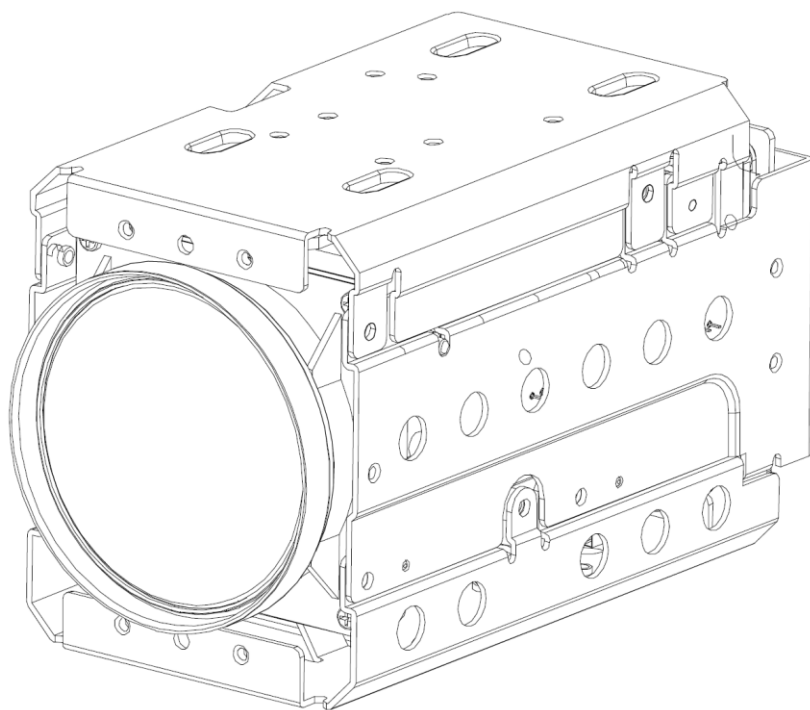


# 4K 18x Optical Zoom Block Camera Technical Manual

**MODEL : IVZ-UZ18**  
**DATE : 2018-11-21**  
**VERSION : 1.00**



# 1. FEATURES

- 1/1.8 inch 4K CMOS image sensor (8.41 million effective pixels)
  - Progressive scan
- Video signals output
  - HDMI : Digital YCbCr 4:2:2 8bits, RGB4:4:4 8bits
  
  - QFHD : 3840x2160p@25/ 29.97/ 30
  - FHD : 1920x1080p@50/ 59.94/ 60
    - 1920x1080p@25/ 29.97/ 30
    - 1920x1080i@50/ 59.97/ 60
  - HD : 1280x720p@50/ 59.97/ 60
  
- 18x optical zoom lens with F1.61 aperture(optical zoom + digital zoom = 212x)
- Day and Night
  - ICR for infrared cut filter
- Privacy Zone Masking function
- Communications protocol supported to be controlled remotely
  - SONY-VISCA, PELCO-P/D, etc
- High performance functions
  - 3D-DNR (Digital Noise Reduction)
  - BLC (Back Light Compensation)
  - Motion Detection
  - Defog
  - Image flip
  - HLC (High Light Compensation)

## 2. SPECIFICATION

IVZ-UZ18		SPECIFICATIONS
Sensor	Image Sensor	1/1.8" 4K Progressive CMOS (8.41 mega)
	Scanning System	16:9 Progressive
	Sync. System	Internal
	Effective Pixel	3840(H) x 2160(V)
	Min. Illumination	T.B.D
	Horizontal Resolution	T.B.D
Optics	Lens	18x optical Zoom, F=6.6~120 mm, F1.61 ~ F4.13
	Zoom	18x optical zoom + 12x digital zoom = 212x
	Focus	Near/Far, Auto/Manual/One Push
	Angle of View(H)	60 degrees (wide end), 3.7 degrees (tele end)
	Min. working distance	T.B.D
Functions	Back Light Compensation	DWDR, BLC, HLC(High Light compensation)
	Exposure	Auto / Manual
	White Balance	Auto(3,000°K~8,000°K) / ATW(1,900°K~11,000°K) / Manual
	Day & Night System	AGC / TDN(ICR)
	Electronic Shutter	NTSC: 1/30~1/10000, PAL: 1/25~1/10000, DSS( ~ 1/1sec)
	Functions	Privacy Mask, Image Mirror, 3DNR, Flicker-less, Sharpness, Defog, NegArt, Freeze
Video Outputs	Digital Output (HDMI)	QFHD : 3840x2160p@25/ 29.97/ 30 FHD : 1920x1080p@50/ 59.94/ 60/ 25/ 29.97/ 30 1920x1080i@50/ 59.97/ 60
	YCbCr422 / RGB444	HD : 1280x720p@50/ 59.97/ 60
Control Interface	UART(5V level)	PELCO-P/D, SONY-VISCA protocol
		8bits data, 1 stop bit, no parity, 2400~115200bps
General	Operation Temperature	-20°C ~ 60°C
	Power Input	12VDC (7V to 15VDC)
	Power consumption	Max 5W(3.2W Lens inactive, 3.9W Lens active)
	Mass	Approx. 240g(3.5 oz.)
	Dimensions	96.8(D) x 50.0(W) x 60.0(H) mm

