

This table shows the peak watts and average watts output from the SPA4 when it is supplied with the DC voltage as shown in the table below.

Because the amplifier under test is connected to a non-radiating dummy load (a 40 to 100 watt light bulb,) RF feedback problems generally do not occur. This allows tests such as modulation duty cycle adjustment to be accomplished without damage to the equipment.

Connect a test load consisting of a single 120 volt, 40 to 100 watt light bulb directly to the output of the SPA4 amplifier. DO NOT use a type LC31 coupler between the SPA4 and the light bulb. The connecting wires from the lamp socket to the output terminals of the SPA4 should be made from insulated wires twisted together with one turn about every one to two inches or 25 to 50 cm. The wires should be no more than 12 inches or 30 cm in length.

The DC amps shown in this table is approximate, and will vary slightly depending on the load on the individual SPA4 amplifier and the characteristics of the light bulb. The modulation duty cycle used for this table is 50% and the audio frequency is 5000 Hz modulated on a 3.1 MHz carrier. **CAUTION - Using DC voltages higher than 152 volts may result in burning out the light bulb which will cause immediate failure of the STW20NK50X MOSFET in the SPA4 amplifier.** **NOTE: It is important that the duty cycle be very close to 50% as slight changes in the duty cycle will cause the current reading to be in error.**

DC VOLTS	40 to 100 Watt Lamp DC AMPS with 50% Duty Cycle
57	0.68 - 0.76
76	0.79 - 0.88
95	0.89 - 0.99
114	0.97 - 1.08
133	1.04 - 1.16
152	1.10 - 1.23

Revised
08 November
2015