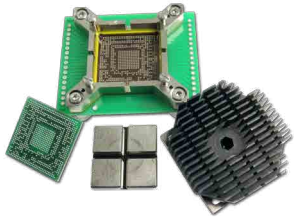


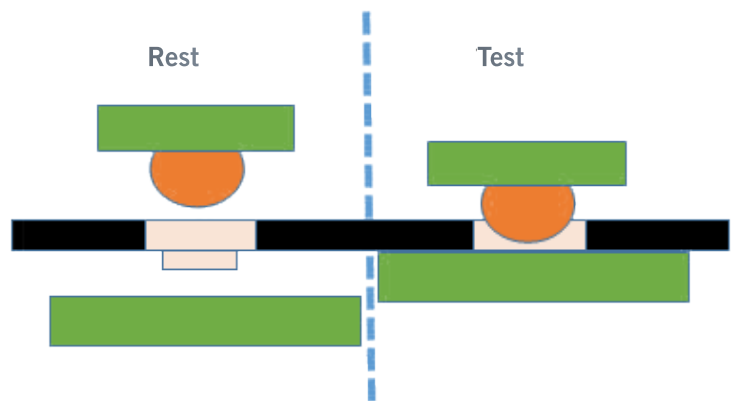
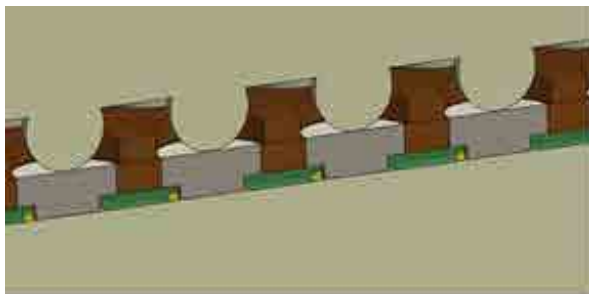
GT ELASTOMER SOCKETS FOR HIGH SPEED APPLICATIONS



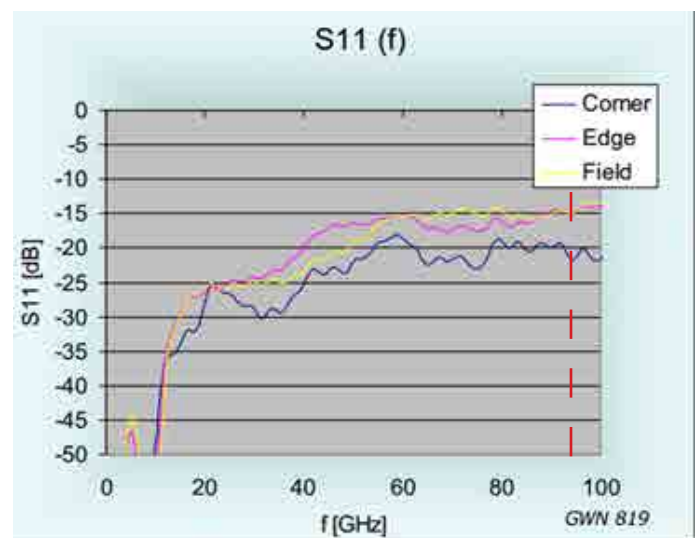
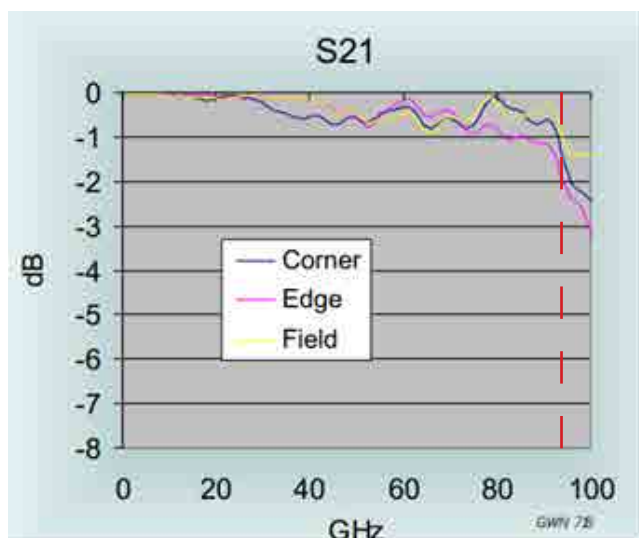
BGA sockets using GT elastomer contact technology provide up to 94 GHz signal speed in the smallest footprint for prototype and test applications. These sockets support pitches from 0.2 mm to 1.27 mm.

