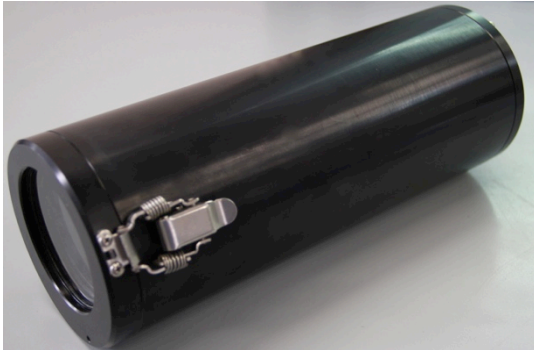




EXTREME ENVIRONMENT EQUIPMENT TECHNOLOGY

DATA SHEET
HD SUBSEA VIDEO/STILLS CAMERA
RAYHDCAM-002LANC



SPECIFICATIONS

| | |
|------------------------------|--|
| Camera Type: | HDR CX12 or similar |
| Video Format: | MPEG4 AVC/H.264 ; 1920-1080i ; 1440x1080i |
| Recording Media: | PRO-DUO SD memory 16gig. |
| Camera Control: | Windows Software driven RS485/LANC control |
| Software Control: | Power On/Off Record Start /Stop. Video or Stills Select Timed Stills Trigger Internal and External Zoom In /Out Focus Near / Far Focus Auto/manual 4 x Normally open Relay contacts. Video Selector Switch |
| Video Output: | Via line driver up to 1500m RG58bu COAX |
| Lens Type: | RAYNOX X5 Wide angle Adaptor |
| Auxillary: | Standard Definition or Digital Stills camera Connection |
| Depth Rating: | 2000MSW |
| Weight in Water: | +/- 1.5kg |
| Mechanical | O.D: +/-112mm Length: +/-200mm |
| Material: | 6061-T6 Hard Chromic Anodised Black |
| Viewing Window: | Toughened CR30 |
| Operating Voltage: | 16 to 32Vdc |
| Flash Interface: | TTL Hot shoe adaptor to MCIL-5f |
| External Stills Connector: | Comms and Power MCIL-6F |
| Camera Underwater Connector: | MCBH-8M and MCBH-4F |



HDD Camera Pin Outs

| | | |
|---|---|--------------|
| 1 | - | Screen |
| 2 | - | Video |
| 3 | - | + RS485 |
| 4 | - | - RS485 |
| 5 | - | 0Vdc Supply |
| 6 | - | 24Vdc Supply |
| 7 | - | Video + |
| 8 | - | Video - |

Strobe Camera Pin Outs

| | | |
|---|---|---------|
| 1 | - | Trigger |
| 2 | - | Detect |
| 3 | - | Ready |
| 4 | - | Quench |
| 5 | - | 0Vdc |

SDD or Stills Camera Pin Outs

| | | |
|---|---|--------------|
| 1 | - | Screen |
| 2 | - | Video |
| 3 | - | +RS485 |
| 4 | - | -RS485 |
| 5 | - | 0Vdc Supply |
| 6 | - | 24Vdc Supply |

Electronic Interface Specifications

The interface electronics allows for the following:

- Power supply for the camera set at 8.6Vdc.
- Composite video line driver relay video up 1500m COAX max. (Remote View Finder)
- Second video interface for twisted pair cable.
- Control of camera shooting "Half Press" and "Full Press".
- Time interval shooting. From 0.5 TO 60 Seconds.
- Programmable power and sequence shooting for stand alone applications.
- 4 x usable programmable dry relay outputs.
- Interface between hot shoe and strobe.
- LANC or RS232 output interfaces.
- RS485 Communication up to 1500m twisted pair.
- Overvoltage protection and reset-able fuses on video and Communication lines.
- Firm and software can be configured for specialised or customer requirement.
- Networking of multiple units on single communication line up to 24 units.



HD CAMERA PC CONTROL PANEL

HD Camera Remote Control
[Min] [Max] [Close]

File About

Raytech Services Pty Ltd HD Camera Remote Control

VIDEO CAMERA CONTROL

| | |
|-----------------|-----------|
| Power On | Power Off |
| Rec On | Rec Off |
| Zoom In | Zoom Out |
| Focus Near | Focus Far |
| Auto | Photo |
| Auto/Man. Focus | Mode |

STILLS CAMERA CONTROL

| | |
|-----------------|------------|
| Half Press | Full Press |
| Auto Full Press | 1 |
| Stop Auto | |

AUXILIARY OUTPUTS

| | |
|---|-----------------------------------|
| <input checked="" type="radio"/> Output 1 OFF | <input type="radio"/> Output 1 ON |
| <input checked="" type="radio"/> Output 2 OFF | <input type="radio"/> Output 2 ON |
| <input checked="" type="radio"/> Output 3 OFF | <input type="radio"/> Output 3 ON |
| <input checked="" type="radio"/> Output 4 OFF | <input type="radio"/> Output 4 ON |

