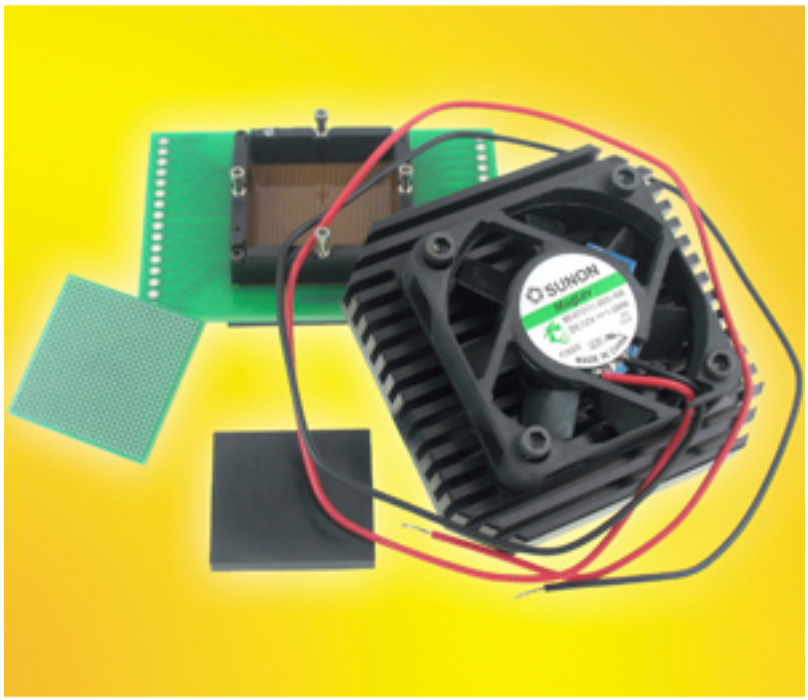
BGA socket operates at bandwidths up to 10 GHz with less than 1dB of insertion loss



Ironwood Electronics has recently introduced a new high performance BGA socket for 0.8mm pitch 900 ball FCBGA - SG-BGA-8029. The socket operates at bandwidths up to 10 GHz with less than 1dB of insertion loss. The contact resistance is typically 20 milliohms per I/O. The socket connects all pins with 10 GHz bandwidth on all connections. The socket is mounted using supplied hardware on the target PCB with no soldering, and uses smallest footprint in the industry. The socket also incorporates a new quick insertion method using shoulder screws and swivel socket lid so that IC's can be changed out quickly. The socket incorporates a heat sink and a fan to dissipate 14.55 Watts.

The application of the socket is to verify the function of the Non-Volatile DRAM controller that reads and writes data directly into DDR3 DRAM, with configurable data rate from DDR3-800 through DDR3-1600. The socket also features independent compression mechanism to accommodate package manufacturing variations. The specific package sizes accommodated by the socket are 0.8mm pitch 25mm x 25mm, 30x30 ball array. To use, drop IC into the socket, place floating compression plate, swivel the lid, and apply down force using heat sink compression screw.

The SG-BGA-8029 sockets are constructed with high performance and low inductance gold plated embedded wire on elastomer as interconnect material between device and PCB. The temperature range is -35C to +100 C. The pin self inductance is 0.15 nH and mutual inductance of 0.025 nH. Capacitance to ground is

0.01 pF. Current capacity is 2 amps per pin.

www.ironwoodelectronics.com [1]

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