Digital Video Interfacing Products

AT660PCI

DVB-S2/S (QPSK) Satellite
Receiver & Recorder & TS Player
DVB-ASI & DVB-SPI outputs

Standard Features

- **PCI 2.2**, 32 bit, 33/66MHz 3.3V.
- Bus Master DMA, Scatter /Gather Interface Protocol.
- Windows XP, Vista, Win 7 (64bit) Drivers + SDK.
- Linux Drivers & sample application.
- Accompanied by DVSStaion3, Alitronika's Integrated TS Player, Recorder & Real Time Quick Analyser Software.
- Supports DVB Standards **A1010Rev1** and **EN50083.**

Input

- **Satellite DVB-S2/S Compliant QPSK Reception**.
- Input Frequency Range: 950 MHz to 2150 MHz.
- Symbol Rate: 2 Mbaud to 45 Mbaud.
- Channel Bitrate: 190Mbit/s
- Integrated RF Loop Through output.
- Sync, Error & Code Violation Detection.
- Support for Time Stamping, PID filtering.
- Supports 188 /204 byte Packet Sizes.

Output

- **Two** DVB-ASI and **One** DVB-SPI outputs.
- Programmable Output Bit Rate.
- Null Packet Insertion by hardware.

Application

Targeted for Digital Video Professionals, Sophisticated End Users and OEMs the AT660PCI is an ideal solution for A number of applications such as:

- Development Tools.
- DVB to IP or IP to DVB Gateway.
- Transport Stream Recording.
- Transport Stream Playing.
- Transport Stream Analysing
- Transport Stream Monitoring.
- Video on Demand Server.
- Transport Stream Test Generator.
- DVB-S to DVB-ASI & DVB-SPI converter hence replacing an IRD.
- Software Based decoding
- DVB-S TS for Tans-modulation into DVB-C or DVB-T/H

RF Input Specifications

Input Frequency Range: 950 MHz to 2150 MHz.
Input Symbol Rate: 2 Mbaud to 45 Mbaud.
Maximum Symbol Rate:
- QPSK/LDPC/BCH: 45MSPS
- 8PSK/LDPC/BCH: 30MSPS
- DVB: 2-45MSPS

DisEqc: DisEqC 2.X
Standards: DVB-S2/S & Direct TV
Demodulation Standard:
- DVB-S2
- DVB/DSS compliant.

Modulation Method:
- DVB-S:QPSK,
- DVB-S2: QPSK, 8PSK, 16APSK & 32APSK.

Supported Code Rate:
- QPSK:1/4,1/3,2/5,1/2,3/5,2/3,3/4,4/5,5/6,8/9,8/10.
- 8PSK:3/5,2/3,3/4,4/5,5/6,8/9,9/10.
- 16APSK:2/3,3/4,4/5,5/6,8/9,9/10.
- 32APSK:3/4,4/5,5/6,8/9,9/10.

Output Specifications

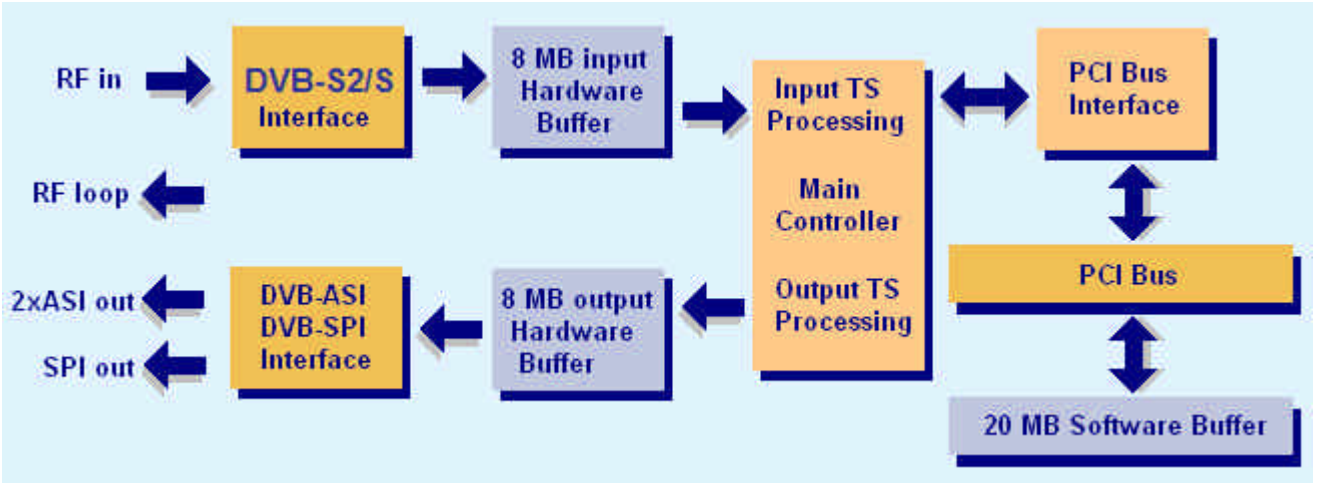
On Board Buffer: 16Mbytes
RF Tuner Connectors: 75 Ohms F Type.
Serial Connectors: 75 Ohms BNC
Parallel Connectors: 25-pin sub-D
DVB-ASI Output Bit Rate: 0 to 214 Mbit/s
DVB-SPI Output Bit Rate: 0 to 108 Mbit/s
Bit Rate Stability: +/- 25ppm
DVB-ASI Output Clock: 270 MHz
DVB-ASI Output Signal level: 1.0Vp-p nominal
DVB-SPI Output Clock: 0 to 13.5 MHz
DVB-SPI Output Level: LVDS
Size WxL: 175mm**x**107

