# Developing Purpose-Built RF Solutions for End-Users with



### Monitor

signals in a variety of deployment scenarios

## Detect

waveforms not included in off-the-shelf software

# Analyze

and demodulate modern signal standards such as 5G



#### Build the RF Solutions Your Customers Need

Across industries, the need to isolate and measure RF signals, detect and mitigate RF interference, and ensure network coverage is more urgent, and more challenging, than ever before. As a result, end-users are demanding turnkey RF solutions that are easy to use, cost-effective, and designed around their unique requirements to ensure spectrum access.

This represents a significant opportunity for system integrators (SIs) who have experience developing RF applications for specific niches and use cases. To meet end-user requirements, SIs need to combine high-performance hardware with purpose-built RF software that goes beyond commercial-off-the-shelf (COTS) solutions.

#### **Applications and Requirements**

SIs and RF equipment providers have a number of requirements when choosing a spectrum analysis solution, including:

Open APIs and programming environments to reduce development time

Access to raw IQ data for custom measurement sets

The ability to fuse data from multiple sources, such as GPS and measurement data

The ability to decode and demodulate signal standards not included in COTS software

High frequency and bandwidth performance to capture modern signals

Compact, portable, and networked platforms for deployment in a variety of environments

**DESIGNED FOR** 







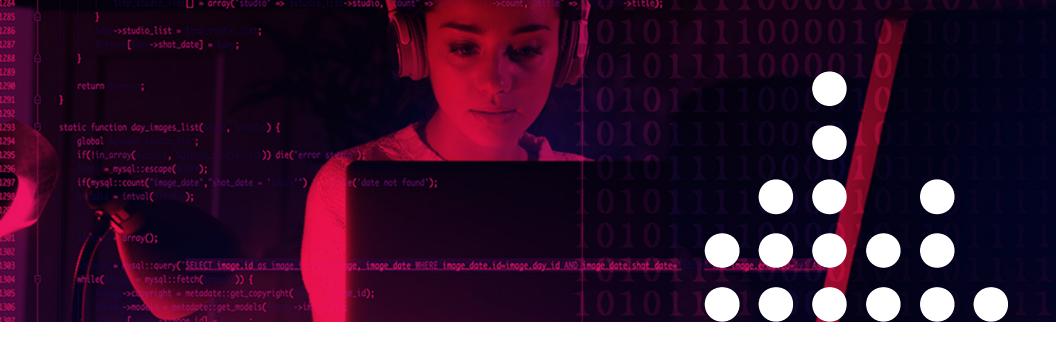
### Easily Develop on Software-Defined Spectrum Analysis Platforms

ThinkRF Software-Defined Spectrum Analysis solutions are built on innovative and highly optimizable software-defined radio technologies. ThinkRF platforms offer the best mix of performance, price, and flexibility while providing SIs and RF equipment providers with access to raw measurement data and a full suite of APIs and programming environments.

Additionally, by taking an open, interoperable approach to spectrum analysis,

these platforms can integrate with leading third-party hardware and software so that SIs can build the right solution for customers.

This approach means that end-users get the performance they need at a lower cost, making it well suited to the needs of SIs developing applications for today's wide variety of spectrum analysis applications.



# ThinkRF R5550 and R5750 Real-Time Spectrum Analyzer Features

ThinkRF provides the hardware expertise and proven performance SIs need to develop purpose-built RF solutions for end-users. ThinkRF Real-Time Spectrum Analyzers feature:

Access to raw IQ data

Open APIs and programming environments

Frequency range up to 27 GHz and real-time bandwidth up to 100 MHz

Open approach to easily integrate with third-party hardware

Compact, portable form-factor and low power requirements

#### ThinkRF D2030 and D4000 RF Downconverters

ThinkRF RF Downconverters extend the range of existing spectrum analysis equipment into high-band 5G signal standards. The ThinkRF D2030 and D4000 RF Downconverters feature:

Up to 40 GHz frequency downconversion and up to 500 MHz real-time bandwidth

Standard SCPI controls to easily integrate with third-party RF hardware

Compact, portable form-factor to minimize additional size, weight, and power requirements

Exceptional price-performance ratio to extend the life of existing investments



### Full Suite of APIs, Programming Environments, and Protocols

ThinkRF Real-Time Spectrum Analyzers support conventional lab-based software and tools that allow you to develop your own application through APIs, including:

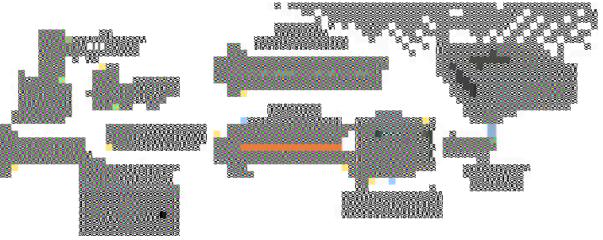
LabVIEW

MATLAB

C/C++

Python

SCPI control and VITA VRT dataflow



#### **ABOUT THINKRF**

ThinkRF delivers a new category of Software-Defined Spectrum Analysis solutions that monitor, detect, and analyze complex waveforms in today's rapidly evolving wireless landscape.

Remotely deployable, PC-driven and easily-upgraded, the ThinkRF platforms offer greater versatility, better performance, and additional capabilities for monitoring, signals intelligence (SIGINT), technical surveillance counter measures (TCSM), test and measurement, and 5G applications.

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