



FEATURES

Slimmer profile for PoV applications

Balanced Mic/Line level analogue audio inputs with P48 mic powering

Indicators for POWER, VIDEO LOCK and RF ON

Industry-standard connectors for VIDEO, POWER and AUDIO INPUTS

Fan cooling for enhanced performance and reliability

Integrated control panel and status display

Optional camera mounting bracket converts your BWS NanoPRO into a cameraback TX

BWS NanoPRO TX

BWS has built upon the outstanding features of the award-winning Cobham NanoHD TX to create the ultimate PoV/miniature broadcast transmitter.

The BWS NanoPRO HD Transmitter is an ultra-miniature COFDM digital video transmitter, designed specifically for Point-of-View (PoV) and body-worn applications.

With proven Cobham COFDM and H.264 encoder technology at its core, exceptionally small size and ultra-low power consumption (typically 7W), the BWS NanoPRO Transmitter enables production teams to offer viewers stunning high definition images from the heart of the action, in situations never previously possible due to equipment size and battery run-time constraints.

The small size and ultra-low power consumption make the BWS NanoPRO TX ideal for UAV 'Octocopter' installations, enabling true long range HD broadcasting from these increasingly popular devices for the first time. Optional lightweight, low power consumption amplifiers are also available for even greater range capability.

The transmitter employs ultra-low latency High Profile H.264 (MPEG-4 AVC) encoding for excellent image quality retention over the wireless link and supports SDI & HD-SDI video input formats up to 1080p50/59.

The BWS NanoPRO Transmitter is supplied in a slim-line, fan-cooled, aluminium lightweight case and features industry standard connectors for RF (SMA), Video (BNC), Power/Data (Hirose), Audio (Hirose) and control (mini USB). An integrated joystick control panel and OLED display are provided for control and monitoring of all parameters.

Connectors

RF out (video/audio)	SMA(f) – Ntype via optional Bracket
SDI Video in	BNC(f) or DIN 1.0/2.3 Female (see product codes)
Analogue audio in	6 way Hirose HR10 socket
Power/RS232data in	4 way Hirose HR10 plug
PC control	Mini USB

RF

Frequency Bands	230MHz to 8.6GHz (in bands)
Tuning Step Size	250kHz
O/P Power	100mW

DVB-T Modulation

DVB-T Bandwidth	8MHz, 7MHz and 6MHz modes
DVB-T Guard	1/32, 1/16, 1/8, 1/4
DVB-T FEC	1/2, 2/3, 3/4, 5/6, 7/8
DVB-T Modulation	QPSK, 16QAM, 64QAM
DVB-T Bit-rates	3.6Mbps to 32Mbps

Video

Video Input	HD-SDI
Input Format	Transport stream to 60Mb/s
IP Interface	1920x1080p 59.94/50Hz 1920x1080i 59.94/50Hz 1920x1080p 30/29.97/25/24/23.97Hz 1920x1080psf 30/29.97/25/24/23.97Hz 1280x720p 60/59.94/50Hz
Compression Type	AVC/H.264/MPEG-4 Part 10
Coding Mode	High profile level 4.1, I/P 4:2:0, 4:2:2 Progressive or Interlaced (MBAFF) Horizontal down-sampling of 3/4, 2/3, 1/2

Audio

Audio Input	Analogue: Balanced stereo pair +18dBu Max input level (up to 66dB gain), P48 powering SDI Embedded: 2x stereo pairs
Compression Type	MPEG Audio Layer 1 64-448kbps MPEG Audio Layer 2 48-384kbps

Encryption

Type	Proprietary ABS 32bit
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Control

Unit	Joystick panel + OLED display
Remote	USB Control from PC GUI Application

Physical

Dimensions	18x60x63.5mm (HxWxD)
Weight	125g

Power

DC Input	6 to 17V reverse polarity protected
Power Consumption	HD encoding – 7.5W worse case with 100mW RF

Environment

Temperature Range	-10 to +50 °C
Sealing	Splash Proof

Product Codes

BWSNPROTX-198270	NanoPro Transmitter BNC 1.98-2.7GHz
BWSNPROTX-300350	NanoPro Transmitter BNC 3.0-3.5GHz
BWSNPROTX-550600	NanoPro Transmitter BNC 5.5-6GHz
BWSNPROTX-700750	NanoPro Transmitter BNC 7.0-7.5GHz
BWSNPROTXD-198270	NanoPro Transmitter DIN 1.98-2.7GHz
BWSNPROTXD-300350	NanoPro Transmitter DIN 3.0-3.5GHz
BWSNPROTXD-550600	NanoPro Transmitter DIN 5.5-6GHz
BWSNPROTXD-700750	NanoPro Transmitter DIN 7.0-7.5GHz
BRK-NPRO-NTYpe	NType Camera Mount Bracket

Kit Contents

NanoPro
XLR Analogue Audio In Cables
Power and Control Cable



NanoPro fitted into NType Camera Mount Bracket