

Assembly

WIRE BONDING

✂ Equipment

- ✂ Palomar 2470-5 Wedge Bonders (4)
- ✂ K&S 4174 Wedge Bonder (1)
- ✂ Palomar 2460-5 Gold Ball Bonder (1)
- ✂ Dage 4000 Shear and Pull Tester (2)

✂ Types of Wirebonding

- ✂ .001 - .003" Fine Aluminum Ultrasonic Wedge
- ✂ .001 - .003" Thermosonic Gold Wedge
- ✂ .001 - .002" Thermosonic Gold Ball Bonding
- ✂ .001 - .010" Thermosonic Gold Ribbon Bonding
- ✂ .005 - .020" Heavy Aluminum Ultrasonic Wedge
- ✂ Parallel Gap wire welding

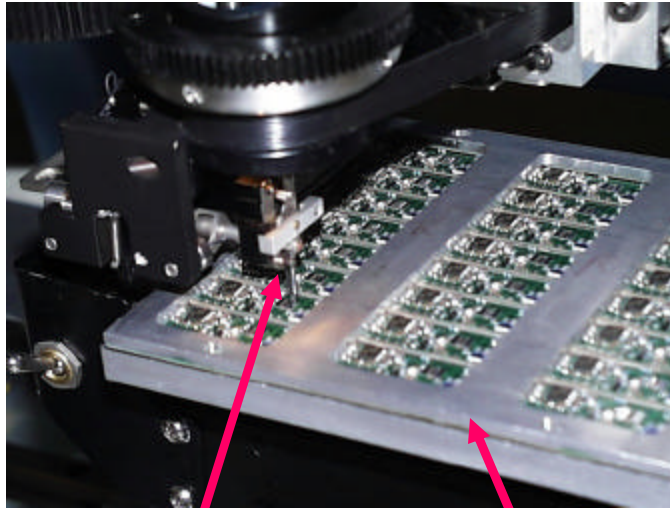
✂ Types of Substrates Bonded

- ✂ Gold flash PCB, Duroid
- ✂ Aluminum bond pads on PCB, GETEK
- ✂ Alumina with Gold or Silver Thick Film
- ✂ LTCC with Gold or Silver



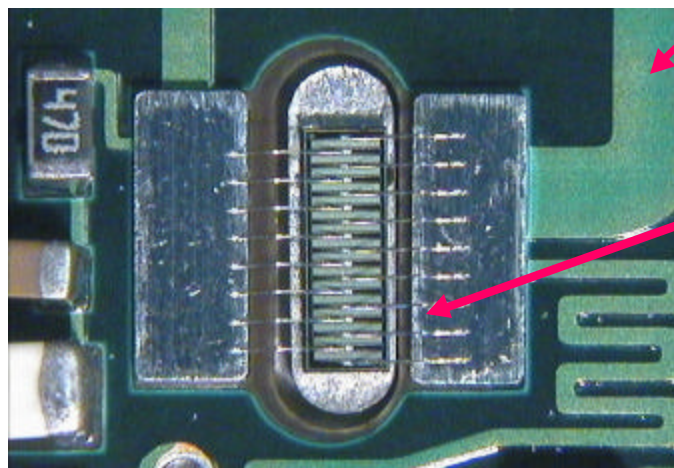
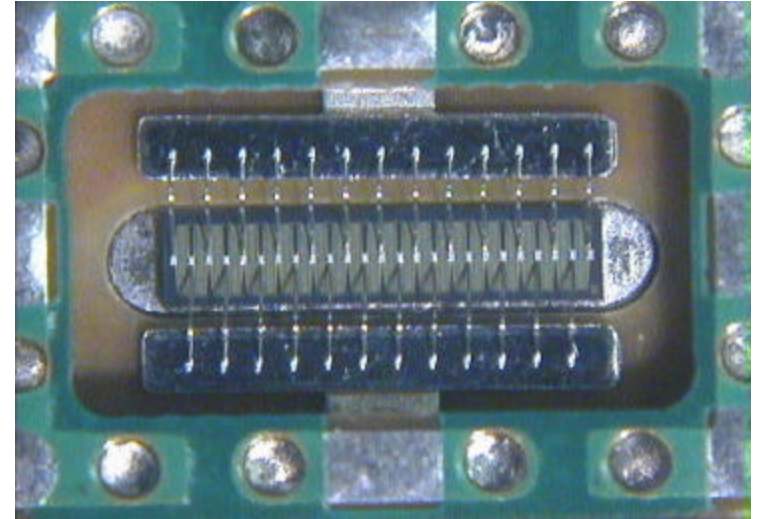
Wire Bond Assemblies

