DTXPRO-10VHR
DIGITAL TRANSPOSER

DIGITAL MODULATOR, REPROCESSOR, AND REMOTE CONTROL

Proud to be
an American Company

INTRODUCTION

The DTXPRO-10VHR transmitter integrates a DIGITAL MODULATOR, 8vsb (ATSC COMPLIANT) all channel RECEIVER, LDMOS HPA AMPLIFIER, and remote control via ETHERNET. The receiver output is an ASI transport stream that can be feed into the modulator for reprocessing or to external equipment to be multiplexed with other ASI streams to build a virtual channel inventory to be transmitted over the air with a single transmitter. The transmitter HPA uses LDMOS device technology for state-of-the-art performance. The Modulator has a built in WEB PAGE GUI which can be accessed via an Ethernet connection. The auto or manual LINEAR AND NON LINEAR ADAPTIVE CORRECTION can be adjusted via the Ethernet. With the remote monitoring and alarms features the station service engineer can be notified of selected faults in the system via email. A GPS receiver is included for high stability operation which may be required by the FCC in some applications. To activate this feature a GPS antenna is required.

The transmitter comes packaged in a 13 RU 19 inch rack. This rack includes Modulator, PA section, Mask filter, couplers, circulator + termination, and LP Harmonic filter. The output antenna connection is type N Female.

Pineapple Technology, Inc. warrants the DTXPRO LINE of transmitter products for 2 years from ship date. Extended warranty is available for an additional 5 years. Contact PTI sales for details.

DTXPRO-10VHR DIGITAL TRANSPOSER

DIGITAL MODULATOR, REPROCESSOR, AND REMOTE CONTROL

GENERAL SPECIFICATIONS — MODULATOR

STANDARDS.....ATSC (8vsb), A/53, AS
MODULATION.....8 LEVEL VSB TRELLIS ATSC COMPLIANT
ADAPTIVE CORRECTION....LINEAR & NON LINEAR CORRECTION
TS OPTIONS.....ASI OR SMPTE-310M
CLOCK STABILITY.....<2ppm (GPS LOCK AVAILABLE)
CONTROL.....ETHERNET WITH WEB PAGE GUI
ACCESS PROTECTION.....THREE-LEVEL PASSWORD PROTECTION

GENERAL SPECIFICATIONS — RECEIVER

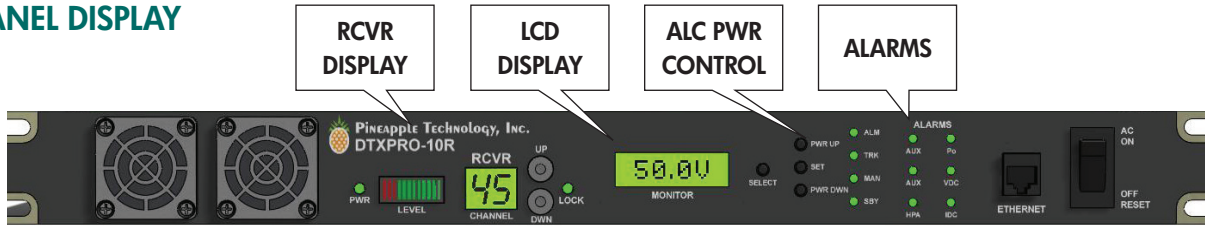
TUNABLE RANGE..... CHANNEL 2 THRU 69
OUTPUT..... ASI TRANSPORT STREAM
STANDARD RECEIVER..... WITH EQUALIZER AS USED IN HOME TV SETS
CONTROL VIA FRONT PANEL....CHANNEL SELECTION WITH LCD DISPLAY
SIGNAL STRIENGTH METER WITH LCD DISPLAY
SIGNAL LOCK LED

