

# WISI VX 53 B

Compact Line CATV Amplifier



## Description

The VX 53 B is a remote feeding universal line and distribution amplifier that has one active output and additional slots for return channel amplifiers, control modules, diplex filter modules and splitter/tap modules. All settings can be accessed via an OH 41 handset or an Android app via Bluetooth.

## At a glance:

- Compact 1 GHz / 1,2 GHz high level CATV amplifier
- Remote powered
- All settings (gain, slope etc.) by WISI control unit (OH 41 Handset) or Android app via bluetooth
- Includes interface for NMS functionality: HMS or DOCSIS
- Management functionality according to EN 60728-14 available (ICS setting)
- Diplex filters and splitter / tap modules pluggable
- High level upstream amplifier pluggable
- ASLC module pluggable (VX 58B)
- Additional universal plug in modules

## Technical data

### Down-Stream / DS

|                                  |  |
|----------------------------------|--|
| Frequency range downstream       | 85...1218 MHz<br>(1 GHz/1,2 GHz equalizer switchable)                                  |
| Gain downstream                  | 46 dB ( $\pm 0,75$ dB), (single output)  |
| Frequency response               | $\leq \pm 0,5$ dB  |
| Noise figure                     | $\leq 6,5$ dB @ 1 GHz,<br>$\leq 8,0$ dB @ 1,2 GHz                                      |
| Output level                     | 115 dB $\mu$ V<br>(CENELEC 42 Ch.<br>(CSO/CTB $\geq 60$ dB), flat)                     |
| Output level                     | 118 dB $\mu$ V<br>(CENELEC 42 Ch.<br>(CSO/CTB $\geq 60$ dB),<br>9 dB slope @ 862 MHz)  |
| Output level                     | 109 dB $\mu$ V<br>(all QAM (138 x 256 QAM),<br>EN60728-3-1, flat)                      |
| Output level                     | 111 dB $\mu$ V<br>(all QAM (138 x 256 QAM),<br>EN60728-3-1,<br>12 dB slope @ 1218 MHz) |
| Input return loss                | $\geq 20$ dB (-1,5 dB/Oct.)  |
| Attenuator downstream            | 0...20 dB (0,1 dB step)  |
| Interstage attenuator downstream | 0...20 dB (1 dB step)  |
| Equalizer downstream             | 0...15 dB (0,1 dB step)  |
| Interstage equalizer downstream  | 0...15 dB (1 dB step)  |
| RF test points                   | -20 dB   |

### Upstream (US)

|                                    |   |
|------------------------------------|---|
| Frequency range upstream           | 5...204 MHz<br>(65/ 85/ 117 MHz optional)   |
| High pass filter switchable        | 12 MHz  |
| Gain upstream                      | 30 dB   |
| Frequency response upstream        | $\leq \pm 0,5$ dB   |
| Noise figure upstream              | $\leq 5,5$ dB   |
| Output level                       | 115 dB $\mu$ V<br>(CLC/TS50083-3-3<br>(BER $\leq 1$ E-8, MER $\geq 35$ dB),<br>5...65 MHz (6 x 64 QAM))   |
| Output level                       | 110 dB $\mu$ V<br>(CLC/TS50083-3-3<br>(BER $\leq 1$ E-8, MER $\geq 35$ dB),<br>5...204 MHz (24 x 64 QAM)) |
| NPR (>50 dB) EN60728-3             | 16 dB $\mu$ V/Hz<br>(max. input level (60 MHz load),<br>26 dB dyn. range)                                 |
| NPR (>50 dB) EN60728-3             | 12 dB $\mu$ V/Hz<br>(max. Input level (200 MHz load),<br>23 dB dyn. range)                                |
| Return loss upstream (in / output) | $\geq 20$ dB (-1,5 dB/Oct.)   |
| Attenuator upstream input          | 0...30 dB (1 dB step)   |
| Attenuator upstream output         | 0...30 dB (1 dB step)   |
| Equalizer US                       | 0...15 dB (0,5 dB steps)  |
| ICS, US                            | 0/ -6/ < -45 dB   |
| Upstream test point                | -20 dB  |
| RF injection point                 | -20 dB  |

## Technical data

### General data

|                                     |   |
|-------------------------------------|---|
| RF connectors                       | PG11/F  |
| Impedance                           | 75 $\Omega$   |
| Supply voltage                      | 27...65 V AC  |
| Power consumption                   | 25 W<br>(ASLC module max. 2,5 W,<br>Transponder max. 3,5 W) |
| Remote power current in and outputs | < 10 A  |
| Surge protection power supply       | 2 kV<br>(1,2/50 $\mu$ s pulse EN61000-4-5)                  |
| Hum modulation @ 7A, f > 15 MHz     | > 70 dB   |
| Ambient temperature                 | -20...+65 $^{\circ}$ C                                      |
| Protection class                    | IP67  |
| EMC                                 | EN 50083-2  |
| Surge protection RF ports           | 6 kV<br>(1,2/50 $\mu$ s pulse EN61000-4-5)                  |
| Dimensions (width x height x depth) | 260 x 215 x 100,4 mm  |

### NMS / Handset / BT App

#### Functionality

#### Downstream

|             |   |
|-------------|---|
| Monitoring: | control level deviation, attenuator, equalizer, slope settings, pilot level state, pilot frequency, RF power level, 5V/24V supply voltage |
|-------------|---|

|                |   |
|----------------|---|
| Configuration: | input attenuator, interstage attenuator, input equalizer, interstage slope, attenuator output 1, ASLC adjustment, equalizer frequency 1/1,2 GHz |
|----------------|---|

|         |   |
|---------|---|
| Alarms: | pilot level too high/low, control level deviation |
|---------|---|

#### Upstream

|             |   |
|-------------|---|
| Monitoring: | attenuator/slope setting, ICS switch position |
|-------------|---|

|                |  |
|----------------|--|
| Configuration: | input attenuator, output attenuator, slope, ICS, hp on/off |
|----------------|--|

## Packaging data

|                                   |                    |
|-----------------------------------|--------------------|
| Sales unit                        | 1 pcs.             |
| Dimensions (WxHxD) sales unit     | 340 x 283 x 155 mm |
| Packaging volume sales unit       | dm <sup>3</sup>    |
| Gross weight sales unit           | 3.355 kg           |
| Shipping unit                     | 1 pcs.             |
| Dimensions (WxHxD) shipping unit  | mm                 |
| Packaging volume shipping package | 15 dm <sup>3</sup> |
| Gross weight shipping unit        | 3.655 kg           |
| EAN                               | 4010056738099      |
| Article number                    | 73809              |
| Customs tariff number             | 85437030           |