

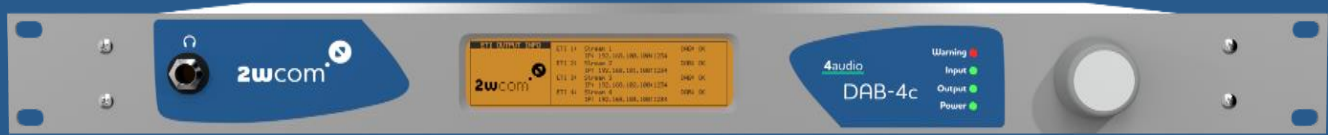
DAB-4c

EDI/ETI converter

Professional multi-format 4 channel EDI/ETI converter



DAB-4c – EDI/ETI converter



General

- ▶ The DAB-4c is a professional DAB distribution extractor and inserter, EDI/ETI conversion and ETI/EDI conversion and EDI level conversion for up to 4 DAB multiplexes.
- ▶ The DAB-4c can be configured as a 4 x EDI/ETI converter or a 4 x ETI/EDI converter or a 4 x EDI Level converter. Additionally it monitors all EDI / ETI streams.
- ▶ A pair of input sources ETI/EDI can work together in a redundant master / slave configuration

EDI/ETI and ETI/EDI converter

- ▶ 2 Data interfaces for EDI in/out
- ▶ 8 BNC E1 G703/G704 Interfaces for ETI in/out
- ▶ 1 BNC 10MHz for reference clock
- ▶ ASI in/out for ETI (MPEG2-TS)
- ▶ Optional: SAT-input for EDI/ETI (MPEG2-TS or GSE)
- ▶ Optional: DAB tuner input

EDI level converter

- ▶ FEC level conversion for outgoing IP EDI streams

ETI/EDI redundancy switch

- ▶ ETI link redundancy
- ▶ EDI stream redundancy
- ▶ Seamless switching and alarming for 2 redundant inputs (master/slave)
- ▶ Redundancy on device level

Control

- ▶ Remote control with various possibilities: HTTP/S, FTP, SSH, NMS, SNMP
- ▶ Revised configuration via web user interface for easier setup
- ▶ Relays, inputs



Technical details 1/2



In- and outputs

RF / SAT (optional)	F-jack female
Data	MPEG TS (EDI MPE) MPEG TS (ETI SC/PC, MC/PC) GSE (EDI)
Frequency	950 .. 2.150 MHz
Input level	-75 .. -20 dBm
LNB control	13 V vertical, 18 V horizontal 0 kHz low band, 22kHz high band
RF-DAB (optional)	1 unbalanced, BNC (optional)
Impedance	50 Ω
Frequency range	168-240 MHz (DAB Band III)
RF sensitivity	10 dBμV
Max. RF input	100 dBμV

ASI

Data	MPEG TS (ETI)
Connector	BNC 270 Mbp
EDI to ETI	4x EDI/ETI converter
ETI to EDI	4x ETI/EDI converter
EDI to EDI	4x EDI level converter

Interfaces

ETI in	4x BNC E1/ETI in
ETI out	4x BNC E1/ETI out

Ethernet

Data	EDI, serial data and GPIO transmission, controlling and setup functions
Connector Type	3x RJ45 (2x data, 1x ctrl) Auto switching
Protocol	10/100/1000 BASE-T EDI, UDP, IGMP, ICMP, DHCP, HTTPS, FTPS, SNMP, NTP, PTPv2

Serial

Interface	8x RS-232C (rear) Sub D-15
Data	Private data, MPEG ancillary data, UECP/RDS (acc. to TR 101 154)e
Transmission rate	1200 to 115200 baud, asynchronous
USB	1x USB 2.0 interface

Time synchronization (optional)

PTPv2	Network synchronization according to IEEE 1588-2008
10MHz	BNC connector

Internal storage (optional)

Size	7 GB (optional 1000 GB)
Type	eMMC (optional SSD)

Contact closure

Inputs	8x 26 pole sub-D male
Outputs	7+1 floating relays 7 relays SPST (Form A) 1 relay SPDT (Form C) (for DC: max. 30 V, 1 A, 10W) 26 pole sub-D male



Technical details 2/2

Control & monitor

User interface	Integrated WebGUI, LCDisplay
Data	Control and setup functions
Optional	Private data, MPEG ancillary data (IRT)
USB	USB 2.0 Interface for service, configuration and firmware updates
Protocols	HTTP, SNMP, UDP, RTCP, SRT Secure Reliable Transport, FTP, ICMP, IGMP, NTP, SSH, PTPv2, TCP (Iccast)

Front panel

LCDisplay	Graphical, 264x64 pixel
Jog Wheel	Impulse, enter button
4 Duo LEDs	Power, input, output, warning

Tuner (optional)

(High performance & Advanced DVB-S2 processing functions)
DVB-S (EN 300 421)

Modulation/symbol rate	QPSK (0.064 .. 45 MSym/s)
Roll-off	0.35
FEC	Viterbi, Reed Solomon 1/2, 2/3, 3/4, 5/6, 6/7, 7/8

DVB-S (EN 302 307)

Modulation/symbol rate	QPSK (0.064 .. 45 MSym/s) 8PSK (0.064 .. 45 MSym/s) 16 APSK (0.064 .. 45 MSym/s)
Modulation type	CCM
Frame type	Short, normal
Roll-off	0.20, 0.25, 0.35
FEC	LDPC, BCH 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10

Transport stream processing	Single Transport Stream
PL scrambling	ID 0 .. 262144

Advanced processing functions (optional)

Modulation/symbol rate	32 APSK (0.064 .. 38 MSym/s)
Modulation type	VCM, ACM
Transport stream processing	Single and Multiple Transport stream / Single and Multiple Generic stream (GSE)

All tuners

IF filter bandwidth	automatic selection
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General data

Power consumption	<20W
Case dimensions	19", 1 HU, depth: 310 mm, width: 424 mm, front panel: 484 mm
Weight	< 5 kg
Material	steel plate (aluminium-zinc coated)
Operating temp. range	0...+45°C
Storage temp. range	-40...+70°C
Languages	English

Power supply options

Internal power supplies	1 - 2 (option) internal power supplies aut. switchover
Hot swap power supplies (optional - instead of internal PS)	2 hot swap power supplies aut. switchover
Power supply ranges (choosable)	90...260 VAC, 47...63 Hz 40...60 VDC (Neutrik power-CON)