



# VideoSHARE AV

## Any HD/SD Video source to a DVB-T Channel & IPTV network

The VideoSHARE AV is a stand alone Video to DVB-T converter, ideal choice to Live capture any HD/SD audio/video Analog source and encode it to a Digital Terrestrial Television frequency to distribute to any standard DVB-T Television in every room via the existing Antenna Coax Cables.

The Simultaneous Upnp/UDP/RTP/RTSP/RTMP, IP streaming output allows the transmission to any IPTV network over cable or wifi, to eventually serve any i-pad, i-pod, i-phone, laptop, Internet TV, Recording to Disk and monitoring Systems.

Easy to install on any DIN Rail Guide or stand alone as DeskTop module, this converter can inject its DVB-T output frequency to any local wall-mount antenna socket, delivering its signal to all the other Antenna sockets of the building without requiring modifications to the existing cables in most of the cases.

Alternatively, this converter can be placed at the roof level, mixing its output signal directly to the existing antenna.

Multiple Converters can be used together in order to achieve the needed number of distributed video to DVB-T programs, and converters can be placed all together in one place, or distributed through the building where the audio/video sources to capture are.

Supporting both Mpeg2 / H264 / VC1 HD/SD video compression formats as well as all possible audio, and the ability to downscale any input to the wanted resolution, the VideoSHARE AV is the perfect companion for the HD/SD digital television distribution to any common DVB-T TVs in Hotels, Hospitals, Commercial Centers, Digital Signage Applications, Point Of Information, Corporate TV channels creation, Surveillance, HD Home Entertainment, and hundreds of others.

## PRODUCT OVERVIEW

The VideoSHARE AV is a compact, professional, DIN-RAIL mount digital Audio/Video to HD/SD DVB-T encoder/modulator module, the perfect building-block to distribute one or more HD/SD Video Contents to unlimited standard DVB-T Televisions in every room.

It works in minutes in any existing building or scenario, providing outstanding picture and sound quality on any receiving DVB-T TV without requiring signal adjustments to the existing Antenna Cables.

Audio/Video input can be taken from any existing Composite SD or Component HD/SD video source as DVD and BlueRay disk players, Hard Disk and USB pen Video Players, RGB computer outputs, Satellite Terrestrial and Cable Set Top Boxes, Surveillance Camera systems, gaming consoles, and any other device equipped with a video output.

The VideoSHARE module accepts any standard Video format to its video input, from the Full-HD 1920x1080 down to the lowest resolutions then, an input scaler, allows to distribute the video source to all the DVB-T TVs as "original " or " scaled " to the wanted target resolution.

The module operation can be set as HD/SD Mpeg-2 or Mpeg-4 H.264 or VC1, as well audio can be stereo or taken original via SPDIF if surround type, providing the widest possible compatibility to any possible new or existing TV or Set Top Box in every room.

The output DVB-T frequency can be set to any free channel within the VHF/UHF range, with the ability to specify the target remote-control button to store this program on every TV, so the setup of every TV in every room can be done simply via the TV autoscanner.

## CONVERTER FEATURES

### Audio/Video Input

- Composite or S-Video SD – PAL/NTSC/SECAM
- Component or RGB HD/SD – PAL/NTSC/SECAM
- Full HD, HD-Ready and SD i/p Resolutions
- Analog Left/Right or SPDIF Digital Audio Input

### Video Encoding Compressions

- HD/SD Mpeg-2 for the widest TVs Compatibility
- Also selectable HD/SD Mpeg-4 H.264 AVC and VC1

### Audio Encoding Compression

- Standard Stereo and Multi-Channel surround

### RF Output

- DVB-T Digital Terrestrial Television Frequency
- World-Wide standard compatible with any TV
- Selectable output channel within VHF/UHF bands
- Inject its RF output signal at any existing wall-mounted antenna socket, or at the roof antenna, distributing to all the other antenna wall-sockets and TVs of the building
- Selectable "store-number" to memorize the created programs on the same remote control button on all Tuning TVs

