

1. The device is a wide band RF amplifier tested using a spectrum analyzer with tracking generator to verify it reacts only to the design frequency bands.

2. The overall response of each band pass channel is verified to meet frequency, gain and output power limits.

3. Each of the 4 band pass channels, uplink and downlink for high and low frequency bands, has a fixed pi-resistor attenuator network used to control the maximum gain of the channel. If a gain is out of range with standard manufacturing value components, the attenuator for the appropriate channel is adjusted by fixed component exchange to set the gain within limits for that specific band pass channel.

4. The uplink power amplifier components have been chosen to ensure the unit will not exceed the maximum allowed output of 30dBm. An RFMD, RF5184 with a documented max power of 30dBm is used. Further, the RF5184 power output is directed through an attenuator pad, saw duplexer and ceramic dyplexer that combined provide 3dB of attenuation to the RF5184 output. The output is checked for maximum level and if specified level is exceeded the output attenuator pad is adjusted to ensure maximum limit cannot be exceeded.

To adjust for manufacturing tolerances of components by utilizing the above procedures during manufacturing and test, the DA4600 unit is produced to provide a maximum gain in all 4 channels of $\leq 23\text{dB}$, with maximum conducted out put power of $17\text{dBm} \pm 1\text{dB}$ in up link channels and $-1\text{dBm} \pm 1\text{dB}$ in downlink channels.

All gain and power levels are set by fixed components and cannot be manually adjusted by a consumer.

Actual settings and component tolerances may be used to limit power output levels below FCC maximum allowed conducted power.