

Digital Video Interfacing Products

AT278PCI

DVB-T/H/C, ATSC, ISDB-T Modulator
IF (VHF & UHF) Output



Standard Features

DVB-T/H/C Modulator with VHF & UHF Up converter.

- 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 According to Standard **A1010 Rev1** & **EN50083**.
- Modulation of Transport Stream files from Harddisk.
- Modulation of TS from the ASI or SPI inputs.
- All modulation processes are done by hardware so that there is no CPU load and there is no need for an expensive high performance PC.
- TPS flags to indicate TS contains MPE-FEC and/or Time slicing.
- Bitrates from 4.98 MB/s to 31.67 MB/s. for DVB-T/H and from 14 MB/s to 65 MB/s. for DVB-C.
- Supports Burst or continuous modes, 188 and 204 packet sizes.

Outputs:

RF Output.

Application

Targeted for Digital Video Professionals, Sophisticated End Users and OEMs, the AT278PCI is an ideal solution for a number of applications such as:

- Development Tools for DVB-T/H, DVB-C QAM A/B/C, ISDB-T and ATSC
- Receiver R&D.
- IP to DVB Gateway.
- DVB Transport Stream Generation.
- Stand alone DVB RF signal generator for Test & Validation.
- Demonstration and Trade Shows.
- DVB RF output for OEM product.

IF & RF Specifications

- **FEC Code Rates:** 1/2, 2/3, 3/4,5/6, 7/8.
 - **Spectral Inversion:** Both inverted and non-inverted.
 - **Guard Interval Modes:** 1/32, 1/16, 1/8 and 1/4.
 - **Channel Bandwidth:** 5MHz, 6MHz, 7MHz, 8MHz.
 - **Standards:** COFDM according EN 300 744.
- ### DVB-T/H Mode
- **COFDM Spectrum:** 2k, 4k and 8k carriers non-hierarchical.
 - **Modulation Modes:** QPSK, 16QAM and 64QAM.
- ### DVB- C Mode
- **Channel Bandwidth:** 6MHz, 8MHz.
 - **Standards:** QAM according EN 300 744.
 - **Modulation Modes:** 16QAM,32QAM,64QAM,128QAM,256QAM.
- ### ATSC 8-VSB Spec.
- **Channel Bandwidth:** 6MHz.
 - **Standards:** A/53 8-VSB.
- ### ISDT Spec.
- **Channel Bandwidth:** 6MHz
 - **Standards:** ARIB STD-B31

Specifications

- **On Board Buffer:** 8Mbytes
- **RF Connector:** 75 Ohms BNC.
- **RF O/P Frequency:** 50MHz to 1000MHz.
- **RF Output power:** +2dBm to -35dBm
- **Power Consumption:** 5 Watts
- **Size WxL:** 175mmx107

