# Introducing the Anritsu Tracking Generator and CW Generator

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## Option 20 for MS2711E, MS2712E and MS2713E Spectrum Analyzers

Anritsu introduces a new Tracking Generator option for its line of E-Series Spectrum Analyzers (MS2711E, MS2712E and MS2713E). Important specifications include the following:

• Frequency Range 500 kHz to 3/4/6 GHz (depending on analyzer used)

• Output Power Range -50 dBm to 0 dBm

Power Step Size 0.1 dB

• Power Out Flatness ±1.0 dB using enhanced power calibration

The Anritsu Option 20 tracking generator provides state of the art features not seen with other competitive hand-held analyzers. This includes capabilities such as 0.1 dB power step size, a wide dynamic range and a power output flatness of ±1 dB. With Option 20, users can easily make measurements such as frequency response, gain and return loss (using an external bridge).

A tracking generator is a signal generator with an output that tracks or follows the tuning of a spectrum analyzer. A tracking generator therefore allows testing of many passive and active electronic components and circuits (or devices under test 'DUT'). Types of devices tested include the following:

T/R Modules

Attenuators

Cables

Filters

Combiners

Switches

Couplers

· Splitters/Dividers

Amplifiers

Isolators

Resonators

Transistors

Tracking generator output powers are user adjustable. Small power step sizes are provided to allow the user to fine tune their measurements for power sensitive devices. This feature is particularly helpful for measuring such parameters as amplifier gain compression.



### The Advantage of Portability

Although the Anritsu tracking generator is commonly used in R&D lab settings for product development and testing. An additional strength of the Anritsu solution comes with its portability. Housed together with a spectrum analyzer, the Anritsu

TG weighs only 3.45 kg (7.6 lbs) with a compact size of 273x199x91 mm (10.7x7.8x3.6 in). The field technician or contractor will be able to more easily conduct in-field measurements. Troubleshooting and solving problems on site eliminates the need to carry suspect components back to the lab for analysis, saving both time and money.



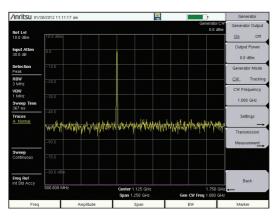


## Introducing the Anritsu Tracking Generator and CW Generator



#### **CW Signal Generator Included**

Anritsu's Option 20 includes a Continuous Wave (CW) generator. Rather than sweeping over a frequency range, CW generators output a signal frequency. This source is often useful for measuring devices such as fixed frequency amplifiers and for sensitivity analysis of receivers. Similar to tracking generators, CW signal output powers can be modified as needed by the user.



### Tracking Generators vs Vector Network Analyzers (VNAs)

Tracking generators are ideal for providing scalar network analysis, providing signals to a DUT which can be measured by a spectrum analyzer. Unlike network analyzers, TGs do not provide phase information. Phase information is necessary for developing more complete characterizations of networks and devices. VNAs are used for applications such as developing conjugate matching circuits for filters and amplifiers. They are also utilized for circuit simulation, characterizing components (magnitude and phase) for circuit model development. However, tracking generators are sufficient where magnitude-only measurements are required. This could include the gain response of an amplifier or to measure both passband and signal rejection characteristics of a filter.

Tracking generators often provide better performance than VNAs where a wide dynamic range is needed. For example, filters used in cellular and other wireless applications may have stopband attenuations of greater than 100 dB. For these types of measurements, Anritsu's Option 20 can provide superior performance. In general, tracking generators also provide more accurate power output levels than VNAs. This is important for applications such as characterizing amplifier compression points where absolute power measurements are important.

### Who needs a Tracking Generator

Tracking generators are often used by component manufacturers for both automated test and product design work. With the Anritsu TG, in-field use is also facilitated due to the TG's portability. Cellular carriers, contractors and various operators for both wireless and wired infrastructure can use Option 20 in the field for installation and test of their systems.

Additionally, anyone purchasing a Spectrum Analyzer may have an occasional need to make scalar frequency response measurements. Option 20 provides a low-cost alternative to meet this need, while providing the flexibility for use in both an R&D and in-field environment.

#### **How to Order**

The Option 20 Tracking Generator can be ordered as an option with the purchase of any of these Spectrum Analyzer products: MS2711E, MS2712E or MS2713E.

Pricing | Ordering | Training | Support

www.anritsu.com or 1-800-267-4878