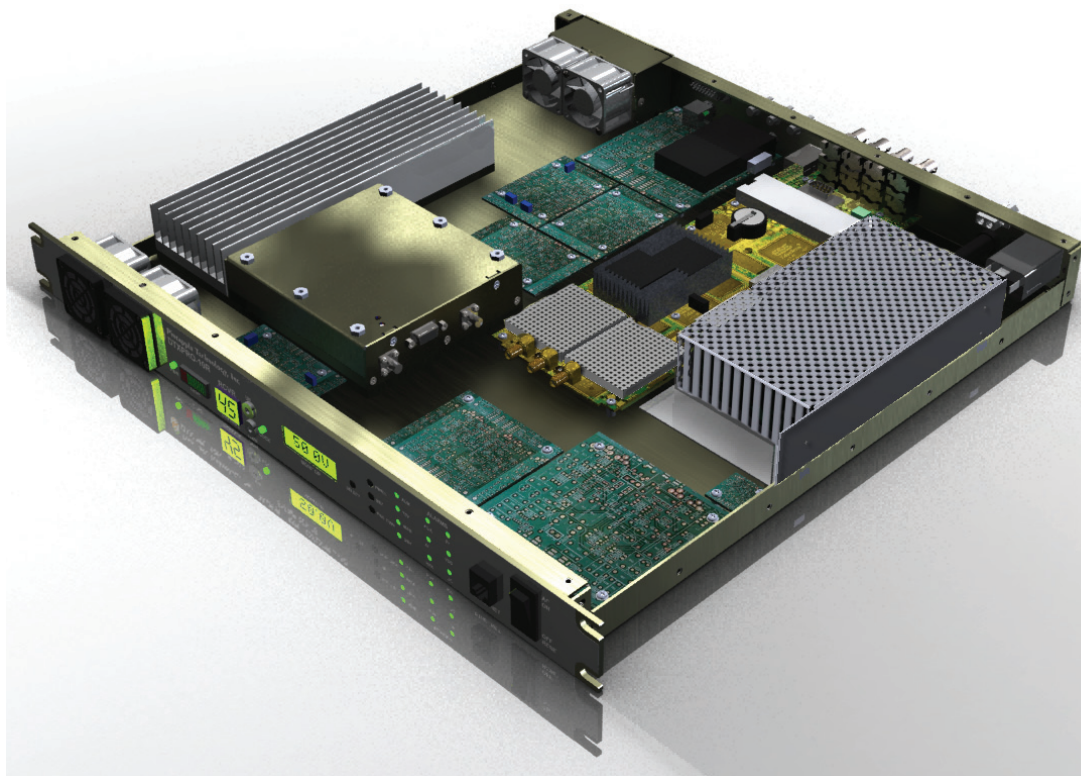


DXDPRO-MBR DIGITAL MODULATOR

BASE MODULATOR FOR
DIGITAL TRANSLATORS
AND UPGRADES



INTRODUCTION

The DXDPRO-R and DXDPRO-10R lines of digital translators 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.

The built-in receiver uses a high performance module used in today's high performance receivers. An FPGA demodulates the 8vsb signal and converts it to an ASI transport stream. The receiver includes an equalizer to insure HD performance quality. The front panel displays receiver channel, signal level, with LOCK LED indicator. All frequencies, from Channel 2 thru 69, are covered.

The modulator reprocesses the signal 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

DXDPRO-MBR DIGITAL MODULATOR

BASE MODULATOR FOR DIGITAL TRANSLATORS AND UPGRADES

GENERAL SPECIFICATIONS FOR MODULATOR

- STANDARDS ATSC: A/53, A54, SMPTE-310M DVB-ASI
- TS OPTIONS..... ASI OR SMPTE-310M
- FREQUENCY VHF 50-220 MHz and 470-860 MHz
- GPS RECEIVER.....ACTIVE (Antenna Required)
- CLOCK STABILITY..... <2 ppm or GPS LOCK
- MODULATOR 8 level VSB trellis ATSC Compliant
- CORRECTION..... AUTO LINEAR and NON LINEAR
- ETHERNET CONNECTION WITH WEB GUI PROVIDED
- PASSWORD PROTECTED

MODULATOR SPECIFICATIONS

- POWER OUTPUT 0 dBm avg, 8vsb
- IMD Shoulders >55dB FCC Spec
- MER/SNR 40 dB Typical
- PPRIMARY POWER AC 110 VAC
- PRIMARY POWER DC..... 44-52 VDC <2.5 AMPS
- CHASSIS DEPTH 17 Inches
- WEIGHT..... 8 Lbs.
- REMOTE CONTROL VIA ETHERNET
- 19-INCH ONE (1) RU RACK MOUNTING
- COMPLIES WITH FCC STANDARDS

MODULATOR REMOTE CONTROL AND MONITOR FEATURES INCLUDED

CONTROL	TRANSMITTER	XMTR MUTE	ON/OFF
MONITOR	TRANSMITTER	POWER OUTPUT	(%) PERCENT RATED POWER
	TRANSMITTER	REFLECTED POWER	(%) PERCENT REFLECTED POWER
	SUPPLY VOLTAGE	DC VOLTAGE	VOLTS (XXXX.X)
	SUPPLY CURRENT	DC CURRENT	AMPS (XXXX.X)
ALARMS	1. HPA TEMP.	GREEN LED OK	RED LED FAULT
	2. DC VOLTAGE	GREEN LED OK	RED LED LOW VOLTAGE
	3. Po (W)	GREEN LED OK	RED LED Po OUT OF RANGE
	4. AC MAINS	GREEN LED OK	RED LED AC MAINS FAULT

