

J2171A High PSRR Regulated Adapter

Detailed Specifications

Characteristic	Rating
Absolute Maximum Input Voltage	240V, 60Hz
Output Voltage	+/-12V
Maximum Icc	200mA
Temperature Range	0-50C

Caution

To avoid equipment damage and/or severe injuries or death ensure that the absolute maximum ratings are observed and not exceeded at all times.

The J2171A power adapter is specially designed for use with the Picotest J2110A, J2111A, J2112A, J2113A and other signal injector products. The supply combines a universal worldwide input (100 to 240 VAC) with two high performance linear regulators.

While there are many off-the-shelf power supplies available that can provide a universal input voltage and 12V output voltage, they do not provide the same performance as the J2171A. Most switching regulators produce significant ripple at and above 100kHz. This ripple passes through the PSRR of the internal opamps, reducing the noise floor. While this may work in many applications, it is less than ideal. Typical switching power supplies and even typical linear regulators have a high output impedance at 40MHz, due to the ESL of the output capacitors and the nature of the control loop.

The J2171A uses a discrete design approach, offering very low output impedance, stable performance with large ceramic decoupling capacitors and ultra high PSRR compared with typical off-the-shelf devices. To maintain a good noise floor for various measurements, the power supply must have very low noise.