

Novra IPE Encapsulator Features

MODEL: IPE-410C

Your IPE Price/Performance Leader!

The first fully featured
1 RU IP Encapsulator
at entry level price!

Features:

- **STANDARDS BASED COMPLIANCE**

- DVB/ATSC

- **EXCEPTIONAL PERFORMANCE**

- Output bit rates from 1 kbps to 10 Mbps/upgradeable to 100 Mbps → no platform upgrade required
- Hardware-based encapsulation provides exceptional reliability and latency

- **INTUITIVE GUI-BASED MANAGEMENT TOOLS**

- For local/remote unit configuration

- **TRAFFIC MONITORING TOOLS**

- Traffic statistics available for PID, MAC or IP address
- Real-time PID traffic monitor built-in
- PID traffic graphing tool provides daily/weekly/monthly/yearly traffic plots

- **UNSURPASSED RELIABILITY**

- Built-in 1:1 or 1:N redundancy
- Hardware-based Encapsulation Engine and TDM multiplexer
- Solid State disk drive – no moving parts
- Embedded OS

- **INDUSTRY LEADING QoS COMES STANDARD**

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

- **OPPORTUNISTIC DATA PROFILE(S)**

- → Minimize null packet transmission and maximize satellite resource usage

- **INTREGATED DVB-RCS SUPPORT**

- ASI Input to handle MPEG-based FSH stream or general MPEG-2 traffic
- Full SI table support

- **SMALL 1RU FORM FACTOR**



For additional information or details on Novra's product offering, please contact us at:
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Novra IPE Encapsulator Specifications

Model: IPE-410C

INPUT PHYSICAL INTERFACES

- 10/100Base-T Ethernet interface for management (RJ45)
- 10/100Base-T Ethernet interface for data (RJ45)
- Optional ASI Input

OUTPUT PHYSICAL INTERFACES

- ASI (BNC) or optional SPI (LVDS) (DB25)

SIZE, WEIGHT AND POWER

- 1.75" (H) X 19" (W) X 18" (D)
- Weight: 6 Kg (13 lbs)
- AC Power: 55W Typical

NUMBER OF PIDS SUPPORTED

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

SUPPORTED PROTOCOLS

- Multi-Protocol Encapsulation (MPE)
- 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
- SNMPv2

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
- Burst mode or packet mode transmission
- Full TDM hardware multiplexer (queuing, shaping, and scheduling)

MANAGEMENT

- Remote or Local Configuration Manager
- Real Time Traffic Monitoring Application
- MRTG-based PID graphing tool provides traffic summary on daily, weekly, monthly and yearly basis

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

SECURITY

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

REDUNDANCY

- 1:N redundancy
- Up to 250 transport streams

Summary of IP Encapsulator Option Packs

- **Basic Unit** provides up to 10 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 in 10 Mbps steps from 10 Mbps to 100 Mbps and provides for up to 64 traffic profiles.
- **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.

Ordering Information

- Call for detailed pricing information on the IPE-410C and available Option Packs.

