Gen-Rad 1650A Impedance Bridge

The 1650-A Impedance Bridge was a versatile and compact instrument capable of accurate measurements of resistance, capacitance, inductance, dissipation and quality factor over a very wide range: 1 milliohm to 11 megaohm for resistance, 1 picofarad to 1100 microfard for capacitance and 1 microhenry to 1100 Henry for inductance. Accuracy better than 1% was given for R, C and L.

The 1650-A used custom made precision components for the arms of the bridge. The CRL rheostat used a mechanical justifying mechanism with eight cams. A silvered mica, high precision capacitor was used as standard capacitor. The Orthonull patented mechanism, with non reciprocal ganging of CRL and D dials, allowed easy balance convergence in cases of low Q or high D.

Virtually any impedance measurement could be done with this instruments, also relying upon the operating procedures given in its instruction manual.