

# TV | Radio | Multimedia

Optical Nodes, amplifiers, distribution and connection technology (1006 MHz and 1218 MHz)



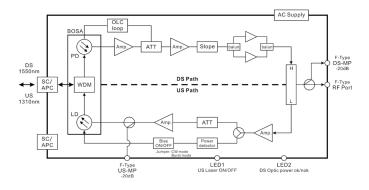
- √ High output levels
- √ High reliability
- √ Maximum durability

# Optical Micro Fibre Node - 1218 MHz

## FTTH/FTTB applications

The Micro Fibre Node ONX 1550-01 is suited for FTTH/FTTB applications and the platform it is built on is future-proof. Due to the good technical parameters, like the extremely low noise optical receiver, the Optical Fibre Node is suited for many applications. It has an active output and can be used in analogue modulated networks.

The constant RF output level for the wide optical operating range is based on the OLC function. Between the amplifier stages an interstage slope can be set. The RF output level and the RF return path level can be measured at the two test ports of the Micro Fibre Node.





### Flexible ONX platform

The design of the ONX platform is future-proof. With different assembling variants new versions and functionalities can be added.

### **Available Micro Fibre Nodes**

ONX 1550-01 | 85...1218 MHz/5...65 MHz (1310 nm, DFB)

ONX 1550-02 | 85...1218 MHz/5...65 MHz (1610 nm, DFB)

ONX 1550-03 | 85...1218 MHz/5...65 MHz (1310 nm, FP)

ONX 1550-11 | 102...1218 MHz/5...85 MHz (1310 nm, DFB)

ONX 1550-12 | 102...1218 MHz/5...85 MHz (1610 nm, DFB)

ONX 1550-21 | 258...1218 MHz/5...204 MHz (1310 nm, DFB)

ONX 1550-22 | 258...1218 MHz/5...204 MHz (1610 nm, DFB)

#### Available accessories

Optical splitters, cables, connectors and attenuators are available as accessories.



# Benefits at a glance:

- ✓ Flexible and future-proof platform
- Excellent technical parameters
- ✓ Extremely low noise optical receiver
- ✓ Constant RF output level for the optical operating range
- ✓ OLC function (Optical Level Control)
- ✓ Adjustable interstage slope
- ✓ Various laser versions for the upstream (US)

# On the right track – CATV amplifiers

### **AXING CATV amplifiers**

AXING amplifiers are specifically tailored to the requirements of CATV network operators. The different performance classes enable distribution systems in almost any size. Intelligent adjustment options allow adaptation to a wide range of network conditions.

The product range remains clear and the number of products in stock and service is reduced.

### Partner to cable network operators

Fast internet connections throughout houses and an ever-increasing variety of programme options place high demands on cable network operators. In order to support your success in line with your needs, we offer you high-performance technology such as bidirectional amplifier systems for HFC networks to optimum quality standards. And thanks to our IT-supported warehousing system, we can supply our customers flexibly and quickly.





## Vodafone Kabel Deutschland

### **DOCSIS 3.1 Ready**

With the BVS 14-69P and BVS 20-69P CATV amplifiers with a frequency range up to 1218 MHz are available.





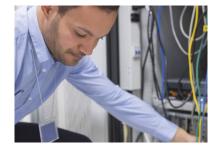




- Television with the highest quality
- ✓ Fast internet connections throughout the house
- ✓ Telephony via the cable network operator

- ✓ Further CATV products: Antenna sockets, splitters and taps from one source
- Can be adapted to different network conditions
- Pre-assembled CATV cabinets





- Products that meet the high demands of cable operators
- ✓ Flexible and fast delivery

# MG 1-00 – DVB-TV Meter Easy to use due to intuitive operationg



The measuring device MG 1-00 supports the installation and maintenance of coaxial reception systems. It is used for the qualitative measurement of digital terrestrial television channels, satellite systems or cable networks.