GENERAL SPECIFICATIONS — TRANSMITTER

FCC COMPLIANT..... APPLICABLE SERVICE REQUIREMENTS
KEY PERFORMACE TEST ..... SHOULDER LEVELS -62 dB TYPICAL
MER/SNR -35 dB TYPICAL
FREQUENCY RANGE..... *176-220 MHz
RF OUTPUT POWER ..... 10 WATTS
MASK FILTER..... 6 POLE STRINGENT FCC MASK
LOW PASS FILTER..... ADDITIONAL HARMONIC SUPPRESSION FOR GPS BAND
PRIMARY POWER..... 110-220 VAC 50/60 CYCLE
48 VDC (42-50 V RANGE) <2.5 AMPS
REMOTE CONTROL ..... 12 STATUS AND 12 ALARM OPTIONS
ASSEMBLIED RACK ..... 19 INCH 1 RU RACK
WIDTH ..... 21 INCHES (534 mm)
HEIGHT ..... 25 INCHES (635 mm)
DEPTH..... 24.5 INCHES (623 mm)
WEIGHT..... < 80 LBS (36.3 Kg)

**Frequency range limited by external equipment i.e., filters and isolators. This can be modified and or returned if it becomes necessary to change channels.*

FRONT PANEL DISPLAY



RECEIVER DISPLAY (RCVR DISPLAY): This section is used to display signal level and selected channel. The channels are changed using the up/dwn switches. The lock LED will indicate when the receiver is locked and the level displayed. Once locked the ASI transport stream is feed to the modulator for processing.

LCD DISPLAY: The LCD DISPLAY provides selected transmitter test data by depressing the SELECT switch located on the right side. Some of the options include the following:

1. RF POWER OUTPUT LEVEL
2. REFLECTED POWER LEVEL
3. DC SUPPLY VOLTAGE
4. DC CURRENT

ALC CONTROL PANEL: The ALC section serves two important functions:

1. Provides a means for raising or lowering transmitter power level.
2. Once the desired power level is reached, the set switch places the ALC circuit in the TRACK MODE. In the TRACK MODE, THE OUTPUT LEVEL IS CONSTANT.

ALARM PANEL: The alarm LEDs indicates status of key alarms. Key alarms include the following:

1. LOW OUTPUT POWER .....NORMAL (GREEN) FAULT (RED)
2. HIGH REFLECTED POWER.....NORMAL (GREEN) FAULT (RED)
3. 48 VDC SUPPLY.....NORMAL (GREEN) FAULT (RED)
4. AC MAIN POWER.....*NORMAL (GREEN) FAULT (RED)

**48 VDC BACKUP POWER REQUIRED*

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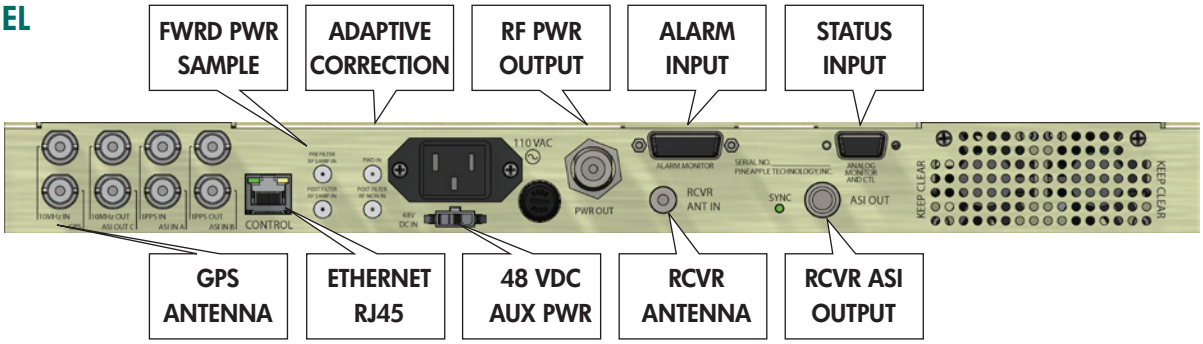
REAR PANEL



