



Interference Hunting for Higher Frequencies

How to Extend Your Existing Equipment to 5G

Regulatory agencies have already made a considerable investment in spectrum analysis solutions to detect and locate interference in the current 4G/LTE bands. This equipment has a frequency range up to 8 GHz, which is more than enough for these current waveforms. Users are very comfortable with the equipment, software, and test setups that are already in place, and do not want to be retrained on a new solution. Many agencies do not have the budget to make another large investment in equipment just to improve frequency performance.

The Challenge

New 5G wireless standards will depend on signals at much higher frequencies than previously required, and many telecommunication companies and researchers are studying the viability of the 28 GHz band in particular. Interference has the potential to severely disrupt 5G applications, placing increased pressure on regulatory agencies to detect it quickly. However, current spectrum analysis equipment does not have the frequency performance needed to detect these signals, leaving regulatory agencies and field technicians unable to search for interference or other signals of interest.

Because of the capital investment required and the familiarity of users with current setups, agencies need an alternative to buying a whole new suite of spectrum analyzers.

QUICK FACTS

5G wireless will use frequencies well above the current range of 4G/LTE signals

The ThinkRF D2030 RF Downconverter extends any spectrum analyzer, regardless of vendor, into 5G range

Users keep their existing setups, equipment, and software





The Solution

The ThinkRF D2030 RF Downconverter is a compact, cost-effective, and easy to use downconverter that extends the performance of existing equipment into 5G.

Using simple SCPI commands, users easily integrate the D2030 RF Downconverter with any existing spectrum

analyzer, regardless of vendor. Combined with their existing setups, hardware, and software, users are able to monitor, detect, and analyze signals in the 27 GHz – 30 GHz range without adding significant size or power requirements.

Benefits of the ThinkRF D2030 RF Downconverter

Works with any spectrum analyzer with a frequency performance of at least 6 GHz, regardless of vendor

Easy to integrate into existing setups using simple SCPI commands

Powerful, software-defined technology that extends the range of existing equipment

Cost-effective alternative to a full replacement of current spectrum analyzers

Compact and lightweight – 7.5" x 8.5" x 1" / less than 2lbs



The Results

Leveraging the capabilities of the D2030 RF Downconverter, spectrum monitoring users are able to detect interference or other signals of interest, analyze the signal to determine the source, locate it via advanced geolocation capabilities and take steps to disable it, all without replacing their current equipment.



ABOUT THINKRF

ThinkRF is the leader in software-defined spectrum analysis solutions that monitor, detect and analyze complex waveforms in today's rapidly evolving wireless landscape. Built on patented technology and quality by design principles, the ThinkRF platform offers greater versatility, better performance and additional capabilities for 5G, monitoring, signals intelligence (SIGINT), technical surveillance countermeasures (TSCM), and test and measurement applications. Aerospace and defense companies, spectrum regulators and wireless communications providers use the remotely deployable, PC-driven and easily-upgraded platform to replace traditional lab equipment for wireless spectrum analysis.

For more information, visit www.thinkrf.com, contact info@thinkrf.com or on Twitter, LinkedIn and YouTube.