The CP560 DVB-T2 Gateway provides a central point of control for DVB-T2 and DVB-T2 Lite networks, enabling the operator to take advantage of the more efficient spectrum utilization promised by next-generation terrestrial broadcasting.

CP560 rearranges the transport stream into the DVB-T2 Modulator Interface format. The DVB-T2 Modulator Interface also controls the modulator parameters and provides the accurate timing and rate control required in an SFN network.

The CP560 is part of T-VIPS’ cProcessor toolbox which makes TS processing simple and delivers flexible, cost-effective interfacing to broadcast and IP-based networks.

The CP560 provides flexible interfacing with ASI or IP inputs, and DVB-T2 MI outputs over ASI and IP. It encapsulates one or several MPEG transport streams in a single Physical Layer Pipe (PLP) or multiple PLPs.

DVB-T2 promises significantly better frequency resource utilisation in terrestrial networks than DVB-T. In fact, DVB-T2 can give up to 50% increase in on-air available bandwidth. Amongst other things, The DVB-T2 standard provides additional frequency bandwidth options, extended carrier modes up to 32k, as well as rotated constellations which provide increased carrier robustness.

**Applications**
- Gateway between DVB-T2 head-ends and transmission network
- DVB-T2 preprocessing
- DVB-T2 Lite networks
- Centralized control and signalling of DVB-T2 modulators
- Synchronization for DVB-T2 SFN networks

**Key Features**
- DVB-T2 MI interface to the DVB-T2 and DVB-T2Lite modulators
  - L1 signalling insertion
  - SFN time stamp insertion
- Seamless SFN/MFN T2 switching
  - Support for deterministic T2 frame alignment
- Single and multiple PLP operation
  - Encapsulating the transport stream in DVB-T2 baseband frames
  - Mapping of input transport streams into individual PLPs
- Individual signalling of DVB-T2 modulators
  - Multiple Input Single Output (MISO)
  - Peak to Average Power Ratio (PAPR) parameters
- ASI and IP input/output interfaces
  - Support for Reed-Solomon on ASI output
  - Support for FEC on IP input and output (option)
- Input redundancy
  - Automatic input switching on signal loss or critical alarm condition (option)
- User-friendly configuration and control
  - WEB/XML based remote control
  - SNMP agent for easy integration with NMS systems
  - Integrated with T-VIPS Connect
  - Validation of T2 parameters
**Transport Stream Interfaces**

**Connections:**
- Ports: 1-10 DVB ASI
  - 1-8 inputs/outputs, min. 2 outputs
- Connector: Female BNC
- Input Bit rate: Max. 213 Mbit/s
- Output Bit rate: Max. 213 Mbit/s

**Gigabit Ethernet (option):**
- Type: 2x 100/1000Base-T Ethernet
  - 1 x SFP (option)
- Connectors: RJ45 (100/1000Base-T), SFP
- TS Encapsulation: SMPTE 2022-2
- Forward Error Correction: SMPTE 2022-1
- TSoIP inputs/outputs: Up to 8 in/8 out (IP smallcast)

**Features**
- DVB T2 - MI adaption: DVB-T2 versions 1.1.1, 1.2.1 and 1.3.1
  - Single and multiple PLP
  - T2 MIP and SFN time stamp insertion
  - Individual addressing and FEF
  - L1 signalling
  - Bandwidth: 1.7, 5, 6, 7, 8, 10 MHz
- Clock reference: 1 PPS
- UTC time reference: SNTP adjustment
- Input signal monitoring: ETSI TR 101 290 priority 1
- T2-Lite support: New parameter options for mobile applications
- Input redundancy: Input switching on loss of signal or critical alarm condition
- Deterministic T2 alignment: DVB T2 frames are synchronised to absolute time for seamless switching between two independent CP560.

**Control and Management**
- Type: 10/100 Base-T Ethernet
- Connector: RJ45
- Features:
  - Element control through HTTP/WEB
  - XML Configuration import and export via HTTP
  - SNMP control and monitoring.
- Protocols: HTTP, XML, SNMPv2c
- Alarm Relay: 9 pin D-SUB. Support for two relays, one of which is configurable.
- Maintenance Port: USB version 1.1

**Physical and Power**
- Input Voltage: 100-240V AC +/- 10%, 50/60 Hz
- Input Voltage Option: -48V DC
- Dimensions: 1 RU, ½-width 19"
  - 210 x 300 x 44.5mm (WxDxH)
  - Two units in 19" 1 RU rack
- Installation: 19" rack mounting kit supplied

**Environmental Conditions**
- Operating Temperature: 0°C - +50°C
- Storage Temperature: -20°C - +70°C
- Relative Humidity: 5% to 95% (non condensing)

**Compliance**
- CE: 73/23/EEC (Low voltage equipment)
- 89/336/EEC (Electromagnetic compatibility)
- CSA: Designed for CSA approval
- Safety: IEC60950 and EN60950
- EMC: EN55022, EN55024, EN61000-3-2

---

T-VIPS continuously improves its product portfolio and reserves the right to modify the specifications without prior notice. Revision Date: 10.2012