Applications

► Professional Audio Networks

► DVB compliant encoding of audio signals

► Satellite feeds

► Distribution networks for radio stations

► Feeding digital cable networks

► StudioTransmitter Link

► Point-to-point connections

► Point-to-multipoint connections (up to 16 destinations)

Features

► Up to 8 digital stereo channels

► Up to 4 analog stereo channels

► MPEG TS over IP outputs (unicast or multicast)

► Output of elementary streams over IP

► Dual ASI output

► Transmission of ancillary data (over IP or serial interface)

► Cascading of multiple encoders

► 8 GPIO inputs

► Remote controllable over IP via SNMP

Compression algorithms for TS

► MPEG 1/2 Layer 2

► AAC

► Enhanced aptX

Compression algorithms for ES

► Linear PCM

► MPEG 1/2 Layer 2

► AAC

► Enhanced aptX

► OPUS

► G.711

► G.722

For Multi-Channel Audio with ASI & IP Outputs

The Q561 IP Audio Encoder features MPEG-4 Advanced Audio Coding (MPEG-4 AAC) and MPEG Layer 2 encoding capabilities. All of the common bit rates and sample rates are offered to enhance the IP delivery of Audio.

The Qbit Q561 IP Audio Encoder sets standards for high quality audio encoding.
Based on the proven Qbit platform, it provides highest signal quality, best build quality and service without compromise. Customers around the world trust our market leading IP Audio Encoder.

Either up to 8 digital or up to 4 analog stereo audio channels can be encoded simultaneously. They can then be output as MPEG-2-compliant DVB transport streams via the IP or ASI interface and as elementary streams via the IP interface. Several configurations are available to flexibly adapt the audio input configuration to the network requirements. Each channel can be configured individually.

The Q561 IP Audio Encoder can be conveniently managed via the integrated web interface with all common web browsers. The device can also be monitored and managed via SNMP.
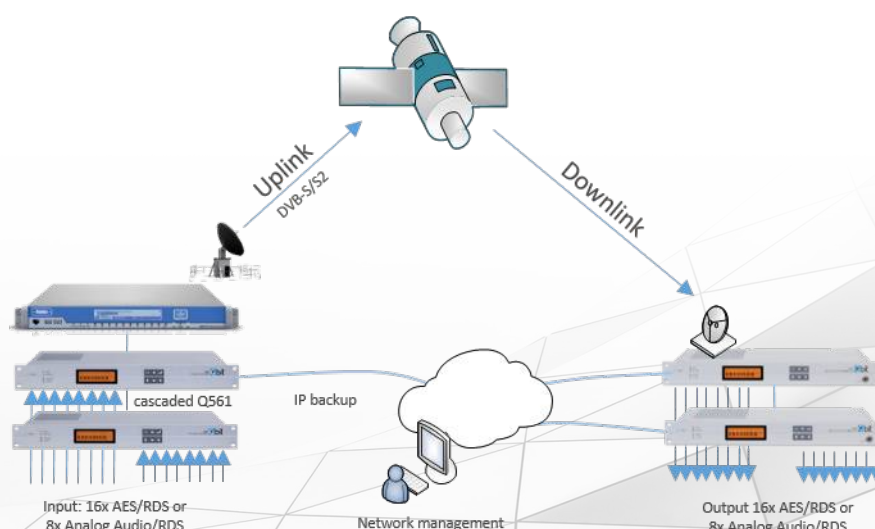
The unit is built in a compact 19'' 1 U housing. It is DSP-hardware based and highly energy efficient (< 2 W per stereo channel). Basic setup and status monitoring can be done via the control panel and the LC display on the front of the device. Users can select the audio quality by adjusting the codec, bit rate and sample rate via the integrated web-server.

Optionally, a second data interface can be used as a backup function.

If more than 8 stereo channels are required, you can cascade multiple Q561 devices and create a Transport Stream with up to 40 audio channels.

The transmission of ancillary data and switching contact information (GPIO) is possible with the default interfaces.

The Q561 is RoHS compliant and CE certified to meet the demand of users worldwide.

