



## PRODUCT INFORMATION

The Q565 FM DVB Transcoder is the solution for converting FM signals to digital audio streams.

It enables the conversion of up to 8 FM channels into a DVB compliant MPEG-2 transport stream. The signals are then put out via IP (ethernet) or DVB-ASI.

This provides the perfect solution to integrate local FM stations into your digital cable network.

Many of our customers are using the Q565 to monitor the service quality of externally operated FM transmitting stations.

Qbit's long time experience in transporting and processing audio signals allows us to facilitate our proven and reliable platform for this product.

Our goal at Qbit is to maintain highest standards in build and signal quality.

Low power consumption and the compact design in industry standard dimensions (19", 1 U) without any fans allow easy integration of the device into your infrastructure.

There are several ordering options available to help you customize the product for your needs.

## MANAGEMENT AND CONTROL

The Q565 FM DVB Transcoder can be managed conveniently via the integrated web interface with all common web browsers.

Detailed information about the processed data (FM status, RDS information) are displayed.

The device can be monitored and managed via SNMP.

Configurable alarms automatically inform your systems about errors and events.

The basic setup and status monitoring can be performed with the control panel and the LC display at the front of the device.

DIGITAL SIGNAL FEEDING OF LOCAL FM RADIO STATIONS TO THE HEADEND.

MONITORING OF FM TRANSMITTING STATIONS.

# Q565 FM DVB TRANSCODER

## FEATURES

- transcoding of 4 / 8 FM stations into DVB compliant transport streams
- several compression algorithms
  - MPEG 1 Layer II
  - AAC
- compression algorithm can be set individually per FM channel
- all bit rates are supported according to the respective standards
- 32kHz, 48kHz sampling rate
- RDS data are extracted from the FM signal and converted to UECP. UECP data can then be embedded in MPEG audio data or transported as a private stream inside the MPEG-2 transport stream.
- comprehensive monitoring features via web browser or SNMP

## APPLICATIONS

- Feeding FM stations to digital cable networks
- Monitoring of remote FM stations via IP

The screenshot displays the web interface for the Q565 FM DVB Transcoder, showing configuration and monitoring data for FM 1. The interface is organized into several sections:

- Channel Selection:** A row of buttons labeled FM 1 through FM 8, with FM 1 selected.
- Encoder Settings:** Encoder: Analog XLR | 48kHz | MP1 Layer 2 (192 kbit/s | stereo); FM: 99.90 MHz | PS: SWR3
- Flags:** A row of four indicators: Valid (green circle), Pilot (green circle), Softmute (grey circle), and AFC rail (grey circle).
- Levelmeter:** A section showing signal quality metrics: RSSI: 74 dBµV (with a green bar), CNR: 48 dB (with a green bar), and Stereo Blend: 99 % (with a green bar).
- RDS:** A section displaying RDS data: PS: SWR3; RT: mit Wolken, Sonne und ein paar Schauern. 21 bis 27 Grad.; PI: D3A3; PTY: News; CT: 05.09.2014 11:01:00, UTC offs[4] = 2.0h; TA/TP: TA=0 TP=1; MS: [01] Music; DI: [09] Stereo, No Artificial Head, No Compression, Dynamic PTY
- RT+:** A section showing RT+ data: Tag 1: INFO.NEWS mit Wolken, Sonne und ein paar Schauern. 21 bis 27 Grad.; Tag 2: DUMMY -; Flags: T=1 R=0

## SPECIFICATIONS

### FM Receiver:

- 4/8 FM channels (one F socket per channel)
- input frequency: 87.5 to 108 MHz (64 to 108 MHz as an option)
- input sensitivity: 30 to 120 dB $\mu$ V

### Compression Algorithms:

- MPEG-1/2 Layer II (ISO/IEC 1172-3, 13818-3)
- MPEG-2 AAC (ISO/IEC 13818-7)
- MPEG-4 AAC LC, AAC LD, HE-AAC, HE-AAC V2 (ISO/IEC 14496-3)

### Bit Rate:

- all bit rates are supported according to the standards of the respective algorithms

### Sampling Rate:

- 32kHz, 48 kHz

### Ancillary Data:

- transport of Ancillary Data via UECP within the MPEG-2 transport stream

### Transport Protocols:

- via 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)
- Transport via RTP (over UDP), pure UDP is possible
- FEC (Pro-MPEG compliant)
  
- via ASI:  
Output of DVB MPEG-2 transport streams including service information according to ETSI EN 300 468

### Network Interfaces:

- 2 separate Ethernet interfaces (IEEE 802.3, RJ45, 10/100MBit/s)
  - data (Transport Stream via IP)
  - control (Web interface, SNMP and Ancillary Data)
- DVB-ASI output (EN 50083-9)
- additional DATA interface (for redundant streaming)

### System Configuration, Control and Monitoring:

- via Ethernet with web browser
- via Ethernet with SNMP
- via front panel keys

### Monitoring:

- encoder status
- graphical displayed FM signal level status (RSSI, CNR, Stereo Blend)
- RDS data (PS, RT/RT+, PI, PTY, CT, TA/TP, MS, DI)
- system status (voltages, temperature)
- all monitoring data can be accessed via web interface or SNMP

### Power Supply:

- integrated switching power supply, input voltage: 100 to 240 V  $\pm$ 10%, 50 to 60 Hz
- -48V DC power supply
- power consumption: 34W
  
- redundant power supply  
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

### Housing:

- dimensions: 19" rack mount cabinet, 1 U (483mm x 360mm x 44mm)
- weight: 4,5 kg

### Environment:

- operation temperature: 0°C to 45°C
- storage temperature: -20°C to 70°C
- humidity: 20% to 90%, non-condensing

Key: ● Default ○ Options

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## ORDERING OPTIONS

### Q565 FM DVB TRANSCODER

Q565 FM 4	Transcoder with 4 FM input channels
Q565 FM 8	Transcoder with 8 FM input channels

### SIMILAR PRODUCTS

Q561 IP Audio Encoder
Q561-DVB IP Audio Encoder
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 hardware warranty
- hardware warranty extension up to 10 years
- Service Contract Basic (Updates, Email support)
- Service Contract Advanced (Updates, Email- and phone support, replacement devices etc.)

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