



IP PTZ Darkwarrior AM-FD2500-R1U20 H.265+ 2MP 20X Starlight IP PTZ Camera



DARK WARRIOR
STAR LIGHT

Dark Warrior Starlight Series IP Camera

Designed to work under Ultra Low Light illumination to Give Colour Picture Quality

Superior Engineering Design & Sensational Image Quality

AM-FD2500-R1U20 H.265+ 2MP 20X Starlight IP PTZ Camera



H.265 VIDEO
COMPRESSION



SUPER
WDR



20X
OPTICAL
ZOOM



REGION
OF
INTEREST



DC12V/PoE+



CRUISE
CONTROL



AUTO
FLIP



VIDEO
ANALYTICS



LOCAL
STORAGE



Surge /
Lighting
Protection

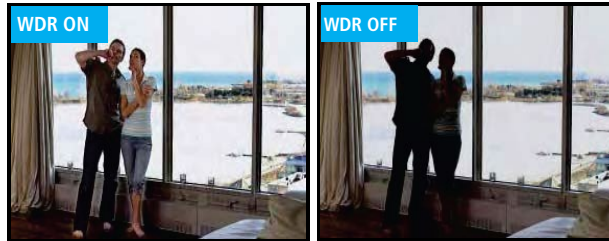
Features :

- 1/2.8" Ultra Low Lux Starlight Exmor Progressive Scan CMOS Sensor
- FullHD 2MP resolution with 1980(H) x 1080(V) at 30fps display
- Ultra low illumination color image at 0.002Lux, B&W 0.001Lux and 0Lux at IR On
- Total 320X zooming capacity by Optically 20X & Digitally 16X
- Latest H.265+ HEVC hardware compression along with H.264/MJPEG
- Smart more than 10 IVA functions, Supports 120dB WDR and 3DNR to night vision image enhancement
- Triple streaming, Triple compression, Variable/Constant bitrate and frame rate
- High intensity 3rd generation IR Array LED up to 150Mtrs., Auto adjust IR LED power with Wide & Tele zooming angle
- Supports P2P APP alert management & functions
- Supports offline storage by microSD card 128gb(card optional) and Network storage(FTP)
- 500 Preset, 8 Patterns, 8 Swing, 8 Groups Function, special 3D positioning function
- Complete Coverage by 360 ° continuous panning with fast rotation 240 °/Sec
- Monitoring versatile Height of mounts by tilting range -16° ~ 90°, Controllable tilt level
- Two-Way intercom 1CH audio input,output, Third party alarm Integration by 1Ch Input /1Ch Output
- ANR(automatic network replenishment) to support offline network storage data(SD Card/USB) videos automatically download to NVR hard drive when network re-established
- Wide range network protocol TCP/UDP/QoS/FTP/SMTP/upnp/RTSP/RTP/HTTP & many more
- Smart IR function works when object/person is close to camera. It controls IR to get clear picture
- ROI(region of interest) technology can save more than 25% of bit rate so it increases the storage period
- Built in uni/multicast streaming to support multiple user logging at same time
- Various functions such as WDR, Day&Night, BLC/HLC, AGC, White balance, Shutter speed, In/Outdoor, etc.
- OSD in multiple color, naming & position, Privacy, Motion detection, Smart De-Fog, Exposure control
- Software compatibility with icrys series 256Ch CMS software and any third party Onvif VMS/CMS software
- P2P secure cloud monitoring on iOS/Android handsets(through NVR live/play-back/audio and control)
- Latest ONVIF S profile compliance, Email notification, Manual & Schedule snapshot
- Easy, fast response & friendly graphical user interface, Advanced encryption secure access
- Built In Heater & FAN with Special Design with Air Cooling & Intelligent Demist
- Built-in TVS 6000V and Lightning/Surge 4000V protection, Supports wall/pendant/corner mounts
- Redundant power supported by 12VDC & PoE+ with 802.3af standard
- IP66 waterproof standard, works under high and low environment -40°C ~ 70°C temp. condition

Darkwarrior Starlight IP Camera Night Vision



Super WDR



Intelligent Video Analytics :

Virtual Fence



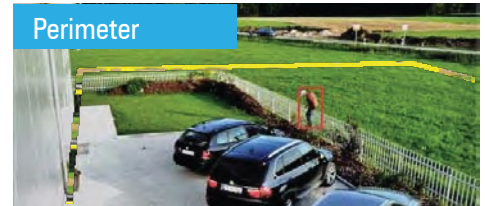
With a virtual fence set alongside a railway track, freeway hard shoulder, building perimeter or around a temporarily parked asset for example, an alert is generated when that fence is breached. Since the system "understands" direction, alarm discrimination based on direction of approach is made possible.

