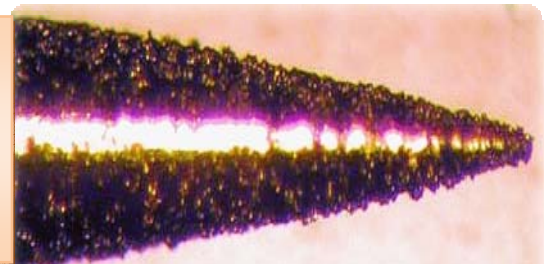


Gold Plated Conductive Diamond Plating

Service: Wafer Probes * Micro Wave Probes*
 Instrument Probes * Micro Probes * RF Probes * DC
 Probes * HV Probes



10um Wafer Probe Covered with 1000's of Non-Oxidizing Gold Plated Conductive Diamonds

BENEFITS:

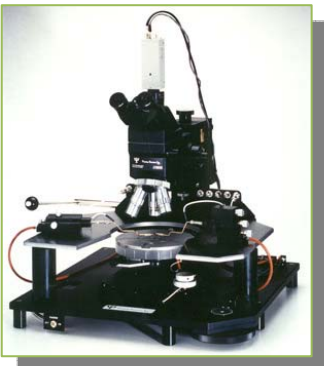
- Easily Penetrate Aluminum and Copper Oxide
- Repeatable Measurements in High Temperature Environments
- Reduce Contact Surface Resistance
- Improve Measurement Accuracy and Reliability
- Non-Scrubbing Sharp Multi-Point Diamond Connection



www.gigaconnections.com
Sales@gigaconnections.com

Giga Connections inc. Gold Plated Conductive Diamond (GPCD) Plating Service apply GPCD particles down to 1 um on DC to >100Ghz instrument probe tips made from most metals, glass or ceramic using a patented electroless plating process. The GPCD plating forms a superior, sharp, non-scrubbing multi-point diamond connection system that penetrates highly resistive surface oxide that forms on most metal surface. The GPCD does not wear out and can pierce any contaminants, resists oil and dirt contaminates. The resulting contact resistance is ~3-5 milliohms with no measurable inductance or capacitance. This controlled impedance material is electrically invisible, reduces contact force for a solder like electrical connection for repeatable instrument measurements, even after thousands of mate/de-mate probing cycles.

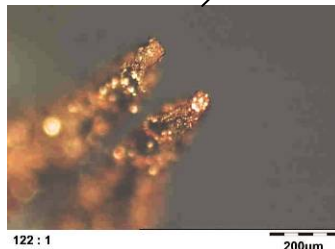
Wafer Probing



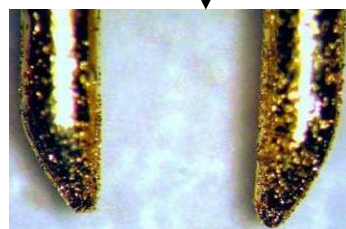
Instrument Probes



Micro Probes



50um GPCD Probe Tip
 10um GPCD Probe Tip (Zoom 481:1)



254um GPCD Probe Tips for TDR Instrument Probes

Plating Specifications

Interconnect Technology

- ◆ 1um - 20 um conductive diamonds (custom selected to accommodate probe dimensions)
- ◆ 10 micro-inches gold plated
- ◆ 1um Achievable Contact point size
- ◆ RoHs compliance - lead free

Maintenance

- ◆ Surface can be refurbished
- ◆ Clean with ultrasound bath using immersion (dip) cleaners

Reliability

- ◆ 100's of thousands of contact without measurable signal integrity degradation

Force

- ◆ ~10-15 Grams force achieve electrical continuity

Temperature range

- ◆ -60C to 400C

Contact Performance as Good as Solder...