

Novra IPE Encapsulator Features Model IPE-520C

Your IPE Performance Leader!

Novra's IPE-520C series of IP Encapsulator provides an exceptional price-to-performance solution for broadcasting TCP/IP data within an MPEG-DVB system infrastructure. The reliability of this platform is second to none. The IPE-520C offers a very high-speed multiplexing framework from which you can integrate and manage a number of different data inputs into a single MPEG-2 transport stream. A key element of the IPE-520 is the suite of intuitive management and monitoring tools that enable allocation and prioritization of bandwidth to efficiently load-balance all traffic.



Features

• Standards-Based

- Full DVB compliance
- ATSC compliance
- SI/PSI tables per MPEG-2 and DVB

• Performance

- Full transponder support with output bit rates of 1 kbps to 10 Mbps with an option to grow to 200 Mbps
- Hardware-based encapsulation provides exceptionally low latency

• Management

- Intuitive configuration and monitoring tools
- Built-in, real-time monitor and display of all PID traffic
- MRTG-based PID traffic graphing tool

• DVB-RCS Support

- ASI Input to handle FSH traffic
- SI table support

• Flexibility

- Optional data interfaces include: ASI input and ATM OC-3

• Reliability

- Built-in 1:N redundancy
- Hardware-based Encapsulation Engine and TDM multiplexer
- Build on a highly-reliable, Intel-based industrial server
 - Hot-swap redundant power supplies
 - Dual disk drives
 - Powerful Quad-Core Intel CPU
 - Gigabit Traffic and Data NIC's
 - Tool-free serviceability

• QoS

- Traffic Shaping using built-in 3-tier QoS
- SMPTE 325M Opportunistic Data modes
- Prioritization based on PID or traffic profile

• Routing

- Unicast and multicast host and/or subnet routes
- ATM PVC layer 2 or layer 3 routing



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Novra IPE Encapsulator Specifications

Model IPE-520C

INPUT PHYSICAL INTERFACES

- 1000Base-T Ethernet interface for management (RJ45)
- 1000Base-T Ethernet interface for data (RJ45)
- Optional ASI Inputs)
- Optional ATM OC-3 interface for data

OUTPUT PHYSICAL INTERFACES

- ASI (BNC)

NUMBER OF PIDS SUPPORTED

- Unlimited (DVB max. of 8192) simultaneously active PIDs

SUPPORTED PROTOCOLS

- Multi-Protocol Encapsulation (MPE) with selectable section packing
- ATSC A/90
- LLC and SNAP (IEEE 802.2)
- Support for MPEG-2 PSI Tables (PAT/PMT)
- Support for further MPEG-2 SI Tables (CAT/SDT/TDT/NIT/RMT/MMT)
- TCP/IP, UDP/IP, Multi-cast, RIPV2

TRAFFIC STATISTICS

- Kbytes Sent/Dropped for each IP address, MAC address, and PID
- Total number of TS packets transmitted on each PID

STATISTICAL MULTIPLEXER

- Transmission rate: 1kbps to 10 Mbps (+/-5 bps) with optional support to 200 Mbps
- Full TDM hardware multiplexer (queuing, shaping, and scheduling)

MANAGEMENT

- Remote or Local Configuration Manager
- Real Time Traffic Monitoring Application

SECURITY

- Optional Fixed Key Conditional Access using DVB scrambling
- Scrambling based on destination host/subnet IP address

QUALITY OF SERVICE

Traffic Profiles

- Dedicated PID Bundle (CBR) Multiprotocol Encapsulation
- Shared PID Bundle (VBR) Multiprotocol Encapsulation
- Uncommitted PID Bundle (UBR) Multiprotocol Encapsulation
- Optional Remux (ASI Input)
- SI/PSI Tables
- Opportunistic Data
- Externally Controlled Opportunistic Data
- Signaling Marker
- Up to 64 simultaneous and independent traffic profiles

Three Tier QoS

- CBR / VBR / UBR Bundles of PIDs (level 1)
- CBR / VBR / UBR PIDs within Bundles (level 2)
- Min/Max rate limiting based on host/subnet IP address (level 3)

Priority

- PID prioritization
- Traffic Profile precedence
 - Up to 254 precedence levels

Delay/latency

- Less than 1 millisecond

RELIABILITY AND REDUNDANCY

- 1:N redundancy
- Up to 250 transport streams
- High Rel. Industrial server with
 - dual power supplies and hard drives
 - Quad core processor
 - Up to 4 GB of RAM

EXPANSION CAPABILITY

- Multiple data interface slots to support future expansion capability

SIZE, WEIGHT AND POWER

- Size: 3.5" (h) x 19" (w) x 27.5" (d)
- Weight: 19 Kg (42 lbs)
- AC Power: 165W Typical

Summary of IP Encapsulator Option Packs

- **Basic Unit** provides up to 20 Mbps output bitrate, 8192 simultaneous PIDs, up to 64 traffic profiles, SI/PSI table support, 1:n redundancy support, section packing, 3-tier QoS, SMPTE 325 Opportunistic Data Mode, externally-controlled SMPTE 325 Opportunistic Data Mode, 8192 PID priority levels, and 254 traffic profile precedence levels.
- **Throughput Options** are available for in 10 Mbps steps from 10 Mbps to 200 Mbps
- **REMUX Option Pack** provides ASI re-multiplexer input capabilities.
- **Security Option Pack** provides an output bit rate up to 50 Mbps, DVB scrambling using 56 bit fixed key CAS, and up to 64 traffic profiles.
- **ATM Option Pack** provides an OC-3 data input with PVC layer 2 or layer 3 routing.

Ordering Information

- Call for detailed pricing information on the IPE-520C and available Option Packs.

