

THREE YEAR LIMITED WARRANTY

R.L. DRAKE COMPANY warrants to the original purchaser this product shall be free from defects in material or workmanship for three (3) years from the date of original purchase.

During the warranty period the R.L. DRAKE COMPANY or an authorized Drake service facility will provide, free of charge, both parts and labor necessary to correct defects in material and workmanship. At its option, R.L. DRAKE COMPANY may replace a defective unit.

To obtain such warranty service, the original purchaser must:

- (1) Retain invoice or original proof of purchase to establish the start of the warranty period.
- (2) Notify the R.L. DRAKE COMPANY or the nearest authorized service facility, as soon as possible after discovery of a possible defect, of:
 - (a) the model and serial number,
 - (b) the identity of the seller and the approximate date of purchase; and
 - (c) A detailed description of the problem, including details on the electrical connection to associated equipment and the list of such equipment.
- (3) Deliver the product to the R.L. DRAKE COMPANY or the nearest authorized service facility, or ship the same in its original container or equivalent, fully insured and shipping charges prepaid.

Correct maintenance, repair, and use are necessary to obtain proper performance from this product. Therefore carefully read the Instruction Manual. This warranty does not apply to any defect that R.L. DRAKE COMPANY determines is due to:

- (1) Improper maintenance or repair, including the installation of parts or accessories that do not conform to the quality and specifications of the original parts.
- (2) Misuse, abuse, neglect or improper installation.
- (3) Accidental or intentional damage.

All implied warranties, if any, including warranties of merchantability and fitness for a particular purpose, terminate three (3) years from the date of the original purchase.

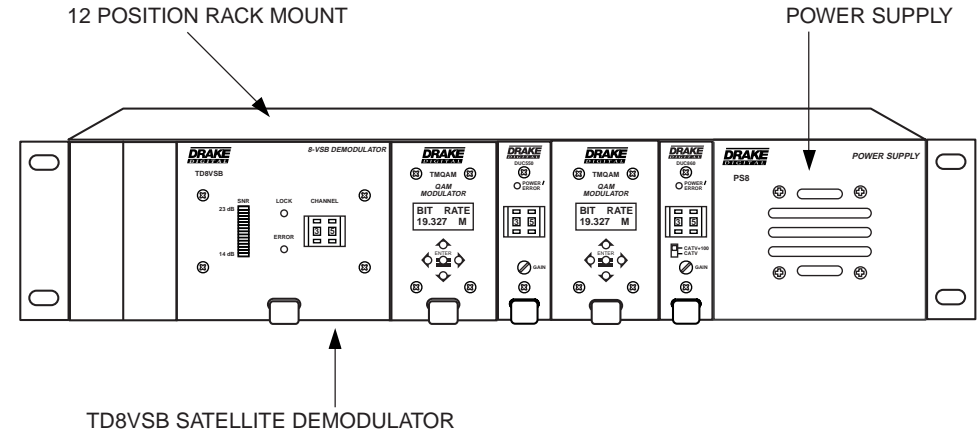
The foregoing constitutes R.L. DRAKE COMPANY'S entire obligation with respect to this product, and the original purchaser shall have no other remedy and no claim for incidental or consequential damages, losses or expenses. Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusions or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. This warranty shall be construed under the laws of Ohio.



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The R.L. Drake model TD8VSB Terrestrial Demodulator is a professional quality modular digital headend component designed to provide optimum performance with minimized rack space requirements. This demodulator receives an 8VSB signal from a terrestrial broadcast station and demodulates the signal providing an MPEG-2 digital transport stream output .

This output stream will be stripped of the Forward Error Correction (FEC) added to the stream before it was uplinked. If the original MPEG-2 stream was not scrambled or is not to be descrambled at the headend, the output is ready for further processing. The most common operations would be decoding (which includes decompression) into base band analog video & audio signals or remodulation for cable delivery using a QAM modulator.

Four separate SPI outputs are provided on the TD8VSB. If connected to up to four decoders, up to four separate programs may be decoded into analog NTSC using one TD8VSB. Only one output is needed to interface to the TMQAM to translate the 8VSB to QAM.

FRONT PANEL CONTROLS AND INDICATORS

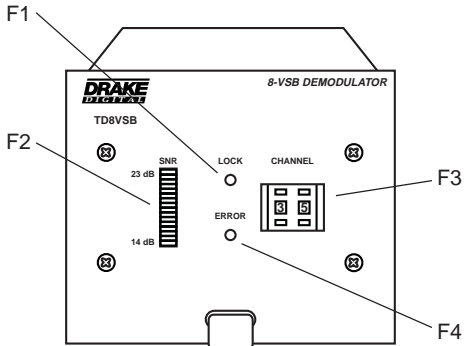


Figure 1

F1 - LOCK

This indicator shows that the selected channel is transmitting an 8VSB signal and the demodulator has locked to it.

F2 - LED Signal-to-Noise Ratio Meter

Indicates the signal-to-noise ratio of the received signal. Approximately 15 dB is a minimum level required for lock. For reliable long term operation, SN ratio should be several dB above this minimum.