Matching Connectors

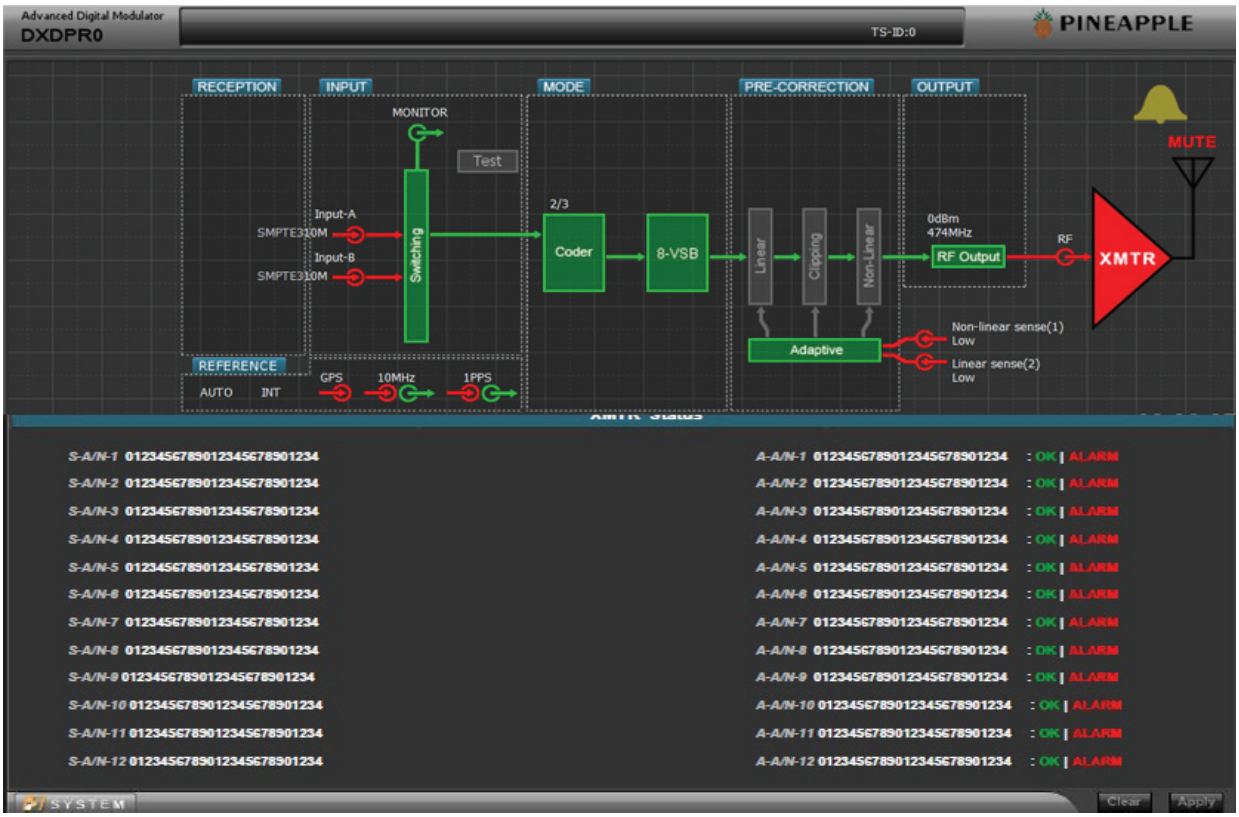
BNC JACK 75 OHMS ..... GPS, ASI IN, SMPTE-310
ETHERNET RJ-45
RF MONITORING ..... SMA JACK
ADAPTIVE SIGNAL ..... SMA JACK
RF OUTPUT ..... N JACK

RECEIVER ANTENNA ..... TYPE F JACK
ALARM INPUTS ..... DB 15 JACK
ANALOG STATUS ..... DB 9 JACK
48 VDC INPUT ..... MOLEX 3P

