

TITAN Edge Gw

UNIVERSAL PROFESSIONAL ANY TO ANY GATEWAY

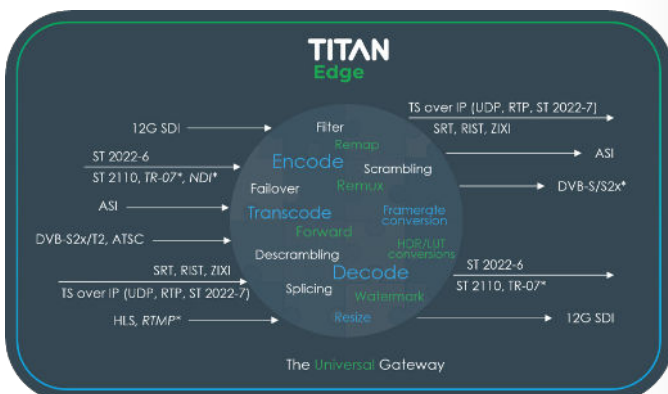
TITAN Edge Gateway is a multi-channels/ any inputs to any outputs solution, with easy set-up, fast signal lock and industry-grade input support.

Based on TITAN's software modular suite and leveraging full COTS approach, TITAN Edge is a versatile solution for operations running on-premises, off-premises or a combination of the two: High HD density, 4K, Satellite/ Terrestrial/IP reception, Over-the-Air or scrambled sources, Gateway, IP Turnaround.

Implementing state-of-the-art SMPTE 2022 standards, TITAN Edge Gateway is the first professional cloud native solution improvable to support full IP video contribution & distribution in the cloud.

In addition, TITAN Edge Gateway features interfaces to standard PCIe boards to support any type of use-case and build the most adapted and efficient solution for on-premises reception.

The TITAN Edge Gateway features advanced ARQ solutions with failover of any input type to be descrambled and forwarded to any output type making it a comprehensive solution to contribute from/to the cloud.



Key Features

- Any to Any input failover matrix
- Solution for Any input to Any output types
- Multi DVB-Common Interface option
- BISS-CA decryption system support
- Service filtering with remuxed output
- BISS-CA MPTS scrambling over any output
- Contribution over Internet support
- Video Transcoding, Framerate converter
- On-premises/off-premises/Cloud solution

Value-Added Benefits



Lower OPEX

High density with high quality of service



Modularity

Full flexibility and scalability



Software based

Future-proof and high ROI



Industry Grade

Smooth operations based on proven interoperabilities

I/O

Inputs

MPEG2-TS over UDP/RTP (Unicast/Multicast) input
FEC ProMPEG CoP3r2
IGMPv3 Source Filtering (SSM)
RF input
ASI input
Zixi receiver - push and pull modes
SRT receiver - caller, listener and rendez-vous modes
RIST receiver (simple and main profile)
HLS Receiver, DASH Receiver*
RTMP receiver
Failover Any to Any & SMPTE 2022-7

Outputs

MPEG2-TS over UDP/RTP (Unicast/Multicast)
FEC ProMPEG CoP3r2
Mirroring for SMPTE 2022-7
ASI Output
Service filtering with remuxed output
Zixi feeder - push and pull modes
SRT feeder - caller, listener & rendez-vous modes
RIST feeder (simple and main profile)

Video

Video Decoding**

Input up to 12-bit 4:2:2 HEVC UHDp59.94
HEVC, H264, MPEG2, JPEG2000 (J2K) decode

Video Transcoding**

HEVC (Main 4:2:0/4:2:2 10/12-bits) 120 Mbps max
H.264 (Main/High 4:2:0/4:2:2 8/10-bit) 120 Mbps max
MPEG-2 (4:2:0/4:2:2 8-bit), 80 Mbps max
MPEG-4 AVC - I mode
Resolution upscale & downscale

Video Processing**

CABAC, CAVLC, MBAFF, PAFF
Resize & Noise Reduction filters
Psychovisual Filter
Enhancements Interoperable Ultra Low latency mode
Logo insertion - Emulated video output
Framerate conversion**

Remux

Up to 10x TS input remux
Up to 4x filtered independent outputs
Program filtering, remapping & renaming
PID filtering, remapping, passthrough

Content Protection

Descrambling

BISS 0/1/E (Tech 3292-rev.2 and EBU R139)
BISS-CA (Tech 3292-1) *
DVB-CI Common Interface Hardware option to descramble
Multi services descrambling
Support of major CAS vendors: Conax, Irdeto, NDS, Viaccess

Protection

DVB-CI CAM/IRD Pairing
Fingerprinting: EMM/ECM controlled, OSD
Watermarking: Nagra NexGuard, Verimatrix StreamControl,
Viaccess-Orca WAO, Irdeto TraceMark

Scrambling**

BISS-CA (Tech 3292-1)

System

Secured Web UI for system/channels management
Mosaic and dedicated monitoring Web UI
In-band and Out-Of-Band Management
Integrated Firewall per interface
NTP and PTP support, DNS resolution
HTTPS REST API (documented through Open API v3.0)
JSON Configuration export/import
SNMP (MIB v2c) to remote supervisor (alarms & traps)
64 Presets configurations memory
Fw/Lic/Config/Assets Update - Over The Air (ETSI 102-006)
Remote Syslog, VPN support, IGMPv3 support
User Management/scopes and LDAP support
INTEL & AMD CPU supports
BIOS & UEFI boot system support

Demodulation

Multi RF demodulator with selectable RF inputs
L-Band input, C-band, Ku-band support
Frequency Range: 950-2150 MHz (L-Band)
C/N, BeR, C/N margin, Link margin monitoring ***
Automatic, Manual DVB-S/S2/S2x selection ***
Adjustable Search Range ***
Support VCM, CCM *
DVB-S (EN 300421) & (DSNG EN 301210-1.1.1)
DVB-S2 (EN 302307-1) / DVB-S2x (EN 302307-2)
LNB Control
8VSB demodulation, compliant with America ATSC

Modulation**

L-Band RF SMA 50 Ohms output (950-2150MHz)
IF Band RF SMA 50 Ohms output (50-180 MHz)
Symbol Rate: 0.05 to 80MBAud / Step 1Baud
Main output: -35/+3 dBm $\pm$ 1 dB
Main output step size: 0.1dB, stability: $\pm$ 0.1dB/10°C
Frequency step size 1 Hz, Accuracy 0.4 Hz
Spurious In-Band < -65dBc/4kHz
Shoulder rejection < -50dB
Monitoring output Main - 20dB
Ref External Input / Output 10 MHz
DVB-S (EN 300421)
DVB-S (DSNG EN 301210-1.1.1)
DVB-S2 (EN 302307-1) / DVB-S2x (EN 302307-2)

Front Panel

For Server DELL XR2, R640/R6515, T-RUG
6-keys keyboard for input & navigation
Presets import and export from USB *
TS capture download from USB slot *
First ISO install from USB
Serviceable Air Filters
CAM Module in 2.5" HDD Dell housing (up to 8 in 1-RU) *

Rear Panel

IP interface

Up to 25GB***

ASI interface

Up to 8 x DVB-ASI reversible (input or output) ***

CAM interface

Up to 2 x DVB-CI CAM Module per PCIe board ***

RF interface

Up to 4 x RF connectors / 8 demodulators per PCIe board ***

* Contact your sales representative for the detailed list of features

** Contact factory for availability

*** Refer to the PCIe board used