1 GENERAL DESCRIPTION

A member of Alitronika's state of art digital video interfacing products.
The AT660PCI is a PCI based interface device suitable for Recording, Playing and Analyzing of DVB Transport Streams.

2 BLOCK DIAGRAM

FIG4 illustrates the block diagram of the AT660PCI device. The device communicates with the PC via the PCI interface device. On the input side, the RF signal is demodulated and then de-coded before entering the PC via the main controller and the PCI bus as Full TS files. On the output side, the MPEG-II transport streams enter the device via the PCI interface device. The AT660PCI then transmits the transport streams according to the settings provided by the application software. The data is 8b/10b encoded for DVB-ASI signals before it is serialized and transmitted via the BNC output connectors.



3 EXTERNAL INTERFACES

The external interfaces for the AT660PCI are shown. There are 2 Female 75 Ohms F type connectors for the RF input & Loop Through, 2 BNC connectors for the DVB-ASI outputs and a box header (seen in blue in the picture) for DVB-SPI output.
The Unit is supplied with a flat cable/D-type/ bracket combination for access to the DVB-SPI port.

The LED in the back of the unit function as follows:
OFF = Power is off/ device not activated
Flashing (Red) = Play /Record not activated – Error condition
ON (Green) = Normal operational condition
In Record mode this LED indicates that a Carrier has been detected and the device has locked to incoming TS.
In Play mode this LED indicates that the output section has valid TS (normal operating conditions).

