

# PRODUCT TECHNICAL DATASHEET

**INOX<sup>®</sup>**

## PRO - SERIES


**MEDUSA™**

ULTRA COMPACT SIZE: 30mm x 30mm x 10mm

## PRODUCT OVERVIEW

 Model: **M30**

Ultra Fine Resolution Color Miniature Camera

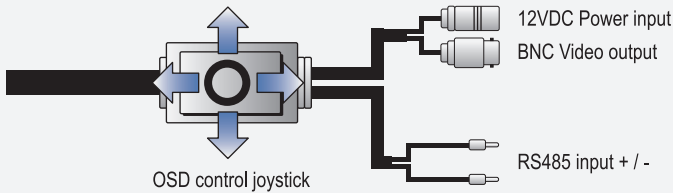
- 1/3" SONY Super HAD II
- 650 TV Lines
- Color: 0.0003 Lux / B/W: 0.00003 Lux
- OSD menu setup
- RS485 remote OSD menu setup
- Color or B/W night view (selectable)
- 3.7mm HI-RES fixed iris pinhole lens
- IP50

### FEATURES & FUNCTION

iWDR, 3D-DNR, OSD, RS485, iN-MO, MASK, ECLIPSE, D.I.S, VIDEO SENS-UP, BLC, D.ZOOM, iLPR, MIRROR, A.V.P


 DIGITAL  
SIGNAL  
PROCESSOR  
**Inside**

### OSD CONTROL JOYSTICK ON CABLE



### MAIN OSD MENU FEATURES

- iWDR - Intelligent Wide Dynamic Range (On/Off)
- 3D-DNR - 3D Digital Noise Reduction (On/Off)
- OSD - On Screen Display menu setup
- RS485 - RS485 remote OSD menu setup
  - Protocol: Pelco D
  - Selectable Baud Rate: 4800 ~ 57600bps.
- iN-MO - Intelligent Area Motion Notification (8 areas)
- MASK - Privacy Zone Masking (8 areas)
- ECLIPSE - Highlight Compensation Filter (8 zones)
- D.I.S - Digital Image Stabilizer (On/Off)
- VIDEO SENS-UP - Auto: x1 ~ x128 / Fix: x2, x4, x8...x512
- BLC - Backlight Compensation (On/Off)
- D.ZOOM - Digital Zoom with Pan / Tilt function
- iLPR - Intelligent License Plate Recognition with separate individual shutter speed selection for day & night (On/Off)
- MIRROR - Support horizontal & vertical video flip
- A.V.P - Adjustable Video Parameters
  - Programmable video Sharpness, Brightness, Contrast, Hue, Color Level, Red & Blue gain

## TECHNICAL SPECIFICATIONS

IMAGE DEVICE	- 1/3" SONY Super HAD II
HORIZONTAL RESOLUTION	- 650 TV lines
MINIMUM ILLUMINATION	- Color: 0.0003 Lux (Sens-Up Auto, F1.2) / 0.1 Lux (Sens-Up Off) - B/W: 0.00003 Lux (Sens-Up Auto, F1.2) / 0.001 Lux (Sens-Up Off)
SCANNING FREQUENCY	- PAL: 15.625KHz(H) / 50Hz(V) NTSC: 15.734KHz(H) / 59.94KHz(V)
SYNC SYSTEM	- Internal
SIGNAL-TO-NOISE RATIO	- More than 52dB (AGC Off)
CAMERA LENS	- 3.7mm HI-RES fixed iris pinhole lens
OSD	- Yes - 5 languages: English, Chinese, French, Russian, Spanish
iWDR	- Yes - selectable iWDR level, Low / Medium / High / Super
iN-MO	- 8 areas - adjustable area height, width, position and sensitivity level
MASK	- 8 zones - adjustable area height, width, position and with 8 color selection
VIDEO SENS-UP	- Auto: x1 ~ x128 / Fix: x2, x4, x8...x512
DAY/NIGHT MODE	- Yes - selectable Auto / Color / B/W
VIDEO OUTPUT PARAMETERS	- Programmable Sharpness, Brightness, Contrast, Hue, Color level, Red Gain & Blue gain
OSD CAMERA NAME DISPLAY	- Yes - 16 digit / selectable On/Off
BLC	- Yes - selectable Low / Medium / High level
IMAGE FREEZE FUNCTION	- Yes - via OSD control
DIGITAL ZOOM	- Yes - with digital pan/tilt function
WHITE BALANCE	- Selectable: ATW / Color-Roll / Push Auto / Manual
ELECTRONIC SHUTTER	- Selectable: Auto / A.FLK / Manual - PAL: 1/50s ~ 1/90,000s NTSC: 1/60s ~ 1/90,000s
AGC	- Yes - selectable Auto / Low / Medium / High / Off
VOLTAGE INPUT	- 12VDC
POWER CONSUMPTION	- 130mA $\pm$ 5%
OPERATING TEMPERATURE	- 0°C ~ 50°C
OPERATING HUMIDITY	- Within 80% RH (non-condensing)
CASING CONSTRUCTION	- Aluminium die-cast body
IP RATING	- IP50
DIMENSIONS	- 30mm (W) x 30mm (H) x 10mm (L) - (body only)

