

SOLO4 – ClearCam Deployable Camera

COFDM – Video, Audio Telemetry and IP Products

COBHAM

November 2011 Data Sheet

The most important thing we build is trust



The Cobham Tactical Communications and Surveillance ClearCam tactical camera, featuring Cobham technology at their core, is a robust PTZ camera designed specifically for rapid deployment. The ClearCam system incorporates a periscope PTZ camera, digital video transmitter, telemetry receiver and battery technology into a weatherproof package for long term outdoor deployment. The ClearCam will typically operate at a range of up to 1km.

The Cobham ClearCam system is ideal for surveillance, perimeter security, fire control and CBRN applications.

The robust ClearCam chassis is IP66 rated, and supplied with a variety of mounting options to enable tripod, mast or simple deployment on the base. The integral periscope camera can be detached from the ClearCam base, and is supplied with a 10m umbilical cable for maximum deployment flexibility.

Integral battery life can be extended by the connection of sensors to automatically wake the camera from sleep mode in the event of trigger activity.

Rapid deployment is ensured by using the on board status display that gives at-a-glance link status, confirming that the ClearCam is in range of the receive station.

The Cobham narrow bandwidth modulation offers unprecedented spectrum efficiency, while also increasing the system sensitivity and therefore range. Security of transmission is ensured by the use of Standard ABS encryption, or for greater security, the optional AES128- or 256-bit encryption algorithms.

Features:

- Robust IP66 Chassis
 - Integrates PTZ periscope camera with digital video transmitter, telemetry control and battery
- External DC input for long duration deployments
- Sophisticated sleep and wake up options for battery life extension
- External sensor trigger inputs
- 36x optical zoom, low light colour camera
- 400 degree pan, -20 to +40 degree tilt
- Available in a range of frequencies
- Secure communications
- Long deployment range
- Sophisticated user features to enable rapid deployment.

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Specification:

Antennas

Transmit Antenna	TNC
Receive Antenna	TNC

Input/Output

DC Power	Amphenol connectors
GPIO trigger inputs	62GB-12E10-02SN
RS-232 control	62GB-12E12-08SN
Audio Input and output	62GB-12E08-03SN
Camera 1 connector	62GB-12E10-06SN
Camera 2 connector	62GB-12E12-14SN

Antennas

Transmit Antenna	4dBi Colinear TNC mount flexible
Receive Antenna	2dBi Coliner BNC mount flexible

RF

Transmit Frequency Bands	SOL4CLCx-240045 and SOL4CLCx-240086
Transmit Power	2.28 to 2.55GHz tuneable SOL4CLCx-120045 1.15 to 1.4GHz tuneable 30dBm (1W)
Tuning Steps	250kHz
Receive Frequency Bands	SOL4CLCx-240045 and SOL4CLCx-120045 456 to 458MHz tuneable SOL4CLCx-240086 868 to 870MHz tuneable
Receive Sensitivity	-118dBm typical

Modulation

Transmit modes	
Bandwidth	2.5MHz or 1.25MHz
Modulation	QPSK or 16QAM
FEC	1/3 or 2/3
Bitrate	600kb/s to 4.8Mb/s

PTZ Camera

Range of PTZ	400 degree pan, -20 to +40 vertical
Zoom	36X Optical and 12X digital
Low Light	Yes
Line standard	P model PAL, N model NTSC

Video Encoding

Resolution	704, 528, 480, 352
Coding mode	MPEG2 or MPEG4 (optional)
Delay	43ms to 1sec depending on model
Frame rate	Full/Half/Quarter/Eighth (optional)

Audio

Level	Line Level
Sample rate	32kHz, 16kHz, 8kHz
Bits per sample	12- or 8-bit

Sensors Inputs

Quantity	2
Format	Closed Contact Detection

Sleep Options

Modes instruction	Wake on trigger input/Wake on user
Wake Period	User defineable

Encryption

Format	ABS (standard) AES128 / 256 selectable (optional)
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Control

Remote control	Over air from MicroVue Commander case On/Off switch, transmit switch, channel switch and status switch User status display indicates battery life and link status
PC Control	Using PC RS232 Application

Physical

Dimension	Base unit - L 280mm, W 245mm, H 90mm Turret and Plinth - H 350mm, 75mm Diameter
Weight	Base unit - 6.4kg Turret unit - 1.5kg

Power

DC input (8A fused)	11-16V (Reverse Polarity Protected)
Battery backup (internal fuse)	3.5 hours operation in 1W mode (NiMH)

Environment

Temperature Range	-20 to +50 deg C
Protection	Dry Nitrogen

Product Code:

SOL4CLCN-120045	ClearCam NTSC 1.15-1.40GHz c/w 458MHz TELRX
SOL4CLCN-240045	ClearCam NTSC 2.28-2.55GHz c/w 458MHz TELRX
SOL4CLCN-240086	ClearCam NTSC 2.28-2.55GHz c/w 868MHz TELRX
SOL4CLCN-240090	ClearCam NTSC 2.28-2.55GHz c/w 903MHz TELRX
SOL4CLCP-120045	ClearCam PAL 1.15-1.40GHz c/w 458MHz TELRX
SOL4CLCP-240045	ClearCam PAL 2.28-2.55GHz c/w 458MHz TELRX
SOL4CLCP-240086	ClearCam PAL 2.28-2.55GHz c/w 868MHz TELRX

Product Code Includes

1 x Power Cable	CA00285
1 x Umbilical Control Cable	CA00242
1 x PSU 96W 12V	AP00255
1 x Antenna UHF Flex BNC	AP00700
1 x Antenna 4.5dBi 10.5"	AP00301

Accessory Options

Clear cam to Camera Extension Cable

Licensing Options

RX-N	Narrowband 2.5MHz
RX-UN	Upgrade to Ultra-Narrowband 1.25Mhz
RX-UXN	License RX Upgrade from RX-UN to MPEG4 Ultra-X
Narrowband 625kHz	

For further information please contact:

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