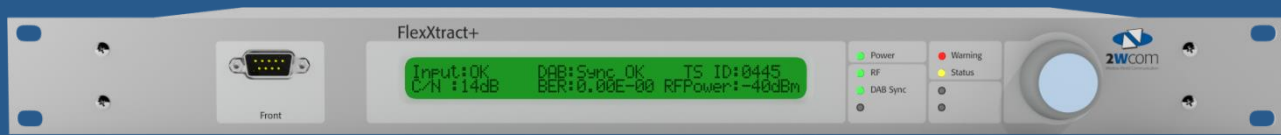


# FlexXtract+

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



# FlexXtract+



## 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

## Transport stream 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 web based 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)



## Technical details 1/3



### Inputs

#### RF/SAT

<b>Data</b>	F-jack female MPEG TS (EDI MPE) MPEG TS (ETI SC/PC, MC/PC) GSE (EDI)
<b>Frequency</b>	950 .. 2.150 MHz
<b>Input level</b>	-75 .. -20 dBm
<b>LNB control</b>	13 V vertical, 18 V horizontal 0 kHz low band, 22kHz high band

#### ASI

<b>Data</b>	MPEG TS (ETI)
<b>Connector</b>	BNC 270 Mbp

#### Ethernet (optional)

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

### Outputs

#### Data

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

#### ASI

<b>Data</b>	MPEG TS (ETI)
<b>Connector</b>	BNC 270 Mbps

#### Ethernet (optional)

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

### Control & monitor

#### Ethernet

<b>Data</b>	Controlling and setup functions
<b>Connector</b>	RJ45
<b>Type</b>	Auto switching 10/100 BASE-T
<b>Protocol</b>	HTTP, SNMPv2c, SMTP, UDP
<b>Application</b>	Web based GUI (at least 3 users, 2 levels) SNMPv2c

#### Satellite in-band remote control (SIRC)

<b>2wcom professional SIRC</b>	optional: request for information
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## Technical details 2/3

### Contact closure

<b>Inputs</b>	7 opto isolated inputs (excludes option: 24 relay contacts)
<b>Outputs</b>	15 pole sub-D female 12 floating relays (10x SPST, 2x SPDT) (for DC: max. 30 V, 1 A, 10 W)
<b>Optional:</b>	26 pole sub-D male 24 floating relays (excludes: 7 opto isolated inputs)
<b>Serial</b>	3x RS-232C (1 front, 2 rear)
<b>Connector</b>	9 pole sub-D male
<b>Transmission rate</b>	1200 to 115200 baud, asynchronous

### Front panel

<b>LCDisplay</b>	2x 40 characters
<b>Jog wheel</b>	Impulse, ENTER button
<b>8 LEDs</b>	Power, signal, status, alarm, warning, remote, DAB sync, data

### Satellite modulation

#### Tuner option 1 (standard)

##### DVB-S (EN 300 421)

<b>Standard modulation/symbol rate</b>	QPSK (0.128 .. 45 MSym/s)
<b>Roll-off</b>	0.35
<b>FEC</b>	Viterbi, Reed Solomon 1/2, 2/3, 3/4, 5/6, 6/7, 7/8

##### DVB-S2 (EN 302 307)

<b>Standard Modulation/Symbol rate</b>	QPSK (0.128 .. 35 MSym/s)
<b>FEC</b>	LDPC, BCH 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
<b>Modulation/Symbol rate</b>	8PSK (0.128 .. 31 MSym/s)

<b>FEC</b>	LDPC, BCH 3/5, 2/3, 3/4, 5/6, 8/9,9/10
<b>Roll-off</b>	0.20, 0.25, 0.35

#### Tuner option 2 (optional)

(High performance & advanced DVB-S2 processing functions)

##### DVB-S (EN 300 421)

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

##### DVB-S2 (EN 302 307)

<b>Modulation/symbol rate</b>	QPSK (0.064 .. 45 MSym/s) 8PSK (0.064 .. 45 MSym/s) 16 APSK (0.064 .. 45 MSym/s)
<b>Modulation type</b>	CCM
<b>Frame type</b>	Short, normal
<b>Roll-off</b>	0.20, 0.25, 0.35
<b>FEC</b>	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

<b>PL scrambling</b>	ID 0 .. 262144
<b>Input switching</b>	Loop through, A/B switch (optional)



## Technical details 3/3

### Advanced processing functions (optional)

<b>Modulation/symbol rate</b>	32 APSK (0.064 .. 38 MSym/s)
<b>Modulation type</b>	VCM, ACM
<b>Transport stream processing</b>	Single and multiple transport stream / single and multiple generic stream

### All tuners

<b>IF filter bandwidth</b>	Automatic selection
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### General data

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