

TITAN Edge Dec

LOW LATENCY 4K PROFESSIONAL INTEGRATED RECEIVER DECODER HEVC, H264, MPEG2

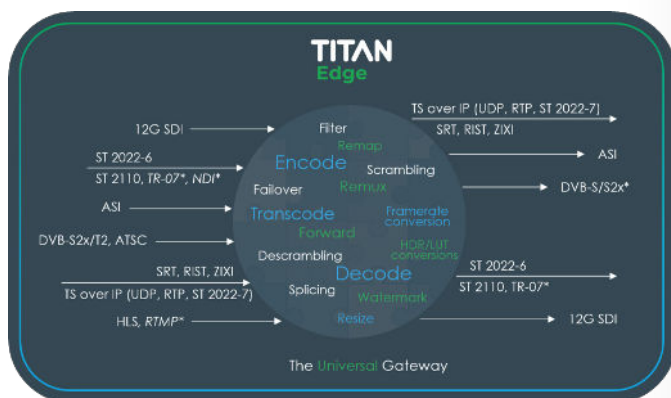
TITAN Edge Decoder is a multi-channels/
multi-CODEC IRD, with easy setup, fast signal
lock and industry-grade input support.

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
2022/2110 standards, TITAN Edge Decoder
is the first professional cloud native low laten-
cy solution enabling full IP video operations
in the cloud.

In addition, TITAN Edge Decoder features
interfaces to standard PCIe boards to sup-
port any type of use-case and build the most
adapted and efficient solution for on-pre-
mises reception.

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



Key Features

- SD/HD/UHD HEVC, H264, MPEG2, J2K
- Decoding up to UHD 4:2:2 12-bit
- BISS-CA decryption system support
- Low latency mode
- Confidence Audio / Video input monitoring
- DVB-Common Interface option
- Decoder output up to 12G-SDI
- SMPTE 2110 & JPEG-XS Output
- HDR/LUT conversions
- Contribution over Internet support
- On-premises/off-premises 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

Video

Decoding up to 12-bit 4:2:2 HEVC UHDp59.94
HEVC, H264, MPEG2, JPEG2000 (J2K) decode
Video Confidence monitoring on front panel and web UI
Carrier ID from the NIT
PID filtering demux
SDR, HDR Metadata in SDI out (SMPTE-2108)
SCTE-35 Triggered Ad insertion
HDR & LUT conversions
Framerate conversion**

Audio

MPEG-1 Layer II, AAC-LC, AAC-HEv1/v2 decode
Dolby E, AES302M pass through
DD / DD+ / AC-4 decode & passthrough
5.1 to stereo downmix
Audio/Video delay +/- 500ms
Audio decode and Pass-through
Up to 16 mono channels on SDI
Audio Confidence monitoring on web UI

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

Up to 12G-SDI output
2 independent outputs per channels
SMPTE 2022-6 and SMPTE 2110 output
Mirrored output for SMPTE 2022-7
JPEG-XS output on SMPTE 2110-22 and TR-07
SMPTE 2110 Control with AMWA NMOS IS-04 and IS-05

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)
DVB-S (DSNG EN 301210-1.1.1)
DVB-S2 (EN 302307-1) / DVB-S2x (EN 302307-2)
LNB Control
8VSB demodulation, compliant with America ATSC

Front Panel

For Server DELL XR2, R640/R6515, T-RUG
Confidence Audio/video monitoring with LCD Menus
6-keys keyboard for input & navigation
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

Minimum of 2 x 10GE - Refer to the server used
2 x QSFP28 per Mellanox Connect-X5 board (25Gbps) ***
Up to 8 x DVB-ASI reversible (input or output) ***
2 x DVB-CI CAM Module per PCIe board ***
Up to 8 x 3G-SDI (SMPTE-424M) ***
Up to 2 x 12G-SDI (SMPTE-2082) ***
Up to 16 audio embedded mono channels per SDI
Up to 2 AES/EBU & Analog input and output
Genlock connectors - BlackBurst / TriLevel ***
4 x RF connectors / 8 demodulators per PCIe board ***
RF input level: -65 dBm to -25 dBm

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

* Contact your sales representative for the detailed list of features

** Contact factory for availability

*** Refer to the PCIe board used