

SEE NOTES BELOW

## PRODUCT SPECIFICATION SHEET

MODEL NO.: PC-3000S  
ITEM: RF DRIVER AMPLIFIER  
DATE: October 03 2011

### Version 1

#### MODEL NO. PC-3000S, 350 W RF DRIVER

|     |                                 |                                      |
|-----|---------------------------------|--------------------------------------|
| 1.  | Frequency (fixed)               | 2856.000 MHz                         |
| 2.  | .5 dB bandwidth                 | 2.0 MHz minimum                      |
| 3.  | RF Power input (cw)             | 008 watts nom.                       |
| 4.  | RF Power input (cw)             | .012 watts max.                      |
| 5.  | RF Power output (peak)          | 350 watts nominal @ .010 watts input |
| 6.  | RF Gain (dB)                    | 46 dB                                |
| 7.  | Pulse Width (adj.)(front panel) | .6 to 12 microseconds                |
| 8.  | RF Duty Cycle                   | .003 maximum                         |
| 9.  | RF Pulse Flat Top               | ±.005 dB/microsecond                 |
| 10. | RF Pulse Phase during pulse     | ±.05 degrees/microsecond             |
| 11. | Pulse Trigger Input (1 μsec)    | +5.0 volts                           |
| 12. | RF input Connector              | SMA female                           |
| 13. | RF output Connector             | Type "N" female                      |
| 14. | AC Input (rear panel switch)    | 120/220 VAC @ 50/60 cps              |
| 15. | AC Current                      | 5.0 amps                             |
| 16. | Size (approx)                   | 19"W x 18"D x 7"H                    |
| 17. | Weight                          | 40 pounds (approx.)                  |

### Version 2

#### MODEL NO. PC-3000S, 700 watt RF DRIVER

|    |                     |                     |
|----|---------------------|---------------------|
| 1. | Frequency (fixed)   | 2856.000 MHz        |
| 2. | .2 dB bandwidth     | ±1 MHz minimum      |
| 3. | RF Power input (cw) | .012 watts max.     |
| 4. | RF Power output     | 500 watts peak min. |
| 5. | RF Power output     | 700 watts peak nom  |

|     |                                    |  |
|-----|------------------------------------|--|
| 6.  | RF Gain (dB)                       | 46 dB min.   |
| 7.  | RF Pulse Width (adj.)(front panel) | 1 $\mu$ sec to 12 $\mu$ sec , adjustable by front panel screw driver adjustment                |
| 8.  | Trigger Pulse Width                | 1 $\mu$ sec nom  |
| 9.  | Trigger Pulse Voltage              | +1.5 to +5 volts max @ 50 ohms   |
| 10. | Duty Cycle                         | .0024  |
| 11. | RF Phase During Pulse              | <.5 degrees, measured after .5 usec from leading edge and before .5 used before training edge. |
| 12. | RF output Connector                | Type "N" female  |
| 13. | AC Input (rear panel switch)       | 120/220 VAC @ 50/60 cps  |
| 14. | AC Current                         | 5.0 amps   |
| 15. | Size (approx.)                     | 19"W x 18"D x 7"H  |
| 16. | Weight                             | 40 pounds (approx.)  |

**General:**

The system is designed to amplify and provide stable pulse RF power at a frequency of 2856.000 MHz. The system is complete with all power supplies and circuits for full power operation. There are ferrite isolators at the input and at the output to protect the amplifier and to ensure RF stability.

**Trigger Pulse:**

The unit is designed to accept a +5 volt, one microsecond trigger pulse. This pulse will trigger the internal pulse generator that will in-turn, supply a pre-set pulse width to the triode amplifier chain. The pulse width can be adjusted between two and five microseconds by a knob located on the front panel.

**Input Power:**

The system will require a .008 watt cw input signal at a frequency of 2856.000 MHz. The RF input connector is located at the rear of the chassis.

**Power Output:**

The RF power output connector is located at the rear of the chassis.

**P.R.F. Limit:**

The system includes a PRF protection circuit that will limit the maximum PRF that can be used to trigger the system. This maximum limit will be set at 300 PPS (unless otherwise specified by the customer).

**RF Power Control:**

The RF power control is located on the front panel and is used to lower the RF output power from maximum output to a setting of between maximum and -10 dB.

**AC ON Switch:**

The AC ON switch is located on the front panel and will turn the unit "ON" or "OFF." When the unit is "ON" the system will go into a time-out mode. The time-out mode allows the triode tube filaments to warm to operational temperature. This time-out is approximately two minutes. While in the time-out mode a red blinking lamp, located on the front panel, will be activated.

**Standby Mode:**

After the system has timed-out, the red blinking lamps will go out and the yellow standby lamps will be activated. This lamp notifies that the unit is in the "standby" mode and ready to accept (1) trigger pulses, (2) The RF input signal at 2856.000 MHz and (3) the red operate push-button switch is activated and only requires a push to cause the system to go into the "Operate" mode.

**Operate Mode:**

By pushing the red push-button switch located on the front pane, the system will have high voltage applied to the triode tubes and the system will be capable of full power operation. Push the "operate" switch at any time to place the system into the standby mode.