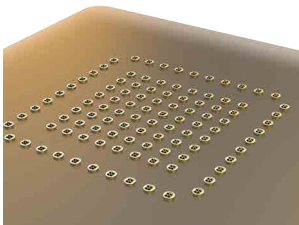
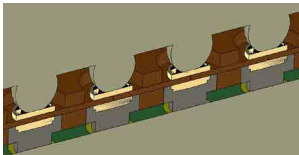


# GTP ELASTOMER SOCKETS FOR HIGH SPEED APPLICATIONS

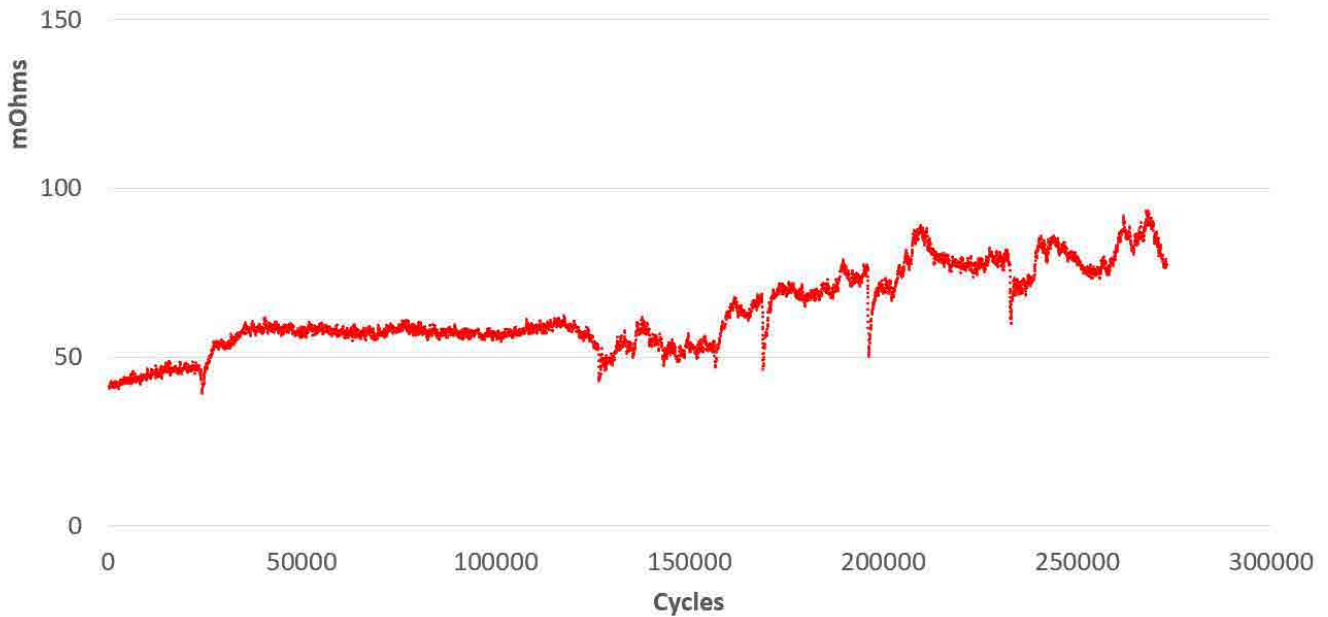


BGA, LGA and QFN sockets using GTP elastomer contact technology provide up to 93.7 GHz signal speed in the smallest footprint for ATE, prototype and test applications. These sockets support pitches from 0.35 mm to 1.27 mm.

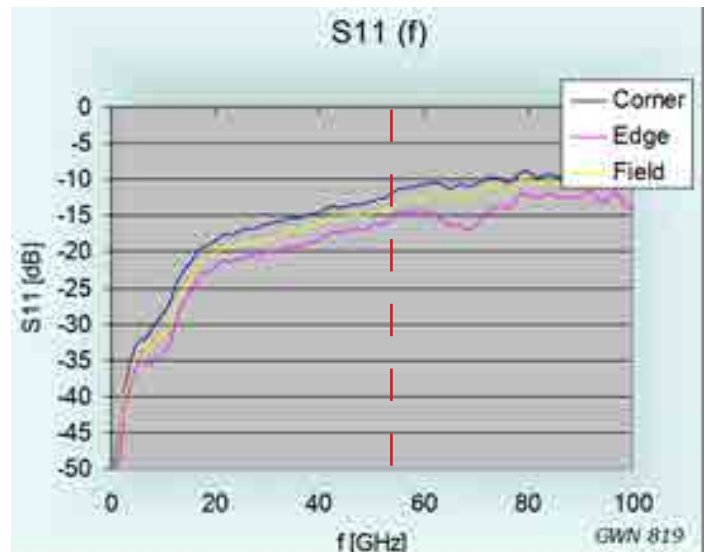
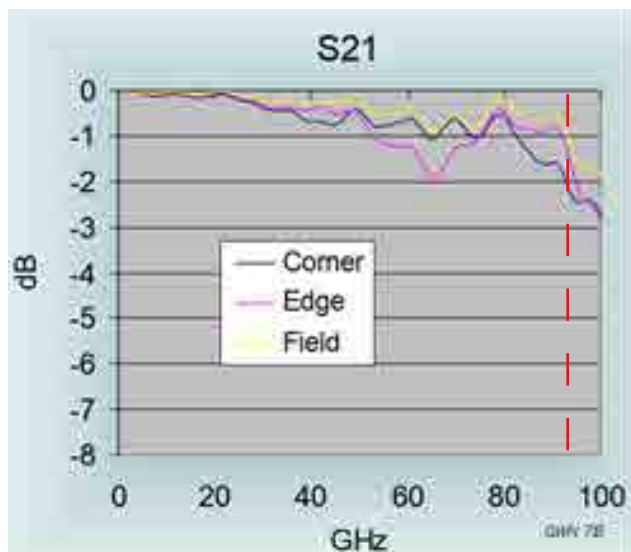