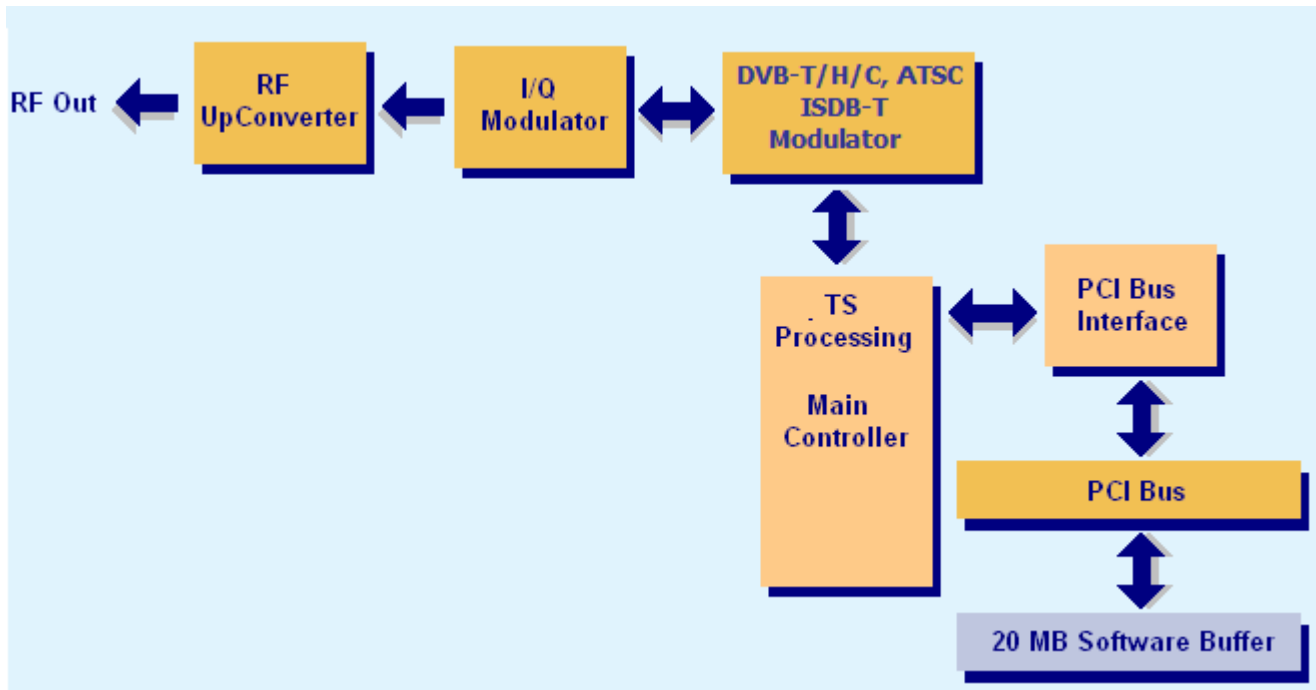
1 GENERAL DESCRIPTION

A member of Alitronika's state of art digital video interfacing products.

The AT278PCI is a PCI based interface device suitable for DVB-T/H/C, ATSC, ISDB-T Transport Stream Generation and full range VHF & UHF RF up conversion.

2 BLOCK DIAGRAM

The figure below illustrates the block diagram of the AT278PCI device. The device communicates with the PC via the PCI interface device. The AT278PCI is capable of modulating a DVB-T/H/C, ATSC, ISDB-T TS from the Harddisk of the PC. The modulated DVB-T/H/C, ATSC, ISDB-T is available on RF output. The modulation options, output frequencies and all other setting are done with the help of DVStation3.



3 EXTERNAL INTERFACES

The external interfaces for the AT278PCI are shown.

There is a BNC connectors for the RF output.

The LED on the unit function as follows:

OFF = Power is off/ device not activated

Flashing (Red) = Modulation not activated – Error condition

ON (Green) = Normal operational condition



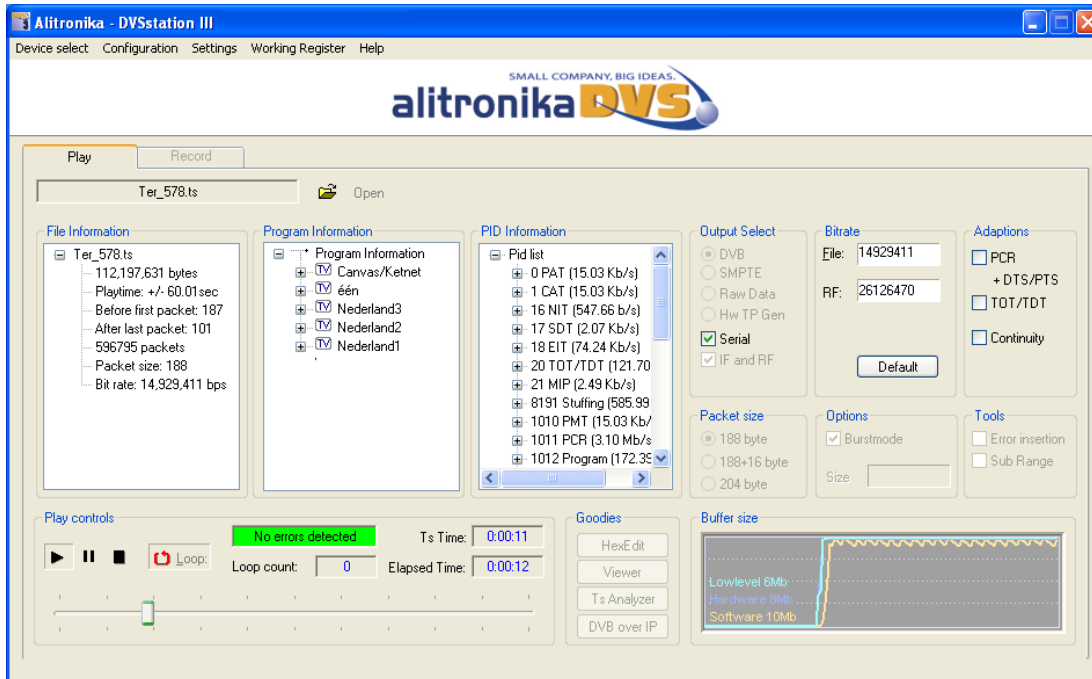
4 APPLICATION

Targeted for digital video professionals, sophisticated end users and OEMs the AT278PCI 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

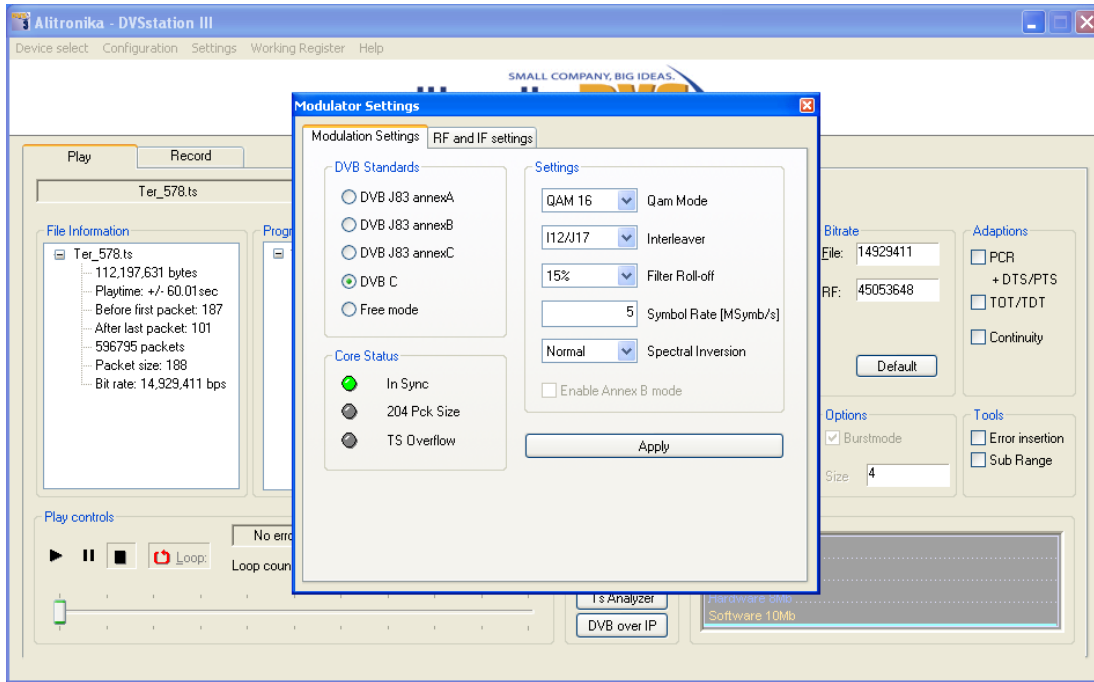
5 Software Application, DVStation3

5.1 – DVStation3: All of Alitronika devices are supported by DVStation3, Alitronika's **FREE** Transport Stream Player, Recorder, Analyser & Converter application software. Please refer to DVStation3 specification and User Manual on our website for more information about DVStation3. Even better please download it from our website & try it out. It works in DEMO mode without any Alitronika devices.