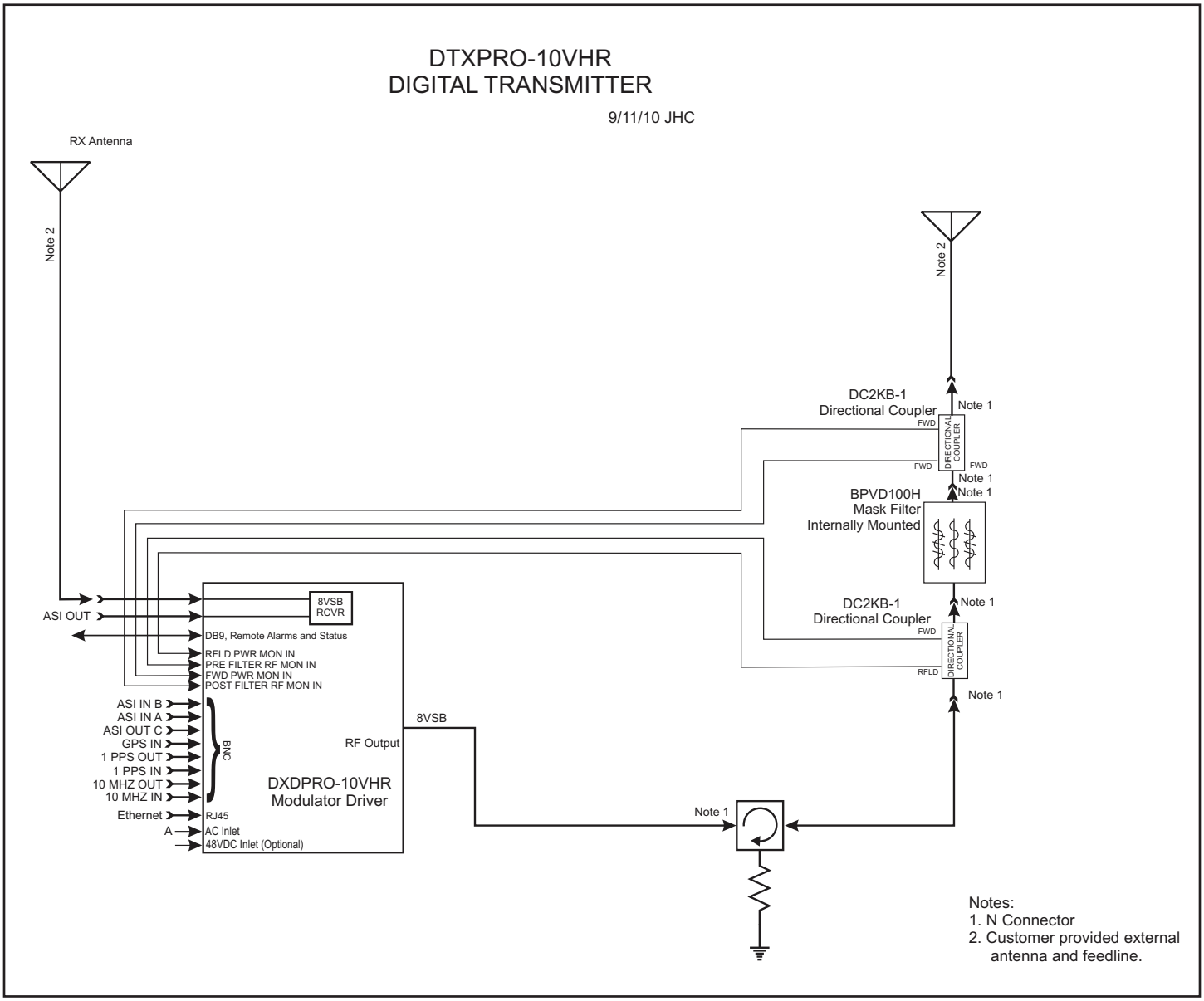
WEB PAGE GUI

Web Page Commands

Click and drag (XMTR ICON) to lower ½ page to see status and alarms
Click and drag (LINEAR ICON) to lower ½ page to control linear correction
Click and drag (NONLINEAR ICON) to lower ½ page to control nonlinear functions
Click and drag (MUTE ICON) to lower ½ of page to mute and un mute xmtr
Click and drag (RF OUTPUT) to change the output level from modulator
Click and drag (BELL ICON) to view modulator alarms
Click and drag (GPS ICON) to setup GPS receiver
Click and drag (SWITCHING ICON) to select input port for ASI or SMPTE-310



DTXPRO-10VHR DIGITAL TRANSPOSER BLOCK DIAGRAM
Digital Modulator, Reprocessor, and Remote Control



PINEAPPLE TECHNOLOGY, INC.

Web site: www.ptibroadcast.com

4231 Pacific Street, Suite 27, Rocklin, CA 95677

(916) 652-1116 . Fax: (916) 652-1161
U.S. Toll-free (888) 888-8229