Manufactured by:

**INOX SECURITY PTY. LTD.**

- Canada (Incorporation No. BC 0722077)

**INOX MANUFACTURING (M) SDN. BHD.**

- Malaysia (Company No. 671850-H)

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## INTRODUCING...

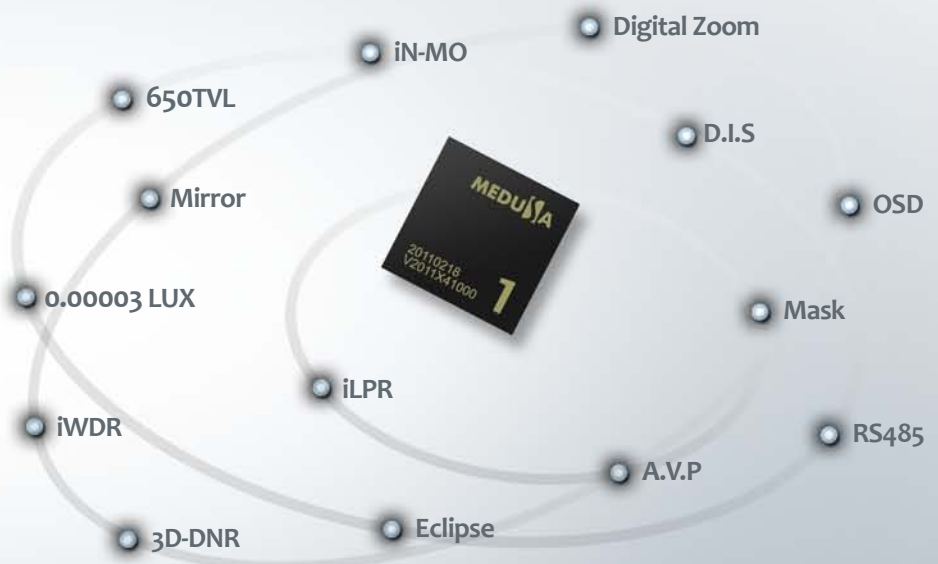
# MEDUSA™

### STATE OF THE ART - DIGITAL SIGNAL PROCESSOR

The main core technology behind all **INOX®** PRO-Series surveillance cameras. This unique and powerful MEDUSA DSP is the main engine that brings out the performance of those cameras

The DSP are rich in outstanding features such as 650 TV lines of video resolution, Intelligent Wide Dynamic Range (iWDR), Advanced 3D-Digital Noise Reduction (3D-DNR) for reducing recording storage requirements up to 98% due to unwanted noise causing motion recording, Low light capabilities of up to 0.00003 Lux, Motion Detection, Digital Image Stabilizer (DIS), Privacy Zone Masking, Highlight Compensation filter (Eclipse), Adjustable Video Parameters (A.V.P) for accurate video color & brightness, Back Light Compensation (BLC), Digital Zoom and Horizontal or Vertical Mirror image flip

