

Broadcast Digital AM Power Amplifier Mod: AMW400DE

Digital AM Power Amplifier controlled by microcontroller









The AMW400DE Digital Power Amplifier covers the AM Broadcast Band in the range of 800 ~ 1800 KHz. It can deliver 400 Watt P.E.P. at 50 Ohm Load (100 Watt Carrier @ 100% modulation)

The LCD screen of AMW400DE displays RF Power Forward and Reflected , Heatsink temperature and also displays Alarm reasons of any kind of malfunction.

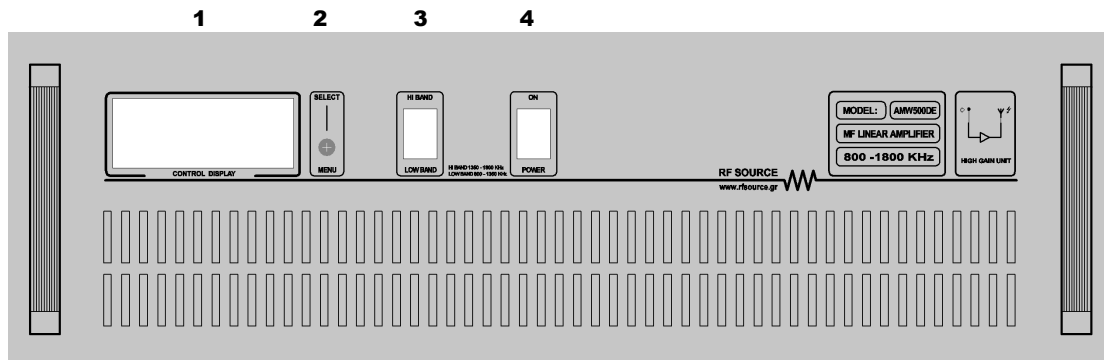
The AMW400DE has protections from high VSWR , Over output Power , Over Temperature , Power Supply malfunction . When an Alarm gets activated, the controller restarts the Amplifier's operation three times. If this procedure fails to solve the malfunction, the Amplifier goes to STBY mode. The AMW400DE needs 220VAC or 110VAC (selectable by internal switch) to operate and its weight is 9,7Kg max.

SPECIFICATIONS :

| | |
|---------------------------|-------------------------------|
| Frequency Range : | 0,8 ~ 1,8 MHz |
| Input-Output Resistance : | 50 Ohm |
| Output RF Power : | 0 ~ 400 Watt P.E.P. |
| Output Carrier : | 0 ~ 100 Watt C.W. |
| Input RF drive power : | 12 Watt P.E.P. |
| Driver Carrier : | 3.0 Watt C.W. |
| Spurious : | < -65 db |
| Harmonics : | < -50 db |
| Modulation Type : | AM |
| Supply Consumption : | < 800 Watt |
| Supply Voltage : | 90 ~ 264 Volt AC (selectable) |
| Warranty : | 1 Year |

-  **19" Rack Mounted**
3U High
-  **LCD screen**
2 X 16
character
numerically and
analog bar display
-  **Digital**
readouts
-  **Digital**
controlled by
microcontroller
on screen messages
-  **400 Watt P.E.P.**
OUTPUT
-  **0 ~ 12 Watt**
P.E.P. Drive
3 Watt C.W.
-  **High Efficiency**
Switching
Power Supply
Low RF noise

TRANSMITTING – RECEIVING SYSTEMS



- 1 2 X 16 character LCD backlight Display
- 2 MENU Button
- 3 Hi – Low Band selection (Hi 1350-1800, Low 800-1350)
- 4 Power On – OFF switch

1. Preliminary Instructions

• General foreword

The equipment in object is to considering for uses, installation and maintenance from “trained” or “qualified” staff, they conscious of the risks connected to operate on electronic and electrical circuits electrical. The “trained” definition means staff with technical knowledge about the use of the equipment and with responsibility regarding the own safety and the other not qualified staff safety place under his directed surveillance in case of works on the equipment. The “qualified” definition means staff with instruction and experience about the use of the equipment and with responsibility regarding the own safety and the other not qualified staff safety place under his directed surveillance in case of works on the equipment.

