ACB 190

ACTIVE 2 - WAY COMBINER
Forward path - Return path (optional)

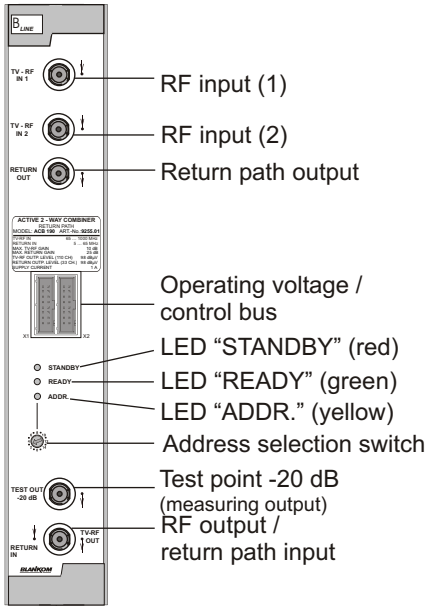


Fig. 01

PRODUCT VARIANTS

9255.01	2 x IN (Distributor)	without return channel
9255.02	2 x IN (Distributor)	passive 65 MHz return channel
9255.03	2 x IN (Distributor)	active 65 MHz return channel
Delivery condition: Input distributor plucked, bridge, tab included		
9255.04	2 x IN (Directional coupler)	without return channel
9255.05	2 x IN (Directional coupler)	passive 65 MHz return channel
9255.06	2 x IN (Directional coupler)	active 65 MHz return channel
Delivery condition: Input distributor plucked, bridge, tab included		
9255.07	1 x IN	without return channel
9255.08	1 x IN	passive 65 Mhz return channel
9255.09	1 x IN	active 65 MHz return channel
Deliverz condition: Input distributor plucked, bridge, tab included		

GENERAL

The active combiner ACB 190 is a module of the of the head end system B-Line, which is conceived as a complete system for the middle sized distribution network.The ACB 190, a head end collecting amplifier, can summarize and amplify a maximum of 128 channels. For the internal return path channel , passive or active return channel modules can be added. The modules are programmed at the central control unit and are working independently afterwards.

The status of the modules will be displayed by a colored LED:

Red	- STANDBY	Stand by
Yellow	- ADDR.	Remote control access
Green	- READY	Operating status

FUNCTION DESCRIPTION

In the forward path the signals will be supplied to the level adjuster, after they have been combined through the input plug-in module. The following amplifier preliminary stage raises the sum level. The system frequency response, as well as the pre-emphasis, can be adjusted with the interstage equalizer.
The amplifier output stage produces the necessary system level.
The optional return path can be equipped active (with diplexer module and amplifier module), as well as passive (only diplexer module). Return channel level adjustment and equalizing is available in each case.
The decoupled forward and backward signals are situated at the test point (measuring output).
The conception of the amplifier is based on a 1000 MHz platform with a equalizer - fulcrum at 862 MHz.
The amplifier is constructed modular.

Reference: The configuration of the collecting amplifier will be done through the equipment of the respective modules (Fig.04).

PROGRAMMING

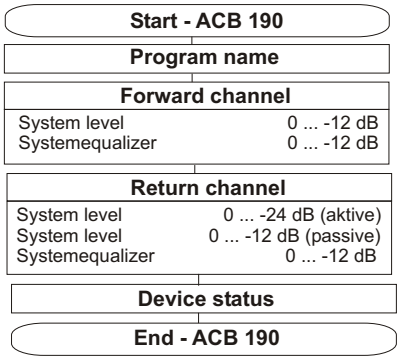


Fig. 02

Adjustment with the head end 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 ACB 190 parameter(see fig.02)
green LED is lit up
After the programming, the ACB 190 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 head end 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 uncrossed patch cable usage
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