| Article  |   | BVS 12-69N          | BVS 13-69N          | BVS 13-68 | BVS 15-68 | BVS 20-00 | BVS 20-46 | BVS 20-47 | BVS 20-66 | BVS 20-69N | BVS 14-66 | BVS 20-69P | BVS 14-69P |
|--|---|---------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|------------|
|  |   |                     |                     |           |           |           | W W W     |           | W W W     |            | 9         | Codes      |            |
| Downstream   |   |                     |                     |           |           |           |           |           |           |            |           |            |            |
| Frequenzy range  |   |                     |                     |           |           |           |           |           |           |            |           |            |            |
| 85 1218 MHz  |   |                     |                     |           |           |           |           |           |           |            |           | •          | •          |
| 85 1006 MHz  |   | •                   | •                   | •         | •         | •         |           |           | •         | •          | •         |            |            |
| 47/85¹ 1006 MHz  |   |                     |                     |           |           |           | •         | •         |           |            |           |            |            |
| Gain [dB]  |   | 1720                | 2730                | 30        | 38        | 36        | 30        | 36        | 38        | 38         | 40        | 38         | 40         |
| Attenuation   equalization                                       |   |                     |                     |           |           |           |           |           |           |            |           |            |            |
| Adjustable 0 20   018 dB   |   | •                   | •                   | •         | •         |           |           |           |           |            |           |            |            |
| Adjustable 0 15   0 15 dB  | 6 |                     |                     |           |           |           |           |           | •         | •          |           | •          |            |
| PCP switches<br>1 dB steps 0 15   0 15 dB                        | • |                     |                     |           |           | •         | •         | •         |           |            | •         |            | •          |
| Attenuation   equalization (interstage)                          |   |                     |                     |           |           |           |           |           |           |            |           |            |            |
| Jumper 0/6   0/2/4/6 dB  |   |                     |                     | •         | •         |           |           |           |           |            |           |            |            |
| Jumper 0/2/4/6   0/2/4/6 dB                                      |   |                     |                     |           |           | •         | •         | •         | •         | •          | •         | •          | •          |
| Test ports in-/output  |   |                     |                     | •         | •         | •         | •         | •         | •         | •          | •         | •          | •          |
| Output level <sup>2</sup> [dBµV]                                 |   | 100/98 <sup>3</sup> | 100/98 <sup>3</sup> | 100       | 100       | 107       | 107       | 107       | 107       | 107        | 111       | 107        | 111        |
| Upstream   |   |                     |                     |           |           |           |           |           |           |            |           |            |            |
| Integrated   |   | •                   | •                   | •         | •         |           |           |           | •         | •          | •         | •          | •          |
| Pluggable  |   |                     |                     |           |           | •         | •         | •         |           |            |           |            |            |
| Frequenzy range  |   |                     | 5 6                 | 5 MHz     |           |           |           |           | 5 6       | 5 MHz      |           |            |            |
| Gain   |   |                     |                     |           |           |           |           |           |           |            |           |            |            |
| 1720 dB  |   | •                   |                     |           |           |           |           |           |           |            |           |            |            |
| 2528 dB  |   |                     | •                   |           |           |           |           |           |           |            |           |            |            |
| 30 dB  |   |                     |                     | •         | •         |           |           |           | •         | •          | •         | •          | •          |
| 30 dB  |   |                     |                     |           |           | •4        | •4        | •4        |           |            |           |            |            |
| Attenuation  |   |                     |                     |           |           |           |           |           |           |            |           |            |            |
| Adjustable 015   015 dB  | 6 |                     |                     |           |           |           |           |           | •         | •          |           | •          |            |
| PCP switches<br>1 dB steps 0 15   0 15 dB                        | • |                     |                     |           |           | •         | •         | •         |           |            | •         |            | •          |
| Attenuation   equalization (interstage)                          | * |                     |                     |           |           |           |           |           |           |            |           |            |            |
| Jumper 0/6   0/3/6/9 dB  |   |                     |                     | •         | •         | •         | •         | •         | •         | •          | •         | •          | •          |
| Attenuation Output   |   |                     |                     |           |           |           |           |           |           |            |           |            |            |
| Jumper 0/3/6/9 dB  |   |                     |                     |           |           | •         | •         | •         |           |            | •         |            | •          |
| General  |   |                     |                     |           |           |           |           |           |           |            |           |            |            |
| Power supply   |   |                     |                     |           |           |           |           |           |           |            |           |            |            |
| Power supply 230 V~ / 50 Hz                                      |   | •                   | •                   |           |           |           |           |           |           |            |           |            |            |
| SMPS 100240 V~/5060 Hz   |   |                     |                     | •         | •         | •         | •         | •         |           | •          |           | •          | •          |
| SMPS remote feed 3065 V~/5060 Hz                                 |   |                     |                     |           |           |           |           |           | •         |            | •         |            |            |
| Certified by Vodafone Kabel<br>Deutschland according to 1 TS 140 |   | B1.2                | B3.2                | -         | C4.2      | -         | -         | -         | -         | D4.3       | -         | -          | -          |