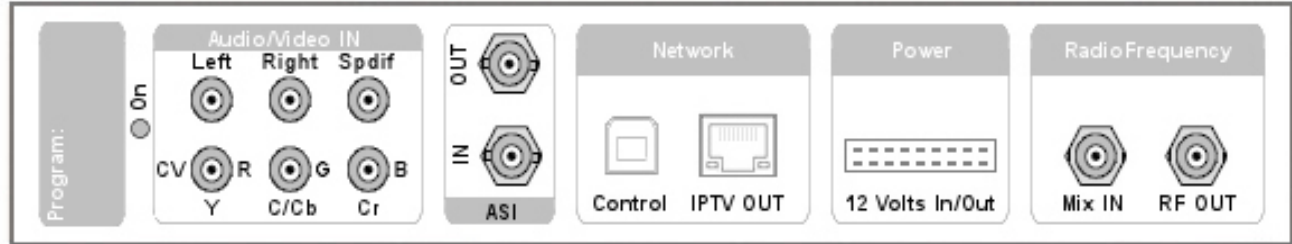
### IPTV Streaming Output

- Simultaneous RJ45 IP Streaming out, Upnp/UDP/RTP/RTSP

### Setup

- Quick Easy setup via any standard laptop

## Rear Panel



### 7531 Analog Audio/Video to DVB-T Converter

This module can be mounted on any standard DIN RAIL Guide, or used Stand alone DESKTOP

### Possible Installations

This converter can be vertically-installed on any existing standard DIN-RAIL Guide via its rear clamp.

A single 12 Volts Power supply is feed via the front panel 2.54 strip in/out connector by using any standard power supply, or our DIN Rail Power Supply module model #7001. Multiple Converters can be installed side-by-side.

One single #7001 Power supply can operate up to 5 converters, cascading the 12 Volts between modules through simple power bridge cables, one provided as standard with each converter module.

Where needed, multiple power supply can be installed to operate the wanted number of converters, in groups of five each, also creating a system redundancy path.

Alternatively, this converter can be operated stand alone simply as a DeskTop or RACK MOUNT device by using our stand alone power supply model #7002 ( optional ) and Rack Mount brackets ( included )

Multiple Converters can be operated in different locations through the building, where the source audio/video signals are, injecting their output frequencies to the local available wall-mount antenna sockets.

There is no need to inject the output signal at the roof antenna level, and injecting the module output at any antenna wall-socket of the building will distribute the signal to all the other antenna sockets in every room in most of the cases, without requiring modifications to the existing antenna coax cables.

### On-Field Upgrades

Any eventual new software feature is typically released through the internet and can be free downloaded and used to upgrade our converters in case of need, maintaining the existing systems up to date respect the growing of the international Digital Television Standards.

### Channel Descriptors

Each converter module includes a full-featured easy to use Transport Stream Multiplexer, enabling the operator to quickly set all the needed parameters as the SERVICE PROGRAM NAME, that will show on the TVs.

The Converter supports both the DVB, ATSC and ISDBT descriptors & standards and can be operated world-wide on any TV ( this converter is available with DVB-T/C/S/S2, IDB-T and ATSC outputs – see our other brochures for specs)

### System Redundancy

For mission-critical applications, each converter can be installed twice and each twin is kept in stand-by mode via the existing power flat cable that also include some data wires. If a master module is turned off or goes in any failure state, the related twin starts immediately. As soon as the Master module resume from fail, the twin module returns to stand by automatically.

