

ADB 209

ASI - TS - DEMODULATOR
 ASI - TS CI ASI - TS, A/V

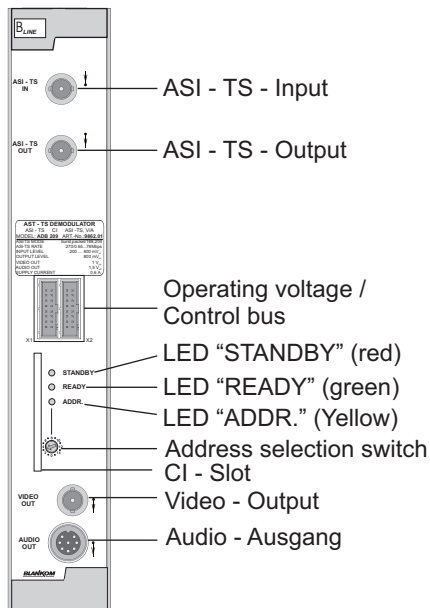


Bild 01

DEVICE VARIANTS

ADB 209 9862.01 ASI-Transport stream into ASI-Transport stream with CI and Audio/Video with CI(Common Interface)

GENERAL

The ASI TV-Demodulator ADB 209 is a module of the headend system B-LINE which is conceived as a complete system for medium networks. The ADB 209 converts a program (with in a transport stream) into analogue Audio- & Video signals. For decoding of digital transport streams a CI slot for CA modules is integrated. All modules can be programmed via the central control unit (HCB100) and are working independently afterwards.

The status of each module will be displayed via colored LED's

Red	- STANDBY	Standby mode
Yellow	- ADDR.	Remote access
Green	- READY	Operating mode

FUNCTION DESCRIPTION

The digital ASI - signal will be decoded. The received serial datastream will be parallelised and fed to a FIFO. The data beat will be regenerated from the level of the FIFO. Following to the FIFO the regeneration of the transport stream-SPI protocol takes place. The detection of a correct transport stream happens simultaneously. The data stream will be fed to by a switch matrix either via the Common Interface or directly via the DVB-module (consisting of demultiplexer and MPEG-Decoder). The decoded transportstream at the ASI-output can be took off simultaneously. An analogue Video- and a related digital stereo Audio signal will be still generated within the DVB-module. Afterwards, the video signal will be filtered and the audio signal converted digital/analogue. The analogue signals will be fed to the outputs of the module via isolation amplifiers (Allocation audio socket / Fig. 06). The module consists of a standardized CI-slot for Conditional-Access-modules (CA-modules). A respective system related CA-module has to be used for decoding (Betacrypt, Conax, Cryptoworks, Irdeto, Nagravision, Viaccess, ...)

Additional functions: CA - module - voltage (Fig. 05)

PROGRAMMING

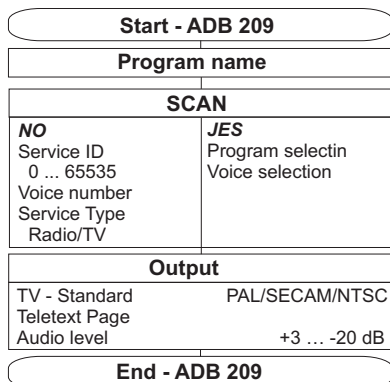


Fig. 02

Adjustment with the headend controller

Adjustment of the addresses at the bus extender BEB 100 and at the modules
 Activation of the programming mode of each module by selecting the line (BEB 100) and the module position (01... 15) at the head end controller(HCB 100)
 yellow LED will be lit up til the beginning of the parameter adjustment
 Adjustment of the ADB 209 parameter(see fig.02)
 green LED is lit up
 After the programming the ADB 209 will be automatically switched into the operating status
 yellow LED lights up briefly / green LED is lit up

Adjustment with the PC / Laptop

Condition for the remote programming is an "online - connection" after IP - standard and an ethernet connection at the PC / Laptop
 Adjustment of the line / position addresses at the bus extender BEB 100 as well as at the modules
 At the headend controller HCB 100 IP - address input (e.g. 192.168.001.001)
 For "direct connection" between a PC and HCB 100 use a crossed patch cable (RJ 45)
 For connection over a deviation use an uncrossed patch cable
 HTML - browser start-up and put in IP - address as target address
 If connected correctly the HTML - control surface at the PC will open up and a green LED (LINK) at the HCB 100 will be lit up
 All adjustment of the modules are specified at the control surface
 a green LED (LINK) at the HCB 100 will be lit up
 All adjustment of the modules are specified at the control surface

The manual instructions of the headend controller HCB 100 and the bus extender BEB 100 have to be considered!