Specifications

Audio Input	
Digital (max. 8 stereo)	AES/EBU, electrical, XLR (IEC958)
Analog (max. 4 stereo)	► XLR, electronically balanced, 0 to +18 dBu (adjustable in 0.5 dB steps) ► Audio Frequency Range: 20 Hz to 20 kHz (± 0.3 dB) ► THD+N (1 kHz at max. level): < 0,01 % at 1 kHz ► Crosstalk attenuation at 1 kHz: > 100 dB ► S/N ratio (weighted): > 80 dB
Compression algorithms	► ISO/IEC 1172-3, 13818-3 MPEG-1/2 Layer 2 ► ISO/IEC 13818-7 MPEG-2 AAC ► ISO/IEC 14496-3 MPEG-4 AAC LC, HE-AAC, HE-AAC V2, AAC LD ► Enhanced aptX ► Linear PCM ► OPUS ► G.711 ► G.722
Encoding bit rate	► All bit rates are supported according to the standards of the respective algorithms (32 to 384 kbit/s). ► Sampling rate: 32kHz, 48 kHz
Modes	Stereo, Dual, Mono channel
Ancillary data	► Private stream via UECP within the MPEG-2 transport stream or embedded in MPEG audio data ► RS-232 interface ► Breakout cable (optional): 4 or 8 connectors, conversion from Sub D 25 to Sub D 9

Transport Protocols	
Over IP	► Output of DVB MPEG-2 transport streams including service information according to ETSI EN 300 468, compliant to „Pro-MPEG Code of Practice #3 release 2" (FEC optional, see below) ► Output of elementary streams
RTP over UDP	Pure UDP is possible
Over ASI (optional)	► ASI out and ASI Multiplexer, 2 Ports ► DVB MPEG-2 transport streams including service information according to ETSI EN 300 468
FEC (optional)	Pro-MPEG compliant

Network Interfaces	
2 separate Ethernet interfaces (IEEE 802.3, RJ45, 10/100 MBit/s) ► Data (elementary / transport streams via IP) ► Control (Web interface, SNMP and Ancillary Data)	
Additional data port RJ45 for redundant streaming (optional)	
DVB-ASI output , EN 50083-9 (optional)	
VLAN Management	

System Configuration, Control and Monitoring	
Via Ethernet by accessing the on-system HTTP web server with any Internet browser	
Silence detection (optional)	
Via Ethernet with SNMP Traps in case of triggered Alarms	
Via the front panel keyboard and display	

Power Requirements	
Supply voltage	► Integrated switching power supply, input voltage 100 to 240 V AC +/- 10 %, 50 to 60 Hz ► -48 V DC (optional)
Redundant power supply (optional)	The optionally available redundant power supply protects the operation of the device and comes with the following functions: ► Measurement of the power supply voltages, values are provided via web GUI or SNMP ► SNMP trap generation on power supply fail ► Activation of switching contacts on power supply fail ► Automatic switch-over in case of power supply fail
Power consumption	< 30 W

Physical Parameters	
Chassis	19" rack mount cabinet, 1 U
Size	► Width: 483 mm ► Depth: 360 mm ► High: 44 mm
Weight	4,5 kg

Environmental Conditions	
Operating temperature	0° to 45°C
Storage temperature	-20° to 70°C
Humidity	20% to 90%, non-condensing

Ordering Options

Q561 Model	Description
Base	► Licensed for one audio encoding channel ► MPEG Layer 2 supported ► RDS ancillary data (DVB standard TR 101 154) ► GPIO (8 inputs, 4 outputs)
Hardware Options	
4 Channel analog and digital	Q561 AD 1, Q561 AD 2 Q561 AD 3, Q561 AD 4
8 Channel digital	Q561 D 1, Q561 D 2 Q561 D 3, Q561 D 4 Q561 D 5, Q561 D 6 Q561 D 7, Q561 D 8
ASI	DVB-ASI output, only for transport stream model
Additional data interface	Backup functionality for redundant streaming
Additional power supply	Backup functionality
Software Options	**Description**
Transport stream	MPEG transport stream over IP outputs
Elementary stream	Elementary stream over IP outputs
Additional channel	► Additional licensed channel ► Max. 4 analog or 8 AES per unit
AAC Encoding Support	► AAC Encoding Support ► Licensed per channel
Cascading	Create a transport stream with up to 40 audio channels with multiple Q561 devices
FEC	Forward error correction
Audio Stream Guard	PID-OFF if Silence, automatically cuts the audio stream when errors in the audio input are detected (silence, AES lock loss)

Similar Products

Q562 IP Audio Decoder	Q572 DVB-S2 Audio Satellite Receiver
Q565 FM DVB Transcoder	Q567 DAB+ DVB Transcoder

Support Options

We are convinced of the high quality of our products. Hence, we are granting 2 years warranty without making compromises.

For the time after that, we offer affordable subsequent contracts.

For optimal support and for software updates and upgrades we offer budget-friendly support contracts.

● 2 years warranty
○ Hardware warranty extension up to 10 years

○ Service Contract Basic (Updates, Email support) (mandatory)

○ Service Contract Advanced (Updates, Email- and phone support, replacement devices etc.)

Legend: ► ● Default   ▷ ○ Optional