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# AVANT X Pro programmable multiband amplifier for terrestrial signals, with 32 digital programmable filters and autoprogramming

### A new evolutionary stage

Multi-input multiband amplifier, perfect for terrestrial individual or MDU (Multi Dwelling Unit) installations, that allows programming up to 32 digital filters on 4 VHF+UHF inputs (DTT).

The multiband amplifier is equipped with 5 inputs, allowing its configuration between 2 distribution modes: FM-4xVHF/UHF or FM-DAB-3xUHF, and can achieve programmable amplification and balancing of the different RF inputs.

Thanks to ASuite, the multiband amplifier programming is very easy and intuitive using an Android or Windows application.

The Pro model includes the autoprogramming function that allows the multiband amplifier to self-program and self-adjust. The LED indicators on the equipment follow the procedure, displaying whether it was executed successfully

Besides, it allows VHF/UHF signal monitoring of both level and SNR (Signal to Noise Ratio) and produces an installation report (PDF file).

The multiband amplifier is able to detect LTE signals and automatically set the filter to channel 48 (LTE700).

**RED** compliant

Ref.532123

Art.Nr AVANTXP-DD2 EAN13 8424450223963

### **Highlights**

• Digital processing technology implemented on terrestrial TV signals

- Up to 32 individually programmable filters: single channel digital filtering, even for adjacent channels (1 to 4 channels)
- Digital processing of channels: output channels can be frequency shifted
- Automatic signal adjustment in each filter (AGC): and output signal manual regulation
- UHF/VHF digital filters with high selectivity: 30dB rejection (@ 1MHz)
- SAW filters (Surface Acoustic Wave) against LTE interferences, with the best selectivity and stability
- Compatible with DVB-T and DVB-T2
- TForce Technology: terrestrial signal level always stable and adapted to its optimum value
- Storage of several setups and cloning between different AVANT X models
- · Zamak chassis provides high screening effect
- Light-weight and compact multiband amplifier with a wide range of features (225x120x55mm)
- Very easy configuration and adjustment using ASuite application for Android or Windows

#### Main features

- Inputs configurable in 2 modes: 4 inputs support VHF/UHF, or one of the inputs is for DAB and the remaining 3 for UHF
- Automatic balancing according to the programmed output level and equalization slope
- High output power
- Allocation of filters to inputs without restraints
- Auto-programming: The amplifier self scans the VHF/UHF inputs to find the best DVB-T/T2 channel, so it can automatically allocate each multiplex to a filter in the most optimum way
- Using ASuite application: Channel monitoring with DVB-T/T2 parameters: identification, level, CNR, CBER (DVB-T) or PER (DVB-T2) and installation PDF report with settings and measures ( Donwload: PDF report example)
- Powering of pre-amplifiers or BOSS system
- LED indicators displaying both unit and signal statuses
- Easy-to-replace power supply

#### Discover

### Avant X: A new evolutionary stage

Avant X is a full range of digital programmable multiband amplifiers, which main mission is to achieve a programmable amplification and balance of different RF input signals.

- VHF+UHF inputs: the channels present in these inputs can be filtered and adjusted using up to 32 digital filters. Each filter can be tuned to any VHF+UHF channel, and its bandwidth can comprise between 1 and 4 channels. The arrangement of the 32 filters is configurable based on the number of channels present on each VHF+UHF input. It's compatible with DVB-T and DVB-T2.
  - The output level is programmable between 90-115dB $\mu$ V for one-output options (BASIC and PRO), and between 86-111dB $\mu$ V for two-output options (BASIC SAT and PRO SAT). Furthermore, an equalization slope of up to 5 dB

can be programmed at the output.

- The FM input can be enabled or not. In case this input is enabled, it will be amplified and its output level set to 10 dB below the lowest-level UHF channel (taking into account the equalization slope).
- IF input (only for models equipped with SAT): satellite input can be assigned an attenuation between 0 dB and 30dB, and an equalization between 0 dB and 15dB. The LNB can be configured to be REMOTELY (user STB) or LOCALLY powered by enabling the 22 kHz tone and configuring the supply voltage value to 13 or 17 V.

