

IP HEADEND SOLUTIONS



Digital TV features great opportunities for future video and media delivery via broadband, cable-TV and broadcast playouts.

The new BLANKOM IP Headend solutions provide various operation opportunities within broadband, cable-TV and IP environments and combine the advantages and quality of digital video with the opportunities, flexibilities and capacities of Video over IP and IPTV.

The BLANKOM Video over IP and IPTV solutions are of a modular design ready for various Video over IP and IPTV applications.

Our DVB to IP streaming units enable the transmission of encrypted or free-to-air 8PSK/QPSK and COFDM channels as well as digital ASI transport streams and feature easy local and remote access via webexplorer (TCP/IP).

- **Video over IP & IPTV Headend solutions**
- **Bidirectional IP & ASI streaming (IP ASI)**
- **SPTS & MPTS playout & streaming over IP**
- **Supports Unicast / Multicast architectures**
- **Including Conditional Access for Single & Multi Service Decryption**
- **Error protection COP 3R2**

Professional Headend Solutions

ITB 100 IP-TS Converter IP ASI



The **ITB 100** IP ASI Converter allows protocol conversion of IP (GigE) streams directly into ASI transport streams and also ASI transport streams to IP.

The module is equipped with one IP (GigE) port for real time streaming, max. 6 ASI ports which can be configured individually for bidirectional streaming and one management port.

All streams can be routed to or from different ASI ports while especially designed features ensure a constant bit rate and the suppression of continuity errors.

This **ITB 100** provides a flexible, reliable solution for various Video over IP applications and offers complete flexibility in the units implementation. It is qualified for each IP environment (implementation of several stream safety features: RTP/UDP, COP3 R2) and is a perfect solution for each Video over IP application to improve service delivery and transmission at a cost efficient basis.

The modular stand alone design allows easy manual and remote access and configuration and offers flexible and individual configuration to meet any customers requirements

- **Bi-directional streaming**
max. 6 x ASI IP / IP max. 6 x ASI
- **GigE Port assures processing of high data rates**
- **Supports Unicast and Multicast**
- **Supports all digital IP or ASI Transport streams**
- **Operation (CONTROL PORT)**
Integrated HTML Server
SNMP, NTP (Network Time Protocol)
Easy updates via data upload
10/100 Base-T Ethernet port
- **STREAM PORT**
10/100/1G Base-T Ethernet port
Protocols: UDP, RTP
Variable error protection
according COP 3R2
IGMP-Multicast Protocoll

Technical Specification

ASI Port	
Signal processing	EN 50083-9
ASI data rate	270 Mbps
Connector	BNC-Buchse
Impedance	75
Anpassung	> 15 dB
Input configuration	
Level range	280...880 mV _{ss}
ASI mode	burst, continuous
TS data rate	1, 3...139 Mbps (Summ of all ASI Inputs < 700 Mbps)
TS mode	188
Output level	800 mV _{ss}
Streamport	
Network connection interface	Ethernet, 10/100/1000 Base-T

Connector	RJ 45
Protocols	UDP, RTP, ARP, IGMP
Additional error correction	pro-MPEG Code of practice 3 rev. 2
Encapsulation	accordg. ETSI TS 102034
Control port	
Network interface (LAN/WAN)	Ethernet 10/100 Base-T
Connector	RJ 45
Integrated Server	Http-Server, SNMP-Server DHCP-Client, NTP-Client
Operating parametersl	
Operating voltage	100...240 V~ /47..63 Hz
Power consumption	100...353 V= max. 12 VA

SSI 108 Twin SAT Streamer IP DVB-S/-S2 (8PSK/QPSK) 2 x CI IP & ASI

The SSI 108 TWIN SAT to IP Streamer allows receiving of 2 8PSK/QPSK transponders as well as processing and streaming of the selected services in unicast or multicast via IP infrastructures. Furthermore it provides an additional ASI transport stream monitoring interface and a dual Common Interface slot.

The SSI 108 features the core component for various IPTV and Video over IP architectures and supports dual 8PSK/QPSK reception, transport stream processing, pay-tv channel decryption (Multi-Service-Decryption) and IP streaming in one unit.

The SSI 108 is ideally designed for future oriented IPTV and Video over IP headends and offers a perfect platform for any broadcast and playout application while it allows various configurations specifically designed to individual client demands.

