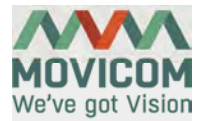


ROBYHEAD D1



Pan/Tilt Head with 4K UHD support, IP control, full-carbon body and high loading capability



Featuring a state of the art carbon fiber design, rich connectivity with SDI, Fiber and Ethernet and of course the quality and smoothness necessary for demanding broadcast applications, this pan-tilt head is the ideal companion to the Panasonic AK-UB300 camera and becomes the most advance 4K pan-tilt on the market.

ROBYHEAD D1



RobyHead D1 is a classic pan/tilt solution for professional broadcasting, as well as for stationary use in studios, theaters, conference halls and stadiums. The head is specially designed to work with 4K box and studio cameras and has complete integration with Panasonic control panels and AK-UB300 camera.

- **Designed for AK-UB300**
 - **4K Quad-SDI connectivity, plus HD (2 lines)**
 - **Supports 12G-SDI**
 - **Provides power supply to the camera**
 - **IP Connection via LAN cable (only one cable is required)**
 - **Control from RP controllers (based on AW protocol)**
 - **Fiber connection (in the head and in the base)**
 - **Supports Studio Cam and/or Prompter (max. 15Kg)**
-
- **Carbon fiber design**
 - **High accuracy**
 - **Very slow speed (0.01°/s to 90°/s)**
 - **Completely silent in stop mode**
 - **Position information for virtual applications**



Camera connections

- **3G-SDI x4** (4K Quad-SDI)
- **3G-SDI x2** (supporting HD/50p)
- **12G-SDI support** (input #1)
- **Power supply to camera** (cable is included)
- **EtherCON for reliable LAN connection**
- **Fiber connection** (2 lines, ST)
- **Genlock**
- **Prompter**

One of the key features of the product is its integration with Panasonic AK-UB300 UHD box-sized camera and Panasonic AW-RP50 and AW-RP120 control panels. In such configuration the Robyhead D1 and the camera form a single unit for the control panels, so that the control panel provides full control of the head and image parameters at the same time.

This combination allows to build a complete UHD multi-camera system controlled by a single operator with reduced costs, as a single control panel may control multiple heads. An ROP may be part of the system to provide Iris and further camera controls to the video engineers.

Lens support

- **Digital lens** (cable is an accessory)
- **Analog lens** (via external module)





Connections in the base

- **3G-SDI x4** (4K Quad-SDI)
- **3G-SDI x2** (supporting HD/50p)
- **12G-SDI support** (one of the six 3G-SDI lines)
- **EtherCON** for reliable LAN connection
- **Fiber connection** (2 lines, ST)
- **Genlock**
- **Prompter**
- **24V DC Power Input** (XLR 3p)
- **Serial connection** (RS422)

RobyHead D1 can be easily integrated into modern AR environment. The head contains high-resolution encoders on each axis and supports Canon and Fujinon lenses. Thus, it can output its live tracking data via Ethernet directly to a graphics engine which minimizes graphics setup time. All the major AR solutions vendors are supported.

Weight specification

- **Weight: 9Kg**
- **Payload: 15Kg**
- **It supports Panasonic Studio Camera** (AK-HC5000, AK-UC3000)



