

**2000-watt UHF Digital Transmitter (8-VSB)**


- 4 channels (2HD/2SD or 1HD/3SD) 8VSB RF output
- PSIP/PSI descriptors generator/injector with VCT
- Remultiplexer with PID editor, ASI injection, remap, restamp, grooming, and add-drop
- MPEG2/MPEG4 video encoding
- Full color touchscreen display, with Ethernet and SNMP
- Internal RF isolator, efficient switching power supply
- EAS input and control through GPI or SNMP
- Dynamic PSIP input from any external EIT EPG generator
- Excellent video quality and lower bitrates through triple pass video motion estimation
- 2 Year Warranty on Amplifier
- 1 Year Warranty on Modulator
- ATSC 3.0 Available on Select Modulators

This system includes: TAUD-2000 Amplifier,  
TP1000 4 channel Encoder/Mux/Modulator

Note: Other configurations available:

- TP1800 Transmodulator 4-8VSB In, 1 Agile 8VSB Output
- TM900 Agile Adaptive Digital Modulator ATSC 1.0/3.0
- TM500 Low-Cost Digital Modulator

**AUDIO / VIDEO INPUT CHARACTERISTICS**

<b>Digital Audio Inputs</b>	SDI embedded – (1) stereo pair or pass through compressed
<b>Digital Audio Format</b>	Selectable Dolby Digital / AC3 / Stereo / 5.1-7.1 pass-through / MPEG2 / AAC
<b>Analog Audio Inputs</b>	Optional AV/L-R balanced-unbalanced audio embedded available upon request
<b>Digital Video Inputs</b>	(4) HD / SD SDI with embedded audio
<b>Analog Video Inputs</b>	Optional CVBS / Component / HDMI / VGA / DVI adapter available upon request
<b>Input Resolution</b>	Auto detect any resolution
<b>Video Scaler</b>	Scaler function can be selected on standard software to scale the input to lower resolution for matching
<b>Encoding Modes</b>	MPEG2 / MPEG4 H264 selectable by software per each channel
<b>Encoding Latency</b>	Ultra-low delay 50 milliseconds encoding
<b>Encoding Bitrates</b>	User selectable from 0.5 to 20 Megabits/s per channel (VBR / CBR stat mux)
<b>Encoding Control</b>	Video bitrate, CBR / VBR, ultra-fast encoding modes, 1080P MPEG2 mode
<b>Features</b>	All Closed Caption and TXT formats, Crystal-View technology

**ASI INPUT / OUTPUT**

<b>ASI Inputs</b>	(1) SPTS / MPTS
<b>Remultiplex</b>	Generate, inject, remap, restamp, grooming, add / drop; Stat Mux
<b>Max Input Bitrate</b>	214 Megabit/s
<b>ASI Outputs</b>	(2) Mirror
<b>ASI Output Format</b>	Selectable 188 / 204 bits
<b>Transport Stream</b>	ASI Mux MPTS ready for exciters, STLs, and uplinks
<b>Max Output Bitrate</b>	Fixed payload selectable to 19.3 Megabit/s (ATSC) or any other value as needed

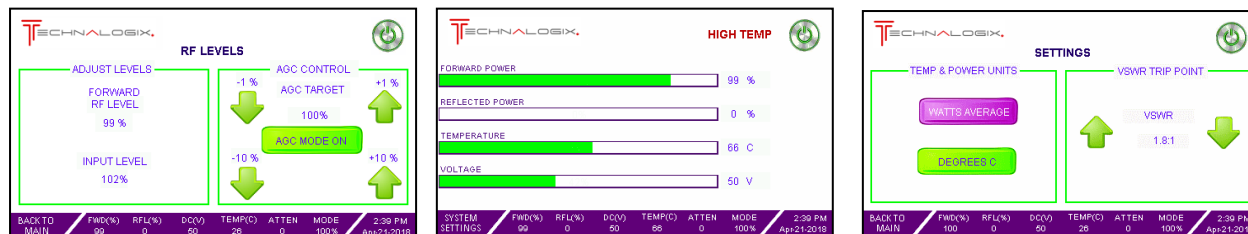
\*\* Due to continuous product improvements, Technalogix reserves the right to change specifications without notice. \*\*

**IPTV OUTPUT**

<b>IP Streaming Output</b>	(1) 100 / 1000 auto
<b>Mux IP Stream Output</b>	(1) Same as ASI MPTS Mux but over IP – ready for IP STLs, excitors, etc.
<b>SPTS Single Stream Output</b>	(4) Selectable RTP / RTSP / UDP Single Program Transport Streams, IGMP, Multicast / Unicast
<b>IPTV Bitrates</b>	Same as ASI Mux output for the MUS stream, same as each encoder for the SPTS streams