Aluminum Wedge – RF Amplifiers



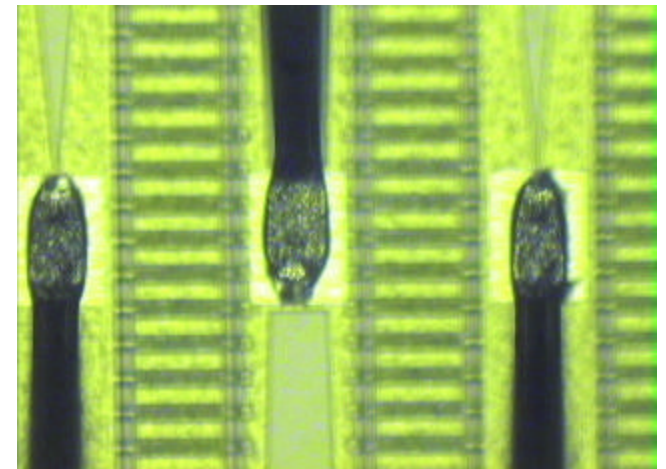
Bond Head / Bonding Tool Fixture

FET Ring Modules



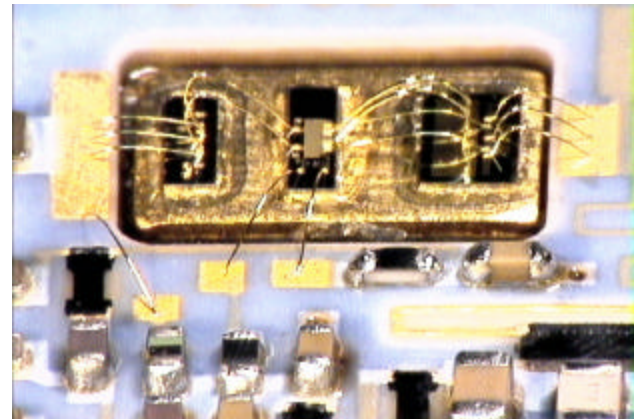
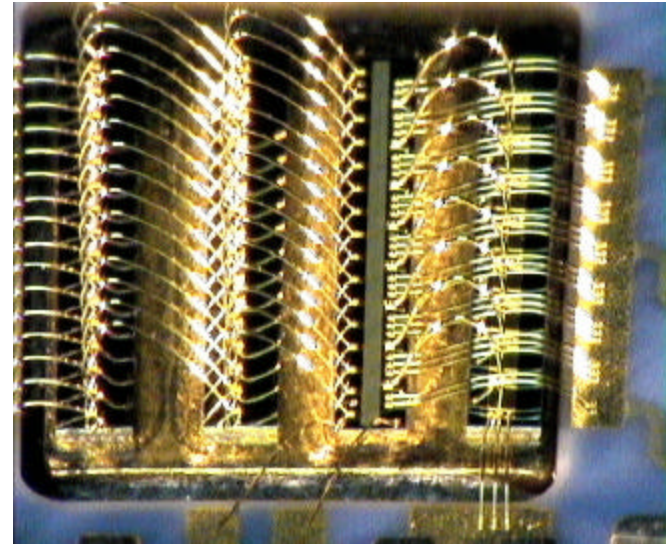
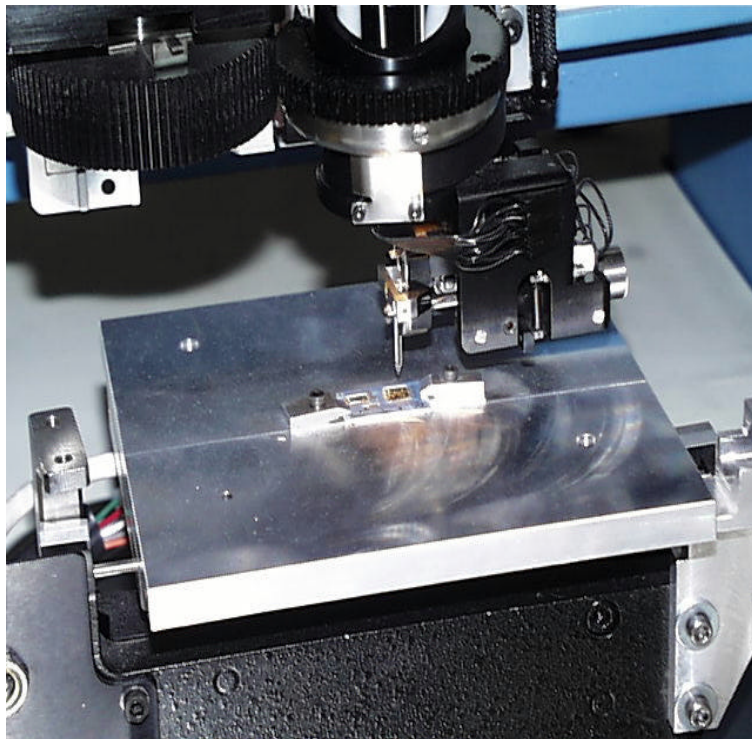
PCB
(GETEK)

