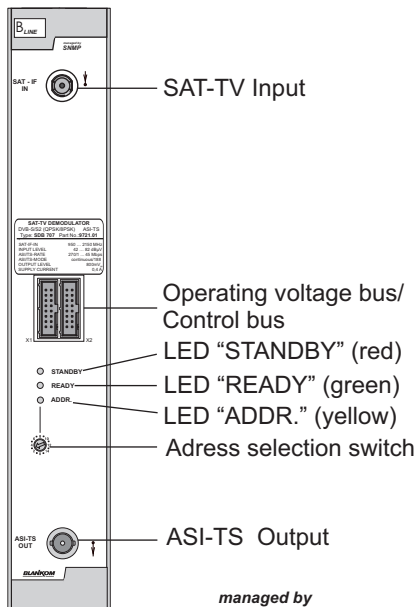


SDB 707

SAT-TV DEMODULATOR
DVB-S/S2 (QPSK/8PSK) ASI (TS)



Pic. 01

DEVICE VARIANT

SDB 707 9721.01 SAT - IF ASI - TS

Minimum software required for HCB 100 (Headend Controller):

9650.03: Version 2.34
9650.04/ 05: Version 3.18

GENERAL

The SAT - TV Demodulator SDB 707 is a module of the B-LINE headend system which is conceived as a complete system for middle sized distribution networks. The module converts a digital DVB-S/S2 signal into a digital ASI-TS signal.

All modules are programmed at the central control unit (HCB 100) and are working independently afterwards.

The status of the module is displayed via LEDs:

· Red	- permanent	Module in Standby mode
	- flashing	Hardware error
· Green	- permanent	Module ok
	- flashing	Signal error
· Yellow	- permanent	Remote access
	- flashing	Data transfer

FUNCTION DESCRIPTION

This module is processing a digital Satellite-TV (8PSK/QPSK) signal into a digital ASI transport stream.

The SAT-IF (L-Band) passes through an input amplifier and will be then fed to the frontend in which the selection of a transponder and the 8PSK/QPSK demodulation is done.

The continuous transport stream is then directly embedded into the ASI transport stream and available at the output of the module.

PROGRAMMING

Start - SDB 707	
Program name	
SAT - IF	
Frequency	950 ... 2150 MHz
QPSK - Symbol rate	1000...45000 kSps
Output	
ASI - Polarity	regular / inverted
Status	On/ Off
End - SDB 707	

Pic. 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 Headend Controller(HCB 100)

yellow LED will be lit up til the beginning of the parameter adjustment

Adjustment of the SDB 707 parameter (see Pic.02)

green LED is lit up

After the programming the SDB 707 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 blue 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 DATA

SAT-IF Input

Frequency range	950 ... 2150 MHz
Frequency grid	1 MHz
AFC - Range	5 MHz
AGC - Level range	42 ... 82 dB μ V
Connector	F socket
Impedance	75

TS - Mode	188
Signal processing	EN 50083-9
Output level	800 mV _{pp} (+/- 10 %)
Return loss	> 17 dB
Connector	BNC socket
Impedance	75

DVB-S Demodulator / Decoder

Modulation	QPSK
Symbol rate	1 ... 45 MSps
Code rate (Viterbi)	1/2, 2/3, 3/4, 5/6, 6/7, 7/8
Roll off	35 %
Signal processing	ETS 300 421 (DVB - S)

Operating parameter

Voltage/Current	12 V (\pm 0.2 V) / 400 mA
Residual ripple of the supply voltage	10 mV _{pp}

Environmental conditions

Temperature range	- 10 ... + 55 °C
Temperature range for data keeping	5 ... + 45 °C
Relative humidity	80 % (not condens.)
Mounting method	vertical
Mounting location	squirting and dripping water protected

DVB-S2 Demodulator / Decoder

Modulation	QPSK, 8PSK
Symbol rate	QPSK 1 ... 34 MSps 8PSK 1 ... 28,9 MSps
Code rate (LDPC)	QPSK 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 8PSK 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
Roll off	20, 25, 35 %
Signal processing	ETS 302 307 (DVB - S2)

Physical information

Dimension (l x w x h)	without 19" adapter 50 x 276 x 148 mm with 19" adapter 50 x 301 x 148 mm
Weight	1,085 g

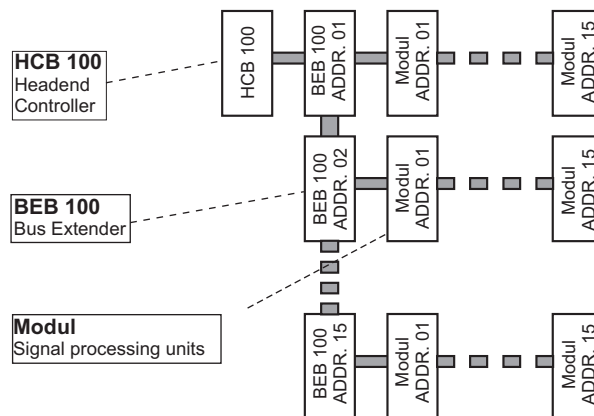
Delivery content

1 x BUS connector
1 x Video connecting cable VVK 526

ASI - Ausgang

ASI - Data rate	270 Mbps
ASI - Polarity	regular / inverted
ASI - Mode	continuous
TS - Data rate	according symbol rate and coding

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!

Pic. 03

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 EMC regulations is to be secured!
- ⚠** The assembly and wiring have to be done without voltage!
- ⚠** All active modules may only be operated with the Headend Controller HCB 100 or Bus Extender BEB 100!
- ⚠** The supply voltage and operating voltage for all modules operated with direct current has to be in accordance to the technical specifications of the respective module (see respective device manual)!
- 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!

Changes due to technical progress possible.

Part No: 9721.01

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