### Choose the desired programming mode...

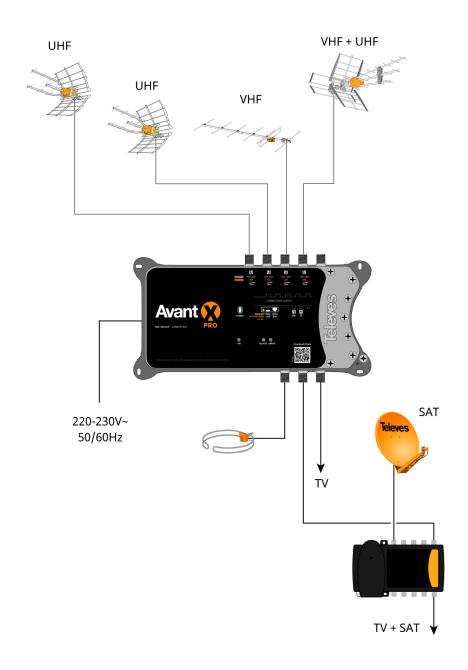
Avant X provides three different programming options:

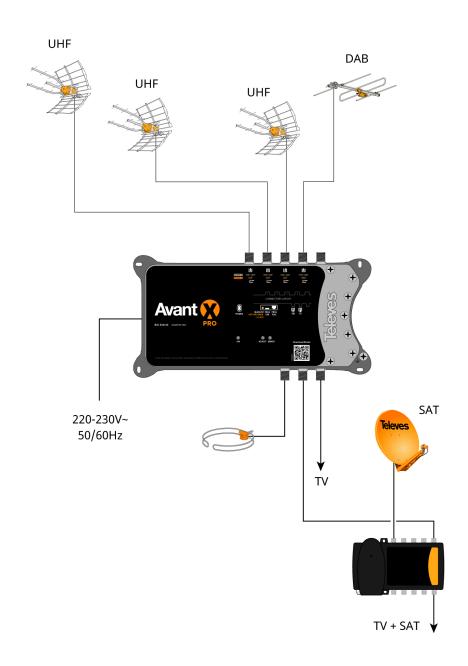
- App ASuite for PC/Mac or tablet/Android smartphone, via USB connection (OTG cable included): The multiband
  amplifier configuration is performed in a friendly and intuitive environment. A configuration can be defined and
  stored even without being connected to the multiband amplifier only to retrieve it at installation and
  adjustment time.
  - Furthermore, for PRO versions, the application allows the monitoring of the quality parameters and the production of an installation report describing the configuration used.
- Universal programmer (ref. 7234): The unit is compatible with the programmer, ensuring backwards compatibility.
- Automatic programming by means of the "AUTO-PROGRAMMING" button (press and hold) of the multiband amplifier itself (PRO versions only): Thanks to a tuner that is able to detect DVB-T/T2 channels for UHF+VHF inputs, the unit performs an automatic programming of the filters when executing this option, as well as the appropriate tuning to avoid intermodulation.

By pressing the READJUST button (short press), the unit is readjusted to the stored configuration values. After the multiband amplifier is adjusted, a manual fine tuning can be performed to slightly correct the VHF/UHF and FM filters' gain.

### **Application example**

(Click to see the picture)





### **Technical specifications**

Number of inputs		5
Number of outputs		1
Bands		FM DAB UHF
Frequency range	MHz	87 108   174 230   470 694
Number of filters	IVII IZ	1 31
Channels per filter		1 4
•	-ID	
Gain	dB	29 75 75
Gain adjustment range	dB	0 25   AGC   AGC
Manual regulation after auto-adjustment	dB	-5 5   -5 5   -3 3
Slope regulation	dB	0 5
Input level	dΒμV	76 101   40 100   40 100
Output level DIN45004B	dΒμV	122 122 122
Output level EN50083	dΒμV	126 126 126
Programmable output level	dΒμV	80 105 87 112 90 115
Noise figure	dB	7 7 6
Selectivity	dB	> 20   > 65   > 65
Powering per inputs	Vdc	12 12
Max current input	mA	70
Input voltage	Vac	220 230
Mains frequency		50 Hz / 60 Hz
Max. current	mA	130
Max. power consumption	W	14
Protection index (IP)		20
Operating temperature	°C	-5 45