

Product Line DAB Modulator / Exciter LV5e

General

The RFmondial LV5e is designed for enabling transmitter manufacturers to enter the DAB broadcast market or for providing existing manufacturers an alternative source for their production. Next to an OEM fully digital broadcast exciter it provides integrated field proven monitoring capabilities.



Basic Features

- Highly reliable embedded platform
- VHF Band III 174 - 230 MHz (extended range on request)
- DAB+ modulation according to ETSI EN 300 401 v2.1.1 from input EDI streams according to ETSI TS 102 693 v1.1.2.

Operation

Synchronization

- Internal 10 MHz
- Internal 10 MHz disciplined (optional)
- External 10 MHz & 1 PPS (optional)
- NTP or NMEA for absolute time

Configuration and Monitoring

- Advanced HTML5 GUI
- MQTT
- SNMP (set/get/informs)
- SCPI (serial/IP)

Transmission Features

- SFN (Single Frequency Network)
- MFN (Multiple Frequency Network)
- Crest Factor Reduction: configurable PAPR reduction and limiting
- State of the art pre-distortion and power-amplifier linearization

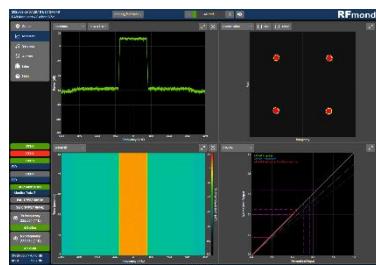
Coming soon

Reliability & Fallback

- Multi-EDI & Monitoring Failover: Priority-based automatic seamless switchover between redundant EDI inputs
- Local EDI-Backup: If all EDI inputs fail, a backup EDI-stream is played from local storages

Monitoring

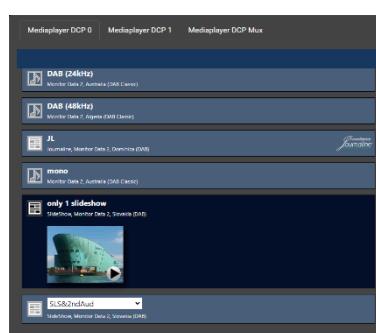
RF Monitoring Features



Integrated RF monitoring capability, based on proven RF-DAB monitoring and measurement receiver technology.

- RF level
- Shoulder left/right
- MER over Carrier
- Constellation
- Spectrum
- PAPR CCDF
- AM/AM and AM/PM
- Absolute SFN timing
- Display of measurements over time

Service Decoder



- Decoding of all incoming and the finally used DCP/EDI stream
- Listening to audio in remote browser
- Audio streaming as AAC
- Decoding of data services

DCP/EDI Monitoring Features

Integrated monitoring of all incoming and the finally used DCP/EDI stream:

- Net/gross bitrates
- Frame/fragment rates
- Frame counts/loss
- Packet jitter
- Assembly duration
- DCP configuration

Interfaces

Input Interfaces

- 1xETH (1G): EDI/SRT and/or GUI
- 1xETH (100M): EDI/SRT and/or GUI
- 10 MHz, SMA 50 Ω, 0.16 - 5 Vpp
- 1 PPS, SMA 50 Ω, TTL
- Serial Interface (status / control)
- 3xUSB
- 2xGPI (opto-isolated)
- 8xGPIO TTL
- RF feedback, SMA 50Ω, max. 10dBm

Output Interfaces

- RF output, SMA 50 Ω (max. 3 dBm)
- Attenuation max. -30 dB (0.1 dB steps)
- 8xGPIO TTL

Hardware

Electrical

- DC 12 – 36 V
- Power consumption: <15 W
- Adapter board with DIN 41612 connector available (optional)

Mechanical

- Dimensions: 220 x 100 x 20 mm
- Weight: 0.3 kg
- Temperature range: 5° - 45°C
- Humidity: 20 - 80% non-condensing

Ordering information

LV5e-DAB: DAB+ OEM Exciter Module