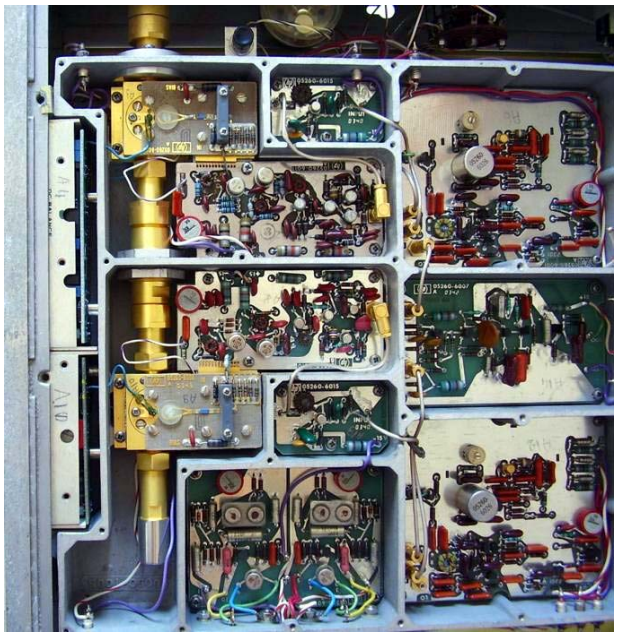
HP 5260A - Frequency Divider

Automatic frequency divider, to extend the range of digital frequency meters up to 12.4GHz. Divide by 100 or by 1000 selector.

The very smart operating principle of this instrument was described in the HP Journal, April 1967. It works on two sampling heads on the entering signal: the first one is driven by an oscillator operating at about 30MHz, phase-locked with the input signal; a second oscillator, whose frequency differs by 1/100th or 1/1000th from the first one, drives the second sampling head. As result, a signal whose frequency is 1/100th or 1/1000th of the incoming unknown is present on the output connector.

The same circuit was soon moved into self-contained EHF frequency meters and the 5260A external prescaler became obsolete.

Below an internal view showing the gold plated RF section with sampling heads and the associated PLL boards.