



Applications

- Monitoring Receiver
- Rebroadcasting Receiver

Features

- Up to 12 independent FM/DAB+ Receivers in 1RU
- 4 Analog or 12 AES3 Audio Outputs
- Optional: RAVENNA/AES67/Livewire+/ST2110-30/-31 outputs
- Quad 10/100/1000 Ethernet interfaces with dynamic role assignment
- Highly energy efficient
- Remote control using REST API, SNMPv2c, Ember+, NMOS IS-04/IS-05
- State-of-the-art security

The most flexible FM/DAB+ receiver.

The Q9X-TR is the successor to the Q877 DAB+ Receiver, adding FM support as well as many other improvements and features.

Featuring up to 12 tuners that may each be switched between FM and DAB+ reception, a previously unparalleled density is achieved.

The device features 4 analog or 12 digital output channels for use as a FM/DAB+ receiver. The received RDS data for FM can be converted to UECP and output via IP or over RS232 serial. For DAB+, the received service information and dynamic label can be converted to UECP as well to use for rebroadcasting DAB+ signals as FM.

As all other devices using the Q9X platform, it offers 4 freely assignable network interfaces to adapt to every application.

The system has a flexible licensing model that allows field upgrading of channel counts and options.

Q9X-TR FM/DAB+ Receiver

Specifications



FM/DAB+ Tuners

Up to 12 independent FM/DAB+ Tuners	
Input Frequency (FM)	87.5 MHz to 108 MHz
Input Frequency (DAB)	168 MHz to 240 MHz (DAB Band III)
Input Signal Level	17 dBμV to 110 dBμV
Input Connector	Female F Connector, 75 Ω Internal antenna distributor
Supported Standards (DAB)	• DAB (ETSI EN 300 401) • DAB+ (ETSI TS 102 563)

Baseband Audio Output

Digital	• 8x AES/EBU, XLR (IEC 958), shared with analog outputs 1-4 • 4x AES/EBU, on 1x Sub-D 25 (TASCAM pin assignment)
Analog	• 4x Stereo Channels, on 8x XLR, shared with digital outputs 1-8
Performance (Analog)	• 24-bit high quality D/A converters • THD+N: < 0.003 % @ 1 kHz • Crosstalk attenuation: > 100 dB @ 1 kHz • S/N ratio (weighted): > 80 dB
Sample Rates (Digital/Analog)	32, 48, 96, 192 kHz

Audio-over-IP Output

Standards	RAVENNA, AES67, SMPTE ST2110-30/-31, Axia Livewire+™, Dante® in AES67 mode
Supported Formats	L24, L16, AM824
Number of Channels	Up to 64 per Stream
Sample Rates	32, 48, 96, 192 kHz
Discovery	mDNS, SAP, Manual Configuration
Channel assignment by internal crossbar	
Seamless Protection Switching (according to SMPTE ST2022-7)	

Ancillary Data Output

Hardware	• 8x RS232 Outputs, on 1x SUB-D 26 ○ Breakout cable (SUB-D 26 -> 8x SUB-D 9)
UDP	• 16x UECP-over-UDP outputs (according to UECP v7.1)
Other formats on request	

Network Interfaces

4x Ethernet interfaces (IEEE 802.3, RJ-45, 10/100/1000 Mbps)
Isolation of all networks by integrated firewall
Roles can be freely assigned to any of the interfaces (Management, Data, etc.)

System Configuration, Control and Monitoring

HTML5 Web UI	
Remote Control	• REST API • EmBER+ • NMOS IS-04/IS-05 • SNMPv2c
User Management	• Fine-grained permission control • LDAP(S) authentication

Power Requirements

Connectors	• 1x IEC60320 C14 ○ 1x IEC60320 C14 (for 2nd power supply 100-230 V AC) ○ 1x Neutrik powerCON (for 2nd power supply -48 V DC)
Power Supply	• 100 to 240 V AC +/- 10%, 50 to 60 Hz ○ -48 V DC ○ Redundant Power Supply
Power Consumption	< 20 W

Physical Parameters

Chassis	19", 1 RU
Size (W/D/H)	483 mm / 365 mm / 44 mm
Weight	6 kg

Environmental Conditions

Operating Temperature	0 to 45 °C
Storage Temperature	-20 to 70 °C
Humidity	< 95 % (non-condensing)

Legend: • Default ○ Optional