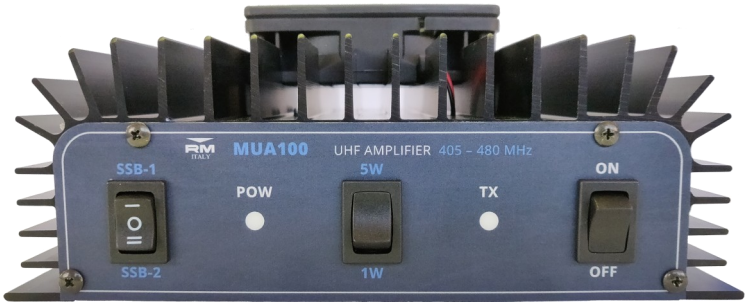
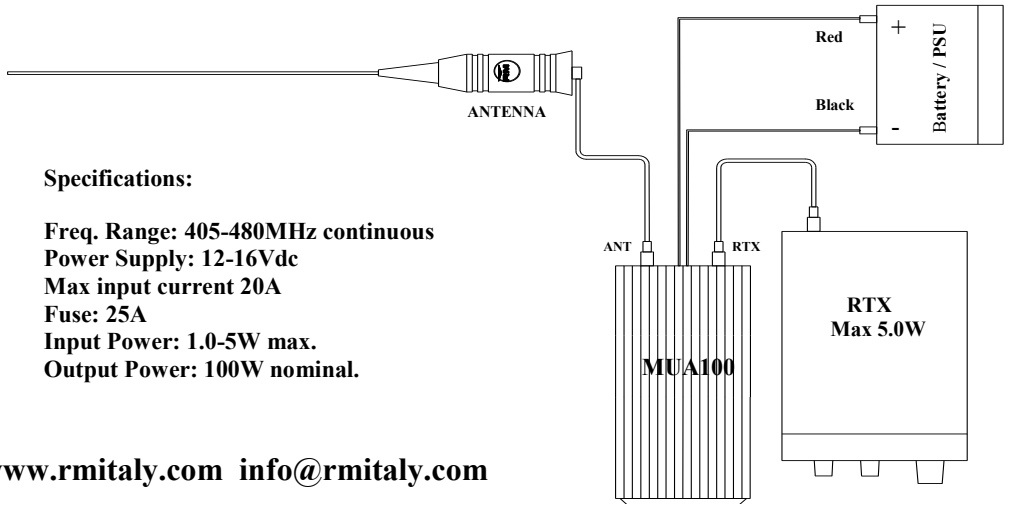
MUA100 Wideband UHF Amplifier

405-480 MHz



The MUA100 is a wideband compact amplifier for the UHF band; covering from 405 to 480 MHz. Output is nominal 100W at full power (115W max).
Input drive from 1W to maximum of 5W, ideally suited to low power handheld transceivers. Output power depends both on input power and frequency of use. The graph illustrates the relationship between the two parameters. The amplifier features automatic RF switching between RX and TX as well as a PTT input. The diagram below illustrates the connection details. The power cable for the amplifier should be kept as short as practicably possible and less than 3m in length. When used in a mobile installation it is recommended that the power cable is connected directly to the auto battery. A safety fuse may be added at this position for protection against short circuit. 30A is sufficient as the amplifier is internally fused. The RF cable from the transceiver to the amplifier and amplifier to the antenna must be kept as short as practicably possible and be 50 Ohms impedance and suitable for the frequency of operation. The antenna must also be suitable for the frequency of operation. The amplifier must be installed in a suitable location that provides adequate ventilation to maximise cooling. As the amplifier is compact it must be appreciated that adequate time is allowed for the amplifier to cool down between transmissions especially if used at maximum power. As ambient temperature, installation location and ventilation are all factors that change for each installation the user must take this into account. The amplifier may be left in circuit when switched off and the RTX may be used normally at low power.



Specifications:

Freq. Range: 405-480MHz continuous
Power Supply: 12-16Vdc
Max input current 20A
Fuse: 25A
Input Power: 1.0-5W max.
Output Power: 100W nominal.

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When using SSB modulation it is recommended that the amplifier PTT input is utilised, however if the driver radio does not have a PTT output the MUA100 can still be used. The SSB switch when set to SSB-1 or SSB-2 position adds a small delay before switching back to RX after a transmission, when using SSB this helps prevent the amplifiers RTX relay from constantly switching between RX and TX during pauses in speech as there is no RF carrier to hold the relay open, (SSB-1, 1sec delay, SSB-2, 2 sec delay), 'O' mid position, no delay, for example when using FM/AM etc.

When the amplifier is switched on the green LED 'POW' is illuminated. When the amplifier is in transmission the red LED illuminates. If during a transmission the TX LED switches off and the amplifier remains in bypass, (No amplification), this indicates either the antenna SWR is excessively high, or an internal fault has occurred. The amplifier will remain in the is condition for 5 seconds before being rest. If this condition persists check the antenna SWR or contact your dealer.