



DVB - IP GATEWAY

T-Gate is a solid state DVB-T to IP gateway. Each T-Gate blade takes an RF DVB-T feed, extracts and filters the MPEG-2 Transport Stream packets and retransmits them to multiple multicast or unicast UDP targets via an Ethernet interface. Using a single T-Gate blade, a number of Digital Terrestrial TV and Radio services can be transferred to standard Ethernet networks.

Enterprise Digital Television

T-Gate is a single card solution which acts as a gateway between a broadcast DVB multiplex and UDP/IP network streams. Each blade is capable of transporting an entire DVB multiplex onto the Ethernet network. This represents a data rate of about 24Mbit/s for DVB-T.

Anticipating that users will usually want to stream individual channels from the DVB Multiplex to separate destinations on the network, Cambridge Imaging Systems have designed T-Gate to allow for up to 11 UDP streams from a single card.

Each stream from T-Gate is a standards compliant MPEG-2 Transport Stream, complete with PAT and PMT packets that correctly describe the contents, allowing playback on a wide variety of decoders.

T-Gate constantly monitors the DVB System Information contained within the tuned multiplex. This information is used to maintain an up-to-date channel list, enabling channels to be started and stopped using only the logical channel number. On selecting a channel to stream, all the associated content can be transferred to the network. This includes, but is not limited to, audio, video, sub-titles, system information, MHEG, etc.

Networking

100Base-T full duplex
Ethernet interface

RF front end information

Input/loop through: IEC UHF socket + plug
COFDM Modes: 2K and 8K supported
Frequency Bands: 146MHz to 862MHz
Modulation: QPSK, 16QAM, 64QAM
Guard Interval: 1/4, 1/8, 1/16, 1/32
Error Correction: Reed Solomon and Viterbi

Configuration

Interface provided by RS232, USB, Telnet, HTTP and Automation Interface

Dimensions

210x100mm (blade only)

Stream targets

Up to 11 unicast or multicast UDP streams. Each stream can filter up to 32 PIDs from the multiplex. This means that approximately 5 complete TV services from the original DVB transport stream can be streamed to a single UDP target. In most cases, a single TV service or up to 16 radio services are streamed to each target. For specialised use, the complete DVB multiplex transport stream can be streamed to a target.

Management streams

Status and EPG information (where available) is optionally streamed to a separate UDP target.



Each T-Gate blade uses a custom operating system. This runs the management interfaces, Telnet, RS232 and HTTP as well as system and performance monitoring tasks.

Enclosure options include a 3U 19" rack mount chassis for up to 9 blades or small desktop cases for a single blade. The rack mount chassis supplies power and cooling to the blades and different types of blades can be mixed and matched.

T-Gate is a low power device and only uses approximately 8 watts per blade. The Desktop unit uses approximately 14 Watts.

The T-Gate range includes a 3U Sub rack with integrated PSU for 9 gateway cards and a Desktop case and external PSU for one T-Gate module.