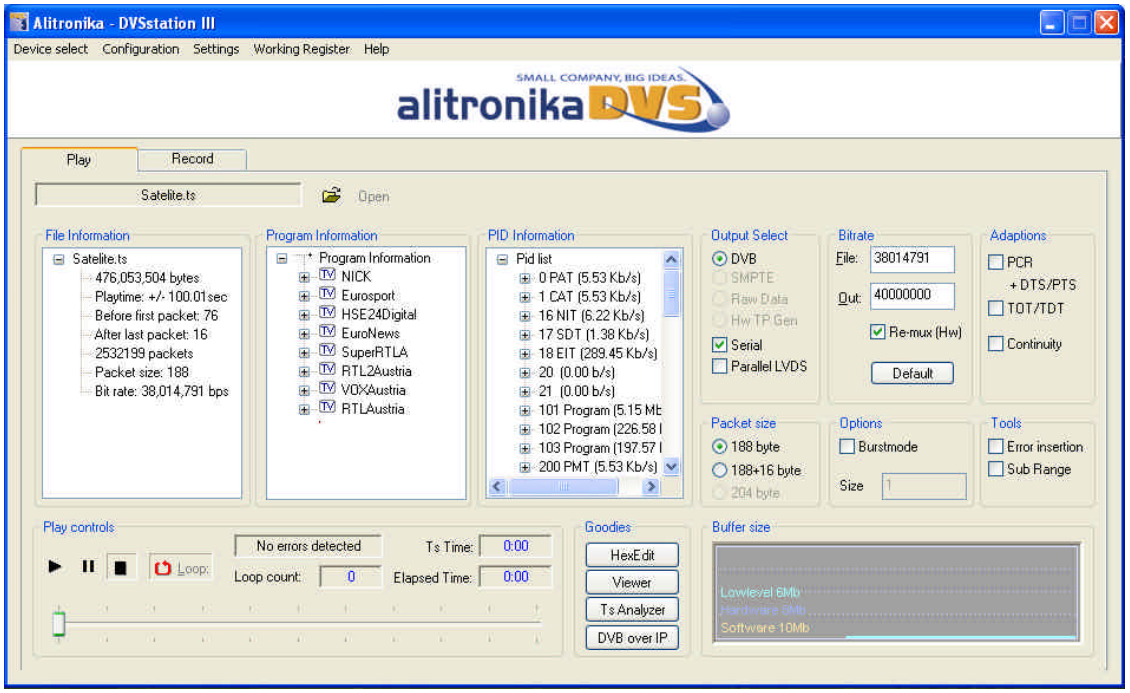
4 APPLICATION

Targeted for digital video professionals, sophisticated end users and OEMs the AT660PCI is an ideal solution for a number of applications such as, development tools, universal interface for MPEG-II Transport Stream Playing and Recording, video on demand server, transport stream test generator, high speed serial data link, software based MPEGII decoders & encoders and many other applications.

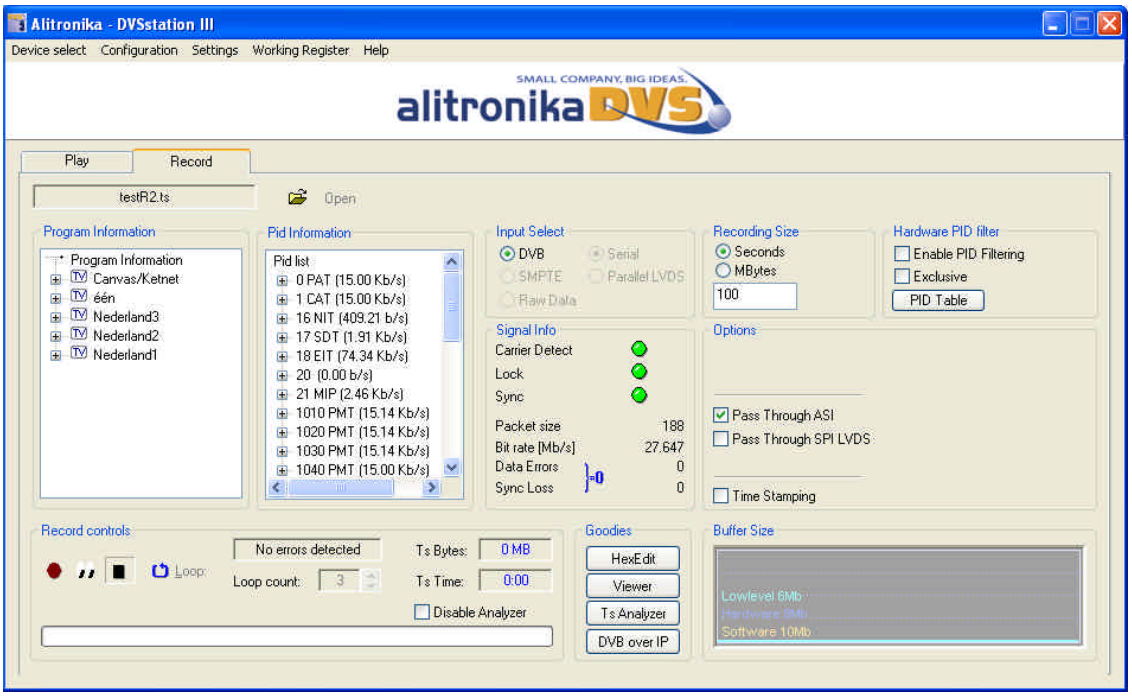
5 Software Application, DVSStation3

5.1 – DVSStation3: All of Alitronika devices are supported by DVSStation3, Alitronika's **FREE** Transport Stream Player, Recorder, Analyser & converter application software. Please refer to DVSStation3 specification and User Manual on our website for more information about DVSStation3. Even better please download it from our website & try it out. It works in DEMO mode without any Alitronika devices.

