

TITAN™ MPEG Video Encoder

Applications

- Satellite Sports Contribution
- Satellite News Contribution
- IP Program Contribution and Distribution

Features

- SD and HD up to 1080p60
- 2D and 3D with SENSIO® Hi-Fi 3D
- Analog and Digital Video and Audio inputs as standard
- Best-in-Class MPEG-2 and MPEG-4 Video Compression
- Advanced Audio Compression for up to 8 Stereo Pairs
- Audio Pass Through
- Internal DVB-S2 Modulator plus ASI and Ethernet Outputs
- BISS Encryption
- Internal Multiplexer
- User Interface designed specifically for Outside Broadcasting
- Feature set upgradeable using software license keys

High performance video encoder built to tackle the unique challenges of professional outside broadcasting.

Purpose Built for Outside Broadcasting

It is almost twenty years since IDC supplied some of the world's first MPEG encoders and decoders to be used in outside broadcast vehicles. We now have units deployed in almost every country in the world, helping our broadcast customers tackle the unique and demanding challenges of news and sports contribution. TITAN combines updated core technology capable of delivering new levels of performance, with an overall product design based on nearly two decades of outside broadcast experience.

Easy to Use

Setting up a video encoder can be challenging at the best of times. Errors made while configuring encoders in the pressurized environment of a major sports or news event can prevent feeds from getting through. TITAN has been designed to enable operators who might not be experts in video compression, to set up contribution links quickly and easily. Extremely intuitive menus and front panel controls allow operators to define and enable compression and modulation parameters with only minimal training. For users who prefer Web based control, the built-in Browser interface is equally intuitive and easy to use.

Interoperability

Ensuring success in an outside broadcast transmission requires interoperability with both the content being sent, and the equipment used to receive it. The TITAN encoder handles a very wide range of news and sports formats: from PAL or NTSC; from 720p to 1080i, and all the way to 1080p60 or even 3D encoding. Combined with IDC's commitment to open standards and full interoperability testing with the world's leading decoder vendors, you can be sure that the TITAN encoder will work in any broadcast environment.

Flexibility

At IDC we understand that your needs may change over time. TITAN is available in two versions; **TITAN One** supports standard definition; while **TITAN Two** can support both standard and high definition. TITAN's flexible, software license-based architecture allows you to purchase only those features required today, and upgrade to a more advanced feature set as your requirements evolve. With a highly flexible and functional modulator, and the ability to add features such as an internal multiplexer, BISS encryption, and advanced audio and video formats, the TITAN offers a future-proof investment.

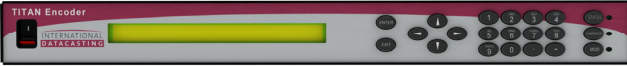

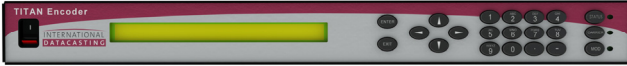

Outstanding Compression Performance

While everything else is important, impressive audio and video quality is critical to successful broadcasting. Through its unique combination of ASIC and FPGA technologies, the TITAN delivers industry leading video and audio compression quality. Advanced features including: dynamic GOP; and scene change, fade, and skin tone detection, allow TITAN to deliver the absolute best picture possible using whatever bandwidth is available. The TITAN supports low delay modes for interview transmissions, and single camera feeds can take advantage of extended GOP structures to provide outstanding video quality at extremely low bit rates.

Cost Reduction

The combination of DVB-S2 modulation and TITAN's advanced MPEG-4 AVC compression allow operators to deliver outstanding audio and video feeds at a much reduced satellite bandwidth cost. Most TITAN users report being able to provide HD contribution feeds in an equal or smaller bandwidth than they had previously used for SD transmissions. TITAN makes standard definition news operation at 1 MSymbol/s a reality.

TECHNICAL SPECIFICATIONS—TITAN™ MPEG Video Encoder

TITAN One								
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STANDARD FEATURES AND SOFTWARE LICENSABLE OPTIONS

ASI Output standard	<ul style="list-style-type: none"> 2 x DVB-ASI on BNC (200 kbit/s - 108 Mbit/s)
Ethernet Output standard	<ul style="list-style-type: none"> 100/1000 Base-T (MPEG TS over IP)
Video Compression TITAN-VC-MP2-420 software option TITAN-VC-MP2-4220 software option TITAN-VC-MP4-420 software option	<ul style="list-style-type: none"> 100 kbit/s - 40 Mbit/s <ul style="list-style-type: none"> MPEG-2 4:2:0 MP@ML/HL/HP MPEG-2 4:2:2 HP@ML/HL MPEG-4 4:2:0 (H.264 MP/HP to L4.2)
VBI Support standard	<ul style="list-style-type: none"> Embedded Closed Captioning EIA608 and 70
Audio Compression standard TITAN-SW-AAC-LC software option TITAN-SW-HE-AAC software option	<ul style="list-style-type: none"> MPEG-1 Layer II (32 - 384 kbit/s) AC-3 5.1 Pass Through (32 - 630 kbit/s) <ul style="list-style-type: none"> AAC-LC (16 - 576 kbit/s) HE-AAC V1 and V2 (16 - 128 kbit/s)
Additional Audio Channels (TITAN Two) TITAN-SW-AUD-2P software option	<ul style="list-style-type: none"> Two Additional Compressed Audio Pairs Up to 8 Pairs - for TITAN Two only
Transport Stream Re-Multiplexer TITAN-SW-MUX software option	<ul style="list-style-type: none"> ASI input for internal multiplexing 200 kbit/s to 80 Mbit/s
BISS Conditional Access TITAN-SW-MUX software option	<ul style="list-style-type: none"> Basic Interoperable Scrambling System Conditional Access – Modes 0, 1 and E
DVB-S2 Support TITAN-SW-DVB-S2 software option	<ul style="list-style-type: none"> DVB-S2 (QPSK, 8PSK, 16APSK) – also requires Satellite Modulator hardware option

HARDWARE OPTIONS

Satellite Modulator TITAN-HW-IM-MOD hardware option	<ul style="list-style-type: none"> 1 to 68 MSymbol/s IF 70/140 MHz — 0 to -25 dBm L-Band High Stability 950 to 2,050 MHz DVB-S (QPSK) - standard with hardware DVB-S2 (QPSK, 8PSK, 16APSK) - requires software option
SENSIO®3D Input Module (TITAN Two) TITAN-2-HW-IM-S3D hardware option	<ul style="list-style-type: none"> HD-SDI inputs from a stereoscopic camera and visually lossless SENSIO®3D stereoscopic compression

STATUS AND CONTROL INTERFACES

- Integrated Web browser
- SNMP V2C
- Front panel with full control

POWER REQUIREMENTS

Supply Voltage	100 to 240 VAC, 50 or 60 Hz
Power Consumption	60 Watts maximum

PHYSICAL PARAMETERS

Chassis	1RU rackmount
Dimensions (H, W, D)	4.5 cm x 48 cm x 45.7 cm (1.75" x 19" x 18")
Weight	5.5 kg (12 lbs.)

ENVIRONMENTAL CONDITIONS

Operating Temperature	0° to 50° C (32° to 122° F)
Storage Temperature	-20° to 70° C (-4° to 158° F)
Humidity	Up to 90% humidity

International Datacasting Corporation (TSX:IDC) is a global leader in digital content distribution for the world's premiere broadcasters in radio, television and digital cinema. IDC's solutions and IDC Systems are in demand for radio and television networks, digital cinema, 3D live events, distance learning, satellite news gathering, sport contribution, digital signage, and IPTV among others.

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