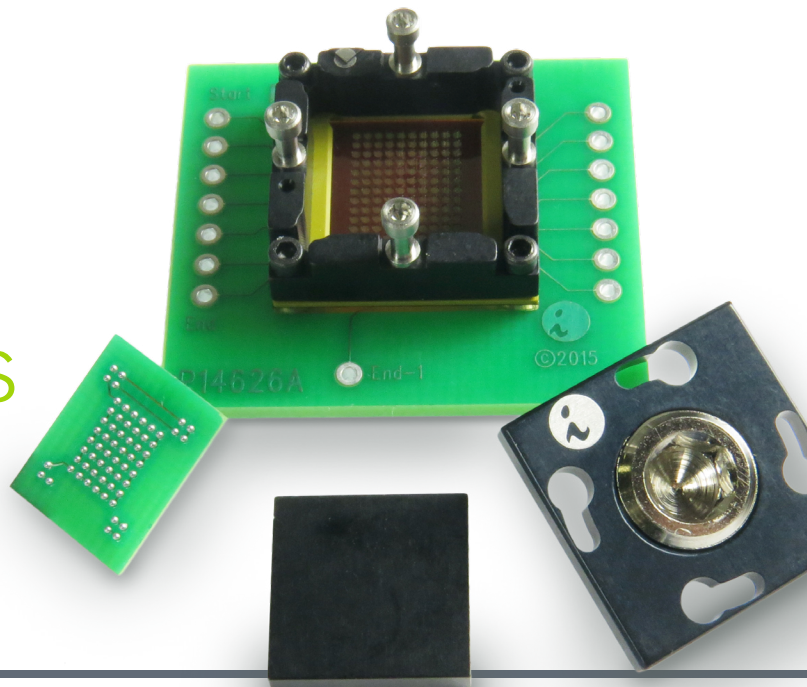




**Ironwood**  
ELECTRONICS

# Embedded Wire Elastomer Sockets for High Speed Applications



SG elastomer sockets allow for very high speed testing of 0.3mm to 1.27mm pitch BGA, LGA, QFN, QFP and SOIC devices on the same footprint as other Ironwood socket technologies. Embedded Wire in Elastomer (SG) contact technology consists of a fine pitch matrix (0.05mm x 0.05mm) of gold plated wires (20 micron diameter). These are embedded at a 63-degree angle in a soft insulating sheet of silicone rubber, which decreases the required contact force.

## FEATURES AND BENEFITS

Short Contact	High bandwidth applications
Gold Plated Brass Wire	Low contact resistance
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
High Resilient Elastomer	Compression cycles in thousands
Optimized Contact Force	Reliable connection without damage to device or board

## ELASTOMER SPECIFICATIONS

27 to 56.8GHz Bandwidth	25-35g per pin
-35°C to +100°C	0.012 to 0.02pF Mutual Capacitance
0.06 to 0.11nH Self Inductance	Up to 2000 Insertions
0.2 to 2A per pin	Less than 30mΩ Contact Resistance
0.023 to 0.041nH Mutual Inductance	

## PRODUCT GROUPS

### SG-6000 series

$P_s, P_i = 0.1\text{mm}$

$L, W = 1\text{mm to } 50\text{mm}$

$t = 0.75\text{mm}$

BGA, QFN, etc,  $\geq 0.75\text{mm}$  pitch

### SG-7000 series

$P_s, P_i = 0.05\text{mm}$

$L, W = 1\text{mm to } 50\text{mm}$

$t = 0.5\text{mm}$

BGA, QFN, etc,  $\geq 0.3\text{mm}$  pitch

### SG-8000 series

$P_s, P_i = 0.1\text{mm}$

$L, W = 1\text{mm to } 50\text{mm}$

$t = 0.5\text{mm}$

BGA, QFN, etc,  $\geq 0.75\text{mm}$  pitch

### SG-9000 series

$P_s, P_i = 0.075\text{mm}$

$L, W = 1\text{mm to } 50\text{mm}$

$t = 0.5\text{mm}$

BGA, QFN, etc,  $\geq 0.4\text{mm}$  pitch

### SG-25 series

$P_s, P_i = 0.05\text{mm}$

$L, W = 1\text{mm to } 25\text{mm}$

$t = 0.25\text{mm}$

BGA, QFN, etc,  $\geq 0.3\text{mm}$  pitch

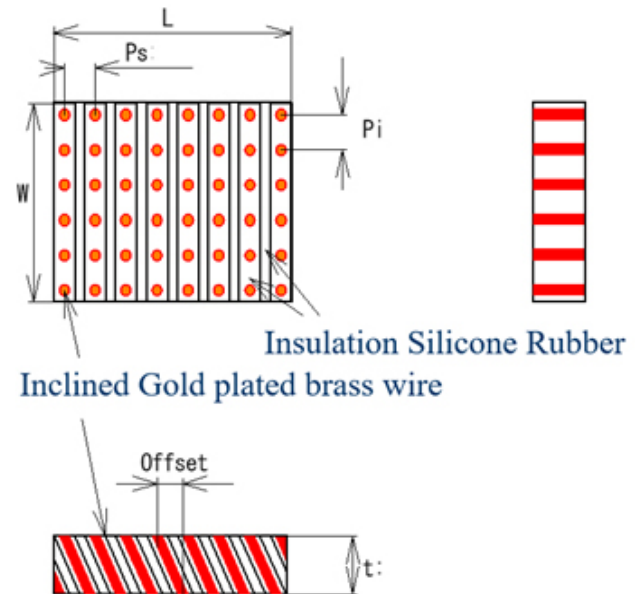
### SG-15 series

$P_s, P_i = 0.05\text{mm}$

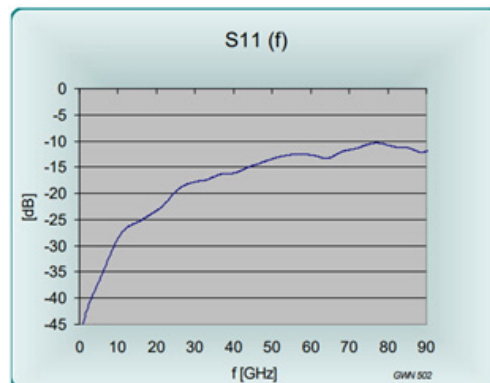
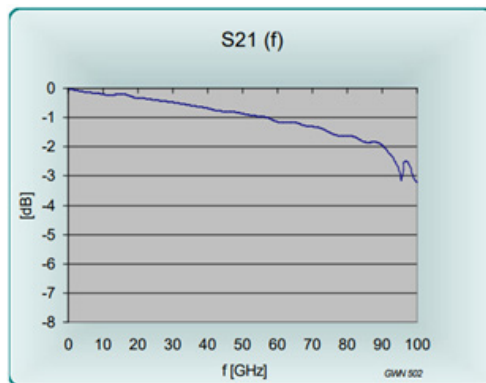
$L, W = 1\text{mm to } 25\text{mm}$

$t = 0.15\text{mm}$

BGA, QFN, etc,  $\geq 0.3\text{mm}$  pitch



## ELECTRICAL PERFORMANCE: 0.6MM PITCH CONTACT



## MECHANICAL PERFORMANCE

