TITAN Edge Encoder is a multi-channels modular encoder, baseband as SDIoIP input, to any outputs, providing pristine video quality at low-latency profile.

TITAN Edge Encoder is the high-density contribution solution for 4K and HD in HEVC 4:2:2 12 bits as in H264 4:2:2 10 bits

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: 4K, multi HD encode, Low Latency, IP/ASI/Modulator output.

Implementing state-of-the-art SMPTE 2022/2110 standards, TITAN Edge Encoder is the first professional cloud native low latency solution enabling full IP video operations in the cloud.

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

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

KEY FEATURES

• SD/HD/UHD HEVC, H264, MPEG2
• Scalability to UHD 12-bit 4:2:2 codec solution
• BISS-CA encryption system support
• Low latency mode
• Confidence Audio / Video input monitoring
• Encoded, transcoded & statmuxed output
• Service filtering with remuxed output
• On-premises/off-premises solution
VIDEO

Video Compression
HEVC, Main 12, Main 4:2:2 10, Main 4:2:2 12, 120 Mbps max
H.264 (4:2:0/4:2:2 8-bit, 4:2:0/4:2:2 10-bit), 120 Mbps max
MPEG-2 (4:2:0/4:2:2 8-bit), 80 Mbps max
MPEG-4 AVC - I mode

Video Processing
CBAC, CAVLC, MBAFF, PAFF
Resize & Noise Reduction filters
Psychovisual Filter Enhancements
Interoperable Ultra Low latency filters
Input format detection **
Auto input format configuration mode **
Seamless Channel Insertion (SCI) **
Logo insertion – Emulated video output

Ancillary data
AFD, WSS, VPS, VPI, VITC, ATC, CC,
DVB Teletext, SMPE2TE031, OP47,
SCTE35 insertion via SCTE104 triggers

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 ± 1 dB
Main output step size: 0.1dB, stability: ±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 Xr2, R640 / R6415 / R6525
Confidence Audio/video monitoring with LCD Menus
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

AUDIO

Audio Compression
MPEG1-L2, MPEG-2/MPEG-4 AAC-LC, AAC-HEv1/HEv2 encode
DD/DD+ encode, Dolby E decode
Dolby Digital E, DD/DD+, AES-302M pass-through

SCRAMBLING

BISS 1/E (Tech 3292-rev.2 and EBU R139)
BISS-CA (Tech 3292-1)

ARQ SOLUTION

Zixi feeder* - push and pull modes
SRT feeder - caller, listener & rendez-vous modes
RIST feeder*

FEATURES, CONFIGURATION & MANAGEMENT

Web Graphic User Interface (create, delete and edit decoding channels)
Video and Audio Confidence monitoring on front panel and web GUI
64 Presets configurations memory slots
In-band and Out-Of-Band Management
SNMP (MIB v2c) with remote SNMP supervisor (alarms & traps)
REST API (documented through Open API v3.0)
JSON Configuration export/import
MPEG2-TS over UDP/RTP (Unicast/Multicast)
FEC ProMPEG CoP3r2
Failover Any to Any & SMPTE 2022-7
Carrier ID from the NIT
Service filtering with remuxed output
Multi-Protocol Encapsulation
Remote Syslog, VPN support, IGMPv3 support
INTEL and AMD family support

* Contact your sales representative for the detailed list of features
** Contact factory for availability
*** Refer to the PCIe board used