In addition, all these features are programmable with the On Screen Display menus (OSD) in the camera itself or can be remotely setup through RS485 from the command center via DVR or joystick controller



## 650 TV Lines fine resolution

INOX Pro-series cameras with built in Medusa DSP delivers 650TV lines of ultra fine resolution video images for professional users which demands superior video image quality for identification purposes



420 TV Lines



Medusa - 650 TV Lines

## 0.00003 lux low illumination

Continues to deliver excellent video quality in COLOR MODE even in extreme low lighting scenes. Thanks to our MEDUSA DSP with it's extreme low-lux capabilities that makes INOX Pro-series CCTV cameras one of the most impressive surveillance cameras in the CCTV industry



Conventional DSP



Medusa DSP

## iWDR Intelligent WDR (Wide Dynamic Range)

Detail video on the inside & outside, a true solution for situations where there are bright & dark areas or under strong backlighting circumstances in the camera point of view. Most suitable for areas which have big glass windows or where light enters from various angles



Without iWDR (TRUE IMAGE)



With Medusa - iWDR (TRUE IMAGE)

## 3D-DNR Digital Noise Reduction

With the 3D-DNR function, video images produced by the MEDUSA DSP are significantly lesser noise with clearer images compared with the older 2D-DNR feature and conventional DSP without DNR feature



Without DNR - video noise at low lighting scene



Medusa 3D-DNR - less noise with clearer images

## iN-MO Intelligent motion alert

MEDUSA DSP supports 8x programmable motion preset area in the camera point of view to detect motion movements. When motion are detected in the preset area, the camera will automatically highlight the preset area to notify and alert users that movement has been detected. Furthermore, motion preset area are programmable with sensitivity level accordingly to the installation environment. This function is extremely useful to alert users for intruders in the restricted zones when monitoring multiple screens at the same time



Motion detected

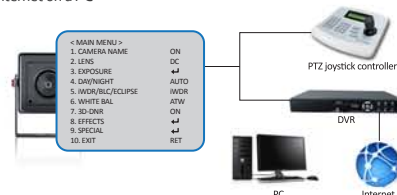
## OSD menu setup

Each & every camera installation area have different lighting conditions with other various factors that will cause the camera not to produce the best video quality wanted. To get the most perfect & required video quality, users are capable to adjust video settings & features of the camera accordingly to the installation area with the built in OSD menu setup function



## RS485 remote OSD menu setup

Built in with RS485 data communication input for remote OSD menu setup at the command center via DVR, Joystick controller or through internet on a PC



## A.V.P Adjustable video parameters

Adjustable video brightness, sharpness, contrast, color level, hue, blue & red gain accordingly to the installation area environment. A.V.P function are most useful for professional users who demands perfect video quality



## D.I.S Digital Image Stabilizer

Camera installations on high mounting pole often causes video to be shaky or blurring effect due to high winds or ground movements. With D.I.S technology, these situations are greatly reduced or totally solved



D.I.S - OFF



D.I.S - On

## iLPR License Plate Recognition

Feature for capturing fast moving objects or vehicle without blurring effect during video playback. Furthermore, shutter speed for both day & night are selectable individually for maximum result (example: Day- 1/1600 \* Night- 1/1000)



Without iLPR feature (TRUE IMAGE)  
(Playback / Car speed at approx 70km/h)



With iLPR feature (TRUE IMAGE)  
(Playback / Car speed at approx 70km/h)

## ECLIPSE highlight compensation

Useful feature for users to identify clearer license plate at the incoming vehicle when strong headlamps are being ON during the night. Eclipse are selectable to only activate during night with 4x pre-programmable area



Without Eclipse  
(Glaring license plate)



Medusa Eclipse ON  
(With area selection)

## MASK Privacy zone masking

When privacy is needed, users are capable to set up to 8x privacy zones to block specific areas in the video. Privacy zones masking size, position & color can be set accordingly to the users requirement via OSD



Masking - Off



Masking - On