SPECIFICATIONS

Model	Robyhead D1
Video Connections	3G-SDI x6 (Quad-SDI, HD x2). CH1 supports 12G-SDI. Fiber optics x2 (loop from base to head)
Control interface	Network (LAN) and Serial (RS422, AW protocol) EtherCON connectors (RJ45 compatible)
Pan Travel	Over $\pm 165^\circ$ w/end stop (330° total)
Tilt Travel	Over $\pm 150^\circ$
Speed Pan/Tilt	0.01° - 90°/sec
End stops	Mechanical and software
Stopping Accuracy	$\pm 3'$ (under 0.05°)
Feedback Accuracy	Approx. 1 arc sec
Acceleration	Not less than 60 deg/s
Position Resolution	Not less than 12 bit
Audible Noise	35dB(A) max (at 30°/sec)
Mounting	Upright or Inverted
Weight	9 kg
Maximum payload	15kg
Input Voltage	24 VDC, XLR 3pin
Input Current	Idle 0,5 A, Movement 1-4 A
Dynamic consumption	Peak current 6-8 A
Power Output	120W (for both camera and prompter)
Teleprompter input	3G-SDI x1/Analog
External sync input (G/L)	Analogue
Tally	1 output available in the camera connection plate
Compatible Camera	Panasonic AW-UB300 and Studio Camera
Lens support	Canon and Fujinon lenses w/ digital interface
Dimensions	Height: 371mm, Width: 296mm, Length: 252 mm
Protection	IP54 (<i>limited dust ingress, limited water spray ingress</i>)
Temperature range	-5°C~ +45°C
Accessories (included)	AC Adaptor (24V), Camera power cable

INCLUDED ACCESSORIES



AC Adaptor
24V DC Power Supply
XLR 3pin



Camera cables
5x BNC
Power cable (XLR-4p)
LAN cable



Mounting screws
2x Screws for camera

OPTIONAL ACCESSORIES



MV-CAB1
Lens Cable for Canon Digital Lens
7-pin Lemo - 20-pin Hirose



MV-CAB2
Lens Cable for Fujinon Digital Lens
7-pin Lemo - 25-pin Hirose



MV-CAB3
Lens Cable for Fujinon Lens Legacy (old)
7-pin Lemo - 10-pin Hirose



MV-CAB4
External Module and Lens Cable for
Analog Lens (MD lens)
7-pin Lemo - 12-pin Hirose (Z/F)



MV-XXX (Future upgrade)
Compatibility with Augmented Reality applications
FreeD protocol

