WL-210 RF / Microwave Probe Station

SIGNATONE Analytical RF/Microwave probe stations are designed specifically for high-frequency, high-power, and millimeter-wave applications where non-resonant operation is critical.

- Package, Multi-Chip, Hybrid, and Wafer Level Probing
- Accurate S-Parameter, Load-Pull, 1/f, Noise-Figure
- Thermal, Shielded, and Local Enclosure Options
- Engineering, Reliability, and Production Options
- Superior Low-Noise Electrical Performance
- Multiple Levels of Accurate Motion Control
- Stable, Flexible, and Field-Upgradable
- Photonics Device Configurations

PERFORMANCE, QUALITY, VALUE

SIGNATONE

Advanced Microprobing Solutions Since 1968
WL-210 RF / Microwave Probe Station

SIGNATONE analytical probe stations are recognized as the performance / value leaders in the microprobing market. The Wavelink Series extends this expertise into the RF & MW segment, historically dominated by more expensive alternatives.

While this has long been held to be the realm of voodoo, the occult, and black magic, this is no longer the case. Any modern probe station precise enough to contact a sub-micron line is certainly stable enough to hit a 100µ pad with a 50µ RF probe. In the past decade network analyzers have gotten more stable, accurate, and easy to use. Shouldn’t your probe station?

Building on the proven CheckMate architecture, and in consultations with our installed base of RF technologists, SIGNATONE has incorporated many features into the Wavelink Series unique to the world of VNA’s and coplanar probes.

Take another look at SIGNATONE – Perhaps for the first time. We listened, and we think you’ll like what you see.

The WL-210 calibration chuck offers 3 substrate sites which support either landscape or portrait format calibration substrates.

**Common Features**
- Massive 2” one-piece machined aircraft aluminum base for stability
- Large Heavy-duty nickel steel platen with 4-port support and lift
- Compound coarse/fine X-Y stage drive for fast, precise positioning
- Separate calibration chuck eliminates the error-inducing step of removing the wafer under test and substituting the substrate in it’s place for calibration
- Accepts shards through 8” wafers, substrates, PCB’s, and thinned wafers
- Independent platen height (locking) and contact/separate controls
- Non-ferrous chuck and stage reduces ferromagnetic resonance and crosstalk
- Supports bolt down, vacuum, and magnetic base micropositioning
- Banana, BNC, and Triax chuck bias connections
- Quick-Change probe card holder option with independent 6 adjusting
- In-The Field upgrade options for motion control, local enclosure and thermal configurations

**Specifications**

**X-Y Stage**
- Travel: 200mm X 200mm
- Bearings: Carriage & Rails
- Stage Drive: Course/Finer Coaxial
- Resolution: 5 mm/turn, 5 mm/turn

**Wafer Chuck**
- Size: 200 mm
- Metallurgy: Nickel/Gold plated Aluminum
- Vacuum: Shard, 100mm, 150mm 200mm
- Isolation: > 100 MO, > 80MV breakdown
- Bias Input: Triax, BNC, Banana
- Flatness: ± 5 µm across chuck
- Theta: ± 10°, independent of cal chuck
- Z: .025” pneumatic actuation

**Platen**
- Adjustment Range: 2”, locking
- Contact/Separate: .125”
- Lift: 4-point, planar
- Metallurgy: 625° Nickel-plated steel
- Positioner Support: Bolt down. Magnetic. Vacuum

**Microscope Transport**
- Low-Power: 4” X 4”, 20 TPI, manual tilt-back
- High-Power (Optional): 2” X 2”, 40 TPI, 4” vertical lift

**Calibration Chuck**
- # Sites: 3
- Orientation: Landscape or portrait

**Facilities/Mechanical**
- Dimensions: 55 (21.6”) X 66 (26.0”) X 78.5 (30.9”)
- Net Weight: 91 kg (200 lb.)
- Shipping Weight: 150 kg (325 lb.)
- Air: > .2 cfm, 30 psi
- Vacuum: > 400 mm/15 in. Hg

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