### Professional RF output

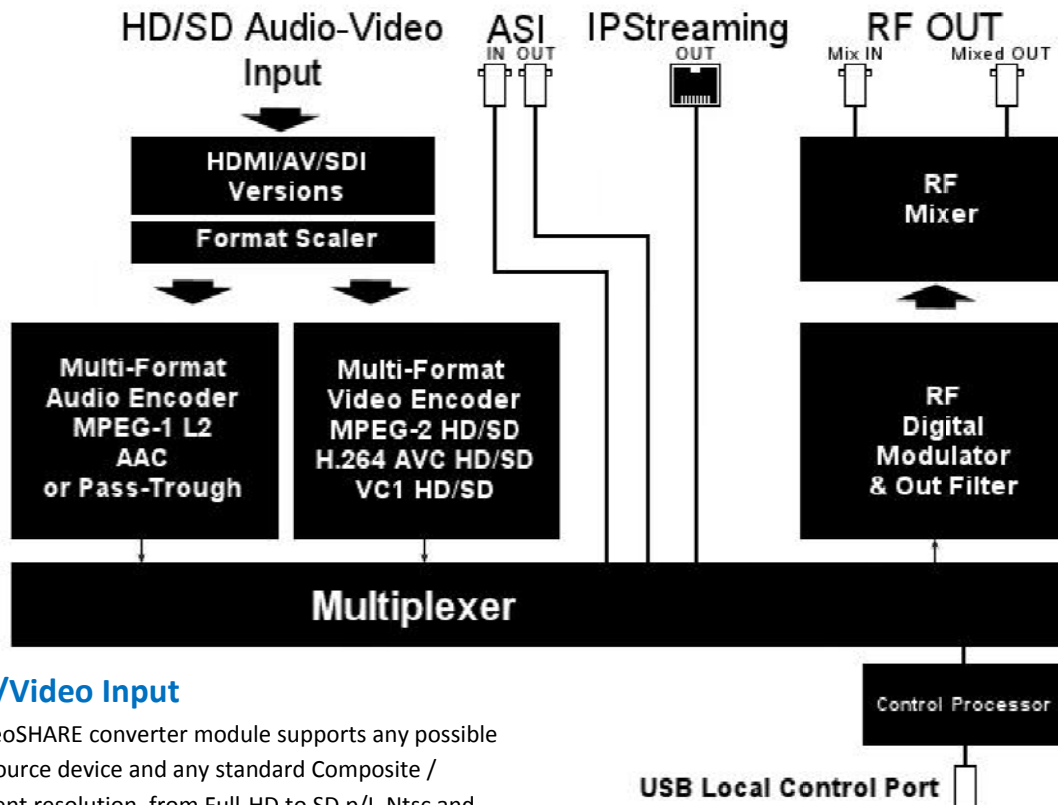
The generated Radio Frequency can be considered Broadcast-Grade, and can be both mixed to any existing Coax and HFC distribution network, or broadcasted on air via proper Boosters and transmitting Antennas, up to watts or hundreds of watts power levels, with excellent Spectrum Shoulders, out of band Harmonic and spurious suppression, and excellent MER quality >40 dB.

### Professional IPTV output

The same encoded program outputs to the RJ45 IP Streaming connector to distribute it to unlimited IPTV devices on any LAN/WAN/WIFI networks.

Thanks to the Upnp/UDP/RTP/RTSP/RTMP IGMP protocols, program can be distributed simultaneously to any i-pad, i-phone, i-pod, smart-phone, Internet enabled TV, IP set top box, computers and laptops, Hard Disk recording and monitoring systems.

## Functional Diagram



### Audio/Video Input

The VideoSHARE converter module supports any possible Analog source device and any standard Composite / Component resolution, from Full-HD to SD p/I, Ntsc and Pal, and lowest.

The module comes with professional noise reduction TBC on its inputs, providing outstanding picture quality.

Audio can be stereo or multi channel surround, directly taken from the Left/Right inputs or the Digital Spdif for the pre-encoded compressed surround.

### Format Scaler

The VideoSHARE converter module has the power to process full-quality FULL-HD Video up to 1080P, encoding it to either to Mpeg2, H264 or VC1 formats for a true Full-HD video distribution.

Where needed, a professional-grade video scaler can be activated in order to reduce any input format to the wanted target resolution, including HD-READY, SD, down to 144x144 pixels for internet and mobile delivery.

### Video Encoding

The Video Compression can be selected to the standard Mpeg-2 HD/SD or MPEG-4 H.264 AVC HD/SD, or MPEG-4 base line, or VC1 HD/SD windows media.

Mpeg-2 is typically supported by any world-wide TV, while H.264 is the newest standard to push more HD/SD programs over a single terrestrial cable or satellite frequency.

Mpeg-4 base line and VC1 are normally preferred for

The VideoSHARE Converter module has them all, to match any possible installation and last minute changes.

### Audio Encoding

Input audio can be encoded to a standard Stereo Mpeg1-L2 supported by any world TV, or the newest standards Mpeg-2 AAC, Mpeg-4 AAC, WMA.