 $<sup>^{1}</sup>$  With return path module = 85 ... 1006 MHz |  $^{2}$  CENELEC raster, 41/42 ch. 60 dB IMA, CSO/CTB

# The right antenna wall outlets for every purpose

## Safety against LTE interferences

The mobile radio standard LTE / 4G is spreading more and more. Since the LTE / 4G frequencies are partially in the range of the frequencies used in TV cable networks, bad shielding of components can lead to interferences.



To avoid this problem, all **premium**-line AXING wall outlets have already been designed in such a way that they meet not only the required screening performance of Class A, but also meet the extended requirement "class A + 10dB".



# **Vodafone Kabel Deutschland**

AXING's BSD 963-xxN are certified antenna wall outlets.

| Connectors                                    | CATV  | CATV + DATA   | CATV + DATA + DATA                                       | CATV + DATA + SAT |
|---|---|---|--|-------------------|
| Terminal type                                 | BSD 21-00   | BSD 963-00N   | BSD 961-08K  |                   |
| Terminal type with DC power pass              | BSD 21-01   |   |  | BSD 960-00N       |
| Terminal type                                 | -   | BSD 963-11N   | BSD 961-11K  |                   |
| Loop-through type                             | BSD 21-10<br>BSD 21-14<br>BSD 21-18<br>BSD 21-22<br>BSD 21-07 | BSD 963-10N<br>BSD 963-12N<br>BSD 963-14N<br>BSD 963-17N<br>BSD 963-20N | BSD 961-12K<br>BSD 961-15K<br>BSD 961-17K<br>BSD 961-20K |                   |
| Loop-through type<br>with blocked return path | -   | BSD 963-13N   | BSD 961-13K  |                   |
| Loop-through type with DC power pass          | BSD 21-11   |   |  | BSD 960-10N       |



# Benefits at a glance:

- ✓ Class A + 10 dB
- ✓ Highly flexible foldaway clamping cover
- ✓ Unified stripping length 8/13 mm
- ✓ Extended F connector
- ✓ For all German standardized covers and frames

# Splitters and taps 5...1218 MHz

### Vodafone Kabel Deutschland

### Symmetrical taps

|       | 1-way     | 2-way     | 3-way     | 4-way     |  |
|-------|-----------|-----------|-----------|-----------|--|
| 6 dB  | BAB 1-06P |           |           |           |  |
| 8 dB  | BAB 1-08P | BAB 2-08P |           |           |  |
| 10 dB | BAB 1-10P | BAB 2-10P | BAB 3-10P |           |  |
| 12 dB | BAB 1-12P | BAB 2-12P | BAB 3-12P | BAB 4-12P |  |
| 16 dB | BAB 1-16P | BAB 2-16P | BAB 3-16P | BAB 4-16P |  |
| 20 dB | BAB 1-20P | BAB 2-20P | BAB 3-20P | BAB 4-20P |  |
| 24 dB | BAB 1-24P | BAB 2-24P | BAB 3-24P | BAB 4-24P |  |

