



The new dpi4502 is the first DVB-S2 compliant IPv4 / IPv6 encapsulator available in the DVB satellite market

dpi4502 is a DVB-S2 compliant IP encapsulator solution running from low data rates to full transmission range, supporting DVB-S2 generic stream encapsulation (GSE) and base band framing (BBF).

dpi4502 is the latest development of our product family of IP/DVB encapsulators. Its primary purpose is to give customers the ability to seamlessly integrate IP and other data services over DVB technology in existing DVB compliant video broadcast distribution systems. *It fully implements DVB standard EN 301 192 multiprotocol encapsulation (MPE) as well as ULE, data piping, GSE (DVB bluebook A 116), base band framing (EN 302 307) and other customized transmission modes.*

dpi4502 hardware and software solution

dpi4502 is based on x86 hardware and Linux® operating system (OS) software. This allows dpi4502 to become a very stable but also simple design system. *Drivers are fully embedded in the OS kernel thus improving performance.* It comes in a 1U high, 19" chassis and has two Fast Ethernet input ports/output ports, one ASI input port (option) and one ASI output port (option).

dpi4502 routing capabilities

dpi4502 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/DVB-S2 switch completes the routing information with the MPEG-II transport stream packet identifier (PID) and receiver's Ethernet MAC address information.

In standard DVB-S mode the encapsulator accepts incoming packets according to its switching table and forwards packets after adding appropriate section information (header and trailer) and MPEG-II transport headers to a connected DVB compliant modulator or multiplexer via the ASI interface.

In DVB-S2 mode the unit encapsulates IP packets in either the GSE or TS format and builds appropriate DVB-S2 compliant base band frames, which are sent either via the Ethernet output - as normal or Jumbo frames - or ASI output interface (option).

dpi4502 DVB-S2 capabilities

dpi4502 handles normal and short BB frames at the same time. It can provide individual BB header

configurations for any of the encapsulated payload, including different MODCOD parameters.



dpi4502 PSI/SI capabilities

dpi4502 fully implements MPEG-II program specific information (*PAT, CAT, PMT*) and DVB service information (*NIT, SDT, BAT, TDT, EIT, TOT, INT, RST*) according to DVB standard PSI and SI table implementation. dpi4502 complies with ETR 290.

dpi4502 standard features

- Easy to use remote monitoring and control via secure shell access and *Web interface*
- *PSI/SI table implementation* according to MPEG-II and DVB standards
- *Input PID filtering and NULL packet cancellation*
- User level access is controlled by *password security*
- *RFC 1112, RFC 2464* for IP multicast and IPv6 multicast address mapping
- *MPE/ULE section packing* for enhanced packet throughput
- *Base band frame packing* for enhanced frame throughput
- *DVB-S2 mode Generic Stream Encapsulation, Base band Framing at more than 200 mbps*

dpi4502 advantages

- dpi4502 gives full control of configuration parameters
- dpi4502 provides independent multi-user access
- dpi4502 allows a smooth system upgrade to IP protocol based multimedia services
- dpi4502 is a low cost high performance IP encapsulator solution
- dpi4502 supports *IPv4 and IPv6* packet transmission in concurrent sessions
- dpi4502 provides *UDP/IPv4 to UDP/IPv6 conversion*