



## Routing Capabilities

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ATSC Rocket uses IETF standard routing policies. Static routes are configured for IP-unicast packets (e.g., TCP and UDP user traffic) and for IP multicast (UDP) traffic.

The IP/SMPTE 310M switch completes the routing information with the MPEG-2 transport stream packet identifier (PID) and receiver's Ethernet MAC address information.

## Support for Newer Applications

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- **Fast (broadband) mobile Internet access**
  - High-speed Internet delivery to handhelds
  - Combine GSM/GPSR (mobile telephony) with DVB-T/ATSC
- **Embed multimedia services in DTV**
  - Multimedia Home Platform (MHP)
  - Multimedia Car Platform (MCP)
- **Stream IP multicast**
  - MPEG-4 video over IP multicast
  - Deliver content (Webcasting, VOD, Ticker)

The ATSC Rocket can insert IP multicast and unicast in MPE (multi protocol encapsulators), addressable sections, data piping, and object carousels. For example, ATSC Rocket runs with S & T's (www.s-and-t.com) Object Carousel generator/transmitter.

## Reliability

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- Embedded Linux® is a very stable, enterprise oriented environment with very high uptime
- Typical empirical MTBF (mean time between failures): 30,000 hours
- Easy remote login via secure environment for remote maintenance (SSH and web browser)
- Optional dual redundant power supplies and dual channel hot swappable disk drives

## Compatibility & Interoperability

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Tested compatible with most Harris and Axcera transmitters.

## Compliance

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- ATSC Data Encapsulation

## Specifications

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### Input & Output Ports

- Two Fast Ethernet input ports/output ports
- SMPTE 310M in and out

### Virtual Channels

- Up to 16
- Simultaneous and independent
- Transmission rate can be set to any rate between 2 Kbps and 60 Mbps
- One PID per channel

### Data Piping

- Sourced from 1 GB port

### SI Tables

- None

### Protocols

- TCP/IP, Unicast, Multicast

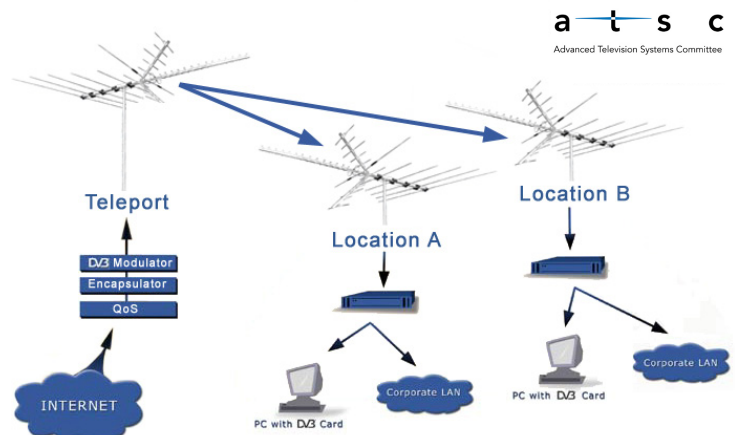
## QoS Function

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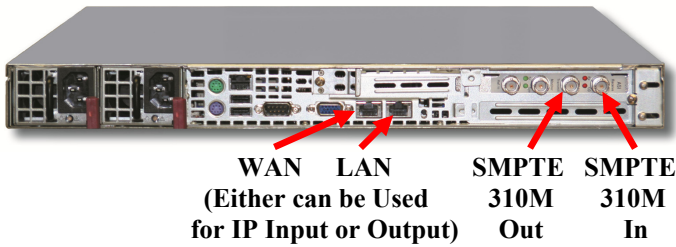
- Fully implements industry standard QoS for guaranteed levels of service in QoS oriented router environments
- Each route can be assigned as bandwidth limit
- QoS can be turned on or off by management

## Application Diagram

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## Inputs/Outputs



## Standards Compliance

- Can run in ATSC compliant environments
- Complies with ETR 290
- Fully tested to be compliant using WWG's DTS-A ATSC/DVB protocol analyzer

