



## GT BLE 23 IP to 12 QAM Edge Modulator

Reception of IP transport streams, processing and modulation in up to 12 QAM channels, single power supply



### Product Description

The GT BLE 23 is an optimized micro-headend for business-to-business applications. The device can receive IP transport streams provided by a cable or telecommunications operator and modulate the streams into DVB-C QAM channels. Thanks to the integrated advanced multiplexer, the transport streams can be easily processed and adapted to your network requirements. The quick and easy configuration is ensured by the friendly designed web interface. For easy installation, a wall-mounting kit or a 19-inch kit is included in the delivery.

### Scope of Delivery

- ✓ 1x GTBLE chassis assembled with 1x GT23W module
- ✓ 1x Quick Guide

### Features

- ✓ Excellent price per QAM channel
- ✓ Optimized solution for B2B
- ✓ Up to 12 QAM channels on 2 RF outputs
- ✓ Multiplexer and PSI/SI processing integrated
- ✓ For measurement/monitoring test ports of the output signal
- ✓ RTP/ IP input streaming with FEC error correction
- ✓ QAM channels individually switchable on/off
- ✓ SPTS and MPTS streaming (CBR or VBR)
- ✓ Control and management via web-UI
- ✓ Easy to install in 19" rack

### HIGHLIGHTED SOFTWARE OPTIONS



GT MON  
**Monitoring & Logging**



GT FEC  
**FEC Correction & Protection**



GT ASE  
**Transport Stream Monitoring**



GT SCR  
**Simulcrypt CSA Scrambler**

See all available software options on [catalog.wisi.de](http://catalog.wisi.de) or contact your WISI sales representative.

# GT BLE 23

## IP to 12 QAM Edge Modulator



### Technical data

#### Streaming-Input

IP-Inputs	128 pcs.
IP-Standard	ISO/IEC 13818
IP-Input bitrate	Max. 425 Mbit/s per IPTS, Max. 850 Mbit/s total
IP-Input protocol	UDP/RTP/RTP+FEC Unicast and Multicast, IGMP v2 and v3
IP-TS-Input format	SPTS CBR/VBR, MPTS CBR
IP-FEC Inputs	Yes
IP-FEC compliance	SMPTE 2022-1, SMPTE 2022-2
IP-Packet format	MPEG over UDP/IP and RTP/IP
IP-Packet size	188 Byte
IP-PCR restamping	Yes
IP-Dejittering	Yes, per default 100ms, individual adjustable

#### QAM Modulation

Compliance	DVB-C (EN 300 429)
Modulation type	16-, 32-, 64-, 128-, 256-QAM
Symbol rate	4,45...7,00 MS/s
Roll-Off	12%, 13%, 15%, 18%
MER	> 45 dB (typ. 46 dB)
BER	$\leq 1 \cdot 10^{-10}$
Spectrum flatness	$\pm 0,4$ dB
Shoulder attenuation	$\geq 49$ dB (typ. 50 dB)

#### RF parameters

Output ports	2 pcs.
Channels per port	up to 6
Output impedance	75 $\Omega$
Output frequency range	45...1002 MHz
Output frequency window	48 MHz/port
Output frequency steps	1 kHz
Output frequency stability	$\pm 10$ kHz
Channel bandwidth	8 MHz
Output level (each RF port)	78...108 dB $\mu$ V
Output level stability	$\pm 1$ dB
Output return loss	$\geq 14$ dB (45 MHz) -1,5 dB/Octave
Output level steps	0...30 dB (0,5 dB steps)
Spurious (Inside TV-Channels)	> 58 dB
Spurious (outside TV-Channels)	45...450 MHz, typ. 66 dB, 450...1002 MHz, typ. 64 dB

### Technical data

#### Processing

Service remultiplexing	Yes
PID filtering and remapping	Yes
PCR correction and de-jitter	Yes
Advanced PSI/SI regeneration	Yes
NIT generation	Yes
Encryption	No
Encryption throughput	-
Processing bitrate	Max. 1200 Mbps total
Number of PIDs	Max. 2000 PIDs total

#### Connectors

RJ45	2 pcs. (1x Control Port, 1x Data Port)
F-socket RF- output	4 pcs. (2x RF-Output, 2x Test-Output -20dB $\pm$ 1dB)

#### General data

Power consumption	Max. $\leq 20$ W
Power supply	Single power supply, internal, 90...260 V, 47...63 Hz
Operating temperature range	-5°C...+45°C, 23°F...113°F, (ETSI EN 300 019-1-3 Class 3.1)
Max. humidity (non-condensing)	95 %
Electro Magnetic Compatibility (EMC)	EN 50083-2, FCC CFR 47 Part 15 (Class A)
Signalling	Multicolor LEDs (Power on - green, Error - red)
Hardware revision	1001
Software version	3.5

### Packaging data

Sales unit	1 pcs.
Dimensions (WxHxD) sales unit	445 x 44 x 270 mm
Gross weight sales unit	3,05 kg
Shipping unit	1 pcs.
Dimensions (WxHxD) shipping unit	395 x 545 x 140 mm
Gross weight shipping unit	4,05 kg

To arrange an online demonstration  
or discuss your project, please  
contact [export@wisi.de](mailto:export@wisi.de)