COMPONENTS



AW-RP120

Panasonic Remote Control Panel

- LAN control
- Serial control

Requires AC Adaptor



AW-RP50

Panasonic Remote Control Panel

- LAN control
- Serial control

AC Adaptor is included



AK-UB300

Panasonic 4K Box Camera

- LAN control

Power is provided from the Robyhead pan/tilt



AK-HRP1000

AK-HRP1005

Remote Operation Panel

- LAN control

Requires PoE



AK-UHD12

12G-SDI output board for AK-UB300

- 2x 12G/6G/3G-SDI
- 2x 3G-SDI



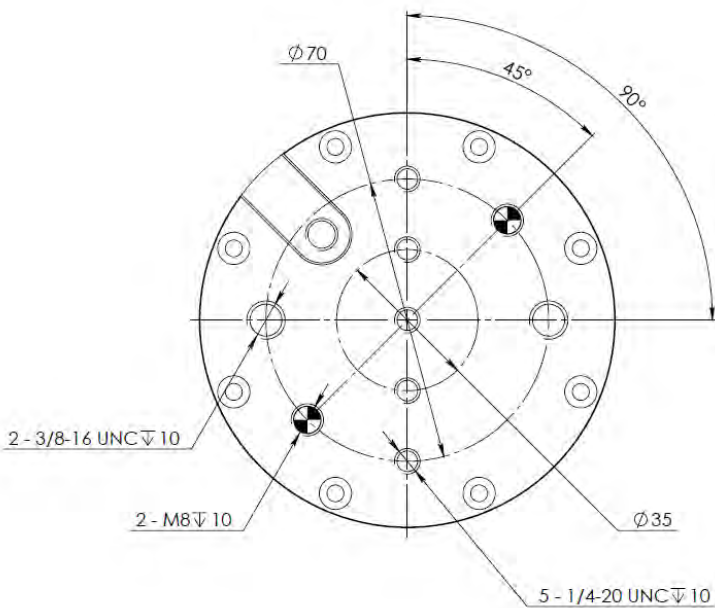
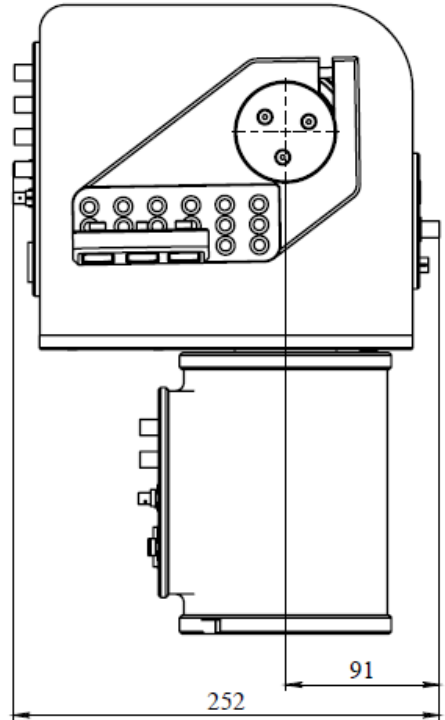
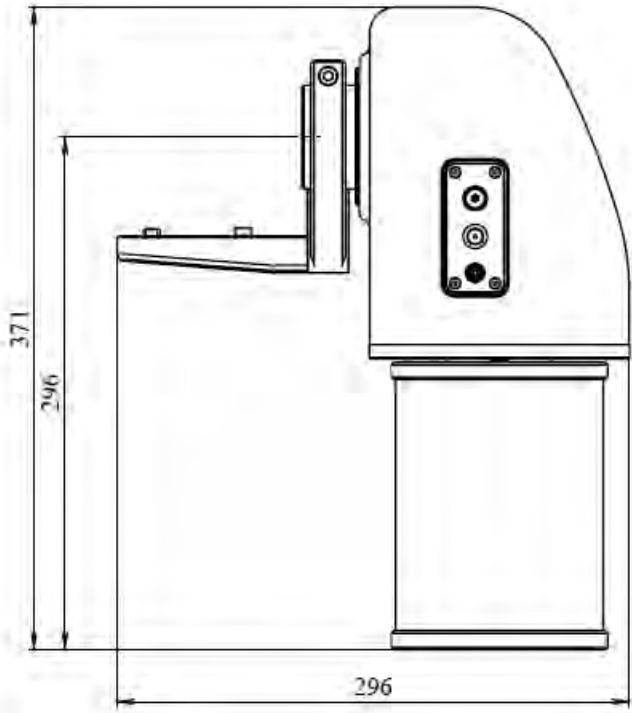
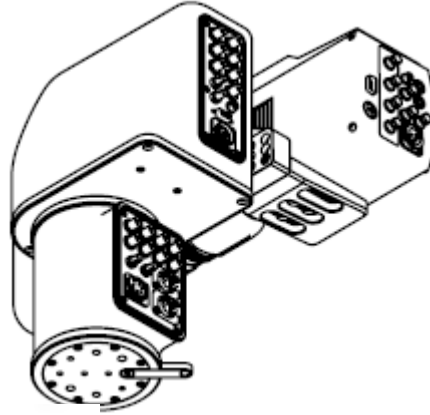
AK-XXX *(Under development)*