.0015" Al
Wires



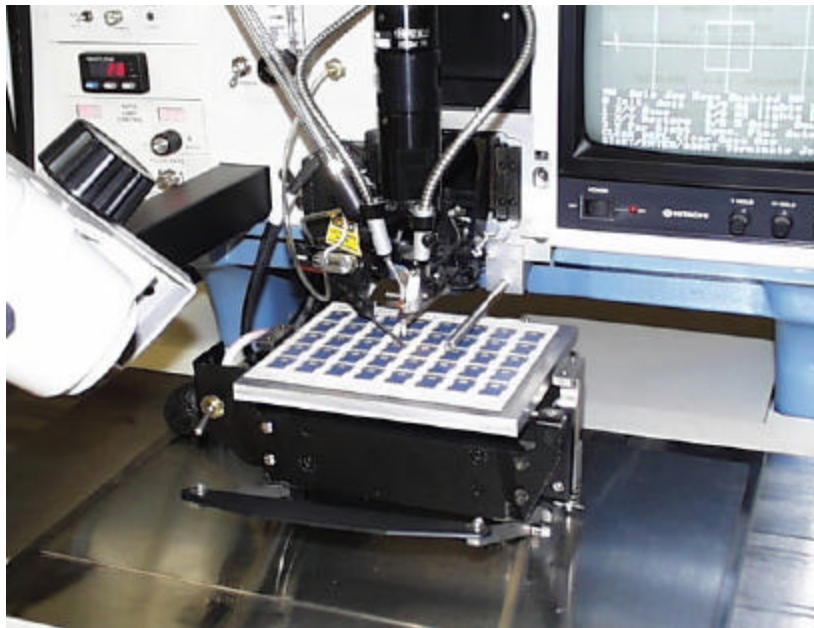
Wire Bond Assemblies

Gold Wedge – RF Amplifiers

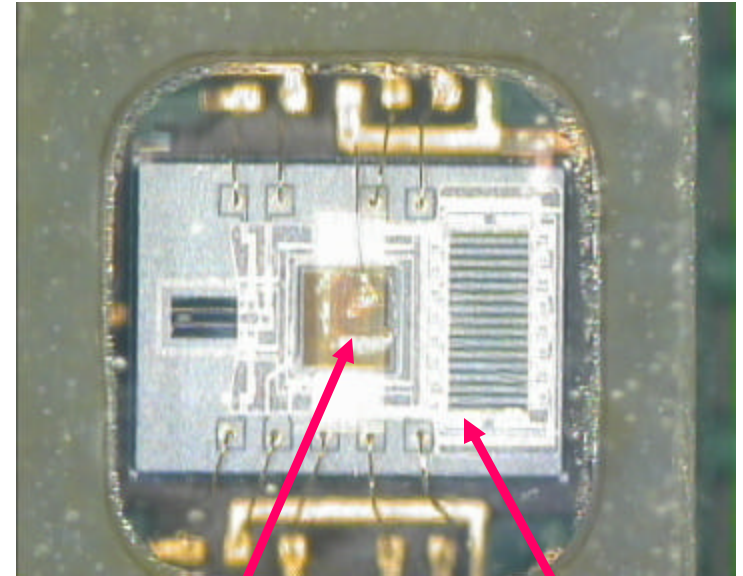


Wire Bond Assemblies

Gold Ball