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

TECHNICAL DATA

Forward path range

Number of the inputs	1 or 2
Frequency range	
without diplexer	45,0 ... 862 (1.000) MHz
with diplexer *)	87,5 ... 862 (1.000) MHz
Impedance	75
Connector	F socket (female)
Max. amplification	
at the "distribution"- inputs	10 / 10 dB
at the "resetting coupler"- inputs	13 / 3 dB
at one input	14 dB
Test output	-20 dB
Max. output level (EN 50083-5, Pos. 3.2)	123 dBµV
Operating output level (42 CENELEC, flat, CTB = -72 dB)	102 dBµV
Level adjusting range	0 ... -12 dB
Level degree step	0,5 dB
Equalizer adjusting range	0 ... -12 dB
Equalizer degree step	0,5 dB

Return path range (optional)

Frequency range	5 ... 65 MHz *)
Impedance	75
Connector	F socket (female)

Passive return path

Through loss	6 dB
Max. input level	95 dBµV
Level adjusting range	0 ... -12 dB
Level degree step	1 dB
Equalizer adjusting range	0 ... -12 dB
Equalizer degree step	1 dB

Active return path

Max. Amplification	26 dB
Max. input level	80 dBµV
Level adjusting range	0 ... -24 dB
Level degree step	2 dB
Equalizer adjusting range	0 ... -12 dB
Equalizer degree step	1 dB
Max. operating output level (6 channels, CTBA = -60 dB)	106 dBµV

Operating parameter

Voltage / current	12 V (±0,2 V) / 1.000 mA
Residual ripple of the supply voltage	10 mV_{ss}

Environmental conditions

Temperature range	-10 ... + 55 °C
Relative humidity	80 % (not condensing)
Mounting method	vertical
Mounting location	squirting and dripping
water protected	

Physical information

Dimensions (l x w x h)	
without 19" - adapter	50 x 276 x 148 mm
with 19" - adapter	50 x 301 x 148 mm
Weight	1.351 g

Contents

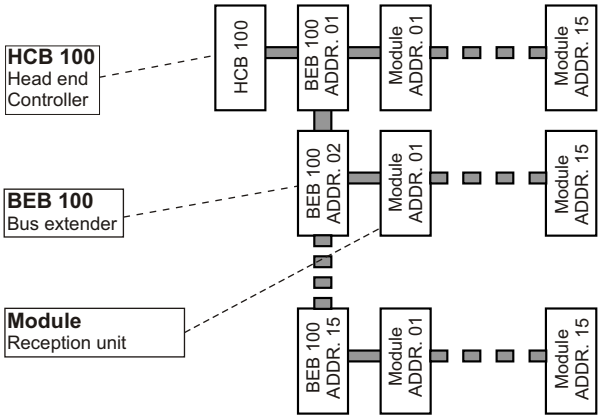
1 x BUS connector

Plug-in modules

Jumper	8255.01-34
Distributor	8255.01-32
Directional coupler	8255.01-33
Diplexer	8255.01-30
Amplifier (RK)	8255.01-31

*) other diplexer - frequencies available upon reuest

BUS - HEAD END 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

Block diagram

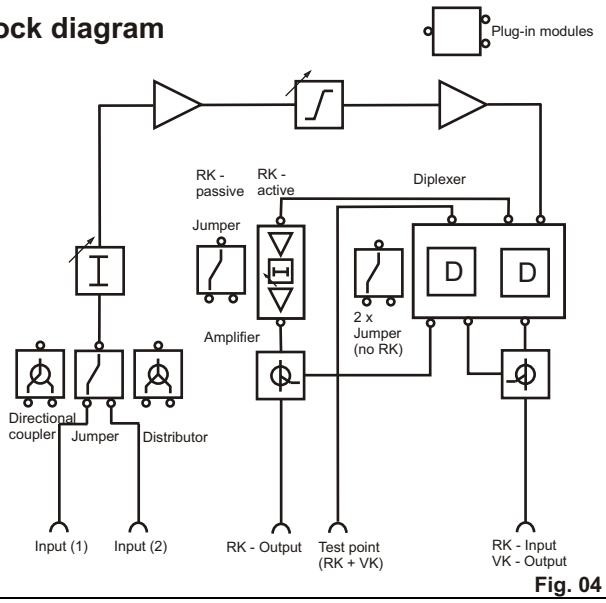


Fig. 04

SECURITY AND OPERATING INSTRUCTIONS

- 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!

Part - No.: 9255.0x

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