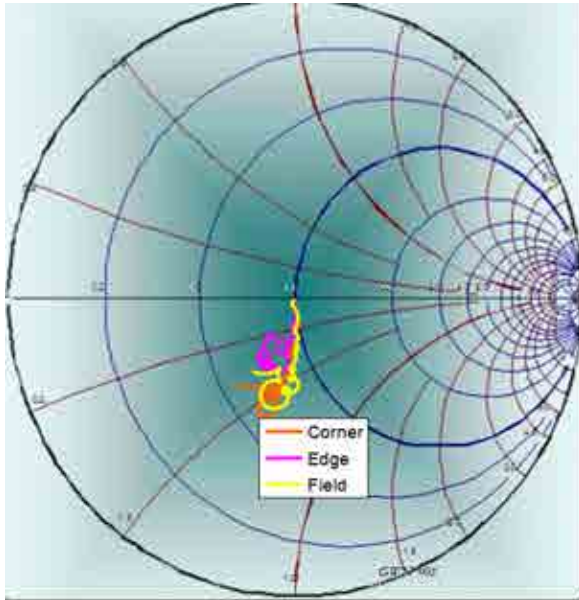
Features	Benefits
Shortest contact	Highest bandwidth applications – 93.7 GHz
Silver particles	Low contact resistance – 50 mOhms
Small socket footprint	2.5 mm per side larger than actual IC packages
Laser cut substrate	Precise contact location – 25 micron positional tolerance
High Insertion Life	200,000+ cycles life is suitable for ATE environments

## Cycle Life

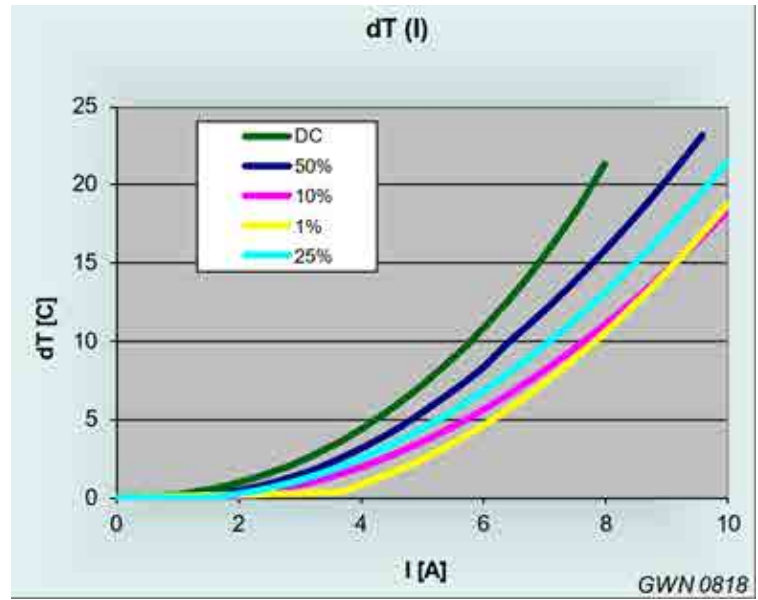


## Performance





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	40 - 70 grams
Insertion/Extraction cycles	>200,000*
Compressed Height (@test)	0.29 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	55 GHz
Self inductance	0.11 nH
Mutual inductance	0.045 nH
Capacitance to ground	0.092 pF
Mutual capacitance	0.014 pF
Impedance	45 Ohms
Time delay	1.6 ps
DC Current carrying capacity	7.8 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
Protective Layer	Proprietary gold crown