Double Trip Wire



The application detects moving objects that cross a two trip line, making it possible to automatically trigger an event. Ideal for illegal turn or traffic flow (vehicles or people) and specify the minimum to maximum time intervals or when the person or an object enters in unauthorized zone and crosses, the both virtual lines trigger an event.

Perimeter



The application detect direction of movement can be defined in any direction of the zone movement or moving into zone or moving out to zone. Ideal for Security Zone, Restricted area, Valuable item Storage Area & Many More.

Foreign Object



Foreign: The application Detects object abandoned/left behind/ Suspicious Objects Left in Pre-defined Area. It triggers an event. Ideal for Public Transports, Museums, Art Galleries & Public Places
Missing : The application detects when a particular object was moved or removed from the desired drawn Virtual area, it trigger an event. Ideal for Museums, Warehouse, Art Gallery, Jewelry showroom.

Missing Object

Crowd



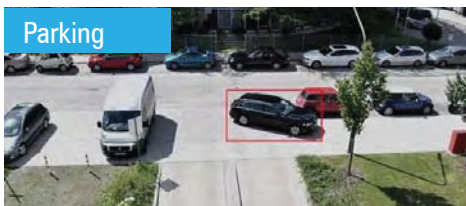
The application estimates the density of people in pre-defined area, once the density crosses a certain limits or suddenly group of a people enter into in the pre-defined area, it triggers an event. Ideal for Retailers, Shopping Malls, Waiting Areas, Hospitals, Parking Zones, Silent Zones.

Loitering



If somebody enters the marked area and stays there for a certain period of time, the alarm is automatically triggered. Ideal for Public areas, Border Fences, Buildings, Government Restricted Zone, Banks, Parking Areas.

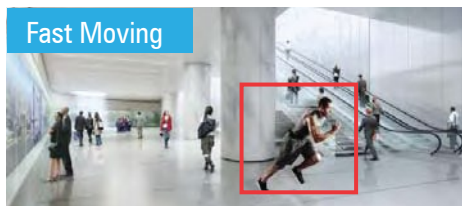
Parking



The application detects illegal parking with pre-defined restricted zones, speed limit settings.

Ideal for VIP parking Zone, No Parking Zone, Special Allocated Parking Zone, Parliament House.

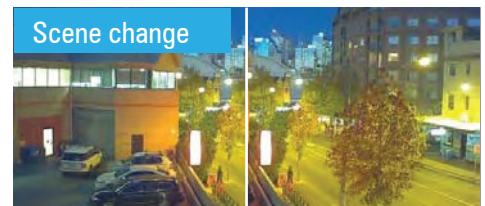
Fast Moving



The application triggers an alarm when the person runs in a not allowing Running pre-defined Zone.

Ideal for Temple, Hallways lobbies, Platforms Walking Zone, Airports Runways.

Scene change



The application trigger an alarm if the camera Rotated/ Manipulation / Direction Shifted from the user-selected Viewing direction or camera lens is covered by some bag or cloths, Spray Painting, Video Tamper.