Fiber output board for AK-UB300

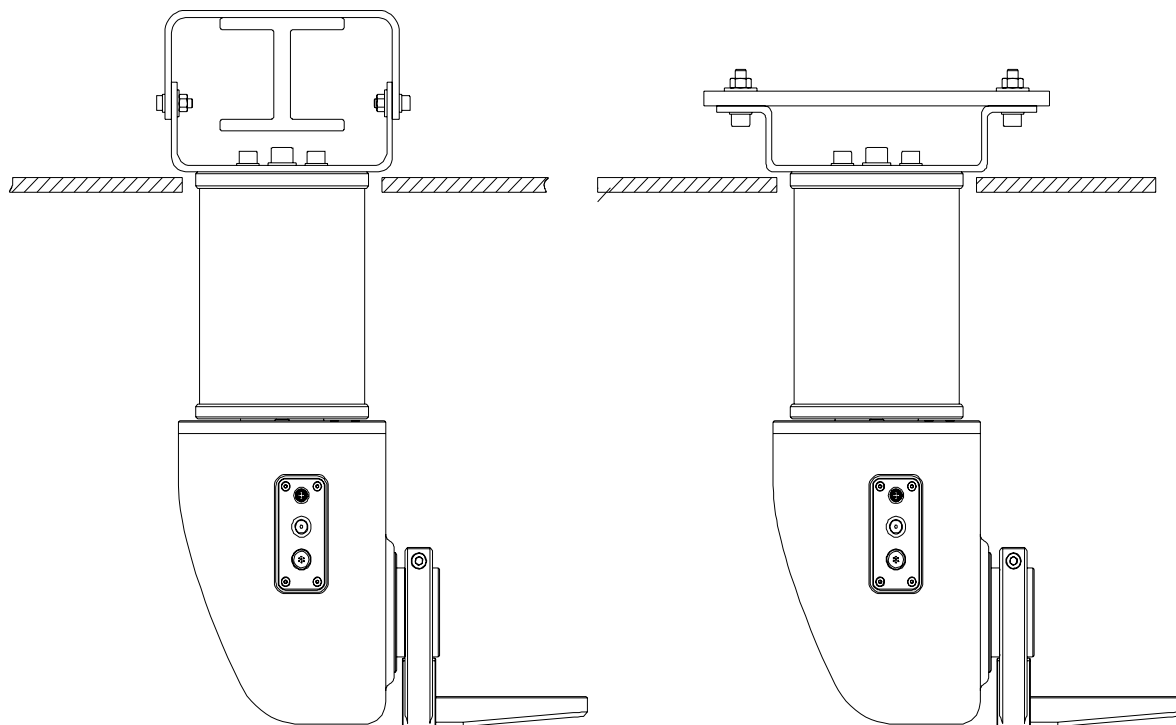
- 2x LC fiber
- 2x LAN terminal
- Genlock

ROBYHEAD D1

DIMENSIONS



CEILING MOUNTING



In case of ceiling mount, please install the camera as in the picture for better weight balance.

Since the camera will be placed upside down, please use scan reverse function, available on the AK-UB300 camera.

SETTINGS

Robyhead settings are controlled via web interface. Besides the network configuration of both the head and the camera, *Quiet Mode* can be selected, so that maximum speed is reduced. Likewise, installation mode (*desktop* or *hanging*) and other lens settings can be selected.



