

## **USB Based Modulator**

# iMod-T

**Digital Video Interfacing Products** 

iMod-T(AT278USB)

DVB-T/H; QAM; ATSC Modulator

IF & RF (VHF/UHF) Outputs

DVB-ASI Input

#### Standard Features:

◎ High Speed USB 2.0

◎Windows 2000, XP Drivers & SDK

© Free DVSStation3 Alitronika's Application Software

© Supports DVB According to Standard A1010 Rev1 & EN50083.

OModulation of Transport Stream files from Harddisk.

OModulation of TS from the ASI inputs.

OAll modulation processes are carried out by the hardware so that there is no load on the PC processor,

©TPS flags to indicate TS contains MPE-FEC and/or Time slicing. © Supports Burst or continuous modes, 188 and 204 packet sizes. **OBirate**:

14MB/s To 65MB/s(DVB-C)

•4.98MB/s To 31.67MB/s(DVB-T/H)

•10.76 Mbaud & 19.39 MB/s(ATSC 8-VSB)

## IF & RF Specifications:

◎ IF & RF Connector: 75 Ohms BNC. ◎ IF Output Frequency:35/37 or 69/71MHz adjustable in 1Hz steps IF Output level: 0dBm @ 75Ohms ©RF Output Frequency Range: 50MHz to 1000MHz ©RF Output power over bandwidth: 2dBm to -35dBm/ 0.5dBm Steps O Spectral Inversion: Both inverted and non-inverted ©Guard Interval Modes: 1/32, 1/16, 1/8 and 1/4 © FEC Code Rates: 1/2, 2/3, 3/4,5/6, 7/8. DVB-T/H Mode: ©Channel Bandwidth: 5MHz, 6MHz, 7MHz, 8MHz. ©COFDM Spectrum: 2k, 4k and 8k carriers non-hierarchical © Standards: EN300 744V1.5.1, EN302 304 OModulation Modes: QPSK, 16QAM and 64QAM DVB- C Mode:

Ochannel Bandwidth:6MHz, 8MHz OModulation Modes: 16QAM,32QAM,64QAM,128QAM,256QAM © Standards: EN 300 429. ITU J83 Annex A/B/C ATSC 8-VSB Spec

OChannel Bandwidth: 6MHz.

© Standards: A/53 8-VSB

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## Application:

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

ODevelopment Tools for DVB-T/H/C; QAM-A/B/C & ATSC Receiver R&D. ◎IP to DVB Gateway. OVB-Transport Stream Generation. © Stand alone DVB-T/H/C signal generator for Test & Validation. Operation and Trade Shows. ◎ DVB-T/H; QAM & ATSC output for OEM produc

Power Consumption & Size OPower Consumption:4Watts ⊙Size LxWxH: 140mm x 130mm x 30mm

## **ASI Specifications:**

On Board Buffer: 16Mbytes OVB-ASI I/O Connectors: 75 Ohms BNC OVB-ASI Signal level: 1.0Vp-p nominal OVB-ASI I/O Clock: 270 MHz OVB-ASI Input return loss: 15dB. OVB-ASI I/O Bit Rate: 0 to Max Mbit/s\*.

Max Mbit/s = Maximum bit rate allowable by DVB-T/H or DVB- C or ATSC modulation.

#### iMod: Modulating at any where & any way!

### Similar Products:

•DVB-T/H;ATSC;QAM Modulator

•IF&RF(VHF/UHF) Output

•DVB-ASI Monitor Output

•DVB-ASI/SPI Input



AT2780P/QT



AT2780U/QT •DVB-T/H:ATSC:QAM Modulator •IF&RF(VHF/UHF) Output •DVB-ASI/SPI Input •DVB-ASI Monitor Output

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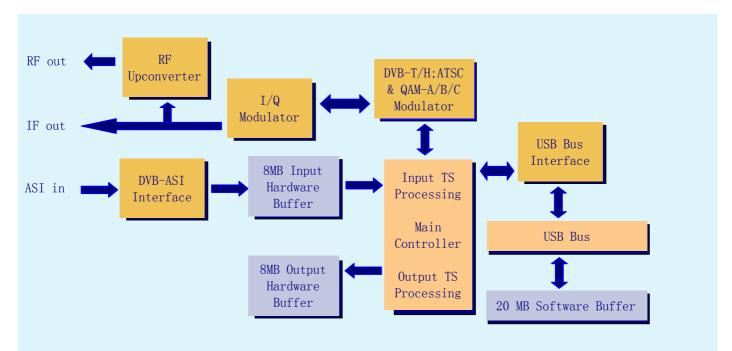


## **1. GENERAL DESCRIPTION**

A member of Alitronika's state of art digital video interfacing products. The iMod-T is a USB based interface device suitable for DVB-T/H/C & ATSC 8-VSBTransport Stream Generation and IF as well as full range VHF & UHF up conversion.

## 2. BLOCK DIAGRAM

The figure below illustrates the block diagram of the iMod-T device. The device communicates with the PC via the USB interface device. The iMod-T is capable of modulating a DVB-T/H/C & ATSC TS from the harddisk of the PC or from the incoming DVB-ASI input. The modulated DVB-T/H/C & ATSC is available on both IF and RF outputs. The modulation options, output frequencies and all other setting are done with the help of DVSStation3.



## **3. EXTERNAL INTERFACES**

The external interfaces for the iMod-T are shown. There are 3 BNC connectors for the RF & IF Output & DVB-ASI Input, as well as USB and DC power inlet connectors. The Unit is supplied with power supply and USB2.0 cable.

The 3 LEDs in the Front of the unit function as follows:



<b>ON=</b> Power is on
<b>OFF=</b> Power is off
ON=
Flashing=
ON=
Flashing=



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## 4. APPLICATION

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

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