



UE-9818 H.264 SD/HD DVB S/S2 DSNG Encoder

The rugged UE-9818 DSNG platform is a H.264 SD/HD DVB-S2 encoder/modulator/upconverter combination that provides a remarkable video experience at low bit rates. It is ideal for occasional broadcast transmissions requiring both high video quality and optimal bandwidth utilization.

Model descriptions

- UE-9818 - Single Channel H.264 SD/HD DVB-S/S2

Applications

The UE-9818 is ideal for satellite news gathering and fly-away applications that require fast set-up, low power consumption and transmission of broadcast-quality H.264 SD/HD DVB-S/S2 video. The UE-9818 is also suitable for fixed transmission applications.

Products Highlights

- Supports DVB-S2 /DVB-S
- H.264 SD, HD video encoding
- MPEG-2 SD video encoding (software license)
- Simultaneous L-Band, ASI and IP outputs
- QPSK / 8PSK / 16QAM satellite modulation schemes
- L-band monitoring
- Test pattern generator
- BISS mode 1 and BISS-E
- Local front panel control, Web-based management or SNMP remote control
- Cascading of up to 16 channels via ASI including passive
- ASI loop-through
- 16 pre-set configurations
- Selectable 10 MHz reference clock feed:
External or modulated

Business Benefits

DVB-S2 support reduces bandwidth costs

Enables broadcasters to broaden high-value premium offerings with HD channels

Channel reliability is boosted by simultaneous L-Band, IP output and ASI output capability

In-band DC power and 10Mhz clock for block upconverter reduces system cost

User-friendly control with specially designed front-panel menu for DSNG operation

Ability to BISS scrambling on PID level

UE-9818 Product Specifications

Inputs

HD Video

- Video formats: 1080i, 720p
- Input format: HD-SDI SMPTE292M
- Video Loop-through

Video Resolution

- 1080i x 1920, 1080i x 1440, 1080i x 960
- 720p x 1280, 720p x 960

Video Aspect Ratio

- 4:3, 16:9

Frame rates

- 1080i - 25Hz, 29.97Hz
- 720p - 50Hz, 59.94Hz

SD Video

- Video formats: NTSC/PAL
- Input format: SD-SDI

Video Resolution

- Horizontal:
720, 640, 544, 528, 480, 352
- Vertical:
 - NTSC-480, 240
 - PAL-576, 288

Video Pre-Processing

- Digital TBC (Time Base Corrector)
- Scene cut detection
- Automatic frame re-sizing

Processing

Video Encoding Formats

- HD H.264 HP@L4 or H.264 MP@L4
- SD H.264 MP@L3

H.264 Video Encoding Rate

- HD: 1 to 20 Mbps
- SD: 0.3 to 15 Mbps

MPEG-2 SD Video Encoding Rate (optional)

- MPEG-2 4:2:0 MP@ML 100Kbps - 15Mbps
- MPEG-2 4:2:2 P@ML 4Mbps - 15Mbps

VBI Processing

- CC according to EIA-708

Audio Encoding Formats

- MPEG-1 Layer 2
- Dolby Digital™ 2.0 (AC-3) (optional)

Output

- DVB-ASI
- Output rate: 1- 60Mbps

DVB scrambling (optional)

- BISS mode 1, BISS-E

IP Output

- Dual GBE IP output RJ-45, auto-negotiation, auto MDI/MDXI crossover
- UDP/RTP
- TOS, TTL configurable values
- Pro MPEG - FEC CoP3-r2 (optional)
- Supports M-SPTS

L-Band Output

- DVB-S QPSK / 8PSK / 16QAM (optional)
- DVB-S2 QPSK / 8PSK / 16APSK (EN 302 307) (optional)
- Frequency 950-1750 MHz (1KHz steps)
- Symbol Rate: 50ksps -15Msps

Control and Monitoring

Remote

- Web-based management
- SNMP

Local

- Graphical easy-to-use front panel with quick access keys and alphanumeric keypad

