





USER GUIDE

CLASS 1 (L) FM/DAB/UHF Terrestrial Launch Amplifier

BLATLA11



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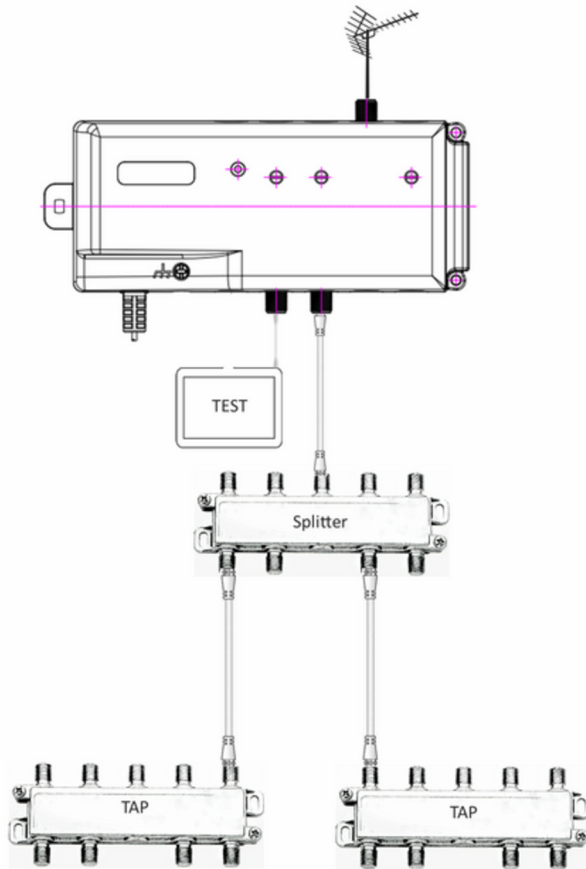
Introduction

Product summary

The Blake triple-filtered BLATLAI1 is a compact and powerful multiband launch amplifier designed for distributing terrestrial television signals in residential and commercial applications such as homes, hotels, and student accommodation environments. This low noise 2.5dB (Typical) DVB-T/T2 75Ω launch amplifier complies with the RED2104/53/EU Class 1(L). It is an energy-efficient (4.5W) device incorporating sophisticated triple-filtering technology to significantly reduce interference from 4G, 5G, and TETRA signals.

Features & Benefits

- Compact design and low energy consumption: Ideal for discreet placement and energy efficiency. Optimised for minimal space, while maximising performance.
- One single input (F-type) is provided for FM/VHF/UHF. The recommended triplexer for this launch amplifier is the 4G, 5G filtered BLACOM3IT (available separately)
- Triple Filtering: Eliminates interference from 4G, 5G and TETRA for exceptional signal quality.
- Variable gain control: Optimises signal strength for various cable lengths and signal weaknesses.
- Suitable for digital and analogue signals: Supports traditional and modern digital terrestrial TV signals.
- Powers masthead amplifier: Provides up to 100mA at 12V to power compatible masthead amplifiers such as the BLAMHD11H.
- Dual colour LED indicators: Provides clear visual indication of operational status, **green** showing normal operation and **amber** indicating a short circuit or log periodic connected. If the LED is **amber**, the amplifier circuit will continue to function, but no power will be supplied to the masthead amplifier, if in use.
- Consumes low power, making it cost-effective for continuous operation.
- Safe and reliable operation: Complies with the Radio Emissions Directive 2014/53/EU (meets the harmonised standard EN 303 354 for Class 1 470-694MHz so no filter is required) and features proper grounding provisions.



Applications

- Distributing terrestrial TV signals in homes, hotels, and student housing.
- Boosting weak TV signals for improved reception.
- Overcoming signal loss due to long cable runs.



Tips

Follow our advice to fully utilise our products:

- b** Always use the minimum gain required to avoid signal distortion.
- b** Mount the amplifier in a clean, dry, and well-ventilated location as close to the TV aerial as is feasible. Avoid places prone to high humidity, elevated temperatures, or dust accumulation.
- b** Properly ground the amplifier using a minimum 4mm² earth bonding cable.
- b** Use F-connectors designed for standard "100" type coaxial cable.
- b** Hand-tighten F-connectors to avoid damaging the unit.
- b** Utilise the provided screw slots to mount the amplifier securely (screws not supplied)



Safety Instructions

Overall safety instructions

Ensure your amplifier is safe to use by matching the plug to your local outlet, using surge protection, and regularly inspecting the power cord for damage. Keep it in well-ventilated areas, secure all connections, protect it from liquids, and allow for cooling after extended use. Always consult the manual for detailed guidance.



Power Safety

- Ensure the amplifier's plug matches your local outlet type. Never force a plug into an incompatible outlet.



Ventilation

- Keep the vents free of dust buildup. Dust can impede airflow and contribute to overheating.



Connections

- Ensure all cables, including the power cord, antenna connections, and speaker wires, are securely fastened. Loose connections can cause electrical issues and potential fire hazards.



Liquids

- Keep the amplifier away from liquids and moisture. Spills or damp environments can damage the electronics and pose a shock hazard.



Technical Specification

Frequency Range	FM and DAB (88-108MHz & 170-230MHz) DVB-T/T2 (470-694MHz)
Gain	FM & DAB (88-108MHz & 170-230MHz) 10-30dB Variable DVB-T/T2 (470-694MHz) 18-38dB Variable
Amplifier Intermodulation:	-2dB (typical) / -4dB (minimum)
Safety	EN IEC62368-1:2020+A11:2020; EMC: EN 50083-2: 2012 + A1: 2015
Noise Figure	UHF 2.5dB (typical) FM/VHF 5.0dB (typical)
Return Loss (INPUT)	8dB(typical) / 5dB (minimum)
Return Loss (OUTPUT)	10dB(typical) / 8dB (minimum)
Power Supply to Masthead Amplifier	12V DC, 100mA, on input
Power Consumption	4.5W
Maximum Input Level	85dBuV
Maximum Output Level	118dBuV (IMD3=60dB (DIN45004B))
Power Requirements	230V, 50Hz
Working Environment	-20 -- +50°C
Dimensions	185x76x47mm



Troubleshooting



My amplifier is not powering on.

First verify that it is powered on and receiving the correct input signal level. Adjust the gain control as specified in the user manual. Additionally, confirm that the amplifier is operating within its designated frequency range for best results.



I have distorted output.

Reduce or increase the gain control setting on the amplifier. Then check for excessive input signal overloading the amplifier.



I am experiencing overheating issues.

If the amplifier feels excessively hot, turn it off and let it cool down completely. Ensure proper ventilation around the amplifier.



Warranty & Compliance

BLATLAI1



Lifetime Guarantee

This guarantee covers failure of your product resulting from manufacturing defect within the lifetime period of this product from the date of supply to the end-user. This guarantee does not cover damage to the product caused by abuse, tampering, defective installation or natural causes such as lightning discharge. Repair or attempted repair, other than by the manufacturer, will render this guarantee void. This guarantee does not affect a consumer's statutory rights.

EU Declaration of Conformity

Blake UK hereby declares that the radio equipment type BLATLAI1 is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: www.blake-uk.com/DoC