### **Asymmetrical taps**

|                              | 4-way                  | 6-way                  | 8-way                  |
|------------------------------|------------------------|------------------------|------------------------|
| 12.5 15.5 dB (in 1 dB steps) | BAB 4-01P<br>BAB 4-02P |                        |                        |
| 12.5 17.5 dB (in 1 dB steps) |                        | BAB 6-01P<br>BAB 6-02P |                        |
| 12.5 19.5 dB (in 1 dB steps) |                        |                        | BAB 8-01P<br>BAB 8-02P |

01 = trunk types | 02 = terminal types

### **Splitters**

| 2-way     | 3-way     | 4-way     | 6-way     | 8-way     |  |
|-----------|-----------|-----------|-----------|-----------|--|
| BVE 2-01P | BVE 3-01P | BVE 4-01P | BVE 6-01P | BVE 8-01P |  |
| -         | -         | BVE 4-02P | BVE 6-02P | BVE 8-02P |  |

#### Coaxial cable

SKB 94-0x Coaxial cable | 3-way shielded | acc. KDG 1 TS 153

PU 100 m, 250 m, 500 m

BAK xxx-80 Conection cable IEC | axial connectors male | female | high shielded

Lengths from 1.50 to 10 m

MAK xxx-80 Patch/modem cable | axial connectors male | double shielded

Lengths from 0.20 to 10 m

# **Compression connectors**

CFS 93-48 F | Opti-fix | self compression

CFS 97-48 F Compression

CFS 99-48 F | Compression | Quickfix

CFS 100-48 F | Compression | Quickfix, right-angle

#### Earth connection blocks

CFA 7-01 Earth connection block 1-way | F | F | wall mounting CFA 9-01 Earth connection block 2-way | F | F | wall mounting







### Splitters and taps for every purpose

For almost every type of installation, AXING has the right splitter or tap. With a frequency range up to 1218 MHz the devices are suitable for DOCSIS 3.1 applications (up to 10 GBit / s in the cable network). High shielding characteristics (class A + 10 dB) ensure a trouble-free transmission of the signals. A fast and secure connection is ensured with AXING's F-sockets.



# Coaxial cable and connectors highly shielded

AXING's highly shielded coaxial cables and connectors provide the path from the interconnetion point to the receiving device. All components in AXING **premium**-line quality guarantee 100 % interference-free operation.









### **Vodafone Kabel Deutschland**

AXING's SKB 94-0x is a certified coaxial cable made of solid copper. It fulfills the fire classification Eca acc. to EN 50575.

### Benefits of the splitters and taps:

- ✓ 5...1218 MHz
- ✓ High return loss
- ✓ For multimedia-use
- ✓ In- and outputs hum-decoupled
- ✓ High intermodulation suppression
- ✓ Screening factor Class A + 10 dB, according to EN 50083-2



# Why AXING in particular?

We Swiss don't waste words. But what we do, we do thoroughly. Which is why AXING products are always state of the art. The compact design and easy installation are equally impressive.

What is more, with AXING you have a partner at your side offering you all the services you need as a one-stop provider – from planning via preparation through to delivery and operation. Contact us now; we would be pleased to advise you on site and make you a detailed offer.

#### **Our AXING commitment:**

- ✓ Very easy handling and installation of all AXING products
- Short-term and reliable delivery capability
- ✓ Consistently high quality
- ✓ Highly modern technology state of the art
- Great flexibility due to wide variety of products
- Optimum support via competent planning and installation service
- ✓ Technical service / after sales















**AXING AG** 

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