

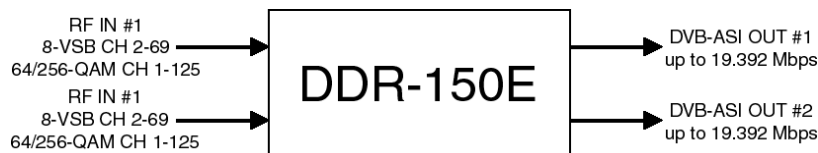
DDR-150E Dual Digital Receiver



Product Features

- Demodulates 2 independent 8-VSB input signals to 2 independent DVB-ASI output signals
- User can modify the PSIP VCT for each independent 8-VSB input
- VCT Modification Includes:
 - Major Channel #
 - Minor Channel #
 - Station ID
 - Transport Stream ID
- All user configured settings are saved in memory in case of power failure or power-off
- Upon power-up, unit will display the last menu before power-off and if necessary update the VCT from memory
- Outputs are DVB Compliant MPEG-2 Transport Streams
- Output Transport Stream Rate is up to 19.392 Mbps
- Two 8-VSB Inputs that accept RF Channels 2–69, 64/256-QAM CH1- CH125
- Two DVB-ASI Transport Stream Outputs
- Control via RS232 or Front Panel Interface
- Loss of Transport Stream Alarm
- 1U 19" Rack Mountable

Description



The DDR-150E is an 8-VSB Demodulator that outputs ATSC Compliant DVB-ASI transport streams. The unit accepts up to two 8-VSB RF inputs and outputs two independent DVB-ASI transport streams, one for each RF input. This cost effective and space saving unit allows users to have two separate 8-VSB receivers in one box. The DDR-150E also allows the user to modify the PSIP VCT's Station ID, Major and Minor Channel Numbers.

The signal flow through the DDR-150E is shown below in Figure 3-1.

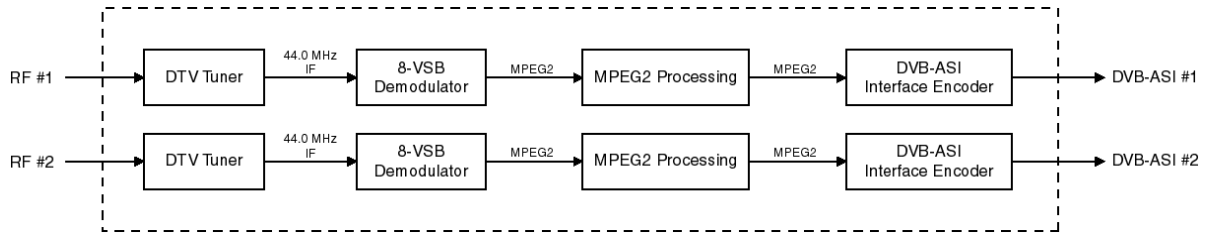


Figure 3-1: Functional Block Diagram of the DDR-150E

DTV Tuner

The DTV Tuner accepts an 8-VSB or 64/256-QAM RF signal and down converts it to a 44.0 MHz IF signal. The DTV Tuner accepts 8-VSB RF signal inputs for VHF/UHF channels #2-69, and 64/256-QAM RF signal inputs for CATV channels #1-125.

8-VSB and 64/256-QAM Demodulator

The 8-VSB and 64/256-QAM Demodulator demodulates the 44.0 MHz IF signal into an MPEG2 baseband signal. Its equalizer and Reed Solomon decoding techniques help correct channel multipath errors. It also performs digital matched filtering to optimize performance over noise.

Baseband Processing

The baseband processing consists of PSIP modification, where the TSID and VCT's STID, Major & Minor Channel Numbers are modified within the stream.

Interface Encoders

The Interface Encoder transforms the MPEG2 signal into the DVB-ASI I/O Interface Standard. The DVB-ASI is available at the ASI Output on the back panel and at the ASI Testpoint on the front panel.

Front Panel

The front panel of the DDR-150E is shown below in Figure 4-1.

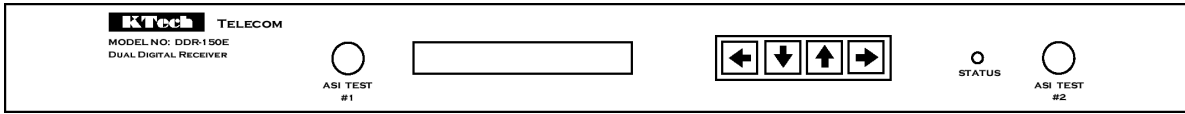


Figure 4-1: Front Panel of the DDR-150E

Signal	Connector
ASI Test #1	BNC
ASI Test #2	BNC

Back Panel

The back panel of the DDR-150E is shown below in Figure 4-2.

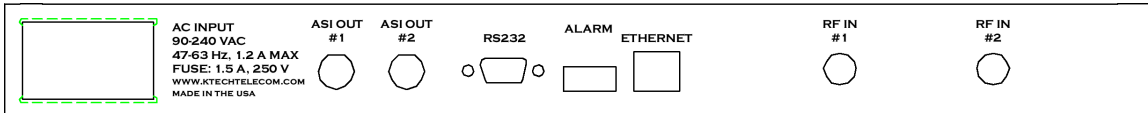


Figure 4-2: Back Panel of the DDR-150E

Signal	Connector
DVB-ASI Output #1	BNC
DVB-ASI Output #2	BNC
RS232	DSUB 9 Socket
Alarm	3 terminal Phoenix
Ethernet	RJ45
RF Input #1	75Ω F
RF Input #2	75Ω F

Specifications

	Specification	Comments
AC Power		
Voltage	90-240 VAC	
Frequency	50/60 Hz	
Current	0.1A Max	
Operating Conditions		
Temperature	0°-50°C	Ambient temperature
Altitude	10,000 ft	Max
Humidity	95%	Non-condensing
Cooling	Blower	Located on side of unit
Weight		
Net	8 lbs.	
Gross	10 lbs.	Shipping weight
Dimensions		
Height	1.75"	
Width	19"	
Depth	18"	
Panel Space	1RU	
Inputs		
RF IN #1	USA CH 2-69, 64/256-QAM CH1-CH125	8-VSB signal or 64/256-QAM
RF IN #2	USA CH 2-69, 64/256-QAM CH1-CH125	8-VSB signal or 64/256-QAM
Outputs		
ASI OUT #1	Up to 19.392 Mbps	DVB Compliant MPEG2 TS
ASI OUT #2	Up to 19.392 Mbps	DVB Compliant MPEG2 TS
Front Panel		
Buttons	4 directional arrow keys	
Vacuum Fluorescent Display	4 lines by 20 characters	
RS232		
Baud Rate	9600	
Data Bits	8	
Parity	None	
Stop Bit	1	
Flow Control	None	
Connector	DB9	
RF Input		
Input Impedance	75Ω	
Input Connector	Type F	
Modulation Type	8-VSB	
RF Channel Bandwidth	6 MHz	
RF Sensitivity	>43.5 dBuV (UHF) >35.4 dBuV (VHF HIGH) >27.4 dBuV (VHF LOW)	

Ordering Information

Model Number	Description
DDR-150E	Dual Digital Receiver, (2) 8-VSB Inputs & (2) DVB-ASI Outputs

Additional Information at KTech Web Site: www.ktechtelecom.com

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