

# TRANSMIT AMPLIFIER

## MODEL S052

Model S052 is a transmit amplifier with a high speed switching design with external control logic for adjustable time delay . The unit includes enable/disable capability, current limiting, thermal shutdown and power conditioning.

The amplifier subsystem detects the RF input signal and sends a control to the external pin diode switches. The pin diode switches turn on immediately (30 to 50 usec). The external circuitry on the bottom of the unit permits the user to adjust an external time delay for the amplifier (typically 100 usec). This allows the switch to be already turned on and stabilized before the amplifier is able to apply power to it. To adjust the time delay, there is a external hole next to the power connector for access to a potentiometer which can be adjusted.

### *SPECIFICATIONS*

PARAMETER	PERFORMANCE	COMMENTS
Frequency Range	375 to 430 MHz	
RF Output Power	100 watts cw	
Gain	25 dB typical	20 dB min
Type	Transmit Amplifier	
Connectors	Power: Radio: Type SMA female Antenna: Type SMA female	Pin connections below for power connector
Size	9.0" x 5.0" x 1.5"	
Weight	< 6 lbs	
Current Limit	9.0 Amp typical	

## **Power Connection Pin Functions:**

A	+ 28 VDC Return
B	+ 28 VDC
C	Detector output (switch enable)
D	+ 5 Volts Regulated (for TTL Switch Control)
E	Chassis Ground

## **Typical Performance**

### 1. Detector Performance

<u>Freq</u>	<u>Detector Threshold Signal Gen into Driver</u>	<u>Power<sub>out</sub></u>
390 MHz	-35.7 dBm	43.90 W

### 2. Power Amplifier Performance

<u>Freq</u>	<u>Power<sub>in</sub></u>	<u>Power<sub>out</sub></u>	<u>(28V) Current</u>	<u>VDC</u>
390 MHz	-30.9dBm / 160 mW	100.0W	9.09A	28.4V