TAVD-40H

40-watt VHF Band III Digital Transmitter

This system includes: TAVD-40H 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

RF CHARACTERISTICS

Frequency Range	Modulator:	50 – 860 MHz RF Input
		55 – 858 MHz RF Output (band center)
	Amplifier:	174 – 216 MHz (VHF Band III)
Frequency Step Size	12.5 kHz	
Input Power	0 dBm (nominal) into power amplifier from translator	
Transmitter Output Power	40W (other levels available upon request)	
Power Level	Adjustable 10 – 100% through amplifier	
Impedance	Output of amplifier 50 Ω, N female	
Modulation	8VSB, QAM (output power will change between standards)	
Spurious	- 60 dBc including harmonics With Filter	

AUDIO / VIDEO INPUT CHARACTERISTICS

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

ASI INPUT / OUTPUT

ASI Inputs	(1) SPTS / MPTS
Remulitplex	Generate, inject, remap, restamp, grooming, add / drop; Stat Mux
Max Input Bitrate	214 Megabit/s
ASI Outputs	(2) Mirror
ASI Output Format	Selectable 188 / 204 bits
Transport Stream	ASI Mux MPTS ready for exciters, STLs, and uplinks
Max Output Bitrate	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. **

Technalogix.com
403-347-5400
Sales@technalogix.ca

IPTV OUTPUT

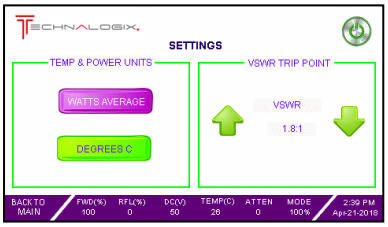
IP Streaming Output	(1) 100 / 1000 auto
Mux IP Stream Output	(1) Same as ASI MPTS Mux but over IP – ready for IP STLs, exciters, etc.
SPTS Single Stream Output	(4) Selectable RTP / RTSP / UDP Single Program Transport Streams, IGMP, Multicast / Unicast
IPTV Bitrates	Same as ASI Mux output for the MUS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

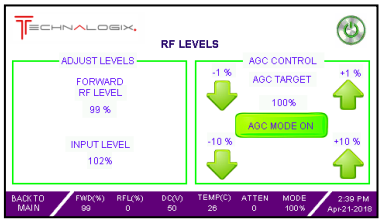
ELECTRICAL CHARACTERISTICS

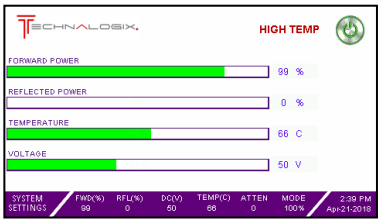
Flexible AC Input	100-240 Vac input, 50/60hz	
AC Consumption	Amplifier:	320W typical [110Vac/3.3Aac] (dependent on frequency)
	Encoder/Stat	65W max
	Mux/Modulator:	

