SAPPHIRE
B2TX

The Sapphire-B2TX camera-back transmitter, integrates a True 4K HEVC encoder with two COFDM modulators creating a single, compact package, suitable for camera-back mounting.

The Sapphire-B2TX is equipped with a single video input capable of 3G HD-SDI, 6G and 12G, thus allowing video formats to UHD.

The dual 100mW COFDM outputs in separate 2GHz and 7GHz bands, make the Sapphire-B2TX ideal for operators wanting frequency agility.

Back to back V Lock or Anton Bauer battery plates facilitate pass-through power whilst an additional external power connector is provided at the base. Analogue stereo audio inputs are supported as well as camera control and Tally interfaces.

Sapphire-B2TX is equipped with a high-quality, low-latency H.265 (H.264 is also available) encoder capable of UHD and HD formats in 10bit 4:2:2 with automatic HDR support.

Up to 8 stereo pairs of audio in either MPEG-1 layer 1, or PCM format (4 stereo pairs in AAC-LC) can be extracted and encoded by The Sapphire-B2TX whilst analogue audio inputs with power are included for direct microphone connection.

Camera control and transmitter settings are accessible through a single colour panel on the side or using the web browser interface.

Bi-directional camera control is a hardware option in the Sapphire-B2TX.

KEY BENEFITS

- Low latency UHD/HD Resolution encoding

- Two independent RF outputs at 2GHz and 7GHz

- SDI In can be switched to ASI in to support transport stream relay

- IP Streaming and Web browser control

SAPPHIRE B2TX | *KEY FEATURES*

CONNECTORS

RF out	2x NType Female
RF In (Cam Control)	SMA Female
Video/ASI In	BNC 36/6G/12G or ASI
Analogue audio in	Hirose 6 way female
Power and CTRL	Hirose 6 way male
Auxiliary Data	Hirose 6 way male
Camera CTL	Hirose 10 way male
Tally	Hirose 4 way female
Ethernet	RJ45

RF

Frequency Band 1	2-2.9GHz (others on request)
Frequency Band 2	7-7.5GHz (others on request)
Tuning Step Size	250kHz
O/P Power	100mW

MODULATION

Modulation Modes	DVBT, Dual Pedestall, UMVL and ISDB-T
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 Coding	H.264 and H.265
H.265 4K UHD	2160p 23.98/24/25/29.97/30/50/59.94/60 HD. 4:2:2/4:2:0, 8/10-bit 720p 50/59.94/60 1080i 50/59.94/60 1080p 23.98/24/25/29.97/30/50/59.94/60 1080psf 23.98/24/25/29.97/30
Latency	Typically 35mS input to output

HDR/WGC

We support	Rec. ITU-R BT.2100-2 (PQ and HLG) Rec. ITU-R BT.2020

AUDIO

Format	Embedded
Encoder	MPEG-1 Layer 1, MPEG-1 Layer 2, AAC-LC, Linear PCM
Quantity	4 pairs (8 pair if MPEG or Linear PCM)
Analogue	1 pair line / mic level
Power Out	P48 phantom power

IP STREAMING

Format	Unicast / Multicast / UDP / RTP / SRT
Bitrate	25Mb/s maximum

CAMERA CONTROL

Type	VideoSys Bi-directional 400MHz UHF
Camera Type	Sony / Grass Valley / Hitachi Panasonic / Ikegami

CONTROL

Local	Joystick and menu screen
Remote	IP web browser Control

DIMENSIONS

Size (WxDxH)	175 x 95 x 33mm
Weight	650g
Mounting	AB / VLock Plate / mounting plates

POWER

DC In:	9-36V
	25W typical @ 4K encoding

ENVIRONMENT

Temperature Range	-10 to +50 °C
Sealing	Unsealed

WAVE CENTRAL
A DOMO BROADCAST COMPANY