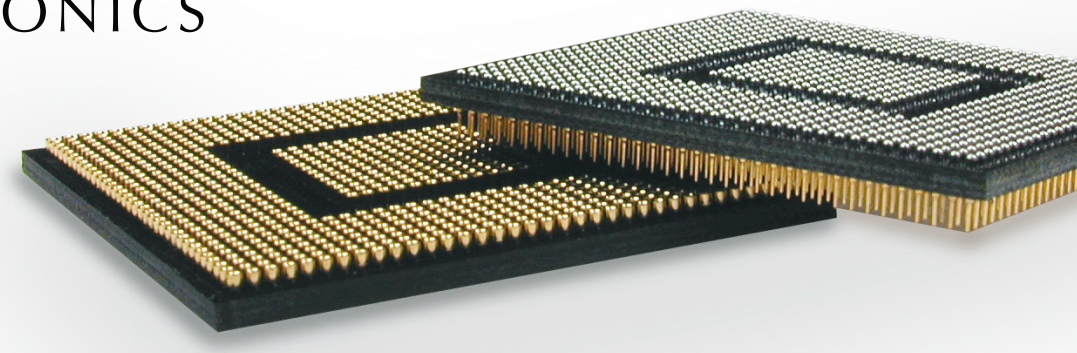
Ironwood ELECTRONICS

B.C.E. ELECTRONICS

# Giga-snaP BGA SMT Adapters

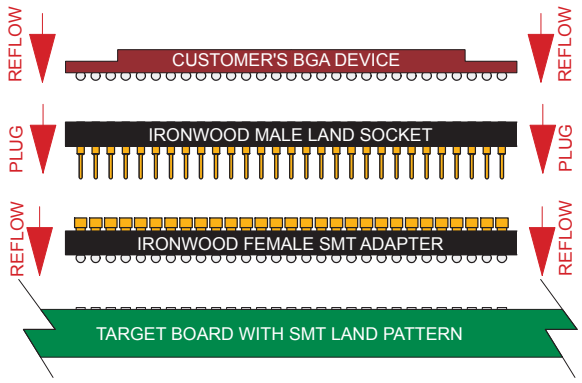


The new Giga-snaP line of BGA SMT adapters provide the most reliable interconnect to BGA SMT pads. These patented adapters remain attached through many solder cycles and will not warp as plastic molded parts. They also offer half the insertion force of other SMT adapters.

## FEATURES AND BENEFITS

| | |
|---|---|
| Short Contact | High bandwidth applications - 3.6GHz |
| Gold plated clips & terminals | Low contact resistance ≤ 15mΩ |
| Chip size footprint | Easy to place inductors, capacitors, resistors, etc. for tuning & increasing bandwidth. Ideal for IC prototype & system testing & field upgradeable system designs |
| Epoxy over-mold & Matched CTE | No solder wicking & no substrate warping |
| Low insertion/extraction force | Easy operation to plug & remove module system |

### Application



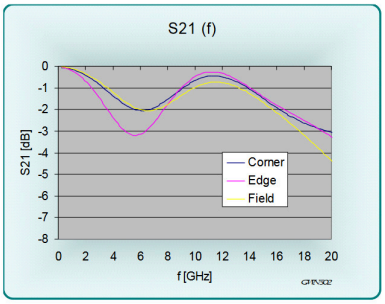

### Capabilities

Access to BGA Pads for Test & Interconnection
Pin Counts from 36 to 1936
Available Pitches from 1.27, 1, 0.8mm
Connection via Gold-Plated Terminals for harsh environments
Soldered using conventional BGA method
Tape & Reel packaging

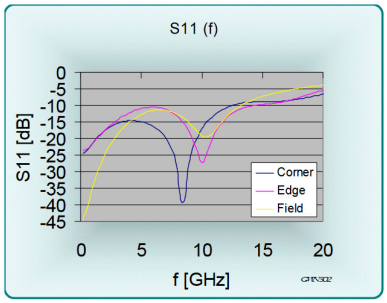
## SPECIFICATIONS

| | |
|---|---|
| **Material Specification** | |
| Terminals | Material: Brass Alloy |
| | Plating : 10µ" Gold over 100µ" Nickel (min.) |
| Receptacles | Shell Material: Brass Alloy 360 1/2 Hard |
| | Plating: 10µ" Gold over 100µ" Nickel (min.) |
| | Contacts Material: Beryllium Copper Alloy 172, HT |
| | Plating: Gold 0.1 µm (min.) over Nickel 1.27 µm (min.) |
| Solder Ball | Eutectic 63Sn/37Pb or Lead Free SAC305 |
| | Coplanarity: ≤ 150µm |
| Insulator | FR4/G10, FR5 |
| **Mechanical Specification** | |
| Insertion Force | ≤ 0.12N Initial insertion force (0.2mm diameter pin) |
| | ≤ 0.2N Initial insertion force (0.254mm diameter pin) |
| Extraction Force | ≤ 0.12N Extraction force (0.2mm diameter pin) |
| | ≤ 0.2N Extraction force (0.254mm diameter pin) |
| Contact-durability | > 100 cycles |
| Operating Temperature | -55°C - 125°C |
| **Electrical Specification** | |
| Current per contact | 1A@85°C |
| Contact-Resistance | ≤ 15mΩ |
| Isolation-Resistance between contacts | 10x109Ω @500V |
| Frequency | 3.6GHz @-1dB |
| Self Inductance | 2.4nH |
| Mutual Inductance | 0.4nH |
| Capacitance | 67fF |

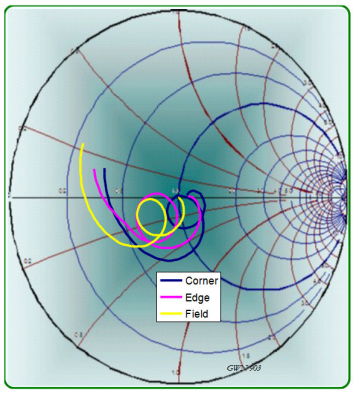
## PERFORMANCE



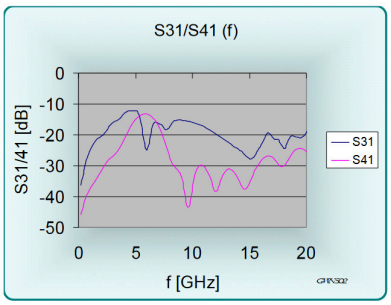

Insertion loss S21




Return loss S11




Smith chart for the thru measurement into a 50 Ohm probe




Crosstalk as a function of frequency