



TAF 1000- 1kW FM AMPLIFIER



RFExpert s.r.l
Strada delle Conce,7 05018 - Orvieto (TR)
ITALY P.IVA, C.F. e Reg. Impr. Terni 01548200557 VAT
Identification n° IT 01548200557
R.E.A. TR - 105787 Cap. Soc. € 10.000,00 i.v.

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CHAPTER 1: GENERAL INFORMATION



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1 CHAPTER 1: GENERAL INFORMATION

1.1 APPLICABILITY

This manual provides important information relating to the amplifier stage

TAF₁₀₀₀ RF power amplifier air cooled p/n **502001K001**

For clarity and simplicity, throughout this manual, the amplifier will be identified as **TAF₁₀₀₀**.

1.2 GENERAL INFORMATION

TAF₁₀₀₀ (see Picture 1) is produced using devices of last generation, which guarantee remarkable efficiency and reliability.

It is able to cover the frequency band 87.5 ÷ 108 MHz with the following performance:

- 1000W with FM signal

TAF₁₀₀₀ shows a typical gain of **21,5 dB** (under ALC control) and it is self-protected against:

- Abnormal input power (OVER-DRIVE)
- Abnormal reflected power (VSWR MAX)
- Abnormal heat-sink temperature (OVER-TEMPERATURE)
- RF Section fault (RF FAULT/LOW POUT)
- Power supply Fault (PSU FAULT)

The protections are performed both through dedicated hardware circuits (for maximum speed of action) both via the logic section of the module. The remote connections can be performed by RS485/422, by RJ-45 (Web Server or SNMP) or by USB.

The status of the amplifier module can be also monitored using the display on the frontal panel. **TAF₁₀₀₀** consists of three main sections (see Picture 1):

- Control logic section which contains:
 - HPA Control Logic
 - Interface Board
- RF section which contains
 - FM Final Stage
 - FM Low Pass Filter
- Power supply section which contains one AC/DC converter

One DC blower ensures the cooling of the amplifier.



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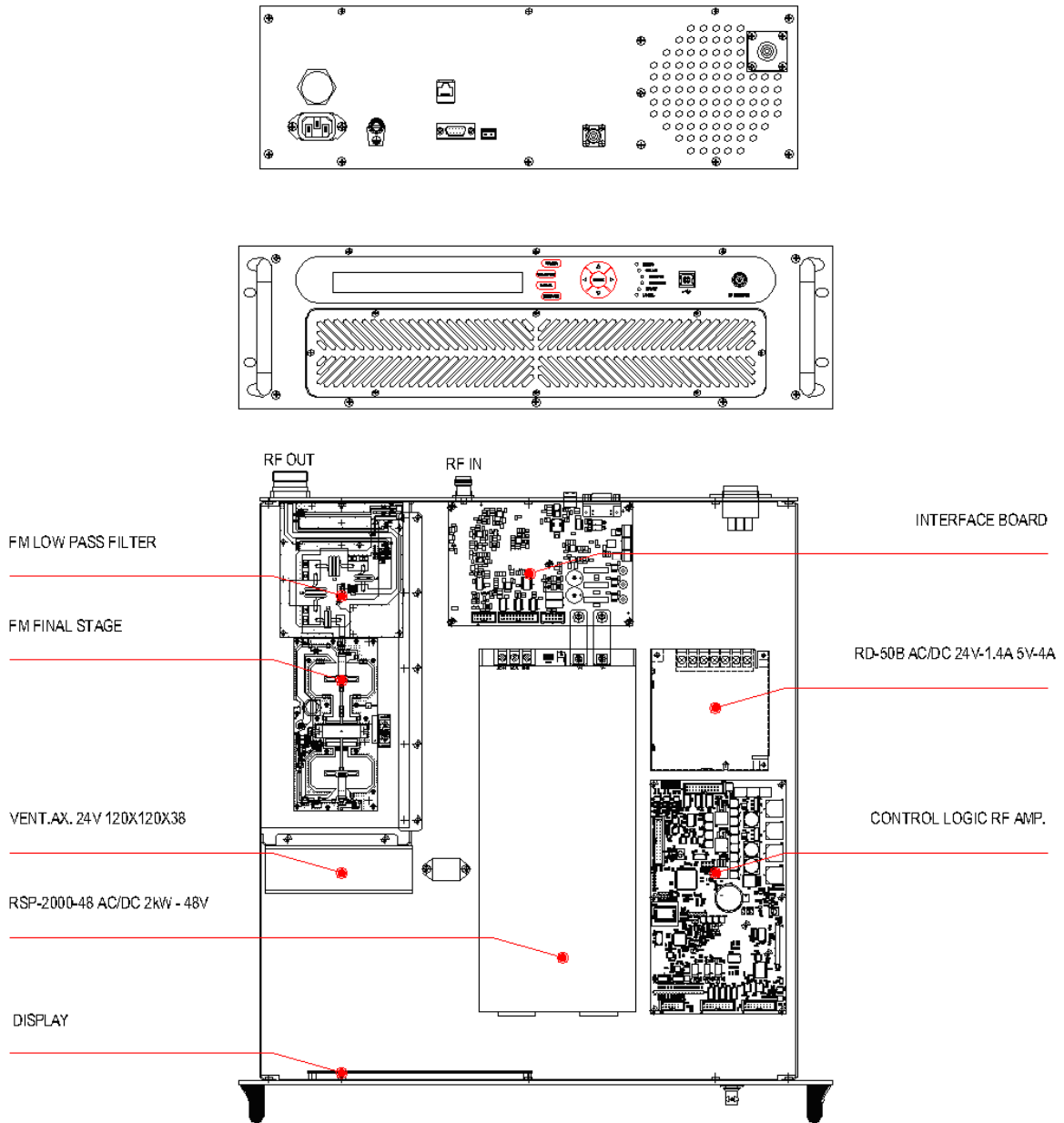
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The RF section is assembled on a high efficiency heat sink.



Picture 1 : TAF₁₀₀₀ Top view and front/rear panels



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