## Instacast Client/Server Option

**High Speed Scalable Overlay From 256 KBPS to 20 MBPS, Based on DVB Technology – Ideal for Transmitting to Mobile and Handheld Devices**

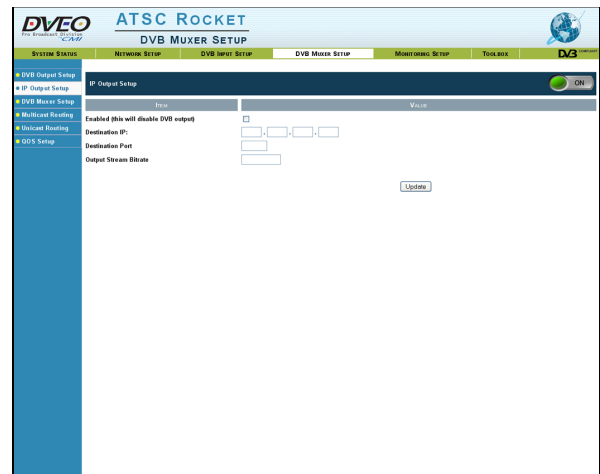
Instacast provides a turnkey hardware and software solution for connecting multi-continental based LANS and/or users into a seamless single whole LAN via our DVB encapsulators and receivers. Instacast is a satellite overlay solution for terrestrial intranets and Internet connections. It combines a broadband receive-only satellite link with a terrestrial IP network infrastructure.

- Implements a platform for delivery of value-added, IP-multicast channels and multimedia, such as live webcasting and real-time news delivery
- Improves performance through higher bandwidth return channel
- Provides an asymmetric overlay that does not disrupt existing network infrastructures

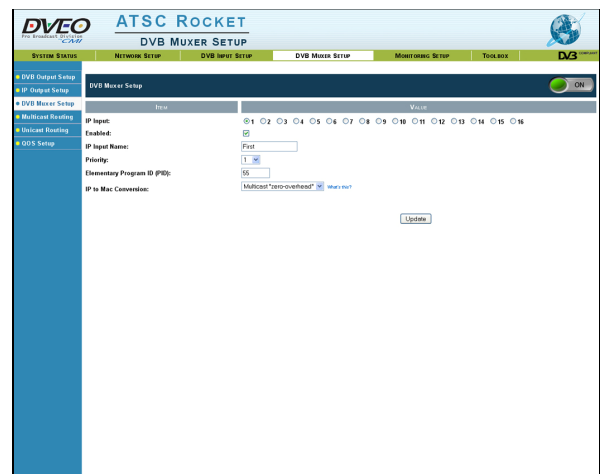
## Ordering Information

- ATSC Rocket Ultra High Speed IP to DVB Encapsulator
  - Standard ATSC Rocket in 1 RU SuperMicro server, non-redundant box
- ATSC Rocket/HA IP to DVB Encapsulator
  - High-end ATSC Rocket, standard industrial PC (IPC) with:
    - Redundant power supply
    - Hot swappable disk drives
- Instacast 4.0 Client/Server Option

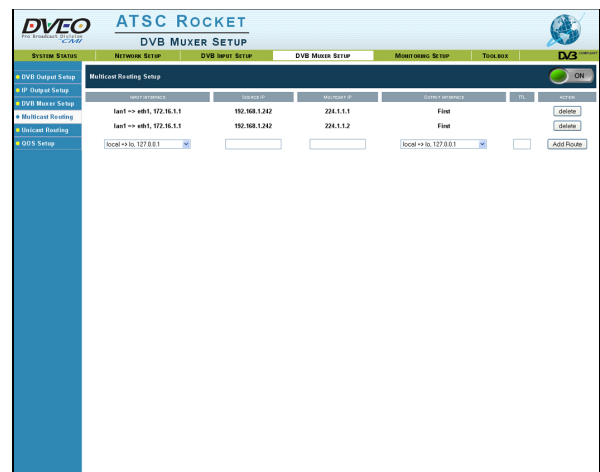
## Sample of GUI's



IP Output Setup



DVB Muxer Setup



Multicast Routing –  
to Add Multicast IP Streams to be Muxed



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