Original Surround audio can be encoded and distributed as-is, without losing the multi-channel effect and quality.

### ASI In/Out

These connectors can be used to input the signal from another module ( cascade ) or to output the encoded signal with complete SI descriptors to any ASI device, as broadcast transmitters, gap fillers, splicers, etc.

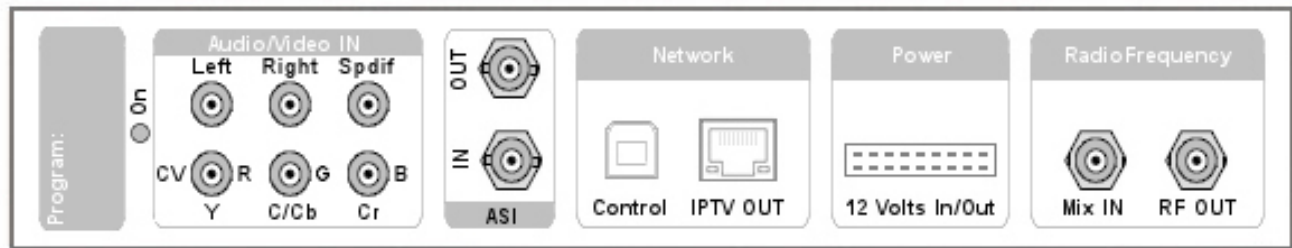
### IP Streaming

Output to distribute the encoded audio/video to any IPTV network over LAN, WAN, WIFI.

### RF OUT

Output the generated DVB-T frequency with adjustable level, eventually mixed with any RF signal from the MIX input ( this make it possible to cascade multiple modules

## Unlimited Applications



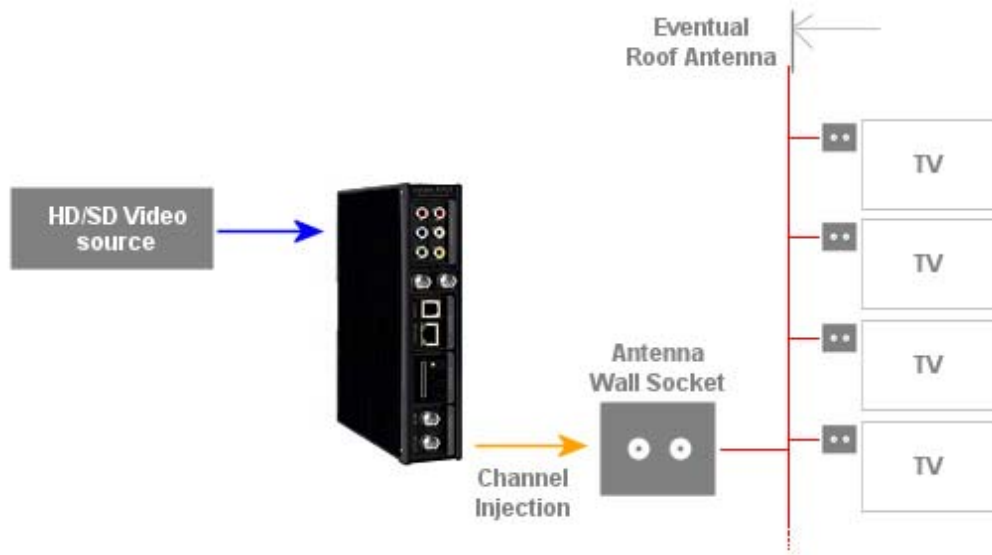
Thanks to its features and available outputs, the VideoSHARE module can be used in almost every possible HD/SD Video capture and distribution application, in any consumer and professional fields.

