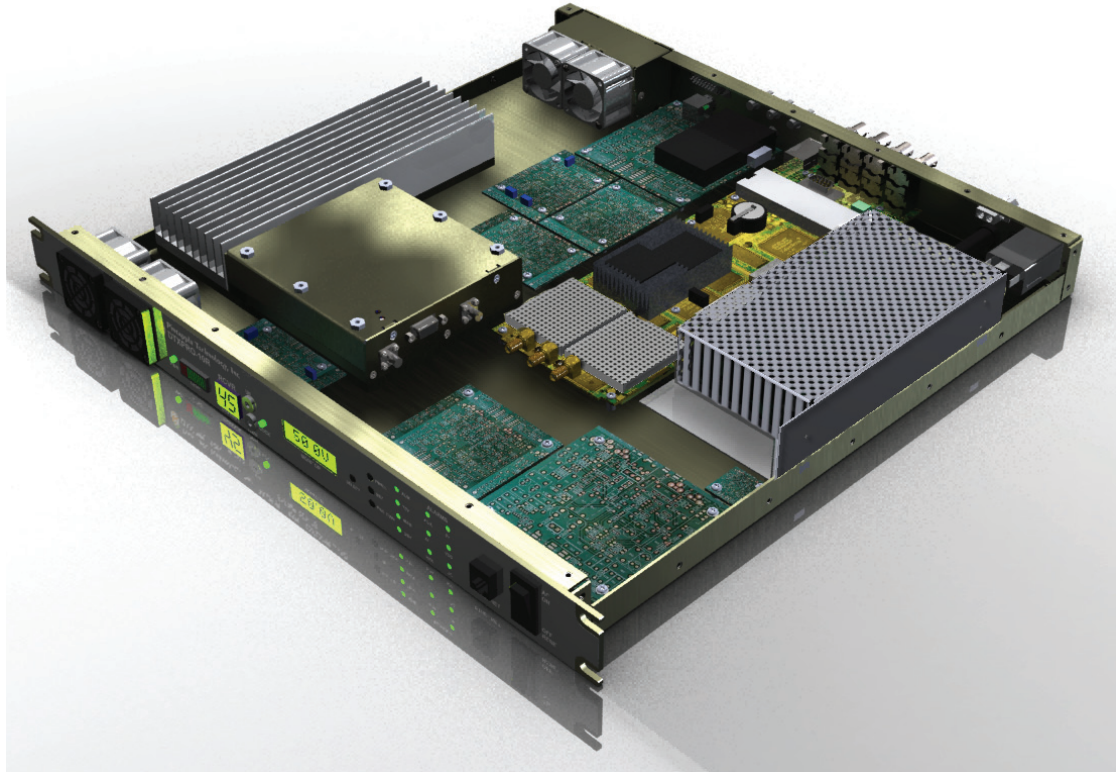


DXDPRO-MB DIGITAL MODULATOR

BASE MODULATOR FOR
DIGITAL TRANSMITTERS
AND UPGRADES



INTRODUCTION

The DXDPRO-10U and DXDPRO-10VH lines of digital modulators were designed to meet the demanding need for high performance, low cost transmission products for digital broadcasting. The product is housed in a one (1) RU 19-inch enclosure making it well suited for crowded broadcast transmission sites.

When used as a stand alone transmitter, the unit will provide 10 watts average output power after the mask filter. Up to 12 status and 12 alarms are available for external monitoring of the transmitter and facility status via the web page GUI provided. Each modulator comes with built-in GPS receiver if this becomes necessary for FCC compliance. These modulators will work with 48 VDC usually found at telecom sites.

The modulator decodes the ASI or SMPTE-310M input transport stream and reprocesses it to insure ATSC compliance. When connected to a transmitter, the modulator core samples the output signal before and after the mask filter. The sample is processed to insure best shoulder levels and MER/SNR for maximum transmission range using its built in adaptive linear and non-linear correction circuits. All settings are protected by non-volatile device technology.