Physical Characteristics

Size

- 1RU (19" rack)
- Dimensions (H x W x D):
4.4 cm x 43.9 cm x 48.9 cm
(1.75" x 17.1" x 19.1")

Environment

Temperature

- Operating: 0°C to +50°C
- Storage: from -20°C to +70°C

Compliance

EMC

- FCC part 15
- EN55022
- EN55024

Video Aspect Ratio

- 4:3 and 16:9

Audio

- Input format: Analog/AES-EBU/embedded
- Up to 8 stereo or 16 mono channels
- Integrated sample rate converter (SRC)

Sync-Lock

- Black burst input
- Loop-through to feed other equipment

ASI Input

- Built-in multiplexer for encoder cascading
- Passive loop-through for cascading redundancy (optional)
- Up to 50 Mbps

Data

- Asynchronous RS232 up to 115Kbaud
- MPE (Multi Protocol Encapsulation) up to 20Mbps
- DVB subtitle via ASI input

Video In-loop Processing (H.264)

- De-bloccing filter

- MPEG-2 AAC LC (optional)
- MPEG-4 HE-AAC v1 (optional)
- MPEG-4 HE-AAC v2 (optional)
- Dolby Digital™ 5.1 pass-through
- Linear audio pass-through (optional)
- Dolby-E pass-through (optional)

Audio Mode

- Stereo, joint stereo, single channel, dual channel
- Sampling rates: 32K, 44.1K, 48K

Audio Encoding Rate

- MPEG-1 Layer 2 - 64 Kbps to 384 Kbps
- Dolby Digital™ - 56 Kbps to 640 Kbps
- AAC LC - 64 Kbps to 192 Kbps (stereo)

- Roll-off: 20%, 25%, 35%

- Output power: -7 to -50 (1dB steps)
- Spurious level: -65dB
- L-Band monitoring output @ -45dBm
- Constant Code rate Modulation (CCM) mode
- Supports 16Kb and 64Kb FEC blocks
- Supports Pilot mode

IF Output

- DVB-S QPSK / 8PSK / 16QAM (optional)
- DVB-S2 QPSK / 8PSK / 16APSK (optional)
- Frequency 50-180MHz (1KHz steps)
- Output Power +5dBm - -30dBm
- Selectable output impedance 50Ω/75Ω

External Block Up-Converter (BUC) support

- Selectable 10MHz reference clock (In-Band or external)
- Internal DC for BUC: up to 24VDC 500mA

SW Upgrade

- Easy-to-use FTP (File Transfer Protocol)

Dry contact alarms (GPI)

- 1 output for various status and faults

Presets

- Up to 16 different configurations

Weight

- 5 kg (10 lbs)

Power

- Voltage 90-260VAC, -48 DC (optional)
- Power consumption (Max): 70W per channel

Humidity

- 85% non-condensing

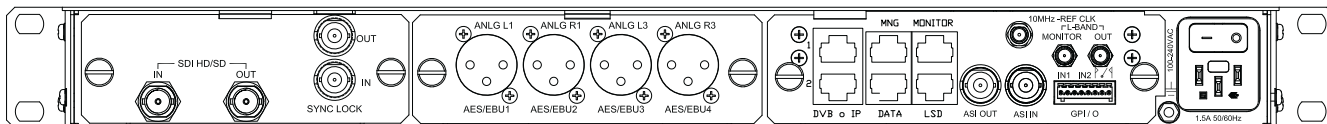
Safety

- EN 60950

The above features apply to the UE-9818 encoder.

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UE-9000 DSNG Series Configurations



	9216	9217	9318	9818
MPEG-2 encoding	✓	✓	✓	0
4:2:2 (MPEG-2)	✓	✓	✓	0
H.264 SD encoding	-	-	0	✓
H.264 HD encoding	-	-	0	✓
DVB-S	✓	✓	✓	✓
DVBS-2	-	0	✓	✓
L-Band output U/C	✓	✓	✓	✓
IF Output	✓	0	0	0

✓ - Basic feature 0 - Optional “-” - Not supported **Check for specific model availability**

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