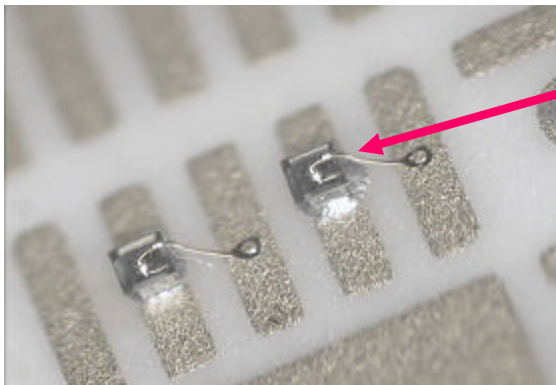


Chip Encoder



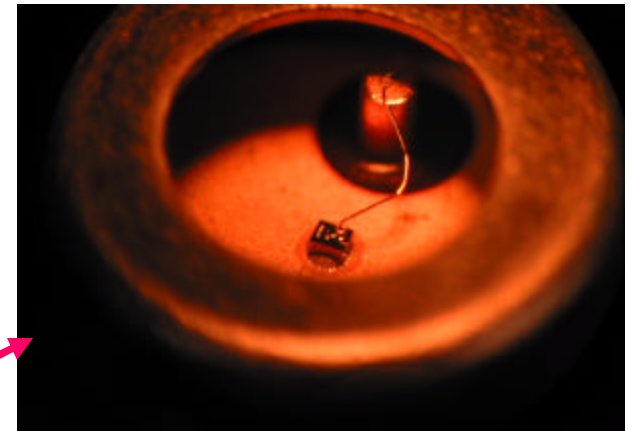
Laser Emitter VCSEL

Detector



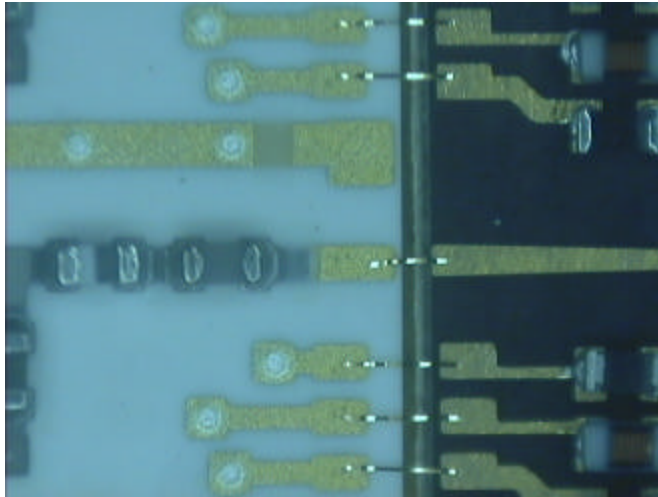
.010" X .010" LED's
.010" Lines & Spaces

