5 Energy Way, P.O. Box 1019, West Warwick, RI 02893 USA Tel. 800-424-9850/401-823-5200 • Fax 401-823-8723 • Email info@advintcorp.com • Internet http://www.advintcorp.com

Socket Adapter Systems Test Results for 1.27mm Pitch Low Force Contacts (P/N 1427 - 1G) Test Report No. 92351A

Durability
50 Cycles at 1 inch per minute, followed by Low Level Resistance Test.
3.1 m Ohm Average, +0.1 m Ohm average change

Vibration
MIL-STD 1344, Method 2005 Test, Condition III, 15 G's followed by Low Level Resistance Test.
2.8 m Ohm Average, -0.0 Ohm average change

Gas Tight
Exposed in a sealed container to concentrated Nitric Acid (NH03) followed by Low Level Resistance Test.
3.4 m Ohm Average, +0.5 m Ohm average change

Moisture Resistance
Temperature cycling with humidity MIL-STD 1344, Method 1002, Type II, followed by Low level Resistance Test.
3.4 m Ohm Average, +0.7 m Ohm average change

Shock
MIL-STD 1344, Method 2004, Test Condition A.
No mechanical damage or loss of continuity

Thermal Cycle
MIL-STD 1344, Method 1003, Test Condition A
3.4 m Ohm Average, +0.7 m Ohm average change

Temperature Life
MIL-STD 1344, Method 1005, Test Condition 2.
3.8 m Ohm Average, +0.8 m Ohm average change

Porosity
MIL-STD 1344, Method 1017
No porosity

Contact Resistance
MIL-STD 1344, Method 3002, measured using 100m amp test current.
3.0 m Ohm average

Contact Force
Standard Socket Adapter System:
Initial insertion force: **28.5g average (1.0 oz. average)**
Initial withdrawal force: **18.5g average (0.7 oz. average)**

Self Inductance
2.52 nH average at 1 GHz*

Loop Inductance
2.26 nH average at 1 GHz*

*From Test Report No. 96313, consult factory for other frequencies.

True BGA Socket 1.27mm Pitch Test Data (rev. 1/8/99)

Loop Inductance

Frequency	Avg.	Max.	Min.
10 MHz	1.85	2.08	1.64
100 MHz	1.69	1.89	1.44
250 MHz	3.10	3.2	2.9
500 MHz	2.82	2.9	2.7
1 GHz	2.86	3.0	2.7

Self Inductance (nH)

Frequency	Avg.	Max.	Min.
10 MHz	1.48	1.70	1.05
100 MHz	1.46	1.69	1.09
250 MHz	2.32	2.6	2.0
500 MHz	2.38	2.6	2.1
1 GHz	2.68	3.0	2.3

Capacitance (pF)

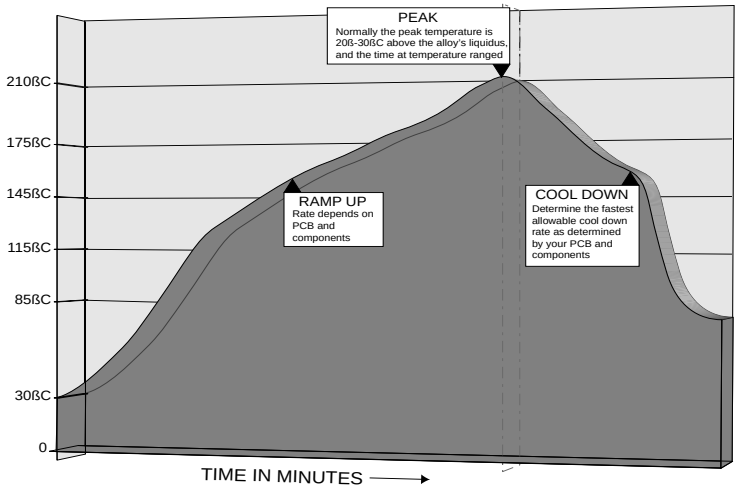
Frequency	Avg.	Max.	Min.
10 MHz	1.30	1.36	1.29
100 MHz	1.22	1.23	1.19
250 MHz	1.03	1.04	1.02
500 MHz	1.05	1.06	1.03
1 GHz	0.78	0.78	0.76

Typical Solder Process Example*

1. Solder paste deposition
- The recommended solder paste is 63Sn/37Pb.
- The recommended solder volume is 0.040 - 0.080 cubic mm with a pad diameter of 0.51 - 0.71mm.

2. Solder Reflow
- Generic reflow profile [63Sn/37Pb Solder Liquidus @ 183˚C (361˚F)]

3. Inspection and Testing
- Initial visual inspection for positioning of solder ball to pad along perimeter is recommended to verify reflow of balls.
- Secondary X-Ray tests for overall continuity verification is recommended
- For production applications, electrical MDA tests are recommended.



* Solder process recommendations are presented for guidance only. Factors such as different board sizes, densities, and equipment will vary actual solder process requirements. Recommendations presented above should be used as starting point only - actual solder process specifications should be developed based on individual requirements and capabilities.