### Most common Applications

- **Hotels & Resorts**
  - Advertising Channels
  - Restaurant Menu Channel
  - Meeting Video Distribution
  - Local Information Channel
  - BAR Set Top Box Video Distribution
  - Overview Cameras Channels
  - Surveillance
  - Digital Signage
- **Hospitals**
  - Patient TV Channels
  - Record-to-hard disk surgery rooms
  - Student Training Broadcasting
  - HI-def conferencing
  - Training Channels
  - Surveillance & Monitoring
  - Digital Signage
- **Shops & Commercial Centers**
  - Promotional TV channels
  - DVD & Blueray Players Video distribution
  - Internet Content distribution
  - Easy HD/SD Video distribution via existing Coax Cables or via ON-AIR inside-building Broadcasting
  - Digital Signage
- **Boats, Yachts, Cruise Liners, Technical Vessels**
  - On-Board Television from Media Players, DVDs, Bluerays, Set Top Boxes
  - Technical Info Channels, from computers and instruments
  - Gps Channel & Navigation channels
  - Courtesy cameras Channels
  - Training & Corporate channels
- **Corporates**
  - Corporate TV Channels
  - Training Channels
  - VIP Entertainment Channels
  - Meeting Video Distribution
  - Local Information Channel
  - Overview Cameras Channels
  - Surveillance
- **Residences & Private Homes**
  - HD Video distribution from any source to all the wanted digital TVs in every room or apartments
  - Centralized Video Surveillance, viewable on any TV
  - Centralized Energy, water, heating supervision from every simple TV
  - HD Set Top Box and HD Players distribution to all TVs
- **Schools & Campus**
  - Lessons & Courses broadcasting
  - Campus TV Channels
  - Info Channels
  - Courses Recording ( ip to disk)
  - Resolution-Scaled Broadcasting to Iphones, ipads, etc
- **Sport**
  - GYM TV to any TV-Enabled device
  - On-Board HD/SD Cameras broadcasting
  - HD Camera Links to Control Room
  - Sport Events RF and Internet Broadcasting
- **And More**
  - Any possible other application where video to DVB-T and IPTV is required..

## Typical Configurations

### #1 Audio-Video contents distribution to DVB-T televisions

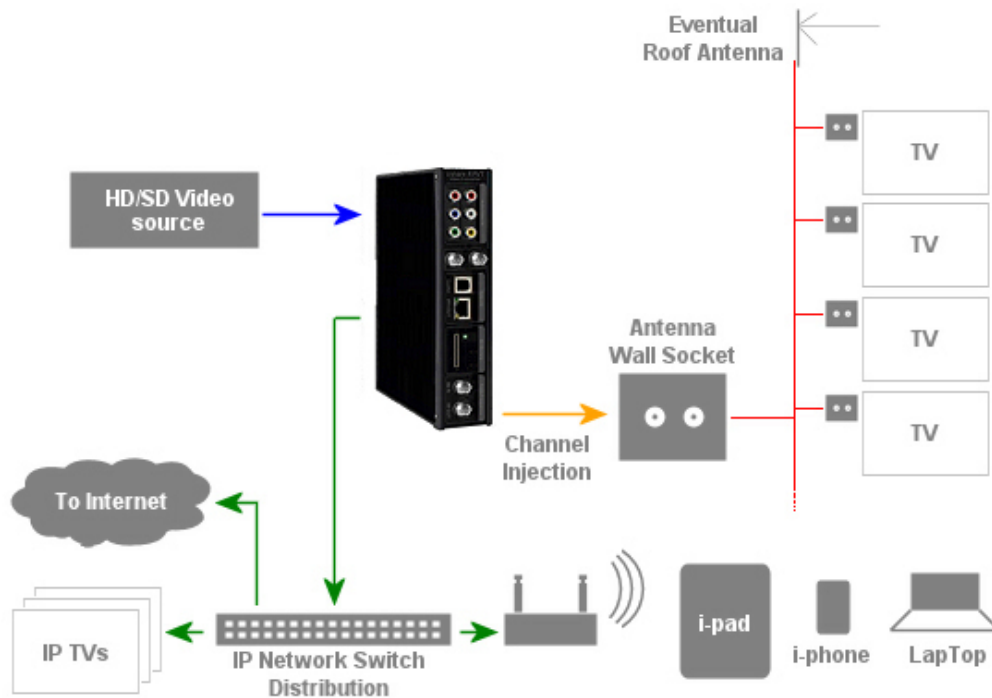


**Convert any HD/SD Video to one DVB-T frequency and distribute to any DVB-T TV together with the existing TV programs**

Connect any DVD or BlueRay disk Players, USB Pen and Hard Disk Media players, Satellite Terrestrial Cable Set Top Boxes, RGB output of personal computers or other devices, Camera Systems, Home Control systems, etc.

