

WWK Alpha 2

The WWK ALPHA 2 is an advanced, digital multi-band amplifier designed for professional SMATV antenna installations and extensive individual installations. The device enables selective processing of DVB-T/T2 signals in the VHF and UHF bands, integration of DAB and FM signals, and interoperability with external modulators and headends via the AUX input.

The DSP platform enables precise level adjustment of each multiplex, channel conversion within the band, automatic gain control (AGC), and effective reduction of intermodulation distortion. The amplifier is equipped with advanced LTE/5G filtering (including a SAW filter for the 5G 700 band), intelligent antenna preamplifier power control, and an automatic signal scan function (SMART SCAN).

The WWK ALPHA 2 ensures stable operation even in challenging reception conditions, with significant signal level differences and high LTE and 5G emission density, meeting the requirements of modern community and facility installations.

WWK Alpha 2 is another of our products, designed with your needs and experience in mind. It's 100% compatible with collective installations. Designed for both optical and traditional installations. This device was designed and produced in Poland by Telkom-Telmor. It's a European class product.



Key Features

- Digital, selective DVB-T/T2 signal processing (DSP)
- Channel conversion within the VHF and UHF bands
- Individual level control for each MUX and global output control
- Wideband DAB mode (174–230 MHz) without the need for channel programming
- Advanced LTE 700 / LTE 800 filtering, SAW filter active in LTE 700 mode
- SMART SCAN function – automatic search for DVB-T/T2 signals
- Intelligent preamplifier power control (Auto Preamp Control)
- High resistance to clipping and interference (IMD3 up to 122 dB μ V)
- Class A shielding according to EN 50083-2
- Compact metal housing
- AUX path for easy connection of headends and modulators
- Widely adjustable output level - ideal for optical installations
- Even better signal quality parameters - MER and BER
- New, greater dynamics of input signals

TECHNICAL PARAMETERS

PARAMETERS	VALUE
FM frequency range	87,5 - 108 MHz
VHF frequency range VHF	174 - 230 MHz
UHF frequency range	470 - 862 MHz*
AUX frequency range	47-862 MHz
Number of inputs FM - VHF/UHF - AUX	1 - 4- 1
Channel conversion	VHF i UHF
Max. output level (IMD3)	122 dB μ V
Input separation	>30 dB
Channel separation (DSP)	>35 dB (1 MHz off channel)
Minimum input level	\geq 35 dB μ V
Recommended input MER	\geq 18 dB
Recommended input C/N	\geq 24 dB
Output level range (global)	88 - 118 dB μ V**
LTE 5G Filter modes	OFF / LTE 800 / LTE 700 (SAW)
Preamplifier power supply	12 V DC, max. 60 mA / input, 240 mA total
Device power supply	12 V DC / 1 A
Maximum power consumption	12 W
Device power supply	IP40
Shielding class	A
Operating temperature	-10...+60 °C
Storage temperature	0...+40 °C
Humidity	20-80% (non-condensing)
Grounding	Protective terminal on housing
Index	B253-7538-402-02 WWZ-0200-053-01

* range depends on the selected LTE filter mode

** depends on the number of active MUXes

Application Scenarios – WWK ALPHA 2

1. Community Installations in Multi-Family Buildings

WWK ALPHA 2 enables selective processing and level equalization of DVB-T/T2 signals received from different directions. Thanks to channel conversion and precise level adjustment, each multiplex can be tailored to the installation's requirements, ensuring stable reception at all subscriber outlets.

2. Commercial Facilities: Hotels, Guesthouses, Schools

The device allows for the integration of DVB-T/T2, DAB, and FM signals in a single installation. The broadband DAB mode enables the distribution of digital radio without the need for channel programming, and its high overload resistance ensures reliable operation in extensive networks.

3. Installations in challenging reception conditions

In locations with significant signal level differences and LTE/5G interference, the WWK ALPHA 2 stabilizes signal parameters thanks to LTE filters (including SAW for the 700 MHz band), automatic gain control, and high intermodulation resistance.

4. Upgrading existing SMATV installations

The WWK ALPHA 2 is ideal for upgrading older antenna installations. The SMART SCAN function enables quick searches for available multiplexes, and digital signal processing allows for adapting the installation to the current frequency plan without replacing antennas or cabling.

5. Integration with modulators and headends

Thanks to the AUX input, the amplifier can be used with external DVB-T/T2 modulators and small headends. This enables the construction of hybrid TV signal distribution systems and information services in public facilities.