



KEY BENEFITS

- Slimmer profile for PoV applications
- Balanced Mic/Line level analogue audio inputs with P48 mic powering
- Indicators for power, video lock and RF pm
- 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 Wave Central TOPAZ SDR Pro into a cameraback TX

TOPAZ

SDR PRO

Wave Central has built upon the outstanding features of the award-winning Wave Central NanoHD TX to create the ultimate PoV/miniture broadcast transmitter.

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

With proven Wave Central COFDM and H.264 encoder technology at its core, exceptionally small size and ultra-low power consumption (typically 8.5W), the Wave Central TOPAZ SDR 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 Wave Central TOPAZ SDR 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 Wave Central TOPAZ SDR Pro Transmitter is supplied in a slim-line, fan-cooled, aluminum 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.

TOPAZ SDR PRO | KEY FEATURES

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, 2-Pin Lemo (optional)

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 / UMLV 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 HD-SDI
Video Formats	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	H.264
Coding Mode	High profile level 4.1, I/P 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 AES 32bit
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CONTROL

Unit	Front panel + OLED display
Remote	PC control via Ethernet

PHYSICAL

Dimensions	77mm x 21.65mm x 63mm
Weight	105g

POWER

DC Input	6 to 17V reverse polarity protected
Power Consumption	8.5W max

ENVIRONMENT

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

AS OPTIONS

Dual Ped	LIC-DP-TX
IP Mesh Mode	SDR-MESH
RX Mode	SDRAPP-RX-GOLD

KIT CONTENTS

Nano SDRPro	DVB-T, UMLV, Narrowband SD / HD encoding
Power cable, Limo-XLR	CAXXXX
Ethernet and Data	CAXXXX
XLR Analogue Audio	CAXXXX

OPTIONS

Power cable, Lemo - D Tap	CAXXXX
Dual Pedestal	LIC-DP-TX
IP Mesh Mode	SDRAPP-MESH
RX Mode	SDRAPP-RX-GOLD
DVB-T, UMLV, IP Streaming, Recording, Telemetry Narrowband 2.5MHz, 1.25MHz	

