

6.1 Narda SignalShark Real dynamic range – a comparison



Over the past few weeks, we have compared the dynamic ranges of portable spectrum analyzers and receivers from their data sheets. But you can write anything on paper. What about actually measuring the dynamic range? And comparing devices? And why should a device have as high a dynamic range as possible?

You can find the answers to these questions as a [comparative video](#) on our YouTube channel now. In our lab, we have everything you need in the way of generators, filters and couplers to be able to make such tests. After all, we build our own analyzers and test them thoroughly. So, we have acquired and tested the following devices:

- Anritsu Spectrum Master, which in terms of RF performance has until now been the best available portable spectrum analyzer. Although the Keysight Fieldfox or Rohde & Schwarz FSH have lots of additional evaluation functions, they simply cannot match the RF performance of the Spectrum Master.
- Rohde & Schwarz PR100 / DDF007, which is the standard tool in the field of portable radio receivers. It is known for its high sensitivity.
- Tektronix H500/H600, one of the first portable real time analyzers with a real time bandwidth of 20 MHz. Although the Tektronix is an older device, it is still very much used when it comes to looking for signals hidden under other signals. It is therefore the standard tool that is used by many regulatory authorities.
- And then we have the new kid on the block, the one that can show these top dogs what a dynamic range really is: the [Narda SignalShark](#). 40 MHz real time in a handheld device, with the dynamic range of a benchtop instrument. Intrinsic noise, IP_2 and IP_3 at the same level as the ITU measuring receiver benchmark. The impossible is possible. SignalShark is the new standard.

Generators on, analyzer warmed up, cameras running...

Clapperboard: Dynamic range comparison, take 1.

... and ACTION!



Test Narda SignalShark vs. Anritsu, Spectrum Master vs. R&S, PR100/DDF007 vs. Tektronix, H500/H600