PINEAPPLE TECHNOLOGY, INC.

www.ptibroadcast.com

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GENERAL SPECIFICATIONS FOR MODULATOR

- STANDARDS ATSC: A/53, A54, SMPTE-310M DVB-ASI
- TS OPTIONS..... ASI OR SMPTE-310M
- RF OUTPUT..... VHF 50-220 MHz and 470-860 MHz
- CLOCK STABILITY..... <2 ppm or GPS LOCK
- MODULATOR 8 level VSB trellis ATSC Compliant
- CORRECTION..... AUTO LINEAR & NON LINEAR
- CREST FACTOR ADJUSTABLE FROM 2.5–12.5 dB
- ETHERNET CONNECTION WITH WEB GUI PROVIDED
- PASSWORD PROTECTED UP 3 LEVELS

MODULATOR SPECIFICATIONS

- POWER OUTPUT 0 dBm
- SHOULDER LEVELS -60 dB TYPICAL
- MER MEASUREMENTS 41 dB TYPICAL
- PRIMARY POWER AC..... 110 VAC
- PRIMARY POWER DC..... 44-52 VDC <2.5 AMPS
- CHASSIS DEPTH 18 INCHES
- WEIGHT..... 10 LBS
- REMOTE CONTROL VIA ETHERNET
- 19 INCH 1 RU RACK MOUNTING
- COMPLIES WITH FCC STANDARDS

MODULATOR REMOTE CONTROL AND MONITOR FEATURES INCLUDED

CONTROL	TRANSMITTER	STANDBY	ON/OFF
	TRANSMITTER	P _o LEVEL	ADJUSTABLE BY +/- 10%
MONITOR	TRANSMITTER	POWER OUTPUT	WATTS (XXXX.X) / (%) PERCENT CHANGE
	TRANSMITTER	REFLECTED POWER	WATTS (XXXX.X) / (%) PERCENT CHANGE
	SUPPLY VOLTAGE	DC VOLTAGE	VOLTS (XXXX.X)
	SUPPLY CURRENT	DC CURRENT	AMPS (XXXX.X)
	<i>Note: Up to 12 optional analog monitoring points</i>		
ALARMS	1. HPA TEMP.	GREEN LED OK	RED LED FAULT
	2. DC VOLTAGE	GREEN LED OK	RED LED LOW VOLTAGE
	3. P _o (W)	GREEN LED OK	RED LED P _o OUT OF RANGE
	4. AC MAINS	GREEN LED OK	RED LED AC MAINS FAULT
	<i>Note: Up to 12 optional alarms are available</i>		

LOCAL/FRONT PANEL CONTROL

The front panel is divided into several sections as follows:

1. MODULATOR MONITOR AND ALC CONTROLER

All the remote monitoring and controls shown on the Web GUI are also displayed here for local viewing and diagnostics. The monitor also serves to display power levels while making power adjustments using ALC MANUAL mode. Once the power level is set, selecting ALC AUTO, it will hold that level.

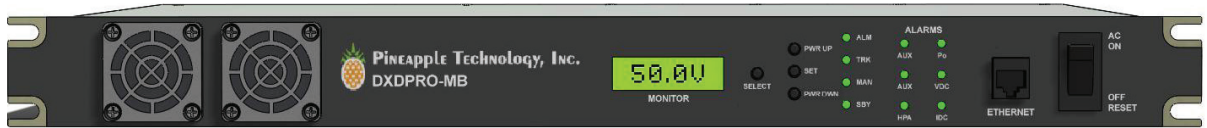
2. ALARM STATUS

The key alarm features are displayed on the front panel and on the Web GUI. Green LED indicates normal operation and RED indicates a fault.