Inject the DVB-T output frequency at any existing wall-mount antenna socket or at the roof antenna, together with the other existing TV channels, then re-scan all the DVB-T TVs in every room to find and add automatically this new video program.

### #2 Audio-Video contents distribution to DVB-T televisions & IP streaming Devices

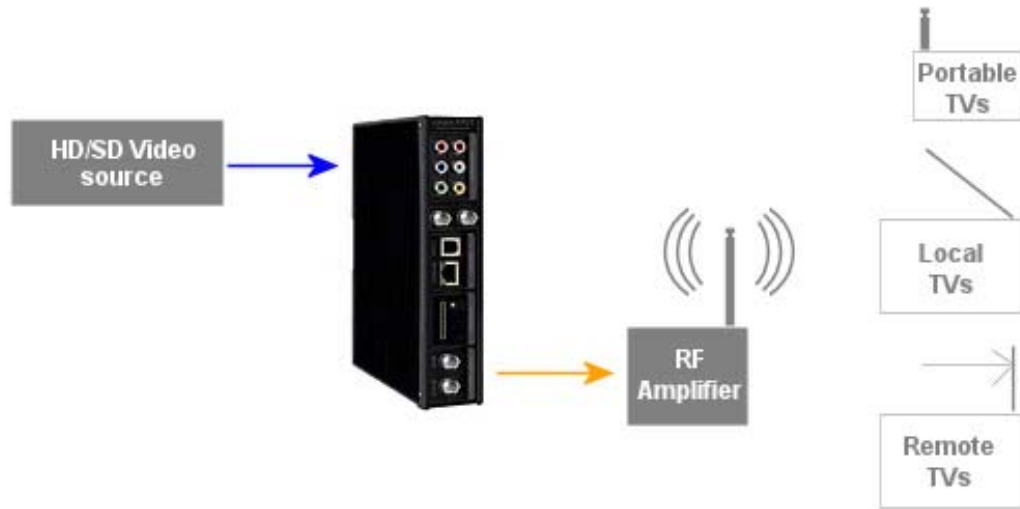


**Any Audio-Video to both DVB-T TVs and IP Streaming devices**

As application example #1 plus delivery over the existing IP network and WIFI to any IP player, including i-Pads, i-Phones, Laptops, etc.

## Typical Configurations

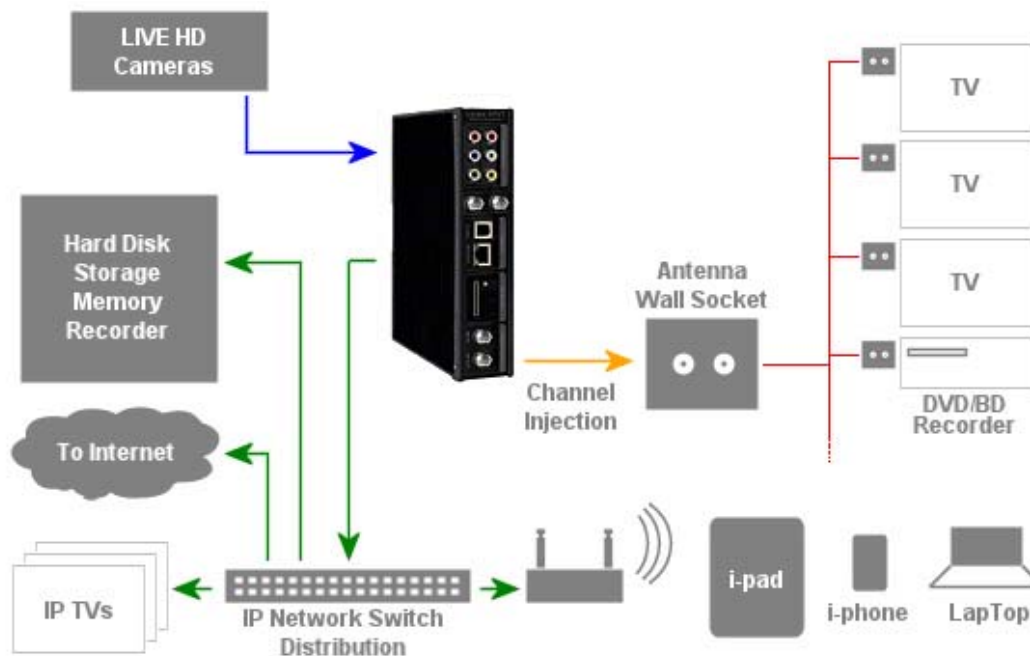
### #3 Audio-Video contents **ON-AIR** DVB-T distribution