**INTERFACE**

<b>DB25 Remote Port</b>	<b>Control:</b> RF carrier on/off, RF power up/down, reset <b>Monitor:</b> Forward/reflected RF level, control PCB Vcc <b>Flags:</b> Overdrive, VSWR (adjustable trip point), high temperature
<b>Ethernet</b>	<b>Control:</b> RF carrier on/off, RF power up/down, AGC/manual mode, change VSWR trip point, reset <b>Monitor:</b> Forward/reflected RF level, pallet voltage, RF input level, temperature, VSWR trip point, model/serial number <b>Flags:</b> Carrier on/off, overdrive, pallet voltage, VSWR, RF input, temperature, AGC / manual
<b>SNMP</b>	<b>Control:</b> RF carrier on/off, RF power up/down, AGC/manual mode, change VSWR trip point, reset <b>Monitor:</b> Forward/reflected RF level, DC pallet voltage, RF input level, temperature, pallet current, attenuation, run time, RF fault, model/serial number <b>Flags:</b> Overdrive, VSWR, temperature, SNMP error



Screenshots off touchscreen interface

**PHYSICAL FEATURES**

<b>Minimal Rack Space Enclosures</b>	TAUD-2000 Amplifier (Shown with Optional 32U Rack)	Without Rack: 22U x 30"D x 19"W
<b>Operating Temperature</b>	Lightweight Aluminum	
<b>Humidity</b>	0 to +45° C	
<b>Cooling</b>	90%, non-condensing	
	Air cooled	

**ELECTRICAL CHARACTERISTICS**

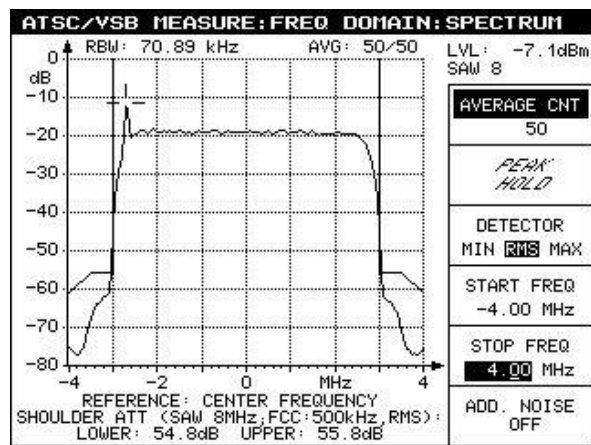
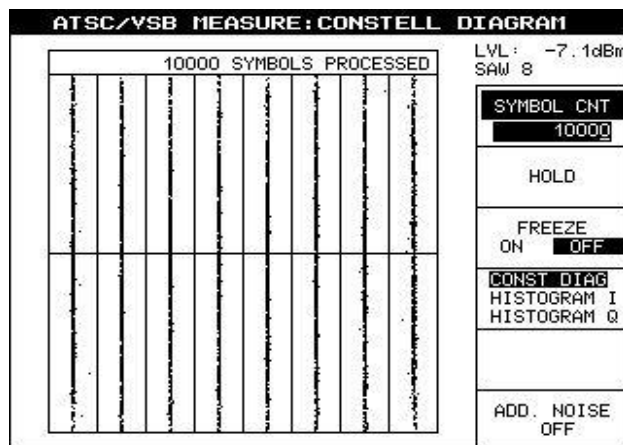
<b>Flexible AC Input</b>	TAUD-2000 Amplifier	180-264Vac, 29Aac at 208Vac single phase
	Other AC supply voltages and phases available on request. Verify AC voltage range at time of order.	

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**TYPICAL SPECIFICATIONS**

ATSC/VSB MEASURE: VSB PARAMETERS			
CENTER FREQ	CHANNEL	ATTEN : LOW+P	
539.00 MHz	25	-7.1 dBm	
<b>TRANSMISSION:</b>			
PHASE JITTER (RMS)	---	°	
SIGNAL/NOISE (LOW Q)	43.4	dB	
<b>SUMMARY:</b>			
MER (REAL,RMS)	42.6	dB	
MER (REAL,MIN)	13.4	dB	
MER (REAL,RMS)	0.74	%	
MER (REAL,MAX)	21.31	%	
CONSTELL. DIAGRAM...			
FREQUENCY DOMAIN...			
TIME DOMAIN...			
VSB PARA PILOT VALUE.			
ADD. NOISE OFF			

ATSC/VSB MEASURE			
CENTER FREQ	CHANNEL	ATTEN : LOW+P	
539.00 MHz	25	-7.1 dBm	
SET CENTER FREQ	539.0000000	MHz	
SET PILOT FREQ	536.3094406	MHz	
CALC PILOT FREQ	536.3091006	MHz	
PILOT FREQ OFFSET	-340.0	Hz	
SYMBOL RATE OFFSET	-6.8	Hz	
MODULATION 8VSB			
MER (REAL,RMS)	42.4	dB	
MER (REAL,RMS)	0.75	%	
BER BEFORE RS	0.0E-10	(2K92/10K0)	
BER AFTER RS	0.0E-9	(2K40/10K0)	
SEG ERR RATIO	0.0E-7	(2K40/10K0)	
SEG ERR / s	00000		
TS BIT RATE 19.393 Mbit/s			
SELFTEST ERROR CODE: 000001 (HEX)			
CONSTELL. DIAGRAM...			
FREQUENCY DOMAIN...			
TIME DOMAIN...			
VSB PARAMETERS...			
RESET BER			
ADD. NOISE OFF			



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