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FRONT PANEL DISPLAY



REAR PANEL



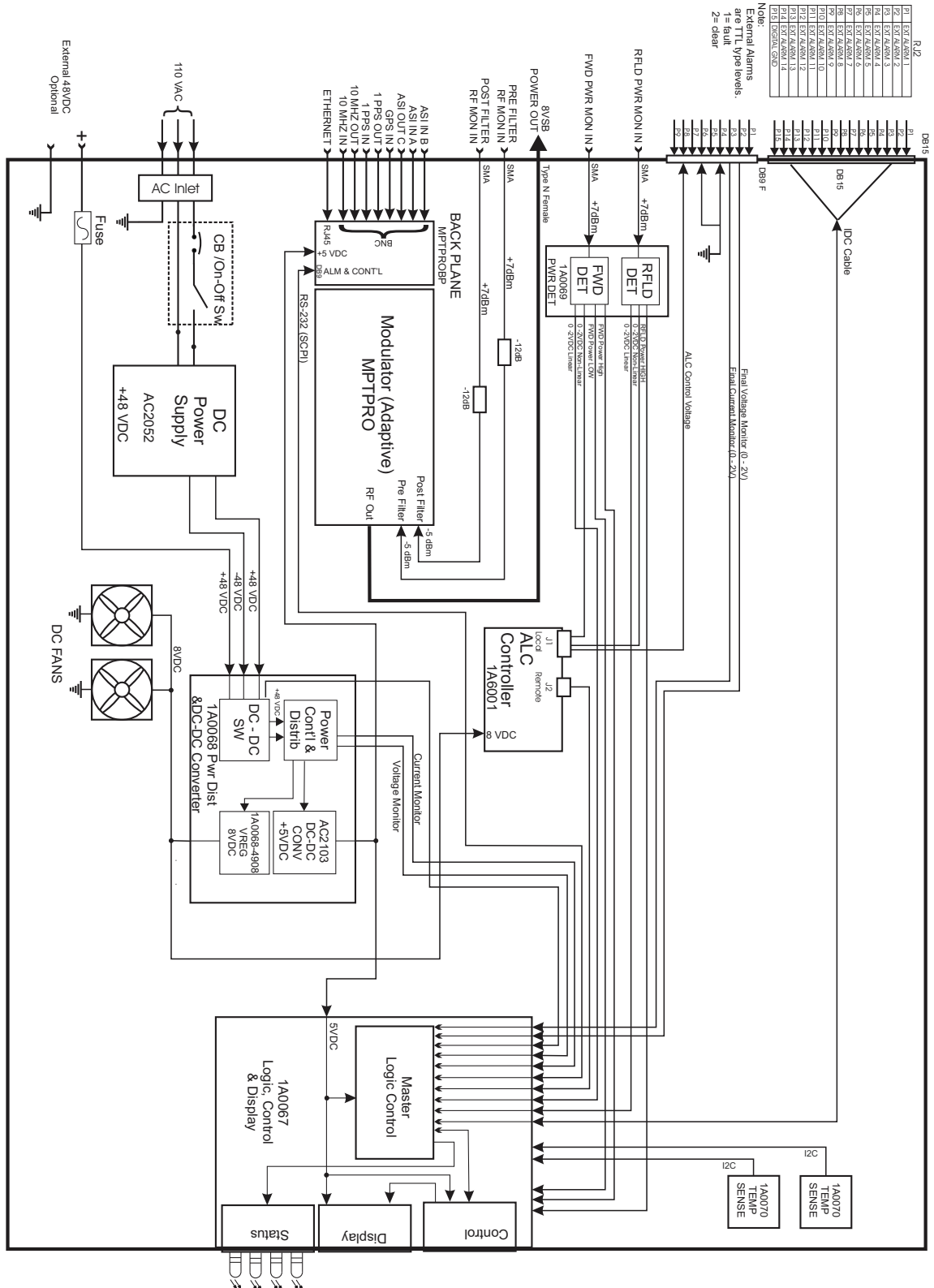
WEB PAGE GUI

Advanced Digital Modulator
DXDPRO0 TS-ID:0 **PINEAPPLE**

Channel ID	Status
S-A/N-1 0123456789012345678901234	OK ALARM
S-A/N-2 0123456789012345678901234	OK ALARM
S-A/N-3 0123456789012345678901234	OK ALARM
S-A/N-4 0123456789012345678901234	OK ALARM
S-A/N-5 0123456789012345678901234	OK ALARM
S-A/N-6 0123456789012345678901234	OK ALARM
S-A/N-7 0123456789012345678901234	OK ALARM
S-A/N-8 0123456789012345678901234	OK ALARM
S-A/N-9 0123456789012345678901234	OK ALARM
S-A/N-10 0123456789012345678901234	OK ALARM
S-A/N-11 0123456789012345678901234	OK ALARM
S-A/N-12 0123456789012345678901234	OK ALARM

SYSTEM Clear Apply

DXDPRO-MB BLOCK DIAGRAM



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