TECHNICAL DATAS

ASI - Input

Level range	200 ... 800 mV _{ss}
Data rate	270 Mbit/s
Connector	BNC - socket
Impedance	75
ASI-Polarity	normal / negated

ASI - Output

ASI-Data rate	270 Mbit/s
ASI-Mode	continuous
ASI-Polarity	normal / negated
TS-Data rate	corresponding to input
TS-Mode	corresponding to input
Outut level	800mVpp (+/- 10%)
Connector	BNC - socket
Impedance	75

ASI - Signal processing

Data rate	0.625 ... 78 Mbit/s
ASI - Transmission format (input)	Burst, Packet
TS - Transmission format (input)	188, 204
Signal processing	EN 50083-9

Decoding - Interface

Common Interface	PCMCIA - Slot according to EN 50221
Operating voltage (plugable)	+5 V / +3,3 V

Video - Output

Output voltage	1 V _{ss}
Impedance	75
Connector	BNC - Buchse

Audio - Output

Level (an 600)	6 dBm (= 1,55 V _{eff})
Output impedance	30
Connector	Socket according to DIN 45326/ IEC 130 - 9 - 20

Operating parameter

Voltage / Current	12 V (0,2 V) / 600 mA
Residual ripple of supply voltage	10 mV _{ss}

Environmental conditions

Temperature range	-10 ... +55 °C
Relative humidity	80 % (not condens.)
Mounting method	vertically
Mounting location	squirting- & dripping water protected / Dry

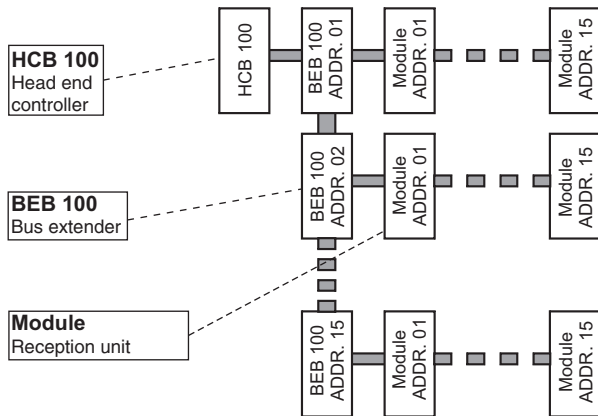
Additional

Dimensions (W x H x L)	
without 19" - Adapter	50 x 276 x 148 mm
with 19" - Adapter	50 x 301 x 148 mm
Weight	1.300 g

Delivery content

1 x BUS - connector
1 x Audio cable ASK 525
1 x Video cable VVK 526

Headend Bus structure

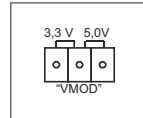


The number of the possible module connections (00 ... 15) to a BEB 100 depends on the total power consumption of this line!

Fig. 03

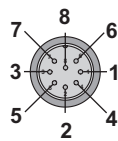
SPECIAL FUNCTIONS

CA - Module - Voltage (Fig. 05)



- Open device (left cover)
- Change plug jumber clip at "VMOD" of the demodulators circuit board into position "3,3 V" oder "5,0 V"

Allocation of Audio - Socket (Fig. 06)



- 1 Stereo Left
- 2 Screening / Earth
- 3 Stereo Right
- 4 Earth
- 5 Earth
- 6 Control line contact 1 (jumbered with Pin 8)
- 7 Control line contact 2 (open)
- 8 Control line return wire (earth)

SECURITY AND OPERATING INSTRUCTIONS

STOP When assembling, starting-up and adjusting the modules, it is necessary to consider the system specific references in the manual instruction!

- ⚠ The modules may only be installed and started up by authorized technical personnel!
- ⚠ When assembling the modules into the receiving points, the adherence of the EMV regulations is to be secured!
- ⚠ The assembly and wiring have to be done without voltage!
- ⚠ All active modules may only be operated with the head end controller HCB 100 or bus extender BEB 100!
- ⚠ The main voltage for all power supply units is 230 V, 50 Hz.
- ⚠ With all work the defaults of the DIN EN 50083 have to be considered!
Especially the safety relevant execution of the DIN EN 50083/1 is necessary!



Options and other TV standards available upon request!

Changings due to technical processes are possible.

Part n°: 9862.01

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