SkyWave DX600T

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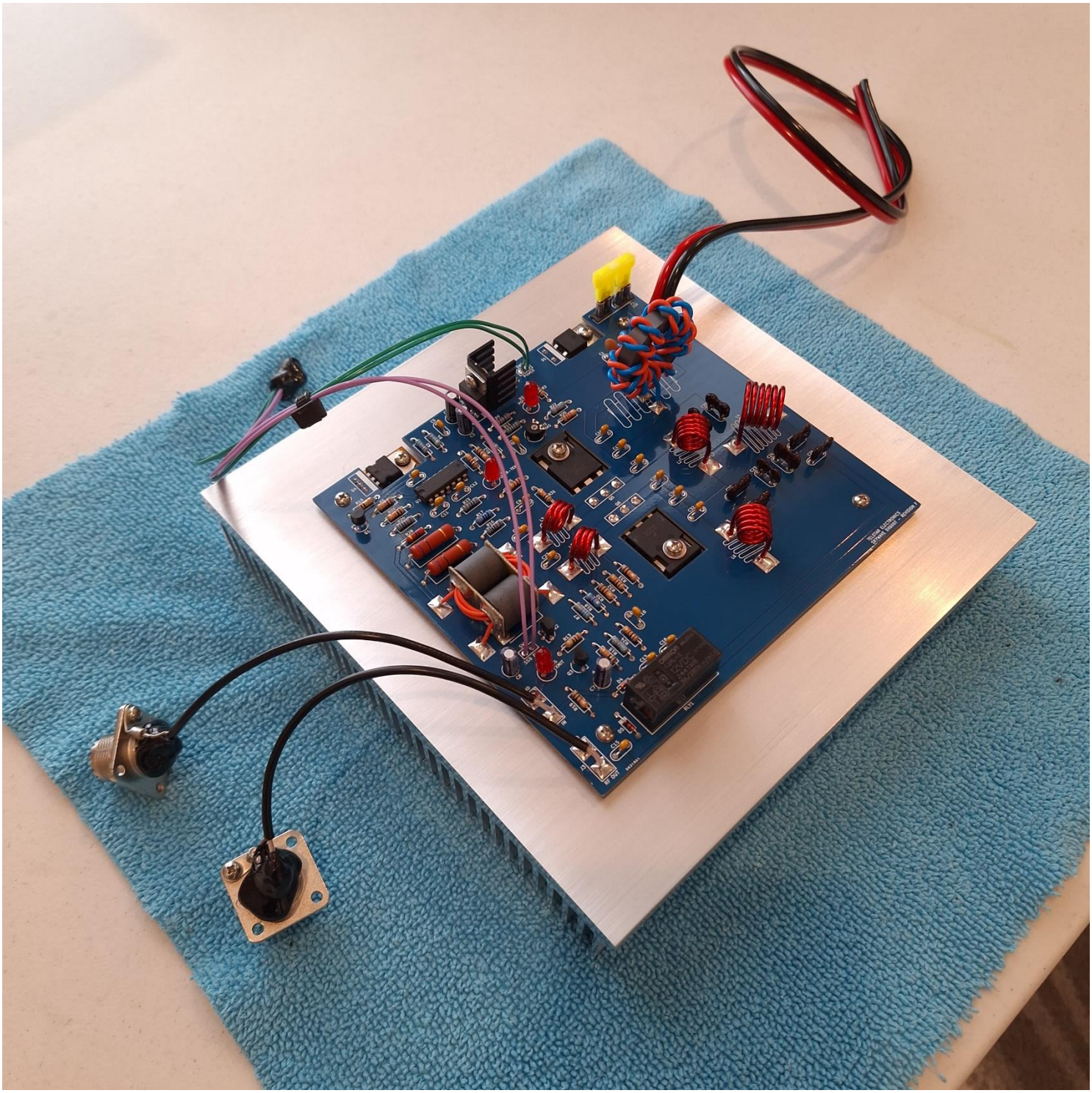
RF Linear Amplifier Pallet



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Features:

- ☑ High Reliability Design
- ☑ +48V_{DC} Operation
- ☑ All Mode (AM, FM, SSB)
- ☑ 26-28MHz Frequency Coverage (Frequency Coverage from 24-30Mhz at Reduced Output Levels)
- ☑ MRF300 Push-Pull Configuration (LDMOS)
- ☑ Class-AB Temperature-Tracking Bias (No Additional Bias Voltage Source Required)
- ☑ Tuned Output Section for Maximum Power
- ☑ Pi-Type Output Filter for Low Harmonic Distortion
- ☑ Carrier Operated or Manual* Transmit / Receive Switching
- ☑ Continuous Reverse Voltage Protection without Damage to Amplifier or Fuse
- ☑ Automatic Over-Temperature Shutdown & Recovery
- ☑ Fuse Protected
- ☑ Selectable SSB Relay Delay
- ☑ Maximum Input SWR 1.1:1
- ☑ On-Off, Transmit, and Over-Temperature Indicators
- ☑ Low Stand-By Power Consumption
- ☑ Premium Quality Printed Circuit Board & Components
- ☑ Large 8"x8" Extruded Aluminum Heat Sink

* Contact Telstar Electronics for details on using the "manual switching" feature.

Specifications

Parameter	Value	Conditions/Notes
Operating Modes	AM, FM, SSB	-
Voltage Requirements	+48V_{DC}	Typical
	+55V_{DC}	Maximum
DC Current	18A	Maximum
Efficiency	75% Typical	@500W
RF Input Power	500mW Minimum	To Engage Relay
	10W AM/FM Maximum 50W-PEP SSB Maximum	Exceeding Maximum Values Can Damage Components
RF Power Output	630W-PEP Maximum	-
2nd Harmonic	-32dBc† Typical	500W Output: <350mW@54MHz
3rd Harmonic	-38dBc Typical	500W Output: <80mW@81MHz
Input / Output Impedance‡	50-Ohms Typical	-
Input SWR (Standing Wave Ratio)	1.1:1 Maximum	-
Power Gain	~19dB Typical	@27MHz
Characterized Bandwidth	26-28MHz§	0.2dB Gain Flatness
Class-AB Bias (Temperature Tracking)	200mA +/-20mA	From -25˚C to +70˚C Heat Sink Temperature
Automatic Over-Temperature Amplifier Shutdown	Shutdown: 70˚C Recovery: 60˚C	Heat Sink Temperature
Fuse	20A	ATO - Automotive Type
SSB Relay Dropout Delay	~1.0 Second	Switch (S2) Closed
Stand-By Power	250mW Typical	-
Reverse Voltage Protection	Continuous	No Damage to Amplifier or Fuse
Printed Circuit Board	Premium FR4	Solder Mask & Silkscreen

† Decibels below carrier.
‡ An antenna system with an SWR of 1.5:1 or less is critical for optimal amplifier operation.
§ Wider frequency coverage is certainly possible at reduced output levels.

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