

SPECTRUM MASTER MS2721A

100 kHz to 7.1 GHz



High Performance Handheld Spectrum Analyzer

NEW



The MS2721A is the first handheld spectrum analyzer to deliver the ability to measure very low level signals with a displayed average noise level of ≤ -153 dBm typical @ 1 GHz in a 10 Hz RBW. Coupled with a wide range of resolution bandwidth choices from 10 Hz to 3 MHz and exceptional SSB phase noise better than -100 dBc/Hz at 10 kHz offset, you can configure the Spectrum Master to meet your most challenging measurement needs. As the spectrum becomes more and more congested, the ability to measure low level, closely spaced signals becomes more and more important not only for interference detection but also for wireless system planning. Video bandwidth range is 1 Hz to 3 MHz.

Operating convenience is of paramount importance when equipment is used in the field. The input attenuation value can be tied to the reference level, reducing the number of parameters a field technician may have to set. The RBW/VBW and the span/RBW ratios can be set to values that are best for the measurements being made, further easing the technician's burden and reducing the chances of errors. Thousands of traces with names up to 15 characters long may be saved in the 64 MB non-volatile compact flash memory. These traces can later be copied into a PC using the built-in USB 2.0 connector or the 10/100 MHz Ethernet connection, or by copying them to an external Compact Flash card. The MS2721A Spectrum Master has a very wide dynamic range (>80 dB), allowing measurement of very small signals in the presence of much larger signals.

Resolution bandwidth and video bandwidth can be independently set to meet a user's measurement needs. In addition the input attenuator value can be set by the user and the preamplifier can be turned on or off as needed. For maximum flexibility, sweep triggering can be set to free run, or to do a single sweep.

Light Weight

Weighing about six pounds, including a Li-Ion battery, this fully functional handheld spectrum analyzer is light enough to take anywhere, including up a tower.

With the supplied Remote Access Software you can control an MS2721A that is miles away, seeing the screen display and operating with an interface that looks exactly like the instrument itself.

The MS2721A features eight languages (English, Spanish, German, French, Japanese, Chinese, Italian and Korean), plus two custom, user defined languages can be uploaded into the instrument using Master Software Tools, supplied with the instrument.

Fast Sweep Speed

The MS2721A can do a full span sweep in ≤ 900 milliseconds, and sweep speed in zero span can be set from less than 50 microseconds up to over 4000 seconds. This is faster and more flexible than any portable spectrum analyzer on the market today, simplifying the capture of intermittent interference signals.

+43 dBm Maximum Safe Input Level

Because the MS2721A can survive an input signal of +43 dBm – 20 watts – without damage, you can rest assured that the MS2721A can survive in even the toughest RF environments. Maximum continuous input for measurements is 30 dBm.

Spectrum Monitoring

A critical function of any spectrum analyzer is the ability to accurately view a portion of the RF and microwave spectrum. The MS2721A performs this function admirably thanks to the wide frequency range and excellent dynamic range. A built-in 64 MB compact flash memory module allows over 1000 traces to be stored. An external compact flash socket allows additional compact flash memory to expand the trace storage without limit.

Multiple Markers

Display up to six markers on screen, each with delta marker capability. In addition, you may select a marker table that simultaneously shows the status of all markers. In the table you can see the frequency and amplitude measurement value for all markers along with delta frequency and delta amplitude. Each marker can have not only a measurement reference frequency but also a delta frequency and delta amplitude, effectively giving you up to twelve markers if you need them!

Noise Markers

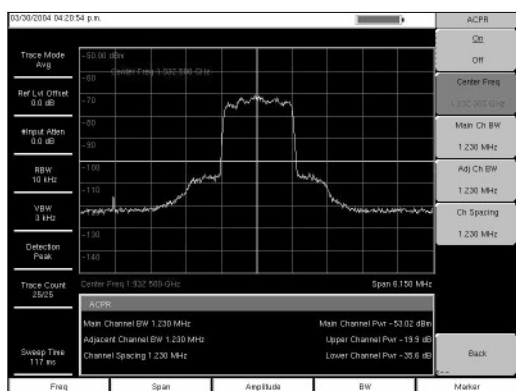
The capability to measure noise level in terms of dBm/Hz or dB μ V/Hz is a standard feature of the MS2721A.