Robyhead D1

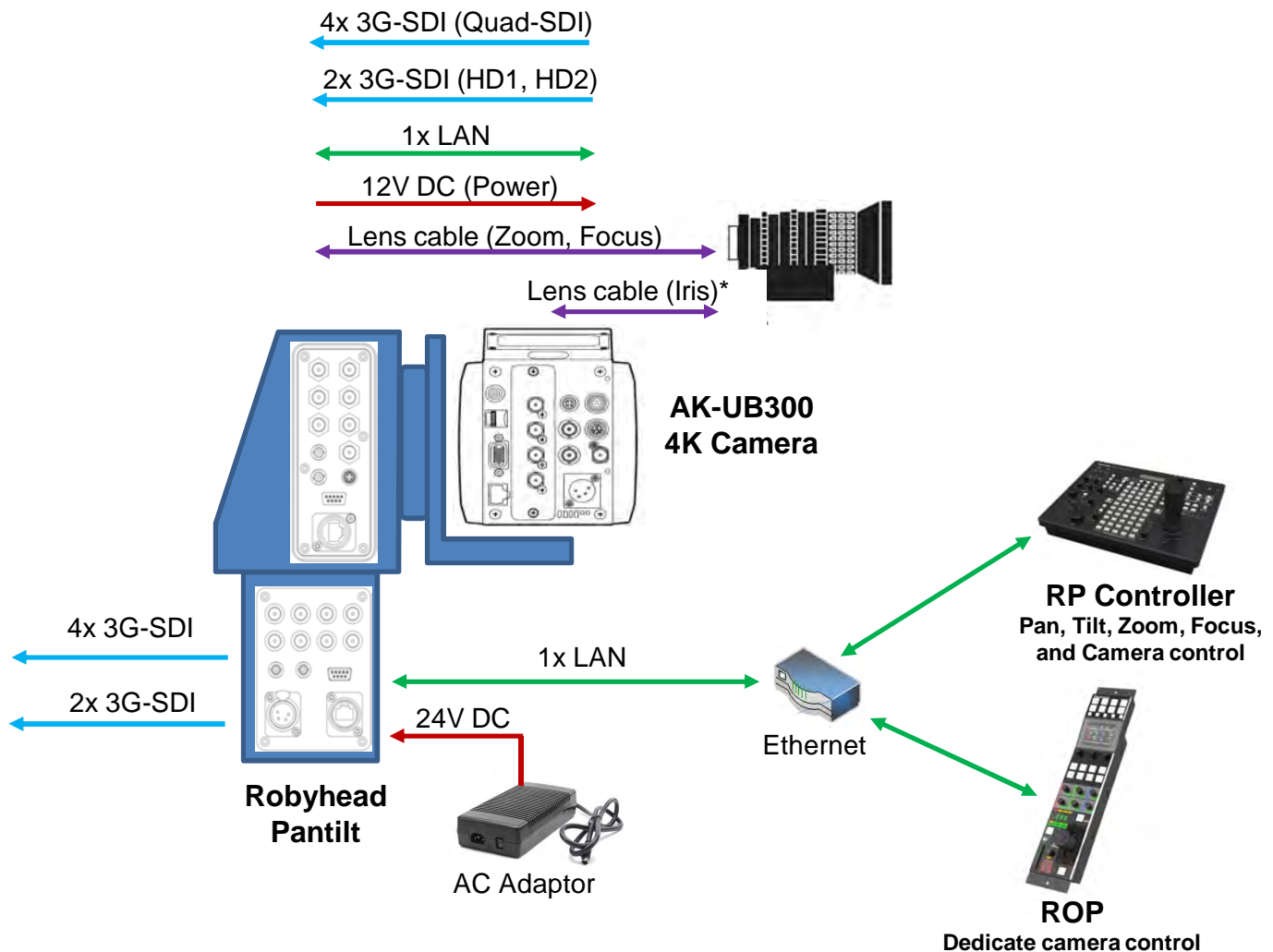
IP Address:	<input type="text" value="192.168.0.16"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
Gateway:	<input type="text" value="192.168.0.1"/>
Cam IP Address:	<input type="text" value="192.168.0.19"/>
Quiet mode:	<input type="checkbox"/> off / on
Mount:	<input type="checkbox"/> desktop / hanging
Iris source:	<input type="checkbox"/> auto / manual
Speed with Zoom:	<input type="checkbox"/> off / on
Max Zoom of Lens:	<input type="text" value="14"/>
Acceleration with Zoom:	<input type="range"/>
Max acceleration:	<input type="range"/>
<input type="button" value="Submit"/>	

Statistics:

Worked hours:	139 h
Pan Rotations:	343
Tilt Rotations:	248
Status:	Device OK
Serial number:	2
Version:	HW v1.00; SW v1.00

To enter the settings, launch a web browser on your computer and enter the IP address of the head (default value is 192.168.0.16). Make sure your computer is configured in the same network.

CONFIGURATION



* Depending on the lens cable length, an extension cable may be needed.