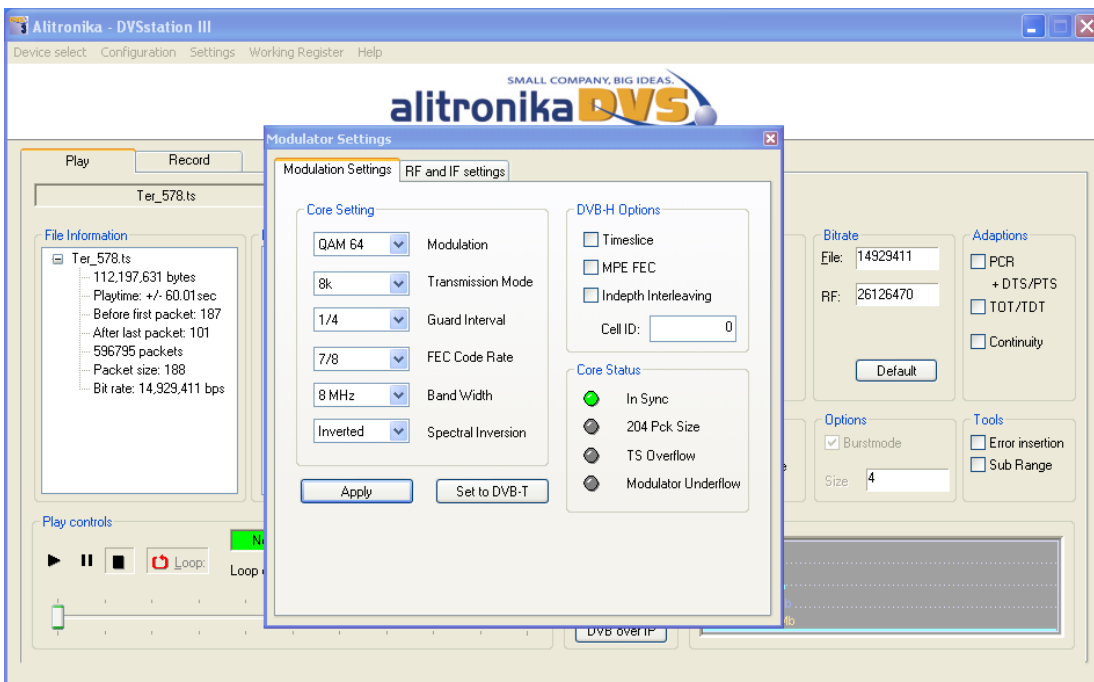
Play Screen



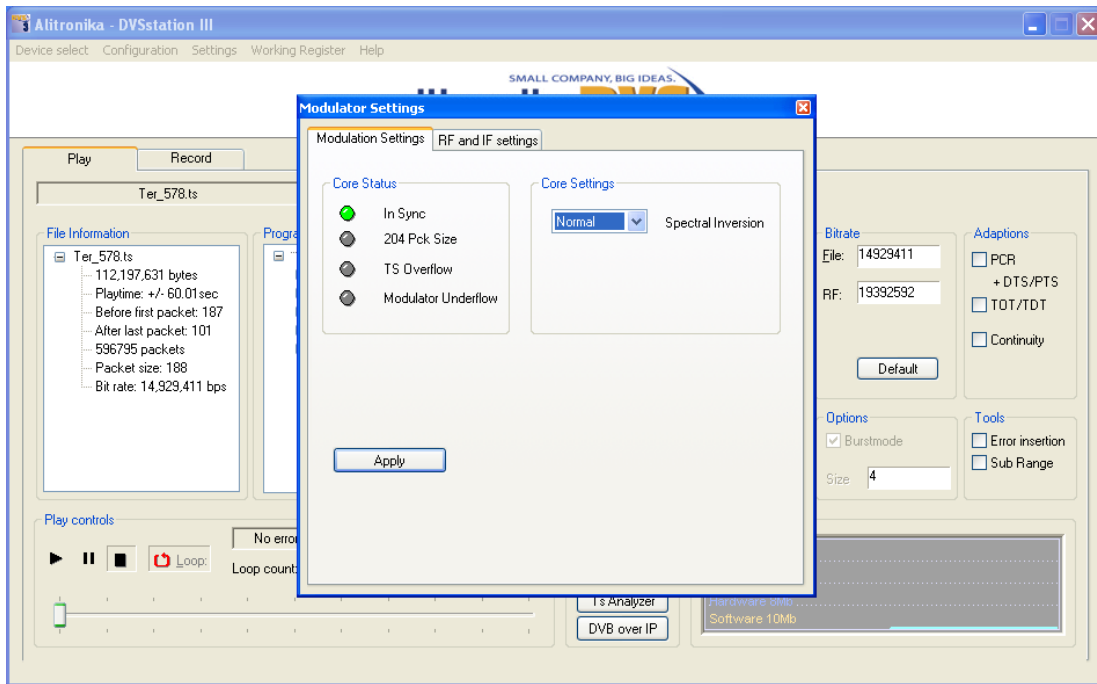
Modulation Settings DVB-C



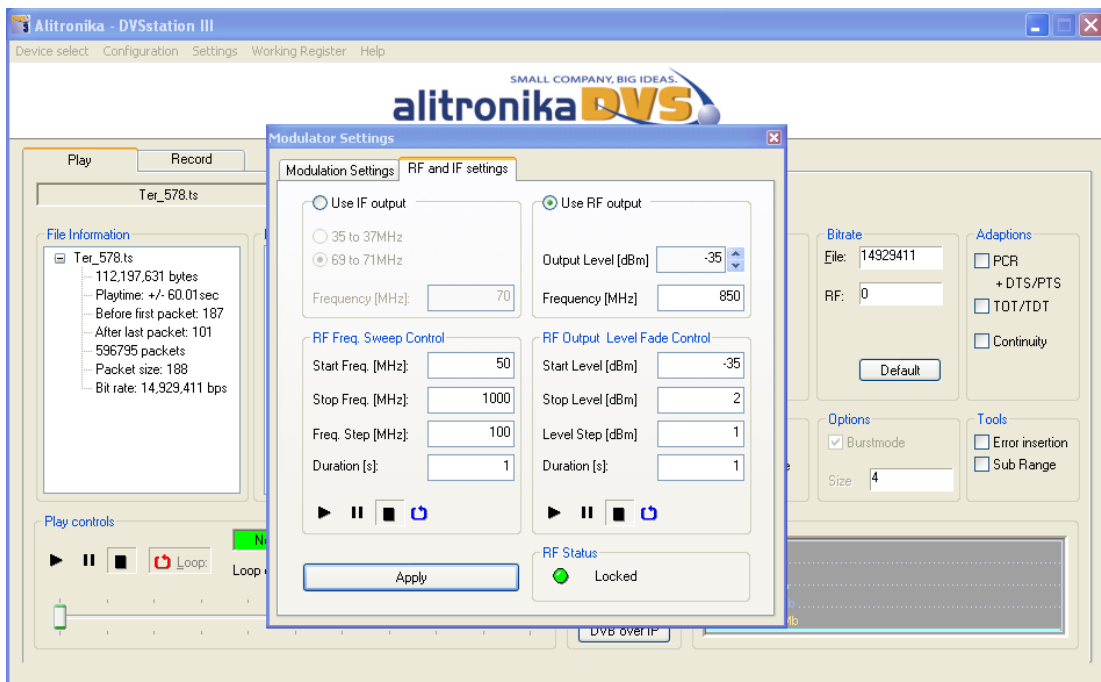
Modulation Settings DVB-T/H



Modulation Settings ATSC



RF Settings



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