

**4000-watt UHF Digital Transmitter (8-VSB)**

This system includes: TAUD-4000 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



- 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

**AUDIO / VIDEO INPUT CHARACTERISTICS**

**Digital Audio Inputs**  
**Digital Audio Format**  
**Analog Audio Inputs**  
**Digital Video Inputs**  
**Analog Video Inputs**  
**Input Resolution**  
**Video Scaler**  
**Encoding Modes**  
**Encoding Latency**  
**Encoding Bitrates**  
**Encoding Control**  
**Features**

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

**ASI INPUT / OUTPUT**

**ASI Inputs**  
**Remultiplex**  
**Max Input Bitrate**  
**ASI Outputs**  
**ASI Output Format**  
**Transport Stream**  
**Max Output Bitrate**

(1) SPTS / MPTS  
 Generate, inject, remap, restamp, grooming, add / drop; Stat Mux  
 214 Megabit/s  
 (2) Mirror  
 Selectable 188 / 204 bits  
 ASI Mux MPTS ready for excitors, STLs, and uplinks  
 Fixed payload selectable to 19.3 Megabit/s (ATSC) or any other value as needed

**IPTV OUTPUT**

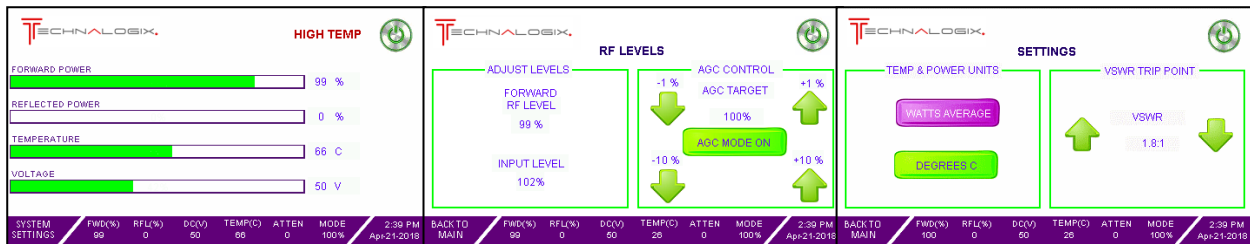
**IP Streaming Output**  
**Mux IP Stream Output**  
**SPTS Single Stream**  
**Output**  
**IPTV Bitrates**

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

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

**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</b>	TAUD-4000 Amplifier	38U x 30"D x 19"W
<b>Enclosures</b>	Lightweight Aluminum	
<b>Operating Temperature</b>	0 to +45° C	
<b>Humidity</b>	90%, non-condensing	
<b>Cooling</b>	Air cooled	

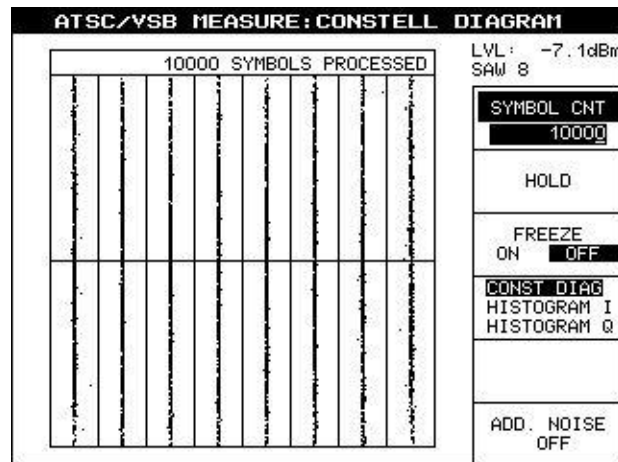
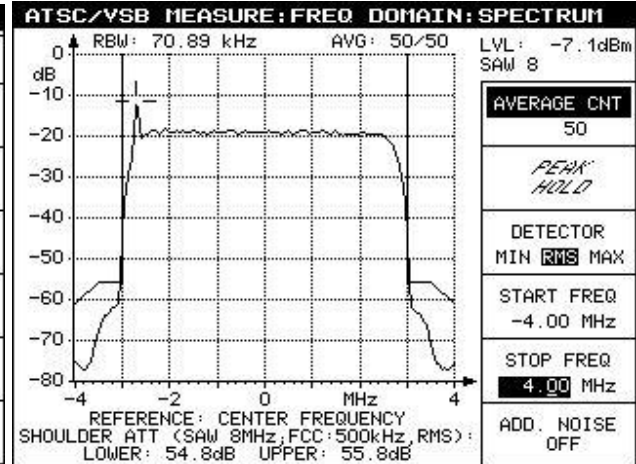
**ELECTRICAL CHARACTERISTICS**

<b>Flexible AC Input</b>	TAUD-4000 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			
CENTER FREQ <b>539.00 MHz</b>	CHANNEL <b>25</b>	ATTEN : LOW+P <b>-7.1 dBm</b>	
SET CENTER FREQ	539.0000000 MHz	CONSTELL DIAGRAM...	
SET PILOT FREQ	536.3094406 MHz	FREQUENCY DOMAIN...	
CALC PILOT FREQ	536.3091006 MHz	TIME DOMAIN...	
PILOT FREQ OFFSET	-340.0 Hz	VSB PARA- METERS...	
SYMBOL RATE OFFSET	-6.8 Hz	RESET BER	
MODULATION	8VSB	ADD. NOISE OFF	
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)			



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

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