More than 10 IVA Functions are available

Technical Specifications

Model No	AM-FD2500-R1U20
Camera Specification	
Sensor type	1/2.8" progressive scan CMOS image sensor
Lux level	Color 0.002lux, B/W 0.001lux at F1.5, AGC on, 0lux at IR On
Shutter speed control	Auto/Manual/Shutter or Iris first, Range 1/1s ~ 1/100000s
Gain control(AGC)	Auto/Manual
Lens	F = 4.7mm ~ 94mm
Optical zoom ratio	20X optical, 16X digital
Angle of view	Horizontal : 55.8°(wide) ~ 3.2°(tele)
Aperture range	F1.5 ~ F3.0
Zooming speed	Approx. 4s(Optical mode wide-tele)
Minimum working distance	1-1.5mtr(wide-tele)
Auto focus	Auto/ Semi-automatic/ Manual
IRIS control	Auto/Manual
SN ratio	≥ 55dB
Signal system	PAL/NTSC
IR functions	up to 150mtrs., Smart IR control, IR LED adjustable according Zoom length, ICR
On Screen Display	
WDR	140dB, Auto/Manual adjustable
Day/Night	Auto(Outside/Inside), Color, B/W, Sensitivity adjustable
Digital noise reduction	3DNR (Close/Ordinary/Expert)
Light compensation	BLC Off/On, HLC Off/On adjustable
White balance	Auto/Manual/Lock/Nature/Sunshine/Day Light/Warm light
Other functions	Smart Defog control, EIS(Image Stabilizer), Flip control, Privacy masking
Motion detection	Yes, Zones :396(22x18), Sensitivity level 1~ 100
Image control	Brightness, Contrast, Sharpness, Saturation
OSD display	16×16,32×32,24×24,48×48,64×64 character size 5 area arrangement @ Time/Date/Week/Character/PTZ angle
Compression/Video/Audio	
Video compression	H.265+, H.265, H.264, MJPEG, H.264 Main/High/Baseline profile
Video resolution	2MP(1920x1080)/1.3MP/1MP/D1/2CIF/CIF/VGA
Main stream	1080P(1920x1080)/960P(1280x960)/720P(1280x720)/D1(704x576)
Second stream	D1(704*576)/2CIF(704x288)/CIF(352x288)/QCIF(172x144)
Third stream	CIF(352x288)/QCIF(172x144)
Record & Live frame rate	Selectable 1 ~ 25/30 fps @ main/second stream resolution
Bit Rate	32Kbps ~ 16Mbps, VBR/CBR, I-Frame interval
Audio compression & bitrate	G.711/G.726/ADPCM & 8K~48Kbps
Video Analysis	
Intelligent video analysis	Tripwire, Double Tripwire, Perimeter, Object Left & Lost, Running, Loitering, Parking, Crowd, Audio & Video Abnormal detection, Scene change, Blur image
Analytics setting	Target Size/Sensitivity/Background to Foreground difference/Target frame
iVA trigger	Record/Snapshot/PTZ Control/Link out
Intelligent alarm	Motion detection, Has Voice, Video loss and blind, Port alarm, IP & MAC conflict, Network disable
Alarm & IVA trigger	On-screen alerts/PTZ trigger/Link out/E-MAIL/FTP upload/Pre-Post record
Corridor control	Yes(supported format 16:9, 9:16)
Region of Interest(ROI)	7 Dynamic Areas for Both Main and Sub Stream
Advanced warning	N.A

Technical Specifications

Model No.	AM-FD2500-R1U20
Software Support	
Onvif	YES, Profile S
CMS software	iCRYS Series, up to 256CH(IP+NVR+Matrix)
3rd Party VMS/NVR /CMS	Onvif/SDK/CGI
Mobile	Android /iOS through NVR, P2P cloud support
User login	8 User / 4 level of rights, Simultaneous login <7 User client
Snap shots	Schedule, Link with FTP or Email
Encryption	Off/AES
Network, Storage, Interface	
Protocol	HTTP,802.1x,FTP,SMTP,UPnP,SNMP,DNS,DDNS,PPPoE,NTP,RTSP,TCP,UDP,DHCP
Storage	Micro SD/SDHC/SDXC slot(128Gb)
Pre & Post recording	Pre : 5 to 15sec, Post : 10 to 60 sec
Storage function	ANR(auto download in NVR), Manual & Alarm recording
Network storage	FTP(pre & post upload)
LAN port	1x Port RJ-45, 10M/100M ethernet
Audio Input	1Ch Mic in/Line in, Line input and output
Audio Output	1Ch line level
Alarm	1Ch input & 1Ch output
Other ports	N.A
Pan/Tilt/Alarm	
Pan/Tilt range	Pan 360°(Endless) / Tilt -16° ~ 90°(auto flip)
Pan speed	Manual 0.1°-240°/sec, Preset speed: 240°/s
Tilt speed	Manual : 0.1°-240°/s, Preset speed: 240°/s
Preset accuracy	±0.02°
Preset	500 Preset
Patterns	8nos, each with 600s memory or 300 orders
Cruise	8,nos Up to 32 presets per cruise
Scan	8 Setup
OSD function	Various languages, Camera & Video parameter
Special function	3D Positioning, Power off memory
Home guard function	Link @ preset/ scan/ cruise/ pattern
Protocol	PTZ_PELCO_D/P, DOME_PELCO_D/P
Other function	FAN
General	
Power supply	PoE+, DC12V(optional power adaptor)
Power consumption	<12W at IR Off, <21W @ IR On
Voltage protection	TVS 6000V, Lightning/Surge 2000V(power) 1000V(RJ45)
Language	English, Spanish, Korean, Italian, Russian, Chinese, etc.
IP & Vandal protection	IP66
Operating temp. & humidity	-40°C ~ 70°C & 0% ~ 95% RH
Enclosure	Metal housing, with IP66 protection.
Weight (g) & Dimension	<6Kg camera, Ø225(D) X 375mm (H)
Mounting bracket	Wall, Pendant, Pole, Corner mount(optional)

Dimension :

