D2FLEX™ 3000 IP/ASI Multiplexing Gateway with SRT

The D2Flex 3000 is a broadcast quality IP/ASI video gateway that can send or receive a service over IP with any ASI or network source. Transmission of high quality video with low latency across the public internet is supported with the Secure Reliable Transport (SRT) protocol.

Broadcasters and video professionals can optionally insert emergency alerts (EAS) or add a dynamic PSIP electronic program guide (EPG) with local channel branding into a reliable MPEG transport stream. The D2Flex 3000 is an essential building block of any distributed transmission system where value, security and reliability are needed.

Applications

Public Internet Transmission: Leverage the power of a Secure Reliable Transport (SRT) to deliver broadcast quality video with low latency across the public internet.
Regionalization: Regionalize at head-ends and transmitter sites with advanced channel branding and dynamic PSIP insertion.
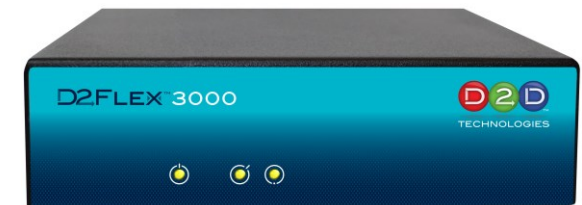
Key Benefits

Internet Streaming with SRT: The D2Flex features the standard Secure Reliable Transport (SRT) that provides end to end security and optimized streaming performance across unpredictable networks for the best quality video possible. The integrity and quality of the video is maintained by accounting for packet loss, latency, jitter and dynamically adjusting for bandwidth between each endpoint. Now you can reliably deliver low latency video over any network including the public internet.

18.764	0.627

srt://99.113.197.80:3011
BW: 19.8172 Drop: 0 Retran: 0 RTT: 1.015
Connected: 0h 2m 38s

Easily Rebrand Channels with EPG: Set the major and minor channel numbers on each output stream and pass through or regenerate the necessary PSIP tables. The optional D2Guide can insert an Electronic Program Guide (EPG) from services like Titan TV and Gracenote (TMS) or from a spreadsheet with programming for the next several weeks so your customers can find the programs they want.

Features

- Reliable public internet transmission of broadcast video with the Secure Reliable Transport (SRT) protocol.
- ASI to IP (TSoIP) encapsulation of one output stream on a Gigabit Ethernet link.
- Secure AES 128/256 bit encryption between each endpoint, critical for public internet transmission.
- IP (TSoIP) to ASI conversion enables multiplexing of a transport stream with add/drop of individual services.
- Network jitter correction and adaptation for transport of MPEG TSoIP.
- Configurable PSIP/SI major and minor channel numbers.
- Optional D2Guide for dynamic PSIP guide generation from Titan TV, Gracenote (TMS) or a spreadsheet.
- Compact 1/3 RU design with optional rack mount.

If you are looking for more IP streams, EAS Insertion, separate control and data Ethernet ports and redundant power supplies, step up to the D2Flex 5220.

D2FLEX™ 3000 IP/ASI Multiplexing Gateway with SRT

Specifications

ASI Inputs

- One ASI input, 75Ω up to 213 Mbps.
- Receive MPTS and SPTS with service filtering

ASI Outputs

- One ASI output, 75Ω
- Output up to 213 Mbps constant bit rate
- Programmable unique MPTS or SPTS
- PCR regeneration

Gigabit Ethernet (TSoIP)

- One Gigabit Ethernet (GigE), RJ45
- 10/100/1000Base-T auto-sensing
- Half and full duplex

Interoperability

- Video Formats: Transport stream MPEG-2 SD/HD and MPEG-4 (AVC) SD/HD
- Audio Formats: MPEG-1 Layer II and Dolby AC-3 service type control

Management

- Control over Ethernet, RJ45
- D2Manage Control browser interface
- SNMP remote monitoring with configurable traps

Secure Reliable Transport (SRT)

- Maximum SRT aggregate data rate: receive 60Mbps or send 80Mbps.
- Protocols: TS over SRT (UDP)
- Encryption: Advanced Encryption Standard AES-128, AES-256.
- Modes: Source (Caller), Destination (Listener) or Rendezvous.

Payload Processing

- Maximum UDP aggregate data rate: receive 160Mbps or send 160Mbps.
- Multicast: IGMP v1, IGMP v2, IP/UDP and IP/UDP/RTP multicast or unicast.
- Configurable packet format of 188 or 204 bytes per packet

Table Processing

- Advanced component/service/TS analysis and bit rate measurements
- MPEG/PSI Tables: PAT, PMT, CAT
- ATSC/PSIP Tables: MGT, VCT, STT, RTT, EIT, ETT
- DVB/SI Tables: NIT, SDT, TDT, EIT

PSIP Processing

- Pass-through and dynamic regeneration of PSIP tables.
- EPG Guide Services (D2Guide Option):
  - o Titan TV MediaStar PSIP Data Service
  - o Gracenote (TMS)
  - o Spreadsheet

Physical Characteristics

- Size: 1.75" high x 6.33" (1/3 RU) wide x 5.25" deep
- Power: 90-254 VAC at 50 or 60 Hz. Single external power supply.

Environmental Conditions

- Convection cooled (no fans)
- Operating Temperature: 5˚C to +40˚C
- Storage Temperature: -5˚C to +45˚C
- Relative Humidity: 10 to 90% (non-condensing)

Ordering Information

- D2Flex 3111: Gateway with 1 input and output stream, 1 ASI input and 1 ASI output
- D2Alert: Optional D2Alert for insertion of Emergency Alert System in transport stream.
- D2Guide: Optional D2Guide dynamic PSIP Guide generation from Titan TV or spreadsheet.
- D2F3PS: Power supply, 90-254 VAC at 50 or 60 Hz
- D2F3RM: Optional 1RU rack mount kit.

Specifications and product availability are subject to change without notice. D2D Technologies™ and D2Flex™ are trademarks of D2D Technologies, LLC. D2Flex3000.Rev.2.4. ©2019-2020 D2D Technologies, LLC. All rights reserved. Designed and manufactured in the United States of America. 9802-12 Baymeadows Rd Suite 106, Jacksonville, FL 32256 USA

D2D Technologies
Call us toll free at 844-D2D-TECH
Tel.904-323-4777 Fax.904-363-0967
sales@D2DTechnologies.com
www.D2DTechnologies.com