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847-231-3372

## MOBILE RF LINEAR AMPLIFIER



### Features

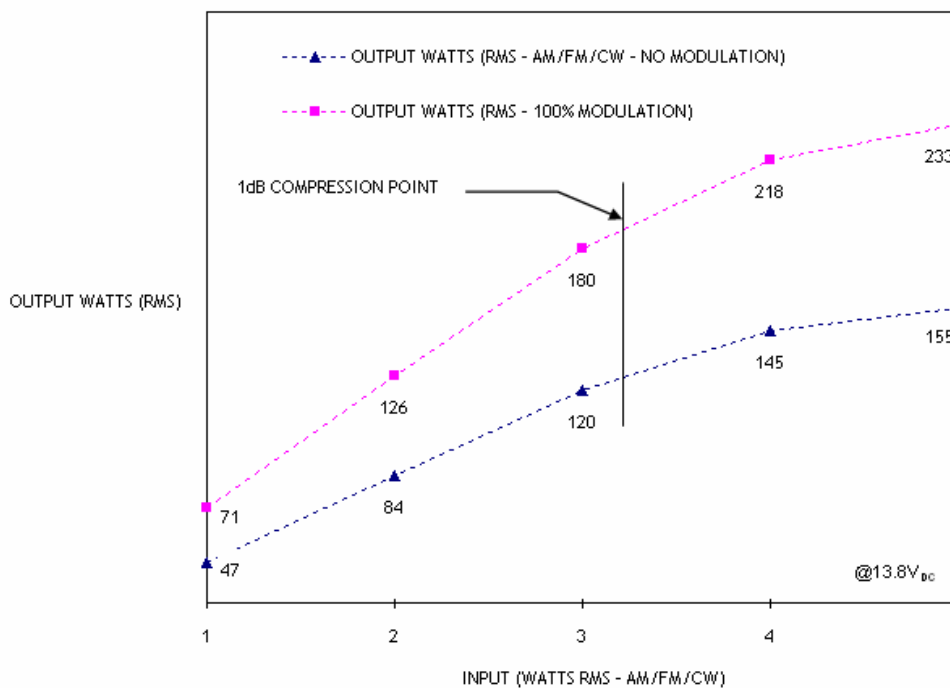
- Premium Quality PC Board, Components, and Chassis
- 13.8V<sub>DC</sub>
- 26-30MHz Operation
- 2SC2879 Push-Pull Configuration with Beta / Gain Matched Transistors
- All Mode (CW, AM, FM, SSB)
- Regulated Class-AB Biasing
- Low Harmonic Content
- High Efficiency Heat Sink
- Polarized Detachable Power Cord
- COR (Carrier Operated Relay) or Multiplexed Keying<sup>1</sup>
- SSB Delay to Eliminate Relay Chatter
- Remote Operation Ready
- Fuse Protected
- Extremely Low Standby Power
- SO-239 Coaxial Connectors
- High Reliability Design
- 90 Day Limited Warranty

<sup>1</sup> Contact Telstar Electronics for details on using this feature

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### Electrical Specifications

PARAMETER	VALUE	NOTES / CONDITIONS
Voltage Requirements	+13.8V <sub>DC</sub>	+15V <sub>DC</sub> Maximum
Current Requirements	26A @ 13.8V <sub>DC</sub>	Maximum
RF Power Output	<b>130W RMS / 325W PEP (SSB)</b>	@1dB Compression <sup>2</sup>
RF Input Power	7W (AM, FM) / 28W PEP (SSB)	Maximum
Efficiency	55%	Typical
2 <sup>nd</sup> Harmonic	-33dBc <sup>3</sup>	100W CW @ 28MHz (Typical)
3 <sup>rd</sup> Harmonic	-30dBc	100W CW @ 28MHz (Typical)
Input Impedance	50-Ohms	Low Reactive Component
Output Impedance	50-Ohms	Low Reactive Component
Gain	16dB @ 28MHz	Typical
Gain Flatness	1dB	Over Specified Bandwidth
Bandwidth	26-30MHz	-
Collector Bias Current	1A	+/-10% @ 25°C (Regulated)
Fuse	30A	AGC Slo-Blo Type
Stand-By Power	1mA	Typical



<sup>2</sup> Driving amplifier into compression region can negatively impact harmonic performance

<sup>3</sup> Decibels below carrier

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### Installation / Operation

- 1.) Find a suitable place for the amplifier to reside. Avoid areas that are confined and could reduce proper airflow around heat sink. This can cause overheating and result in premature failure of the amplifier. The amplifier can be positioned in any orientation, with the recommendation being with the heat sink fins facing up for maximum convection flow.
- 2.) Wire the power cord (**Red+** **Black-**) to a source capable of delivering 13.8V<sub>DC</sub>@30A. The following are recommendations as to the gauge of wire used to supply from the source for various lengths. Note that the farther the amplifier is from the power source, the larger the cross-sectional area of the wire needs to be to ensure a minimal RF output power “sag” due to wiring voltage drop (See Table). It’s important to note that in many installations, the **Black** wire can be very short and connected locally to the chassis of the vehicle, providing that it represents vehicle ground.



LENGTH (FEET)	RECOMMENDED WIRE TYPE
1-3	AWG #14 Stranded
3-6	AWG #12 Stranded
6-10	AWG #10 Stranded
10-20	AWG #8 Stranded

- 3.) Plug power cord into rear of amplifier. Note that the power plug is keyed and can only be inserted in one direction to ensure proper polarity.
- 4.) Attach a 50-Ohm impedance coaxial cable from transceiver to RF **IN** connector on amplifier to driving source.
- 5.) Attach a 50-Ohm impedance coaxial cable from the RF **OUT** to the antenna system. Make certain the antenna system has a VSWR of 1.8:1 or less and is capable of handling up to 175W RMS.
- 6.) Move the switch on the front panel to the **ON** position to activate amplifier. Note that with the switch in the **OFF** position the input and output of the amplifier are effectively coupled, making the amplifier transparent to the system.



The SkyWave has an implied warranty to be free of defects in materials and workmanship for a period of 90 days from purchase. This warranty covers workmanship, parts (excluding power transistors), and labor. If it's determined that the amplifier has been used for a purpose other than intended, abused, or altered in any way, the warranty shall be void.