Sync Clock

● COMMUNICATION

start
[Taskbar icons] 9:38 AM

HD CAMERA PC CONTROL PANEL FOR REMOTE AND NETWORKING

HD Camera Programmable Control
[Min] [Max] [Close]

File About

Raytech Services Pty Ltd HD Camera Programmable Control

VIDEO CAMERA A CONTROL

| | |
|--------------|-------------|
| Start A | Stop A |
| Load Video A | Set Video A |
| Load Photo A | Set Photo A |

VIDEO CAMERA B CONTROL

| | |
|--------------|-------------|
| Start B | Stop B |
| Load Video B | Set Video B |
| Load Photo B | Set Photo B |

Sync Clock

● COMMUNICATION

start
[Taskbar icons] 9:40 AM



HDR CX12 SPECIFICATIONS

| | |
|--|--|
| Effective Video Resolution: | 3.81 megapixels |
| Camcorder sensor Resolution | 5.66 megapixels |
| Digital Zoom: | 150 x |
| Effective Photo Resolution: | 5.08 megapixels |
| Camcorder Interpolated Photo Resolution: | 10.2 megapixels |
| Total Pixels: | 5.6 megapixels |
| Camcorder Media: | Type Flash card Pro DUO |
| Optical Sensor Size; | 1/3" |
| Optical Sensor Type: | ClearVid CMOS |
| Min Illumination: | 0 lux |
| Digital Video Format: | MPEG-2, AVCHD |
| Special Effects: | Monotone, Sepia, Pastel |
| Image Stabilizer: | Optical (Super Steady Shot) |
| Digital Scene Transition | White fader, Black fader |
| Min Shutter: | Speed 1/30 sec |
| Max Shutter: | Speed 1/250 sec |
| Shooting modes: | Digital photo mode |
| Shooting Programs: | Candle, Beach, Sports lesson, Sunset, Spotlight, Fireworks, Sunrise, Portrait mode, Landscape |
| White Balance: | Automatic Presets |
| White Balance: | Presets Outdoor, Indoor |
| Exposure Modes: | Program, Automatic |
| Exposure Metering: | Spot |
| Camera Flash: | Built-in flash and Hotshoe |
| Image Recording: | Format JPEG |
| Flash Modes: | Auto mode |
| Widescreen Video Capture; | Yes |
| AV Interfaces: | S-Video, HDMI, Composite video/audio |
| Lens System: | Type Carl Zeiss 12 x x Zoom lens - 5.9 mm - 58.8 mm - F/1.8-3.1 |
| Lens aperture: | F/1.8-3.1 |
| Features: | Built-in lens shield |
| Optical: | Zoom 12 x Lens system type Zoom lens Min focal length 5.9 mm Max focal length 58.8 mm |
| Auto Focus: | TTL contrast detection |
| Filter: | Size 37 mm |
| Focus | Adjustment Manual, Automatic |
| Macro Focus Range: | 47 cm (Tele-macro) |
| Zoom: | Adjustment Motorized drive |



| | |
|--|--|
| Additional Features: | Low Lux / Night Mode Yes, Additional Features Progressive shutter system, Accessories hot shoe , Backlight compensation, Touch-screen control, Dynamic Range Optimizer, Takes photos while movie recording, PictBridge support, Smile Detection technology, USB 2.0 compatibility, Dolby Digital 5.1 channel recording ,Remote control Remote control, Infrared ,Software Drivers & Utilities, Component video cable, Docking station, USB cable, Power adapter, Audio / video cable. |
| Viewfinder: | Viewfinder Type Electronic Viewfinder Resolution 123,000 pixels Image Aspect Ratio 16:9 |
| Display: | Type 2.7 in LCD display |
| Connections: | Connector Type 1 x Composite video/audio output, 1 x USB, 1 x Component video output, 1 x HDMI output, 1 x S-Video output, 1 x Headphones |
| Microphone: | Microphone Features Zoom |
| Memory / Storage: | Media type Flash card Memory Card Slot Memory Stick PRO Duo card |
| System Requirements for PC Connection: | Operating System Support MS Windows Vista, MS Windows 2000 Professional, MS Windows XP Professional, MS Windows 7 MS Windows 8 Peripheral Devices USB port, Supported Battery Sony NP-FH60 |
| Battery: | |
| Audio Input: | Audio input type Microphone Microphone type Built-in Microphone Operation Mode Surround Microphone technology Electret condenser |
| Viewfinder / Display: | Display Features Rotating Resolution 211,200 pixels |