Fast-Sweep RF Signal Generator

Saelig Company has introduced the TGR6000 - a new, economically-priced 6GHz RF signal generator that is both simple and intuitive to use. The TGR6000 offers a high purity output with low phase noise over a frequency range of 10MHz to 6,000MHz, with output from -110dBm to +7dBm adjustable in 0.1dB steps. The frequency resolution is 10Hz and the internal time-base stability is better than 1ppm. An external reference can be used where even higher accuracy is required. User level compensation tables can be loaded in order to calibrate an entire test set up.

The TGR6000 is intended for CW (carrier wave) applications where modulation is not required, and avoids the equipment costs associated with adding modulation capabilities. Frequency and level can be entered directly from the front-panel keyboard in whichever units are preferred. Alternatively, values can be changed in user-defined increments using the spin wheel or up/down keys. Onboard storage keeps 12 generator set-ups and 16 sweep lists instantly available. A useful rear-panel output SYNC signal goes to its active state when the generator output frequency and level have settled within specification after a step change during sweep. SYNC returns to inactive state at end of the specified dwell period.

The TGR6000’s low phase noise is matched by low leakage, low residual FM and spurii. The internal timebase offers a 1ppm stability, while an external frequency reference can be used for even higher precision. Full digital remote control facilities are available through the RS232, USB, GPIB and LAN (Ethernet) interfaces.

The TGR6000 incorporates an advanced stepped sweep system which allows both frequency and amplitude to be swept, with custom output level trim of up to 100 points. The sweep can be defined in start and stop frequency/amplitude points with linear or logarithmic interpolation between them. The total number of points can be set from 2 to 1000 and the dwell time between points can be set from 10ms up to 10s. Sweeps can be triggered manually, from an internal timer or from the remote interfaces. If required, each point within the sweep can be stepped via a trigger event rather than a fixed time. In Step Sweep, the frequency and/or amplitude are stepped between two fixed points using up to 1000 steps which can have a fixed time period, or a triggered interval. Sweeps can be linear or logarithmic, up or down. In List Sweep, frequency and amplitude points are defined within a table

enabling any sweep pattern to be used.

The TGR6000 is housed in a half-rack 2U high case with backlit LCD display and keyboard with spin wheel control. Made by one of Europe's leading test equipment manufacturers - Thurlby Thandar Instruments – the compact and lightweight (13.8" x 3.4" x 8.4"; 8lb).

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Posted by Janine E. Mooney, Associate Editor

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