WARNING: The machine can be equipped with an ON/OFF switch which could not remove completely voltages inside the machine. It is necessary to have disconnected the feeding cord, or to have switched off the control panel, before to execute technical operations, making sure himself that the safety connection to ground is connected. The technical interventions that expect the equipment inspection with circuits under voltage must be carry out from trained and qualified staff in presence of a second trained person that it is ready to intervene removing voltage in case of need.

RF Source-Greece doesn't assume responsibility for injury or damage resulting from improper procedures or practices by untrained/unqualified personnel in the handling of this unit.

WARNING: The equipment is not water resistant and an infiltration could seriously compromise its correct operation. In order to prevent fires or electric shocks, do not expose the equipment to rain, infiltrations or humidity. Please observe all local codes and fire protection standards during installation and use of this unit.

WARNING: The equipment has to its inside exposed parts to risk of electric shock, always disconnect power before opening covers or removing any part of this unit. Fissures and holes are supplied for the ventilation in order to assure a reliable efficacy of the product that for protect itself from excessive heating, these fissures do not have to be obstructed or to be covered. The fissures doesn't be obstructed in no case. The product must not be incorporated in a rack, unless it is supplied with a suitable ventilation or that the manufacturer's instructions are been followed.

Quick guide for use



1) Welcome screen after Power ON.



2) Push the MENU button once to go to the Forward and Reflected RF Power measurement screen.



3) Push the MENU Button again. This screen shows only the Forward RF Power numerically and also with analog bars.



4) Push the MENU Button again. This screen shows only the Reflected RF Power numerically and also with analog bars.



5) Push the MENU Button again. This screen shows the PA's heatsink temperature.



6) Push the MENU Button again. This screen shows only the Unbalanced RF Power numerically and also with analog bars.



7) This screen appears only when Overload - Over modulation Alarm gets activated (Forward RF Power >500.0 Watts). The RF output shuts down.



8) This screen appears only when HI SWR Alarm gets activated (Reflected RF Power > 40.0 Watts). The RF output shuts down.



9) This screen appears only when HI Unbalance Alarm gets activated (Unbalance RF Power > 40.0 Watts). The RF output shuts down.

© Copyright 2009
RF Source-Greece
Nikis 61 str. Alimos 17455 Greece
Phone: +30 210 9829640
Fax: +30 210 9834991
Email: analog@rfsource.gr
Web: www.rfsource.gr
All rights reserved

Printed and bound in Greece. No part of this manual may be reproduced, memorized or transmitted in any form or by any means, electronic or mechanic, including photocopying, recording or by any information storage and retrieval system, without written permission of the copyright owner.

IMPORTANT NOTICE

RF Source RESERVE THE RIGHT TO MAKE CHANGES TO THE PRODUCT(S) OR INFORMATION CONTAINED HEREIN WITHOUT NOTICE. RF Source ASSUMES NO RESPONSIBILITY FOR ANY ERRORS WHICH MAY APPEAR IN THIS DOCUMENT.

WARRANTY INFORMATION APPLICABLE TO THE PRODUCT IDENTIFIED HEREIN IS AVAILABLE UPON REQUEST. NOTHING CONTAINED HEREIN SHALL CONSTITUTE A WARRANTY, REPRESENTATION OR GUARANTEE OF ANY KIND. RF Source EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS AND/OR IMPLIED INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, AND OF FITNESS FOR A PARTICULAR PURPOSE, USE OR APPLICATION.

No part of this document may be copied or reproduced in any form or by any means without the prior written consent of RF Source.

WARNING

RF Source PRODUCTS ARE NOT INTENDED FOR USE IN LIFE SUPPORT APPLIANCES, DEVICES OR SYSTEMS. USE OF A RF Source PRODUCT IN ANY SUCH APPLICATION WITHOUT WRITTEN CONSENT IS PROHIBITED.