VCSEL

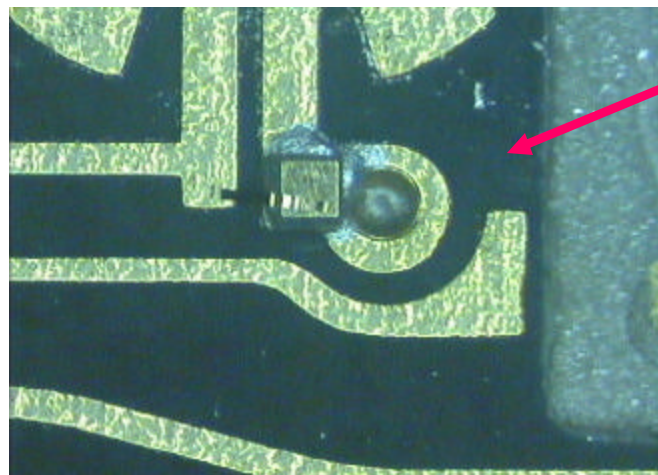


Wire Bond Assemblies

Gold Ribbon Bonding

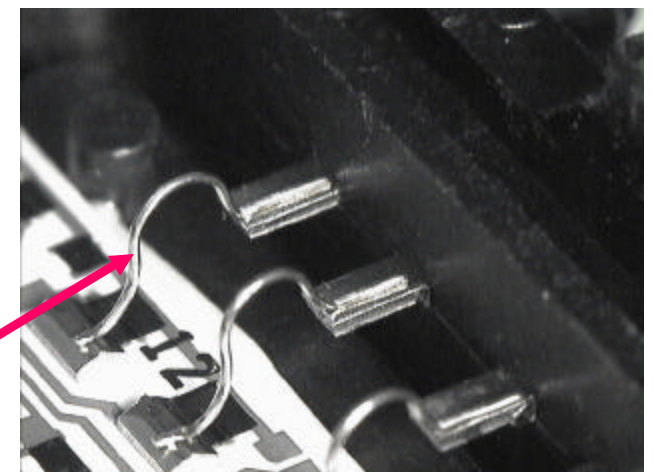
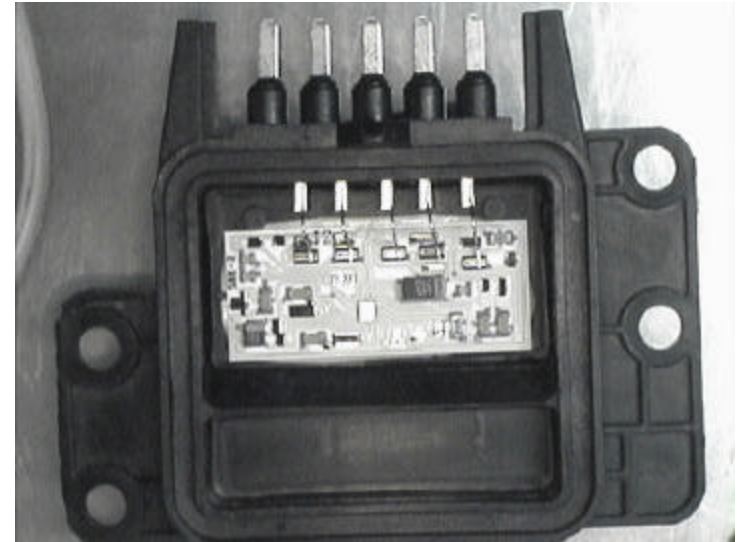


Ceramic Board - .002" X .00025" Gold Ribbon



PCB
(Duroid)

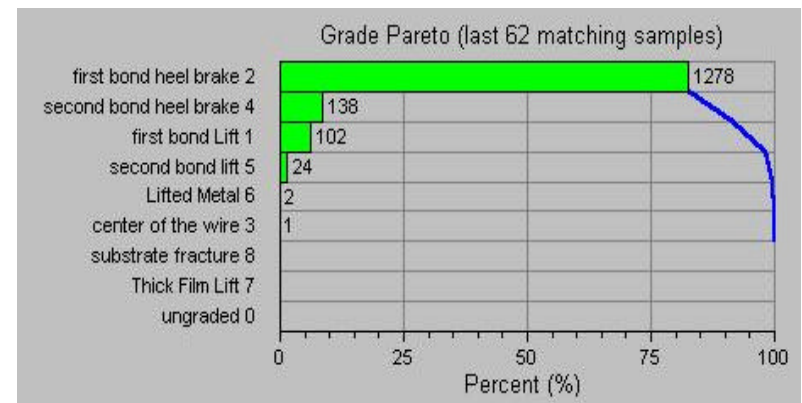
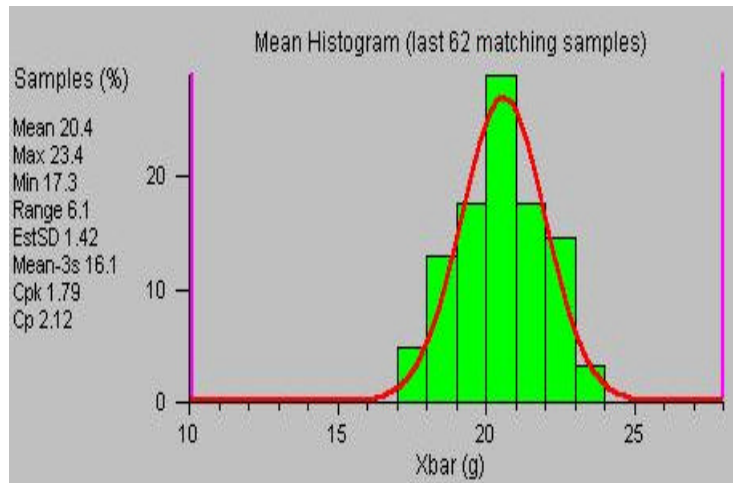
Wire Welding



0.15" Ni
Wire

Wire Bonding

Process Control – Pull Testing (.0015" Al Wire)



Dage 4000 Pull / Shear Test

