

# RubiCam

## The Miniature HD/SD Camera



- HD Camera 1/3" CMOS Sensor resolving approx. 2M Pixels 1080i/720p 16:9 picture HD-SDI out
- Built-in 10:1 Zoom Lens with Full Remote Camera Control
- Full Duplex Fibre Port Interfaced to SMPTE Hybrid Optical Cable
- Zoom Lens 10X 5.1 to 51mm Wide Angle Lens Adaptor Option
- Suitable for Studio and OB Productions

The RubiCam is a very small HD Camera with a separate head and CCU. The Camera has a single 1/3" CMOS sensor with approximately 2M pixels.

The Camera head and the CCU can be connected together by a 10x metre, 20x metre or 30x metre camera cable (6mm) as used by Toshiba cameras; equally the Toshiba AC adaptor can also be used to power the CCU.

The RubiCam has a built-in 10:1 Zoom lens being 5.1mm on the wide end and 51mm on the tele. end. A wide angle adapter can be used, which will give the wide end of the lens about 90 degrees. (optional extra).

For Commentary position work the CCU can input two audio channels.

All the major parameters of the camera can be controlled by the RubiCam Remote Control Panel (RCP). The Camera's zoom, focus and iris can also be controlled from the RCP. For testing purposes, the zoom, focus and iris can be also controlled locally from the camera head whilst viewing a PAL output signal (Optional Extra).

The RubiCam Camera produces a 16:9 HD picture of 1080i lines or 720p and camera output of component Y/Pb/Pr and HD-SDI.

It can also be switched to SD, with a 4:3/16:9 aspect ratio picture and output SDI. Y/C. VBS.

Additionally the CCU has a Full Duplex Mode Fibre Port which can distribute HD-SDI with embedded audio. Therefore with remote control camera work it is possible to send audio/data down the line together with the picture and the receive return video and talkback if required. This can be achieved by a SMPTE Hybrid Optical Cable Interface.

The Camera is a 12 volt dc system and power consumption is approximately 20 watts. The RubiCam is a very small Camera and the head measures approximately 2"x 2"x 3" (5x 5x 8 cms) and weighs approximately 3/4lb (400gms) and is easily mounted, top or bottom, by a 1/4" screw support plate

The RCP is linked to the CCU by RS232 cable with a Baud rate of 38,400 and can be operated at a considerable distance away from Scanner or Vision Control Area.

The RCP has been designed to work in a OCP position in a Scanner or Vision Control Area for studios or OB's.

As an optional extra the RCP can be coupled with a Miniature Pan & Tilt Head Remote Controller, attaching to the bottom end of the RCP.

The RubiCam HD/SD Camera is a very suitable camera for studio, outside broadcast, car, boat, aeroplane or indeed any mobile work.



**Miniature Broadcast Cameras Limited**

Unit 7, 105 High Street, Ongar, Essex, CM5 9DX Great Britain Tel: +44-(0)1277 365306.  
Fax: +44-(0)1277 365315 Mobile: +44-(0)7966 753226. email: salesmbc@btconnect.com  
www.minibroadcastcameras.co.uk www.rubicam.tv



## RC-HD1 Specifications

| RC-HD1                   | HD  | SD                  |
|--------------------------|---|---------------------|
| Image sensor             | 1/3" CMOS   |                     |
| Number of pixels         | Approx. 2M pixels   |                     |
| Lens                     | 10 x zoom, f=5.1mm (wide end) to 51 (tele end) F1.8 to F2.1 |                     |
| Digital zoom             | 4x  |                     |
| Minimum working distance | 10mm (wide end) to 800mm (tele end)                         |                     |
| Lens distortion          | Less than 3% (wide end)                                     |                     |
| S/N Ratio                | > 50dB  |                     |
| Electronic shutter       | 1/2-1/10.000s   |                     |
| Minimum illumination     | 15 Lux (F1.8, 50IRE)  |                     |
| White Balance            | Manual, Auto, One-Push.                                     |                     |
| Gain control             | Auto, Manual (-3dB to 18dB)                                 |                     |
| Exposure control         | Auto, Manual, Shutter priority, Iris priority.              |                     |
| Focusing system          | Auto, One-push auto, Manual                                 |                     |
| Signal system            | 1080i/59.94/50 720p/59.94/50                                | NTSC/PAL            |
|                          | 8 modes can be selected                                     |                     |
| Aspect ratio             | 16:9  | 4:3/16:9            |
| Video output             | HD Analog Component: Y/Pb/Pr<br>HD-SDI                      | NTSC/PAL<br>SDI Y/C |
| Sync system              | Internal  |                     |
| Storage temperature      | -40C to +85C  |                     |
| Operating                | 0C to +50C  |                     |
| Power consumption        | 20 Watts 12 Volts DC  |                     |
| Mass                     | Camera Head 3/4lb (400g)                                    |                     |
| Dimensions (WxHxD)       | Camera Head 2"x 2"x 3" (54mm x 54mm x 82mm)                 |                     |

Manufactured and Distributed by MBC Ltd, London, England

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