DBS NanoSDR Pro

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 DBS NanoSDR Pro into a cameraback TX

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

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

With proven Domo COFDM and H.264 encoder technology at its core, exceptionally small size and ultra-low power consumption (typically 8.5W), the DBS NanoSDR Pro 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 DBS NanoSDR pro 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 DBS NanoSDR Pro 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). An integrated joystick control panel and OLED display are provided for control and monitoring of all parameters.

For the moments that matter

Connectors

TX App	1x SMA
Mesh App	2x SMA
Video in	BNC(f)
Analogue audio in	5 Pin Lemo
Ethernet/Data	7 Pin Lemo
DC In	4 Pin Lemo

RF

Frequency Bands	1GHz to 6GHz (in bands)
Tuning Step Size	250kHz
O/P Power	100mW

DVB-T Modulation

DVB-T Bandwidth	8MHz, 7MHz, 6MHz and 5MHz modes
DVB-T Guard Interval	1/32, 1/16, 1/8, 1/4
DVB-T FEC	1/2, 2/3, 3/4, 5/6, 7/8
DVB-T Constellation	QPSK, 16QAM, 64QAM
DVB-T Bit-rates	3.732Mbps to 31.668Mbps

Narrowband / UMVL Modulation

NB Bandwidth	2.5MHz and 1.25MHz
UMVL Bandwidth	8MHz, 7MHz and 6MHz
NB/UMVL FEC	1/2, 2/3
NB/UMVL Constellation	QPSK, 16QAM, BPSK, 8PSK
NB/UMVL Guard Interval	1/8, 1/16
NB Bit-rates	0.6Mbps to 4.8Mbps
UMVL Bit-rates	1.317kbps to 14.869Mbps

Video

Video Input	3G-SDI
Video Formats	1920×1080p 59.94/50Hz
	1920×1080i 59.94/50Hz
	1920×1080p 30/29.97/25/24/23.97Hz
	1920×1080psf 30/29.97/25/24/23.97Hz
	1280×720p 60/59.94/50Hz
Compression Type	H.264
Coding Mode	High profile level 4.1, I/IP 4:2:0 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

Control

Unit	Front panel + OLED display
Remote	PC control via Ethernet

Physical

Dimensions	77mm x 21.65mm x 63mm
Weight	160g

Power

DC Input	6 to 17V reverse polarity protected
Power Consumption	HD encoding – 8.5W worse case with 100mW RF

Environment

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

Product Codes

NSDRPRO-114150	NanoSDR Pro 1.14–1.50GHz
NSDRPRO-167235	NanoSDR Pro 1.67–2.35GHz
NSDRPRO-198270	NanoSDR Pro 1.98–2.70GHz
NSDRPRO-440500	NanoSDR Pro 4.40–5.00GHz
NSDRPRO-550600	NanoSDR Pro 5.50–6.00GHz

Kit Contents

SDRAPP-TX-SILVER	DVB-T, UMVL, Streaming, Recording
SDRAPP-ENC-PLATINUM	SD/HD Encoding
Power cable, Limo-XLR	CA4361
Ethernet cable	CA4362
XLR Analogue Audio	CA4363

Options

SDRAPP-TX-GOLD	Narrowband 2.5MHz & 1.25MHz
Power cable, Lemo - D Tap	CA3463
Dual Pedestal	LIC-DP-TX
IP Mesh Mode	SDRAPP-MESH
RX Mode	SDRAPP-RX-GOLD