

StratEdge Power Amplifier Package Used on Mars Rovers

San Diego, Calif – November 16, 2006 – StratEdge, leader in the design and production of semiconductor packages for microwave, millimeter wave, and high speed digital devices, announced that one of its SE20 power amplifier packages is playing a key role in transmitting signals with information gathered from Mars Exploration Rovers *Spirit* and *Opportunity* back to earth. The power amplifier package is used to protect the gallium arsenide monolithic microwave integrated circuits (MMICs) and ensure signal integrity.

All signals that are transmitted from the rovers go through a StratEdge package. The rovers communicate at X-Band frequency. It's critical that the package doesn't interfere with the signals produced by the MMIC. The package has continuous gold traces that run through the package wall. The design of these highly conductive traces minimizes signal loss so the MMIC performs optimally. Single transition insertion loss is better than 0.1 dB at X-Band.

The rugged StratEdge package is fully hermetic. The package has a copper composite base with a thermal conductivity of 170 W/m-K. The high thermal conductivity of the base reduces the junction temperature and enhances reliability of the MMIC. The package can withstand temperatures from -60 degrees to +250 degrees Fahrenheit (-16 degrees to +121 degree Celsius).

The StratEdge package was incorporated into Motorola's electronic communications assembly. General Dynamics acquired Motorola Integrated Information Systems Group in 2001. Motorola was looking for packages with exceptional electrical performance and good hermeticity, and had previously used StratEdge packages for high reliability space applications. The rovers were launched in June and July of 2003 with a lifetime anticipated at three months once they landed on Mars. The rovers have been in service for several times their designed life.

Photo available at: <http://theedge.cts.com/580412.jpg>

About the Mars Rovers

NASA's twin robot geologists, the Mars Exploration Rovers, were launched toward Mars on June 10 and July 7, 2003 in search of answers about the history of water on Mars. They landed

on Mars January 4 and January 25, 2004. The Mars Exploration Rover mission is part of NASA's Mars Exploration Program, a long-term effort of robotic exploration of the red planet.

About StratEdge

StratEdge, founded in 1992, designs, manufactures, and provides test and assembly services for a complete line of high performance semiconductor packages operating from DC to 50+ GHz for the high speed digital (OC-48, OC-192, OC-768), mixed signal, broadband wireless, satellite, point-to-point/multipoint, VSAT, and test and measurement industries, as well as aerospace stripline filters. StratEdge offers ceramic, low cost hermetic SMT, and metal packages. All packages are lead-free and meet RoHS and WEEE standards. For more information contact StratEdge at 858-560-6877, email: info@stratedge.com, or visit our website at www.stratedge.com.

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