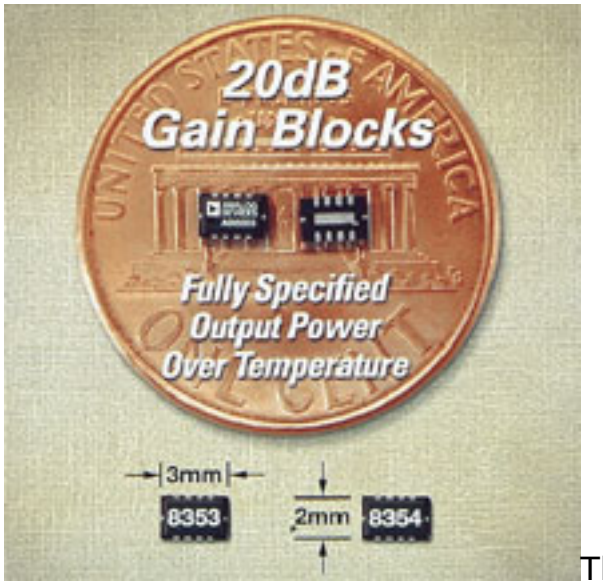
Broadband RF Gain Block Amplifiers



The AD8353 and AD8354 are broadband, fixed-gain linear amplifiers that operate at frequencies from 100 MHz to 2.7 GHz. Both the AD8353 and AD8354 provide a fixed gain of 20 dB with single-ended input and output, internally matched to 50 ohms. Both products are specified for operation with a bias voltage of 3 to 5 volts.

The AD8353 provides the user with a linear output power of +8 dBm and a third order intercept point of +23 dBm while drawing only 42 mA supply current. The AD8354 provides a linear output of +4 dBm and a third order intercept of +19 dBm while drawing only 24 mA supply current. By taking advantage of Analog Devices' high performance 25 GHz complementary bipolar silicon process, the AD8353 and AD8354 offer excellent stability over process, temperature and supply. Both parts are packaged in the space-saving 3 &#215 2 mm chip-scale package, which utilizes an exposed paddle and provides excellent thermal characteristics compared to other small-footprint packages.

The AD8353 and AD8354 provide detailed operation at 900 MHz, 1.9 GHz, and 2.7 GHz over the specified operating temperature range of -40 to +85 degrees, at both 3 volt and 5 volt bias voltage. These features ease the utilization and evaluation into wireless applications such as VCO buffers, transmit and receive amplification, power amplifier pre-amps and low-power antenna drivers.

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