Frequency Counter Markers

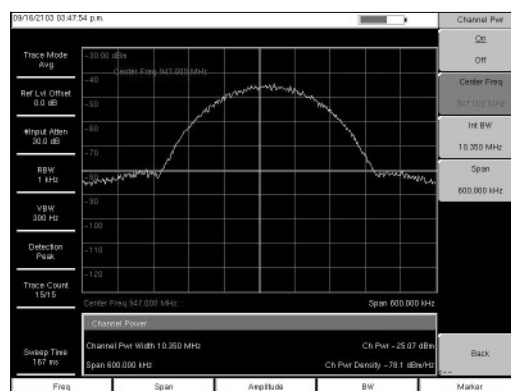
The MS2721A Spectrum Master has frequency counter markers with resolution to 1 Hz. Tie this capability to an external precision time base to get complementary accuracy and resolution.

Smart Measurements

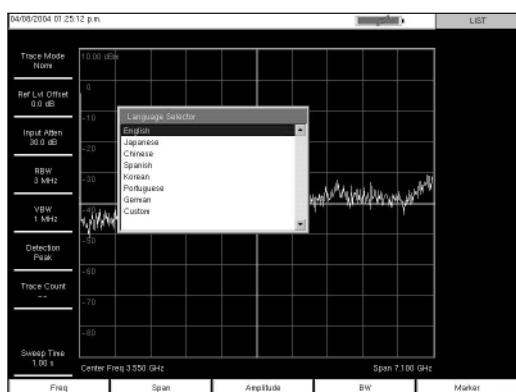
The MS2721A has dedicated routines for smart measurements of field strength, channel power, occupied bandwidth, Adjacent Channel Power Ratio (ACPR) and C/I.



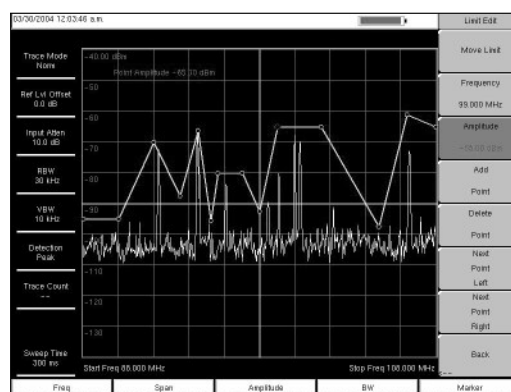
Adjacent Channel Power Ratio



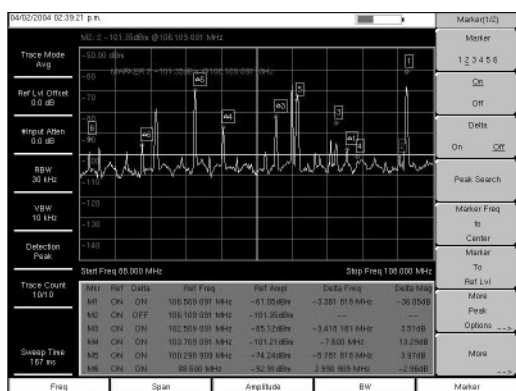
Measurement of Channel Power for a GSM Signal



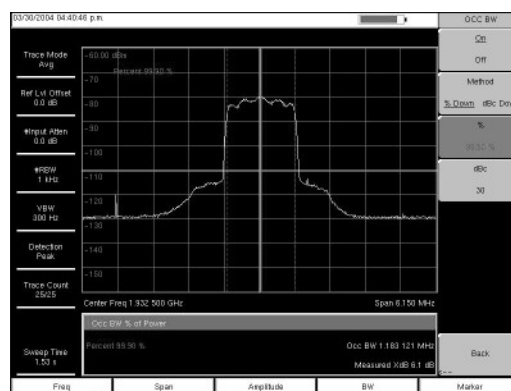
Multiple Language Support



Segmented Limit Line



Multiple Markers plus Multiple Delta Markers



Occupied Bandwidth