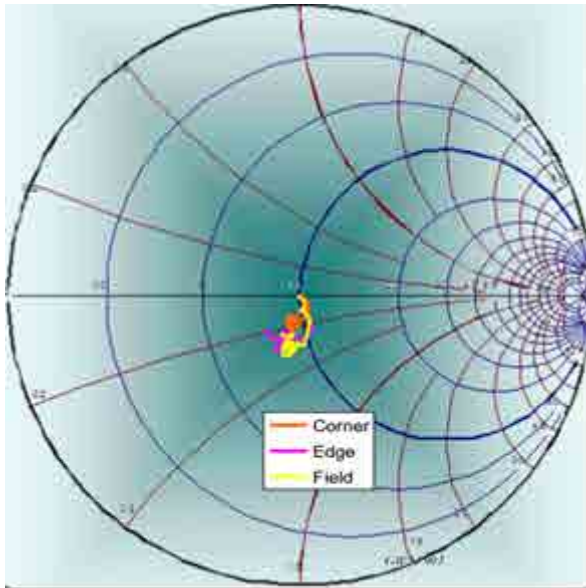
| Features | Benefits |
|------------------------|---|
| Shortest contact | Highest bandwidth applications – 94 GHz |
| Silver particles | Low contact resistance – 20 mOhms |
| Small socket footprint | Easy to place inductors, capacitors, resistors, etc. for tuning and increasing bandwidth. Ideal for IC prototype and system testing and field upgradeable system designs – 2.5 mm per side larger than actual IC packages |
| Individual buttons | No mechanical coupling – 0.15 mm compliance |
| Laser cut substrate | Precise contact location – 25 micron positional tolerance |

Cross Section

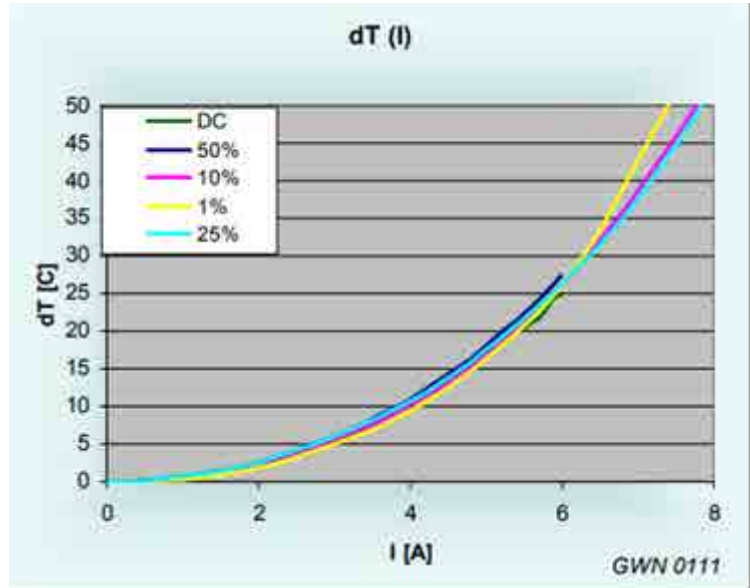


Performance





Smith chart for the thru measurement into a 50 Ohm probe



Temperature rise as a function of drive current

Mechanical specification: 0.4 mm pitch BGA

| | |
|-----------------------------|---------------|
| Force per contact | 25 - 60 grams |
| Insertion/Extraction cycles | >1000* |
| Compressed Height (@test) | 0.08 mm |
| Compliance | 0.15 mm |

*Cycle life shown at room temperature. Reduced cycle life is expected when used at extreme temperatures, thermal cycling, improper force, cleaning and handling.

Electrical specification: 0.4 mm pitch BGA

| | |
|------------------------------|------------------|
| Insertion loss S21@-1dB | 94 GHz |
| Return loss S11@-15dB | 94 GHz |
| Self inductance | 0.1 nH |
| Mutual inductance | 0.024 nH |
| Capacitance to ground | 0.092 pF |
| Mutual capacitance | 0.008 pF |
| Impedance | 45 Ohms |
| Time delay | 1.8 ps |
| DC Current carrying capacity | 5.4 A @20°C rise |
| Contact resistance | 20 mOhms |

Material specification:

| | |
|-----------------------|--------------------------------|
| Operating temperature | -55°C to + 160°C |
| Housing | Polyimide (Cirlex®) |
| Contact | Proprietary silver alloy |
| Contact base | Proprietary silicone elastomer |