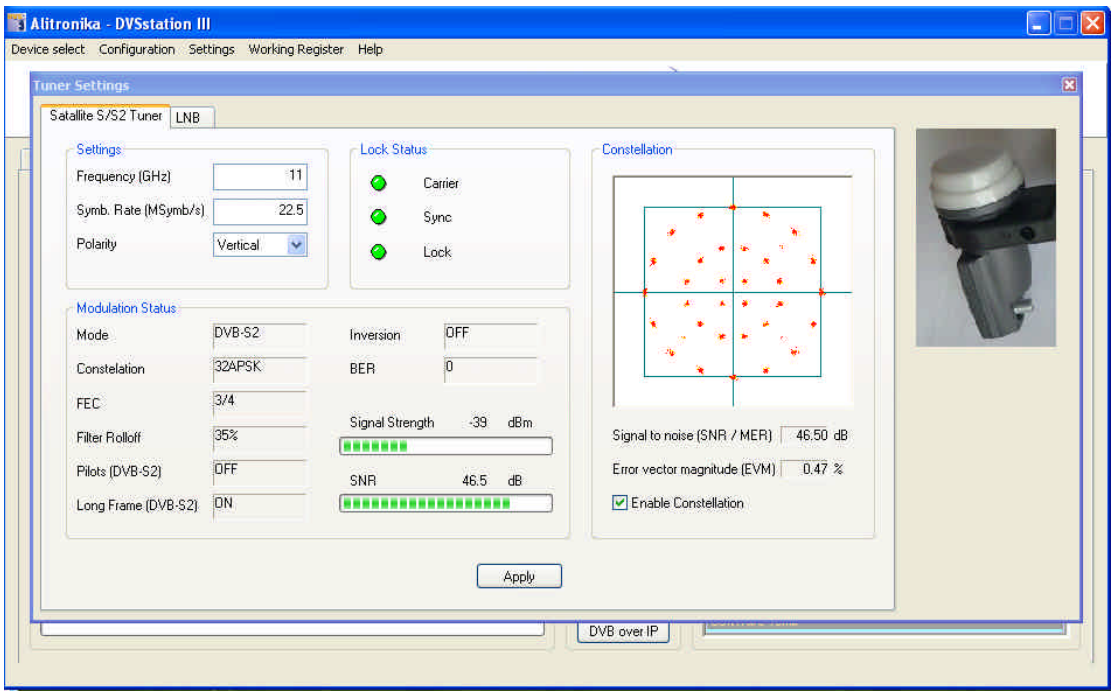
Play Screen



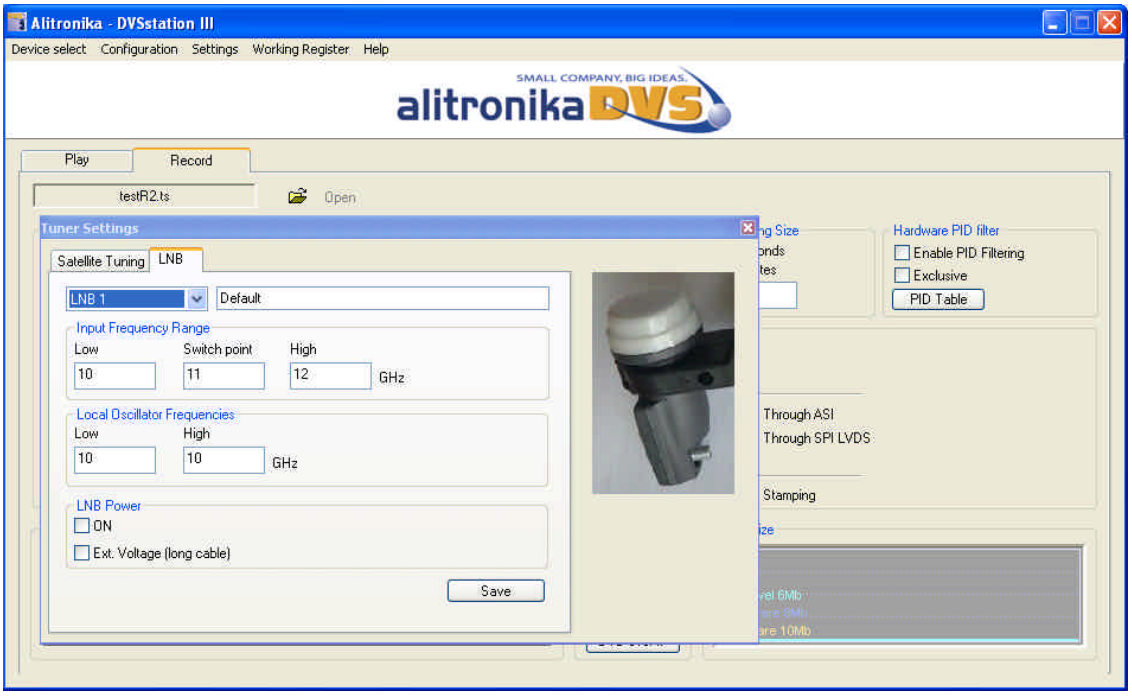
Record Screen



RF Tuner Settings



LNB Settings



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