

Broadcast Camera Control System

COFDM – Video, Audio Telemetry and IP Products

COBHAM

February 2012 Data Sheet

The most important thing we build is trust



Outdoor/Remote Unit (ODU)



Indoor Unit (IDU)



Camera Manufacturer's Standard RCP



Camera Unit

The Cobham Broadcast Camera Control System offers next-generation features in a rugged, easy to use 'plug and play' system architecture. Designed in close consultation with experienced operators, many of the undesirable features present on 'first generation' systems have been overcome.

The system interfaces with camera manufacturers standard control panels (OCPs), giving the operator complete familiarity with standard cabled systems and eliminating the need to rig separate OCP's when RF cameras are required.

Available RF spectrum is becoming increasingly congested and expensive. Whereas conventional systems require a single UHF channel per camera, the Cobham system enables control of up to four cameras per channel, minimising operating costs and enabling users to control multiple RF cameras at large events. Flexibility is further enhanced by the wide bandwidth of the system. Operating in the UHF band 403-473MHz, users have access to more available channels without the need to change hardware.

Conventional systems have a single rack-mount TX unit which directly outputs the RF signal. Not only is it undesirable to have high power RF signals present in the OB truck, the antenna must be rigged close to the unit to avoid significant cable-loss. In many events, this may mean the antenna is not mounted in the optimal

location, giving poor system performance, or requiring higher output power than would normally be required, which can increase the RF noise-floor and degrade the performance of other RF systems. The Cobham system utilises a two-box solution – an indoor unit (IDU) interfaces with the OB struck systems and an outdoor unit (ODU) to transmit the RF signal. The units are connected by a single RS422 data circuit, carried on a conventional twisted-pair audio cable. Distances up to 3Km are possible with this system.

The camera unit is small and lightweight, using the same form-factor as the Cobham H.264 TX. Utilising a separate unit gives greater mounting flexibility than conventional systems, where the camera control RX is often integrated into the Video TX.

Features:

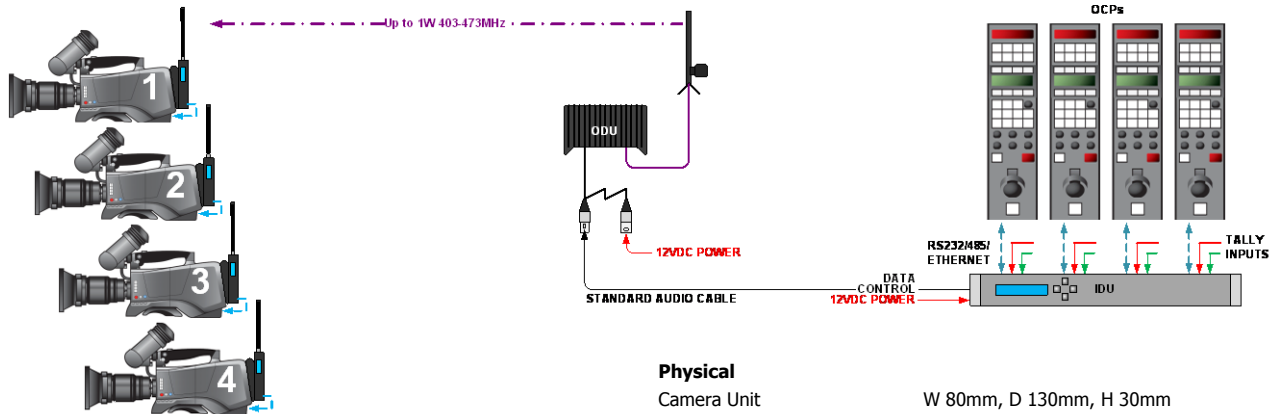
- Control of all major camera functions via standard camera manufacturers OCP
- Control of up to 4 cameras via single UHF channel
- Green and Red tally lights
- Separate indoor (IDU) and outdoor (ODU) units enable flexible TX antenna location via standard twisted-pair audio cable (~3Km)
- Wide frequency range 403-473MHz (other bands available on request)
- TX power 100mW/200mW/500mW/1W (user select)

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Specification:

Camera Unit

RX RF In	BNC-F
Control Data Out	Lemo 0B
Power In 12-16VDC	Lemo 0B
Power Out (loop-thru)	Lemo 0B

Indoor Unit (IDU)

OCP Inputs 1 to 4	D9F (Sony optional)
Green Tally Inputs 1-4	8-pin DIN
Red Tally Inputs 1-4	8-pin DIN
Data Out to ODU	XLR3-M
Power In 12-16VDC	XLR4-M

Outdoor Unit (ODU)

RF Out	BNC-F
Data Input from IDU	XLR3-M
Power In 12-16VDC	XLR4-M

RF

Frequency	403-473MHz
Channel BW	12.5/20/25KHz
Modulation	4PSK, GMSK
TX Power	100/200/500/1000mW
RX Sensitivity	-114dBm @ 12.5KHz -111dBm @ 25KHz

Data

TX Data	19200bps @ 25KHz BW 9600bps @ 12.5KHz
Control Data (IDU-ODU)	300-38400bps
IDU-ODU Interface	RS485 via twisted pair audio cable

Control

Camera Unit	Front Panel OLED display with navigation keys
IDU	Front Panel OLED display with navigation keys Web-browser interface (optional)
ODU	Controlled via IDU

Power Consumption

Camera Unit	1.5W
IDU	TBC
ODU	7W (1W TX Power)

All product specifications are subject to change without notice. Cobham will not be liable for technical or editorial errors or omissions.

Physical

Camera Unit	W 80mm, D 130mm, H 30mm 400g
IDU	W 220mm, D 358mm, H 44mm (1RU) TBC
ODU	W 190mm, L 100mm, H 30mm 600g

Environment

Temperature Range	-25 to +55 deg C (Camera Unit & ODU)
Sealing	Splash-proof (Camera Unit) IP67 (ODU)

Product Codes:

CCCAM-x-403473 Camera Unit, RF in, Control data out cable + antenna

CCIDU-x Indoor Unit, 1x camera manufacturer, 1x OCP interface

CCODU-403473 Outdoor unit + antenna

Options

CCCAM-xUP	Add additional camera manufacturer to Cam unit
CCIDU-xUP	Add additional camera manufacturer to IDU
CCIDU-OCPU	Add additional OCP input to IDU
CCIDU-SCONUP	Replace IDU D9-F connectors with circular OCP-type

Supplied Accessories

- UHF antenna for Camera Unit
- DC Output cable (to Cobham TX) for Camera Unit
- Data output cable to camera for Camera Unit
- AC Power Supply for IDU
- Tally break-out cable for IDU
- UHF antenna for ODU

Optional Accessories

PSU-12EXT	External (IP67) PSU for ODU
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