**Transmit ON-AIR any HD/SD Video to local and remote portable and fixed DVB-T television**

This example represent the ideal solution for sport and info channels transmission inside sport stadiums.  
 Can be used as HD On-Board Camera broadcasting system on cars, motor-bikes, boats during sport competitions.  
 It is perfect to distribute TV wireless inside buildings, shops, commercial centers, schools and campus, where cables are not available.  
 As turn-key broadcasting solution for churches, communities, both on-air and internet.

### #4 LIVE HD recording – Learning solution



**Record LIVE HD Cameras to any standard DVB-T DVD/BlueRay disk recorder or to Hard Disk Servers**

As Video recording solution in any Hospital Surgery room for assurance and learning purposes, with the ability to distribute the live HD content to learning classes, universities, training rooms, internet, supervisors, distance consultants.  
 This example is also suitable for any School Lessons HD broadcasting/webcasting and replay applications



# Technical Specifications

## Audio/Video Input

- 1x Selectable SD/HD Analog Video Input with professional TBC/Noise Reduction for perfect picture quality
- SD Modes ( PAL/NTSC/SECAM ):
  - Composite
  - Super Video
  - Component
  - RGB
- HD Modes (PAL/NTSC):
  - Component
  - RGB
- 1x Stereo analog Left/Right unbalanced input
- 1x SPDIF digital audio input to capture and deliver original multi-channel surround sound

## ASI

### Transport Stream Input

- 1x ASI transport stream (BNC), supporting up to 210 Megabit/s rates each, MPTS/SPTS
- Operates as cascading input to merge multiple encoded programs from other modules, and use one only frequency out from the last module ( max total DVB-T rate is 31.5 megabit/s when used in 8 Mhz mode / max parameters. If exceed, must use outputs from more modules to allow the needed bandwidth ).
- Normally, ASI is not used on most applications.

### Transport Stream Output

- 1x ASI transport stream (BNC), supporting up to 210 Megabit/s rates each, MPTS/SPTS
- Output the encoded program including the generated DVB PSI or ATSC PSIP complete tables, ready to feed any ASI device as broadcast transmitters etc.
- Normally, ASI is not used on most applications.

## Control

### USB port

- Connects to any standard Windows Laptop, running our control software CD ( included )
- Laptop connection is only needed for the setup, then the computer can be disconnected
- Set parameters are saved in each module memory, and there is no need to reconnect the Laptop to reset the parameters in case of black-out

### IP Remote Control

- Remote control over IP is possible " in-band" via common Web Browser via secure UserName and Password

## RF Output

### RF MIX Input

- 1x F-Type connector, 75 Ohm
- 48 – 900 Mhz spectrum
- Insertion Loss -0.5 dB
- Input Level from 0 dB to -70dB
- Input signal mix with the modulator signal, then output to the Out Connector

### RF Output

- 1x F-Type connector, 75 Ohm
- Adjustable Level from 0dB to -25dB
- Signals from the RF input connector are mixed with -0.5 dB of signal loss to the module modulator signal

### DVB-T Modulator

- Frequency range: 30 to 1000 MHz
- RF Out Level: Adjustable from 0dBm to -25dBm
- MER: Professional-Grade >45 dB
- Spectrum Shoulders: 55 dB of for excellent adjacent-channels operations
- Out Filter: -70 dB of Harmonic and spurious suppression
- DVB-T modulations QPSK, 16QAM, 64QAM
- FFT: 2K / 8K modes
- Guard Intervals: 1/4, 1/8, 1/16, 1/32
- Code Rates: 1/2, 2/3, 3/4, 5/6, 7/8
- 6/7/8 Mhz Channel Bandwidth
- MFN Mode