The SSI 108 can be accessed and configured manually via front panel keypads and remotely over the unique central control unit HCB 200 via webexplorer (TCB/IP) while it also features SNMP monitoring optionally.



- Dual 8PSK/QPSK to IP Streaming
- Receiving, descrambling and streaming in one module
- PSI-/SI processing, NIT generation, PID filtering and table processing
- Dual Common-Interface for Multi-Service-Decryption
- Supports SPTS/MPTS, Multicast/Unicast
- Provides variable error protection according COP 3R2
- Easy and flexible manual and remote access and control / SNMP

Technical Specification

SAT-IF Input				Streamport	
Frequency range	950...2150 MHz (1 MHz steps)			Network connection (LAN/WAN)	Ethernet, 10/100/1000 Base-T
AFC range	± 5 MHz			Connector	RJ 45
AGC level range	64...94 dBμV			Protocols	UDP, RTP, ARP, IGMPv3
Connector, impedance	F socket, 75			Additional error correction	pro-MPEG Code of practice 3 rev. 2
Demodulator/Decoder				Encapsulation	according ETSI TS 102034
Standard Modulation	DVB-S QPSK	DVB-S2 QPSK	8PSK	ASI Output	
Symbol rate	2...45 Msps	1...34 Msps	1...28,9 MSps	Signal processing	EN 50083-9
Code rate	Viterbi 1/2, 2/3, 3/4, 5/6, 7/8	LDPC 1/4, 1/3, 2/5, 1/2, 3/5, 2/3	3/5, 2/3, 3/4, 5/6, 8/9, 9/10	ASI mode	burst
Roll off	3/4, 4/5, 5/6, 35 %	8/9, 9/10		TS data rate	according selected SPTS/MPTS
Common Interface				TS Mode	188 byte
Common Interface	per channel PCMCIA-Slot according EN 50221			Operating parameter	
				Voltage / Current	12 V (0,2 V)/1200 mA (without CA Module)

**TSI 108 Twin Terrestrial Streamer IP
DVB-T (COFDM) 2 x CI IP & ASI**

The **TSI 108** TWIN Terrestrial to IP Streamer allows receiving of 2 COFDM transponders as well as processing and streaming of the selected services in unicast or multicast via IP infrastructures. Furthermore it provides an additional ASI transport stream output monitoring interface and a dual Common Interface slot.

The **TSI 108** features the core component for various IPTV and Video over IP architectures and supports dual COFDM reception, transport stream processing, pay-tv channel decryption (Multi-Service-Decryption) and IP streaming in one unit.

The **TSI 108** is ideally designed for future oriented IPTV and Video over IP headends and offers a perfect platform for any broadcast and playout application while it allows various configurations specifically designed to individual client demands.

The **TSI 108** can be accessed and configured manually via front panel keypads and remotely over the unique central control unit HCB 200 via webexplorer (TCB/IP) while it also features SNMP monitoring optionally.



FM HIGH DENSITY SOLUTIONS

- Dual COFDM to IP Streaming
- Receiving, descrambling and streaming in one module
- PSI-/SI processing, NIT generation, PID filtering and table processing
- Dual Common-Interface for Multi-Service-Decryption
- Supports SPTS/MPTS, Multicast/Unicast
- Easy and flexible manual and remote access and control / SNMP

Technical Specification

VHF / UHF Input	
Frequency range	47 ... 862 MHz
Frequency grid	62.5 kHz
AFC range	90 kHz
AGC level range	57...83 dB μ V
Input level *)	33 ... 74 dB μ V
Connector	F socket
Impedance	75
COFDM Demodulator / Decoder	
Carrier mode	2k; 8k
Code rate	1/2, 2/3, 3/4, 4/5, 5/6, 7/8
Modulation	QPSK, 16 QAM, 64 QAM
Signal processing	according to EN 3000744 (DVB-T)
Common Interface	
Common Interface	per channel PCMCIA-Slot according EN 50221

Streamport	
Network connection (LAN/WAN)	Ethernet, 10/100/1000 Base-T
Connector	RJ 45
Protocols	UDP, RTP, ARP, IGMPv3
Additional error correction	pro-MPEG Code of practice 3 rev. 2
Encapsulation	according ETSI TS 102034
ASI Output	
Signal processing	EN 50083-9
ASI mode	burst
TS data rate	according selected SPTS/MPTS
TS Mode	188 byte
Operating parameter	
Voltage / Current	12 V (0,2 V)/1200 mA (without CA Module)