



CAMPAC 2

HD/SD COFDM Camera-back Transmitter

Available at 2 or 7 GHz

HIGHLIGHTS:

The CamPac 2 is a small lightweight HD/SD COFDM microwave transmitter intended for wireless camera applications including sports coverage and electronic news gathering ENG. Its stylish rugged machined housing provides durability and excellent thermal characteristics for operation in the harshest of conditions. The unit can mount to professional cameras using integrated battery adapter plates for standard IDX or Anton Bauer batteries.

The CamPac 2 transmitter includes an integrated MPEG2 encoder and variable bandwidth COFDM modulator. The next generation, high quality MPEG2 encoder can be configured for HD and SD operation or for SD operation only, both versions have an ultra-low latency mode for sports coverage. The encoder has the ability to be upgraded to MPEG4/H.264. The variable bandwidth modulator offers very high data rates through efficient use of available bandwidth. Data rates in the 20 to 50 Mbs rate can be achieved in the robust QPSK or 16QAM formats. The 6/7/8 MHz bandwidth modes are DVB-T compliant to ensure compatibility with any DVB-T standard system. This exciting new technology enables operators to configure the system taking advantage of all available bandwidth from 6 to 24 MHz.

The CamPac 2 will accept various video formats from SDI, component and composite to DVB-ASI for repeating applications. The dual audio inputs can be configured for microphone, line level or AES/EBU digital audio. The audio gains can be easily set using the programmable gain and the digital VU meters displayed on the Color TFT display. The control panel uses a unique sensor wheel that senses the position of your finger when placed on the disk. By dialing around the wheel you can navigate through the user friendly menu system. This unit can be remotely controlled via RS-232/RS-485 using a PDA or PC and the control panel may be removed and replaced with an optional extender allowing control up to 100 ft away.

APPLICATIONS:

- Roving electronic news gathering (ENG)
- Portable camera mounted for sports
- Helicopter and UAV links
- Portable and mobile video/data links

FEATURES:

- Relocation product is upgradeable to HD
- COFDM DVB-T compliant
- Variable bandwidth COFDM from 6-24 MHz
- ASI, HD SDI, SD SDI, component and composite video
- Next generation MPEG 2 encoder
- HD 720P/1080i all frequency format 4:2:0/4:2:2 encoding
- SD MPEG2 4:2:0/4:2:2 encoding
- Two Frame encoder latency
- Variable RF output up-to 200 mW
- Low adjacent channel emissions > -45 dBc
- Available 1.99 to 2.7 GHz/6.4 GHz to 7.1 GHz
 - Other frequencies available
- Removable front panel for remote control
- Color TFT display
- User control via sensor wheel
- DC operation from 10 to 32 volts

CAMPAC 2

HD/SD COFDM Camera-back Transmitter

SPECIFICATIONS:

Frequency Range:

Band 1: 1.99 GHz – 2.7 GHz
Band 2: 6.40 GHz – 7.1 GHz
(Step Size 50 KHz)

COFDM:

Programmable: 6 MHz to 24 MHz
DVB-T 2K: 6 MHz, 7 MHz, 8 MHz
Modulation: QPSK, 16QAM, 64QAM
FEC: 1/2, 2/3, 3/4, 5/6, 7/8
Guard: 1/32, 1/16, 1/8, 1/4
Encryption: AES 128 Bit

RF Output Power:

Programmable: 10 mW to 200 mW
Nominal 200 mW

Frequency Stability:

+/- 2 ppm

Power:

Input Range: 10 to 32 Volts DC
Under voltage and reverse polarity protection
Consumption: 24 Watts average

MPEG Encoder:

Video Input: Composite and component via multi-pin 2B LEMO
SDI Input: SMPTE 292/259M Level C via BNC
Video Format: HD 1080i/720P all format
NTSC w/wo PED, PAL
SD Frame Size: 720 x 480, 720 x 576
MPEG Profile: 4:2:2 MP @ ML,
4:2:0 MP @ ML
GOP Size: Variable
Latency: Two frames delay

Audio:

Channels: Two stereo pairs, selectable from one analog mic/line, one analog line level, two digital AES-EBU or embedded SDI
Analog Range: -60 dBm to +14 dBm continually variable 1dB steps
Analog Modes: Selectable compressor 1:1 to 10:1
Selectable soft limiter for levels greater than +10 dBm
AGC on/off
Coding: MPEG1 layer 2 audio ISO/IEC 13818-3
Sampling Rate: 96 to 384 K bits/channel at 48 kHz
Response: 20 Hz to 18 kHz, +/- 0.5 dB
Crosstalk: Better than 60 dB
Input Impedance: 1000 Ohms balance

User Data Channel:

RS422 Input: Transparent data pipe up to 1 M bit/s

Telemetry:

TX Status:

Voltage, current, temperature, RF output power, video format, MPEG lock, audio gain, audio VU meters and system alarms (when used with Nucomm series of receivers)

Control:

RS-232/RS-485:
IRDA:
Side Panel:

9600, 19200, 38400, 115 K Baud
115 K PC or PDA compatible
Standard can be remotored up to 100 feet away with optional control panel extender

Control Panel:

Display:
Backlight:
Indication:

High resolution 1.5" color TFT
Adjustable time out
RF output power, input DC voltage and current, digital VU meters, video lock and PA enable, alarms voltage and temperature
Sensor wheel encoder with audible click feed back
Ten user defined
Interactive basic/advanced menu tree allowing control of presets, frequency, RF output power, video source, audio source, audio gains, audio modes, video format, COFDM parameters and encryption mode enable

Input:

Presets:
Menu:

Connectors:

RF Connector:
DC Power:
Audio:
SDI:
Video:

"N" (F)
4 Pin LEMO size 1B
Two 5 Pin LEMO size 1B
75 Ohm BNC
12 Pin LEMO size 2B

Physical:

Dimension:
Weight:
Operating Range:
Humidity:

7.5" H x 4.3" W x 1.7" D
(19.05 x 10.9 x 4.3 cm)
2 lbs (1 kg)
-10°C to +45°C
95% +10°C to +50°C