps ~ 20Mbps Per Channel
Intelligence  General IVS  Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Perimeter Protection  16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  16 channels, Human/ Vehicle Recognition (Supported by camera)  Al Search: Search by target classification (human, vehicle)  14 channels (Supported by camera)  Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Video Metadata  ANPR (Automatic Number Plate  Supported by camera (Reta)  Al Search: Search by target video by metadata  Supported by camera (Reta)	Record Mode	
Tripwire, Intrusion, Heat Map, Line Crossing, People counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Perimeter Protection  16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  16 channels, Human/ Vehicle Recognition (Supported by camera)  Al Search: Search by target classification (human, vehicle)  14 channels (Supported by camera)  Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Video Metadata  ANPR (Automatic Number Plate  Supported by camera (Reta)  Automatic Number Plate  Supported by camera (Reta)	Record Interval	
General IVS  counting, Face Detect/ Recognition, Crowd Distribution, Audio Detection (Supported by camera)  Perimeter Protection  16 channels, Tripwire; intrusion (Recognition of human and vehicle) (Supported by camera)  16 channels, Human/ Vehicle Recognition (Supported by camera)  Al Search: Search by target classification (human, vehicle)  14 channels (Supported by camera)  Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Video Metadata  ANPR (Automatic Number Plate  Supported by camera (Reta)  Automatic Number Plate  Supported by camera (Reta)	Intelligence	
Intelligent Motion Detect  16 channels, Human/ Vehicle Recognition (Supported by camera)  Al Search: Search by target classification (human, vehicle)  14 channels (Supported by camera)  Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Supported by NVR  16 channels, Human Body, Vehicle and Non-motor Vehicle (Supported by camera)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate  Supported by camera (Reta)	General IVS	counting, Face Detect/ Recognition, Crowd Distribution,
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Al Search: Search by target classification (human, vehicle)  14 channels (Supported by camera)  Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Supported by NVR  16 channels, Human Body, Vehicle and Non-motor Vehicle (Supported by camera)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate  Supported by camera (Beta)	Intelligent Motion Detect	- · · · · · · · · · · · · · · · · · · ·
Face Recognition  Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Supported by NVR  16 channels, Human Body, Vehicle and Non-motor Vehicle (Supported by camera)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate  Supported by camera (Beta)		
Al Search: Pictures by channel, time and face attributes  Fisheye Dewarp  Supported by NVR  16 channels, Human Body, Vehicle and Non-motor Vehicle (Supported by camera)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate  Supported by camera (Reta)	Face Peccapition	14 channels (Supported by camera)
Video Metadata  16 channels, Human Body, Vehicle and Non-motor Vehicle (Supported by camera)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate  Supported by camera (Beta)	race Recognition	Al Search: Pictures by channel, time and face attributes
Vehicle (Supported by camera)  Al Search: Search by target video by metadata  ANPR (Automatic Number Plate  Supported by camera (Beta)	Fisheye Dewarp	Supported by NVR
ANPR (Automatic Number Plate Supported by camera (Reta)	Video Metadata	
		Al Search: Search by target video by metadata
		Supported by camera (Beta)

Video	<b>Detection</b>	2. Alarm

Trigger Events	Recording, PTZ, Tour, Video Push, Email, Snapshot, Buzzer and Screen Tips
Video Detection	Motion Detection, MD Zones: 396 (22 $\times$ 18), Video Loss and Tampering
Alarm Input / Output	Input: 16 Channel
	Output: 6 Channel

#### Playback & Backup

Sync Playback	1/4/9/16
Search Mode	Time /Date, Alarm, MD and Exact Search (accurate to second)
Playback Functions	Play, Pause, Stop, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Backup Selection, Digital Zoom
Backup Mode	USB Device/Network/eSATA Device

Network	
Ethernet	2 RJ-45 Ports (10/100/1000Mbps) Independent or Joint Working
PoE	N/A
Network Functions	HTTP, HTTPs, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE,DDNS, FTP, Alarm Server, IP Search
Max. User Access	128 users
Smart Phone	Android, iOS, iPhone
Interoperability	ONVIF 2.4, SDK, CGI

#### Storage

-	
Internal HDD	8 SATA III Ports, Up to 10 TB capacity for each HDD
eSATA	1 eSATA
External HDD	N/A
RAID	RAID 0,1,5,6,10 Support

#### **Auxiliary Interface**

USB	3 USB Ports (2 Rear USB 3.0 , 1 Front USB 2.0 )
RS232	1 Port, for PC Communication and Keyboard
RS485	1 Port, for PTZ Control

#### General

Power Supply	AC100V ~ 240V, 50 ~ 60 Hz
Power Consumption	<16.7W (Without HDD)
Smart Fan	Support, Temperature regulated
Working Environment	$+14^{\circ}F \sim +131^{\circ}F$ (-10°C $\sim +55^{\circ}C$ ), 86 $\sim 106$ kpa
Storage Conditions	-4°F ~ +158°F (-20°C ~ +70°C), 0 ~ 90% RH
Installation Type	Rack mountable
Dimensions (W×D×H)	2U, 17.3" x 17.7" x 3.7" (440mm x 451.5mm x 94.9mm)
Weight	14.4 lb (6.55kg) (without HDD)
0	

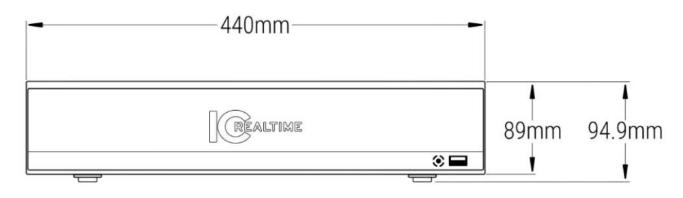
#### Certifications

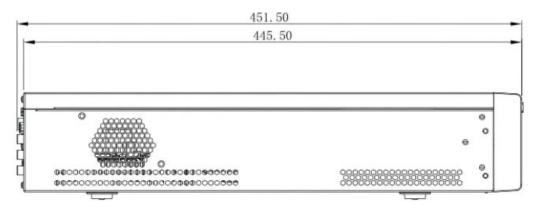
Certifications FCC: Part 15 Subpart B





# Dimensions (mm/in)





## Panels

