KEY ADVANTAGES

- **Low latency UHD/HD Resolution encoding (Typically 35mS input to output)**
- **Single input Interface supporting 3G HD-SDI, 6G and 12G**
- **Interchangeable RF Modules**
- **Optional Bi-directional Camera Control modules**
- **Supports Anton Bauer and V Lock battery plates**
- **Support for UHD/HD HDR and also Timecode (film industry) signal insertion**
- **ASI Out for onward connectivity**
- **IP Streaming and Web browser control**

Sapphire-BTX Camera Back Transmitter

The Sapphire-BTX camera-back transmitter, integrates a True 4K HEVC encoder with a COFDM modulator creating a single, compact package, suitable for camera-back mounting. The Sapphire-BTX is equipped with a single video input capable of 3G HD-SDI, 6G and 12G, thus allowing video formats to UHD.

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. An ASI transport stream interface is provided to facilitate easy connection to other modulation systems.

Sapphire-BTX 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-BTX 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-BTX.

Connectors	
RF out	N Type Female
RF In (Cam Control)	SMA Female
Video In	BNC 3G/6G/12G
ASI Out	BNC
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 Bands	2-2.7GHz, 5.5-6GHz	(others on request)
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
Future Upgrades	DVB-T2 and Dual Pedestal

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	DBS Bi-directional 400MHz UHF
Camera Type	Hitachi, Panasonic others on request

Control	
Local	Joystick and menu screen
Remote	IP web browser Control

Dimensions	
Size (WxDxH)	155 × 95 × 33mm
Weight	500g
Mounting	AB / VLock Plate / mounting plates

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

Environment	
Temperature Range	-10 to +50 °C
Sealing	Unsealed

Product Codes	
BTX-200270-V	2-2.7GHz TX VLock
BTX-310360-V	3.1-3.6GHz TX VLock
BTX-440500-V	4.4-5GHz TX VLock
BTX-550600-V	5.5-6GHz TX VLock
BTX-200270-AB	2-2.7GHz TX Anton Bauer
BTX-310360-AB	3.1-3.6GHz TX Anton Bauer
BTX-440500-AB	4.4-5GHz TX Anton Bauer
BTX-550600-AB	5.5-6GHz TX Anton Bauer

Note: Other frequencies available on request

DOMO BROADCAST SYSTEMS

Unit 7 | Swanwick Business Centre
Bridge Road | Lower Swanwick
Hampshire | SO31 7GB | UK

T +44 (0)1489 505034
E info@broadcastwirelesssystems.com
www.broadcastwirelesssystems.com