INTERFACE

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





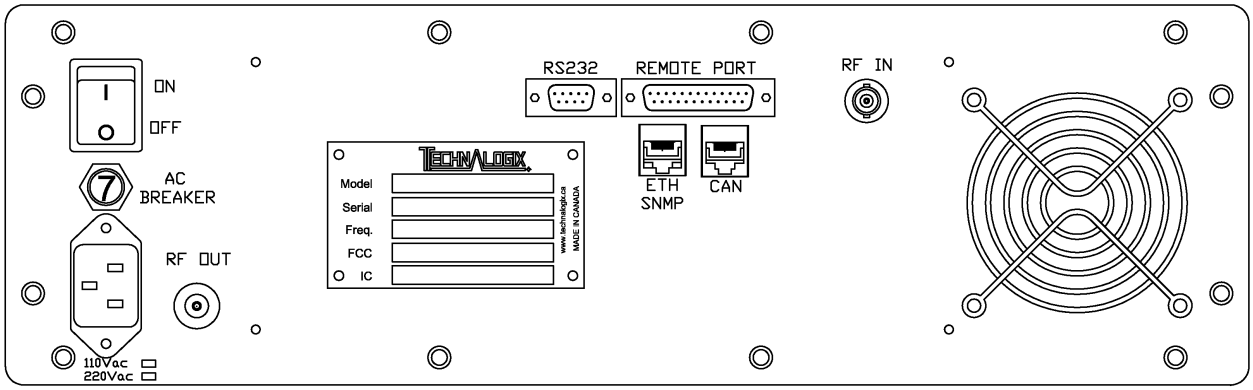


Screenshots off Touchscreen Interface

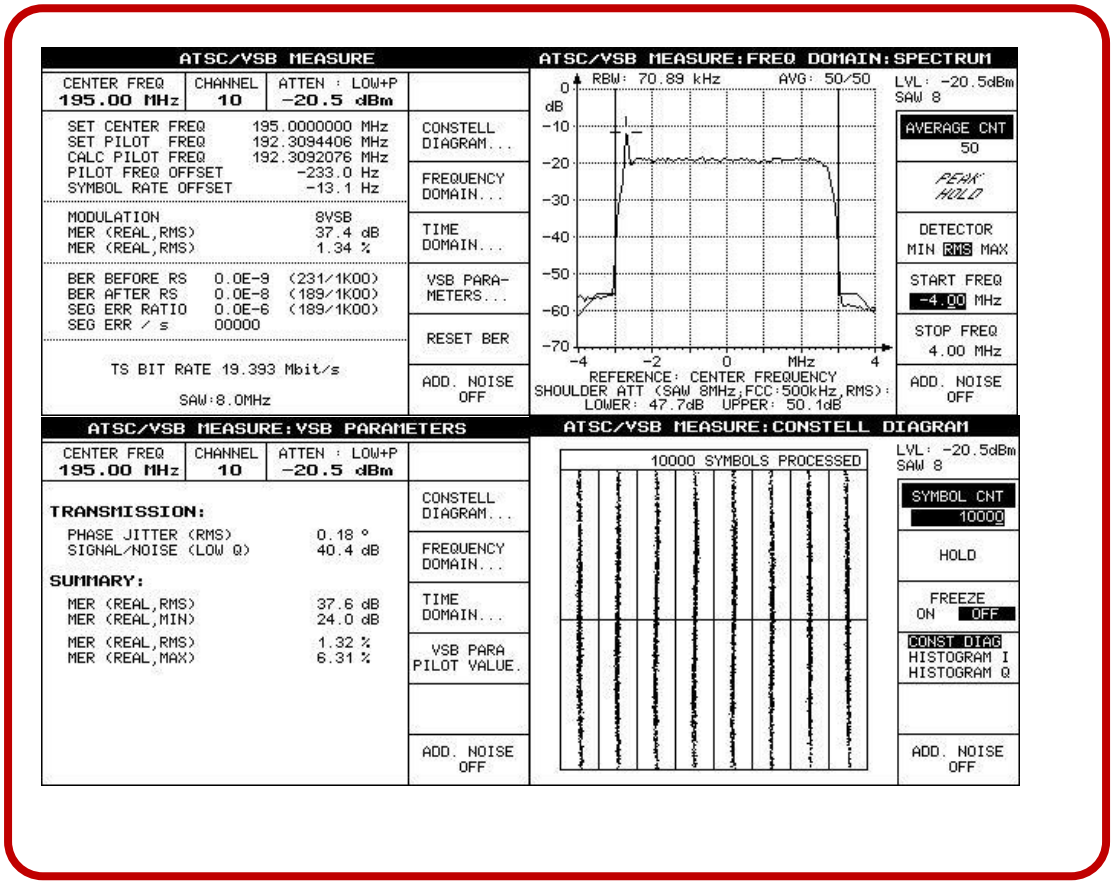
PHYSICAL FEATURES

Minimal Rack Space	Amplifier:	3U (H) x 25” (D) x 19” (W)
	Modlulator:	1U (H) x 18” (D) x 19” (W)
Enclosures	Lightweight Aluminum	
Operating Temperature	0 to +45˚C	
Humidity	90%, non-condensing	

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



****All specifications taken with TP-1000 Modulator****



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