## IP Streaming out

- 1x RJ45 Copper cable connector, supporting 10/100 Base-T speeds, auto-sensing
- IP streaming out can be activated simultaneously to the DVB-T Radio Frequency output
- IP streaming supports unicast connections up to the 100 Base-T speed limit
- IP Streaming supports multicast to unlimited IP players decoders

## Compliance

EMC Compliance  
EN55022, EN61000-3-210, EN61000-3-310, EN55024, CISPR22, FCC CFR47 Part 15B Class A

Safety Compliance  
EN60950-1, IEC60950-1, UL60950-1

## Physical and Power

### Dimensions (W x D x H)

50 x 180 x 250mm

### Input Voltage

DC 12 Volts – 1 Ampere

### Cooling

Natural Convection

## Environmental Conditions

### Operating Temperature

0°C to +50°C (32° to 122°F)

### Storage Temperature

-20°C to +60°C (4° to 140°F)

### Relative Humidity

5 to 95%

# Technical Specifications – Operational Specs

## Video Encoder

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### Performances

- Hierarchical Multi-Look-Ahead processing allows Full-Broadcast Quality at lowest possible bitrates
- 2 Megabits for Full D1 Mpeg2
- 1 Megabits for Full D1 H264
- 4 Megabits for 1080i Full HD Mpeg2
- 3 Megabits for 1080i Full HD H264

### Video Encoding

- MPEG-2 HD MP@HL Encoding
- MPEG-2 SD MP@ML Encoding
- MPEG-4 HD MP / HP@L4.0 Encoding
- MPEG-4 SD MP / HP@L3 Encoding
- Mpeg-4 Base Line
- VC1 HD
- VC1 SD
- 0.032 Mbps to 25 Mbps
- Hierarchical motion estimation
- VBR Statistical Multiplexing
- Encoding Delay <500 Msec
- Programmable GOP

### HD Resolutions

- Input Broadcast-Grade Scaler to reduce any input resolution to the wanted encoding resolution
- 1080 x 1920/1440/1280/960i 25
- 1080 x 1920/1440/1280/960i 29.97
- 720 x 1280/960/640p 50
- 720 x 1280/960/640p 59.94

### SD Resolutions

- Input Broadcast-Grade Scaler to reduce any input resolution to the wanted encoding resolution
- 576 x 720/704/352/320 @50i
- 288 x 352/320 @25p
- 144 x 176/160 @25p
- 480 x 720/704//352/329 @ 60i
- 240 x 352/320 @30p
- 120 x 176/160 @30p

### Local SI Injection

- Service Name/Provider etc.
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## Audio Encoder

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### Audio Encoding

- Standard MPEG-1 Layer II audio encoding, rates from 32 kbps to 384 kbps.
  - Selectable Mpeg-2 AAC
  - Selectable Mpeg-4 AAC
  - Selectable WMA
  - Stereo compression mode as standard
  - Multi-Channel Digital Audio sound can be encoded and distributed “ as-is “ in order to keep the original sound effects
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## How to Buy

PN.	Description	PcsBox	Notes
<b>Converter Module</b>			
7531	VideoShare RFVT - AV to DVB-T + IPTV + ASI converter	1	
<b>Different RF Output Versions</b>			
7532	VideoShare RFVC - AV to DVB-C (a/b/c) + IPTV + ASI converter	1	
7533	VideoShare RFVS - AV to DVB-S + IPTV + ASI converter	1	
7534	VideoShare RFVS2 - AV to DVB-S2 + IPTV + ASI converter	1	
7535	VideoShare RFVA - AV to ATSC + IPTV + ASI converter	1	
<b>IP Streaming – only Output Version ( No RF output )</b>			
7539	VideoShare IPA - AV to IPTV + ASI converter	1	
<b>12 Volts Power Supply</b>			
7001	DIN-Rail mount PSU Power Supply – for 8 Modules	1	
7002	Stand Alone Power Supply for 1 Module	1	
<b>Other Accessories</b>			
7020	Wall-Mount DIN Rail for 8 Modules + PSU	1	
7021	Rack Mount 8 Modules Frames	1	
7030	Modules interconnection RF bridge	1	
7031	75 Ohm termination	1	
7055	USB programming Kit	1	



### TV Converters UK

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