TRANSLATOR SPECIFICATIONS

FREQUENCY RANGE	50-860 MHz
OUTPUT TO MODULATOR	ASI
FRONT PANEL REQUENCY SELECTOR	
HIGH SENSITIVITY RECEIVER WITH EQUALIZER	

OPTIONAL EQUIPMENT

MODEL	AVAILABLE APPLICATION
DTX100-50 (U/VHF)	10-50 W TRANSMITTER MF
DTX100-100 (U/VHF)	50-100 W TRANSMITTER MF

LOCAL/FRONT PANEL CONTROL

The front panel is divided into several sections as follows:

1. RECEIVER CONTROL AND DISPLAY

The receiver control sets the channel and monitors the signal strength and lock. The channel selectors will allow for tuning on channel between Channels 2 and 69 to receive 8vsb digital signals.

2. TRANSMITTER MONITOR AND ALC CONTROLER

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

3. 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
DXDPR0

TS-ID:0

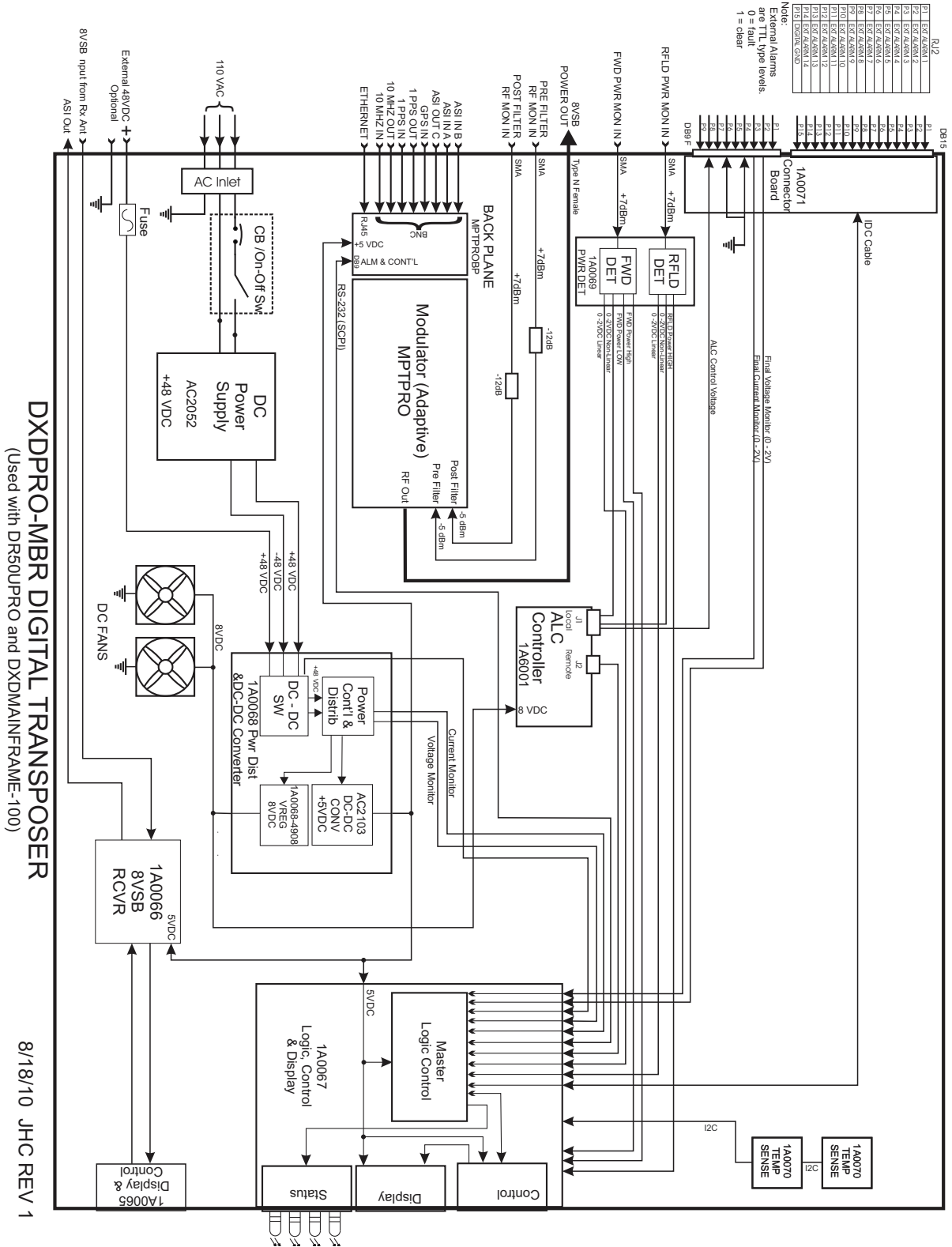
PINEAPPLE

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

SYSTEM

Clear Apply

DXDPRO-MBR BLOCK DIAGRAM



DXDPRO-MBR DIGITAL TRANSPOSER
(Used with DR50UPRO and DXDMAINFRAME-100)

8/18/10 JHC REV 1



PINEAPPLE TECHNOLOGY, INC.

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