

12000A Series Microwave Synthesizer Calibration Program



The 12000A Calibration Program provides complete calibration of the Model 12000A microwave synthesizers offered by Giga-tronics. Design of the 12000A series synthesizer includes extensive use of digital circuitry and requires no manual adjustment of potentiometers. The calibration program consists of software that automatically measures and adjusts all critical internal circuits. For the non-modulated Model 12400A, the only equipment required is a PC, a Giga-tronics power meter and source.

Calibration Performed

- Time base (all models)
- ALC (all models)
- Modulation (Models 12500A and 12700A)

Equipment and Documentation Required

All Models

- 12000 Calibration Software, Giga-tronics part # 32464
 - Pentium PC with Windows 95/98 equipped with an IEEE 488.2 interface from either National Instruments or Capital Equipment Corporation
 - Giga-tronics 8650A Series power meter
 - Giga-tronics 80313A sensor
 - Giga-tronics 12000A Series Service Manual #31232
 - Male "N" to Female "K" adapter (synthesizers equipped with Option 23)
 - 10 MHz frequency standard, accuracy better than 1×10^{-10} , .5 to 5Vpp into 100 ohms.
- (Wenzel Associates)



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Additional Requirements for Models 12500A and 12700A

- DC Voltage Source 0-10 VDC, .5% accuracy, 100 mA. (Tektronix PS280 or equivalent)
- Audio Oscillator, 10Hz-200 kHz, 2Vpp +/- .01 V into 50 ohm. (Stanford Research DS345 or equivalent)
- Agilent 8902A measuring receiver
- Giga-tronics mixer/divider part # 002CA04900
- Digital voltmeter, 3 ½ digits. (Fluke 8920A or equivalent)

