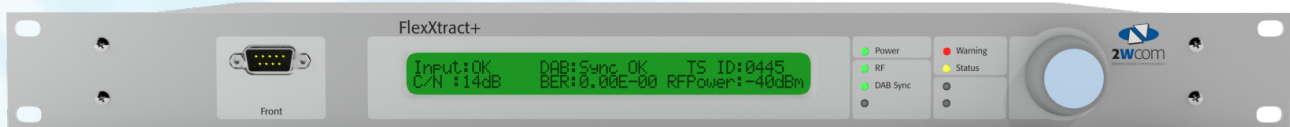


## FlexXtract+

Professional DVB-S, DVB-S2 receiver for DAB+ distribution over satellite and ASI/IP to E1(G.703)/IP Converter (ETI/EDI)



 Energy efficient,  
no moving parts, no fan

The 2wcom FlexXtract+ DAB+ Distribution Extractor demodulates a data stream (2048 kbps) from a DVB-S or DVB-S2 signal or ASI/IP data stream and converts the data into a standard ETI-signal (according to EN 300799) or EDI-signal (according to TS 102 693) to feed DAB or DAB+ transmitters.

### Three different possibilities of transport stream input

- DVB-S/S2 (single and multiple channel per carrier)
  - (QPSK, 8PSK, 16/32 APSK)
- ASI
- Gigabit IP (optional)

### Data output

- **ETI:** Standardized output stream from a DAB/DAB+/T-DMB multiplexer over a standardized 2MB link (E1).
- **EDI** (optional): EDI performs data transmission via global IP network (ETI via IP). Compared to ETI there is no need of a dedicated line.

### Transportstream output (optional)

- ASI
- Ethernet

### Advantages

- Several contribution/distribution technologies supported (Satellite, IP, ASI)
- Fallback solutions between those in case of failure (e.g. satellite as backup)
- Easy handling: One device for different applications

### Monitoring and Control

- Via webbased GUI
- Via SNMPv2c and relay (RF and ETI/EDI parameters)
- Via Satellite In-Band Remote Control (SIRC)  
(e. g. changing configuration, firmware update, relay switching via satellite carrier)

### Conditional Access Decryption

- On request

### Advanced functions

- 2wcom FlexOptimized Bandwidth Saving Technology (optional) – saving up to 45% of bandwidth
- 2wcom FlexRegio Multiprogram Regionalisation Management (optional)



## FlexXtract+ – Technical Details

### Inputs

<b>RF / SAT</b>	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

### ASI

Data	MPEG TS (ETI)
Connector	BNC 270 Mbps

### Ethernet (optional)

Data	EDI, MPEG TS (ETI)
Connector	RJ45
Type	Auto switching 10/100/1000 BASE-T
Data Format	UDP/RTP UDP (MPEG2-TS)

### Outputs

<b>Data</b>	
Protocol	E1 (G.703/G.704)
Data rate	2.048 kbps
Coding format	HDB3
Output connector	1x BNC, 75 Ω

### ASI

Data	MPEG TS (ETI)
Connector	BNC 270 Mbps

### Ethernet (optional)

Data	MPEG TS (ETI)
Connector	EDI
Type	RJ45
Data Format	Auto switching 10/100/1000 BASE-T UDP/RTP UDP (MPEG2-TS UDP/ RTP (when converted from ETI source) any IP protocol (EDI data format determined by uplink)

### Control & Monitor

#### Ethernet

Data	Controlling and Setup funct.
Connector	RJ45
Type	Auto Switching 10/100 BASE-T
Protocol	HTTP, SNMPv2c, SMTP, UDP
Application	Webbased GUI (at least 3 users, 2 levels) SNMPv2c

<b>Satellite In-Band Remote Control (SIRC)</b>	optional: request for information
2wcom professional SIRC	

#### Contact closure

Inputs	7 opto isolated inputs (excludes option: 24 relay contacts) 15 pole sub-D female
Outputs	12 floating relays (10x SPST, 2x SPDT) (for DC: max. 30 V, 1 A, 10 W) 26 pole sub-D male
optional:	24 floating relays (excludes: 7 opto isolated inputs)

#### Serial

Connector	3x RS-232C (1 front, 2 rear)
Transmission rate	9 pole sub-D male 1200 to 115200 baud, asynchronous

#### Front panel

LCDisplay	2x 40 characters
Jog Wheel	Impulse, ENTER button
8 LEDs	Power, Signal, Status, Alarm, Warning, Remote, DAB Sync, Data

### Satellite Modulation

#### Tuner option 1 (standard)

<b>DVB-S (EN 300 421)</b>	
Standard Modulation/Symbol rate	QPSK (0.128 .. 45 MSym/s)
Roll-off	0.35
FEC	Viterbi, Reed Solomon 1/2, 2/3, 3/4, 5/6, 6/7, 7/8
<b>DVB-S2 (EN 302 307)</b>	
Standard Modulation/Symbol rate	QPSK (0.128 .. 35 MSym/s)
FEC	LDPC, BCH 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
Modulation/Symbol rate	8PSK (0.128 .. 31 MSym/s)
FEC	LDPC, BCH 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
Roll-off	0.20, 0.25, 0.35

#### Tuner option 2 (optional)

(High performance & Advanced DVB-S2 processing functions)

<b>DVB-S (EN 300 421)</b>	
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
<b>DVB-S2 (EN 302 307)</b>	
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
Input switching	loop through, A/B switch (optional)

#### 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

#### All tuners

IF filter bandwidth	automatic selection
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### General data

Power consumption	40 VA
Case dimensions	19", 1 HU, 310/424/484 mm
Weight	<4 kg
Housing	steel plate (aluminum-zinc coated)
Operating temp. range	0 .. +45°C
Storage temp. range	-40 .. +70°C
Power supply	internal, 90 .. 260 V, 47 .. 63 Hz
Languages	English

Version 06.09.2018  
These data are subject to  
modifications and amendments.  
Errors excepted.