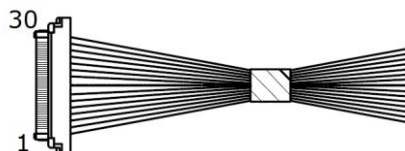
# 3. Camera Interface

## 3.1. Camera Interface

**A connector** :Recommended cable ASSY :

Cables - micro coaxial cable #42AWG

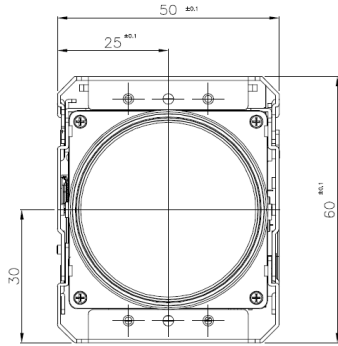
Connectors - USL20-30S (KEL)



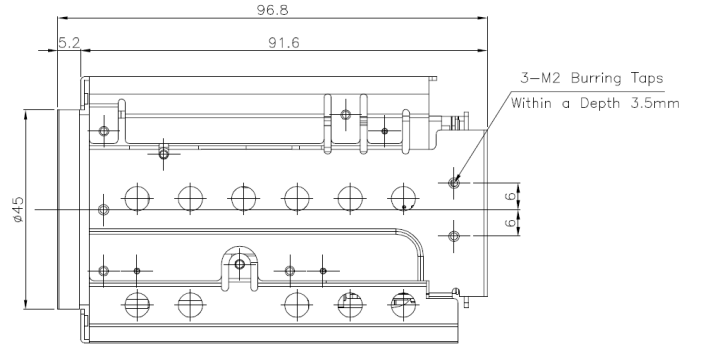
KEL USL00-30L			
1	GND	16	N.C
2	TMDS Clock-	17	Hot Plug Detect
3	TMDS Clock+	18	+ 5V DC output
4	GND	19	KEY input (optional)
5	TMDS Data 0-	20	GND
6	TMDS Data 0+	21	Key Input
7	GND	22	N.C
8	TMDS Data 1-	23	GND
9	TMDS Data 1+	24	RXD (UART 5V input)
10	GND	25	TXD (UART 5V output)
11	TMDS Data 2-	26	EXT. Reset :Reset Low(GND), Normal Open(3.3V)
12	TMDS Data 2+	27	DC (9~15V)
13	GND	28	DC (9~15V)
14	N.C	29	DC (9~15V)
15	N.C	30	DC (9~15V)

# 4. Dimensions

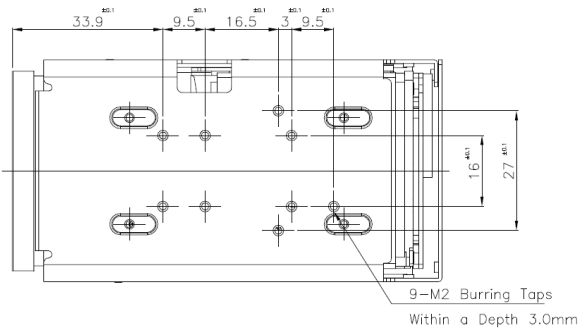
Front



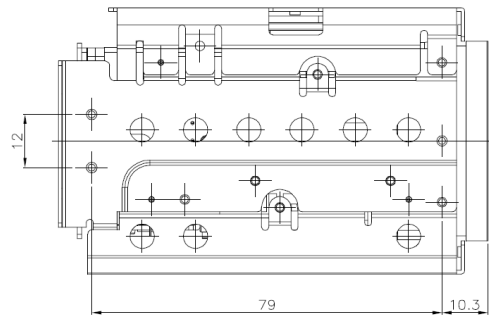
Right side



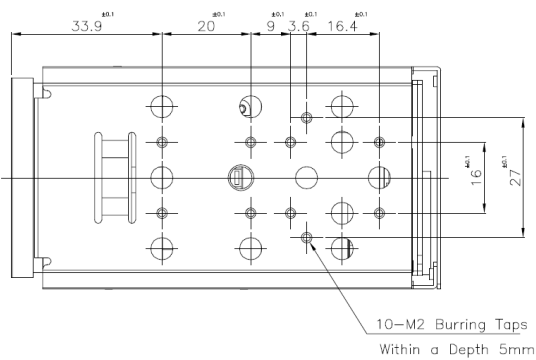
Top



Left side



Bottom



Back