F3 - CHANNEL Selector Switch

This switch is used to enter the two digit broadcast TV channel number.

F4 - ERROR

This indicator shows that the FEC is not able to correct all errors in the received signal. Check for a low signal-to-noise ratio or multipath reflections if errors occur.

REAR PANEL CONNECTIONS

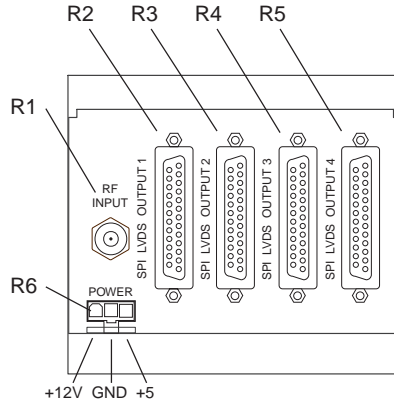


Figure 2

R1 - RF INPUT

This "F" type connector is the input for the off-air signal. VHF channels fall between 54 and 216 MHz and UHF channels are located between 470 and 806 MHz.

R2 through R5 - 25 Pin SPI LVDS OUTPUT Connectors

This is the MPEG2 transport stream output - DVB Synchronous Parallel Interface. The levels comply with low voltage differential signalling specifications. Four identical outputs are provided.

R6 - DC Power Connector

This is the power input connector. Connect to a Drake PS8 or equivalent power supply.

INSTALLATION

CONNECTIONS AND CONTROLS

All connections to and from each module are made through the rear panel. Refer to Figure 4 for correct cable and wiring connections in a typical 8VSB to QAM installation.

The DRMM12 frames should be spaced apart vertically by at least 1 3/4" wherever possible. Air movement is mandatory in enclosed rack cabinets. Excessive heat will shorten component life and modulator performance will be degraded without proper cooling.

RACK MOUNTING

Adequate ventilation is very important in multichannel installations.

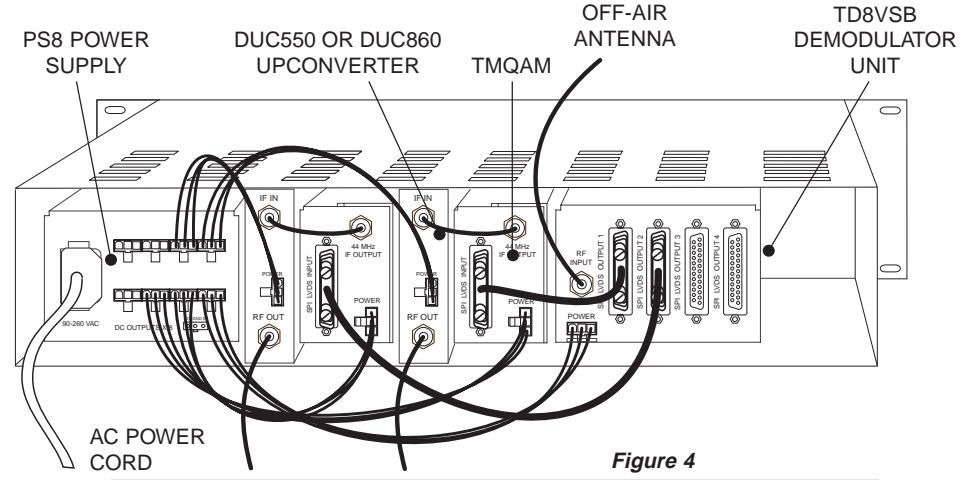


Figure 4

SPECIFICATIONS

RFTUNER

- Input Frequency: 54-806 MHz, Broadcast channels 2-69.
- Optimum Input Level: -6 dBmV to +15 dBmV.
- Input Impedance: 75 Ohms.
- First LO Frequency: 1051.25-1855.25 MHz.
- First IF Frequency: 994.25 MHz (digital center).
- Second LO Frequency: 950.25 MHz.
- Second IF Frequency: 44 MHz.
- Demodulation Standard: 8-VSB according to ATSC A/53.

Outputs

- Transport Stream: Parallel Output according to DVB SPI.
- Connectors: Four DB25 Female.
- Levels: LVDS, (Low Voltage Differential Signaling).
- Byte Clock Frequency: 5.38 MHz.
- Time During Which Data Valid is High: 34.9 µsec.

General

- DC Power Requirement: 5 VDC @ 680 mA, 12 VDC @ 240 mA.
- Size: 4.2" W x 3.5" H x 8.38" D, (10.7 cm W x 8.9 cm H x 21.3 cm D).
- Weight: 1 lb.14 oz. (0.85 Kg).

The TD8VSB is designed to mount into the DRMM12 rack mounting enclosure. The TD8VSB is four units wide. Power for the TD8VSB should be supplied by the model PS8 power supply module which also mounts into the DRMM12.

Pin Out DVB SPI Interface

