OneRadio Announces a Major Development with the new OneRadio V1.0 System

New High Dynamic Range PCIe Receiver Module Now Available

April 12, 2021
Seattle, WA

OneRadio Corporation, a leading developer of Wide-band High Dynamic Range (HDR) receivers and applications, announces a public release of a new PCIe receiver module, JTM25, that incorporates their patented HDR technology. The new module significantly shrinks the form factor of the OneRadio System, enabling it to be mobile and capable of addressing a variety of novel applications. Applications of interest include the ability to fingerprint mobile phones and other smart devices, while preserving the privacy of devices' users, as well as to analyze a wide range of the RF spectrum and provide a qualitative information about network performance to network carriers, as well as to consumers.

"We are pleased to work closely with the Pacific Northwest National Labs (PNNL) to implement JTM25 to address the needs of their sponsors", said Mohan Vaghul, CEO of OneRadio Corporation. "While 2020 was a challenging year, our team switched to remote mode, and continued working as diligently and as closely as ever with our partners to pull off a remarkable feat in an extremely short duration. The result is a system that is a third of the size of what we had before. This allows us to scale our business quickly, and to be much more mobile and available than ever before".

The JTM25, a full sized PCIe x16 card and an integral part of the soon to be

released OneRadio™ V1.0 system, is a direct-sample extremely wide-band HDR receiver that operates in the 0 – 2.5 GHz spectrum range with a sample rate of 5 GSPS, an instantaneous Nyquist bandwidth of 2.5 GHz, a sensitivity of -195 dBW/Hz with a max input power of 15 dBm. These specs put the JTM25 as a leader in the wide-band dynamic range performance in the industry. Three JTM25s together can address 0 – 7.5 GHz of the RF spectrum maintaining a remarkably high dynamic range. "A single JTM25 delivers 10 GB/s RF data making it challenging to design a system that is capable of capturing the entire spectrum", said John Walczak, HW architect of OneRadio Corporation. "A PCIe based system offered the best form factor and performance for what is required. It is also an architecture that allows us to scale to address future needs".

The JTM25 makes it easier to deploy novel HDR based applications like RF Fingerprinting that OneRadio Corporation is working on with our government partners, as well as for commercial use. "Fingerprinting RF devices like mobile phones, Bluetooth devices etc. using transmitter characteristics, as opposed to transmission characteristics, is a game changer, especially in the defense space", said Dr. Tamara Bonaci, OneRadio advisor, "RF Fingerprinting is a powerful and a fairly mature application on the OneRadio system. We expect to bring it to the market with our JTM25".

LTE Analytics is another application that OneRadio Corporation has been working on. A single JTM25 based OneRadio V1.0 system can easily provide analytics across the entire RF spectrum, for all carriers, across their transmission bands, and at the same time. This is possible because of JTM25's wide-band, linearity and high dynamic range and these capabilities open up a cost-effective way of delivering analytics to carriers and consumers. "Imagine if a consumer can make informed decisions about mobile data services using a simple mobile app that provides both quantitative and qualitative information about the performance of the network and the streaming service, and it can do that regardless of the location. LTE analytics, based on a network of OneRadio V1.0 systems and our learning algorithms will enable just that", added Dr. Bonaci.

The JTM25 along with the OneRadio V1.0 system will be available in the US market later this year.

About OneRadio Corporation

OneRadio develops and markets wide-band receivers and radio frequency (RF) applications that demand the highest level of sensitivity and bandwidth. OneRadio provides unprecedented visibility and access into the entire RF spectrum through its innovative technologies that benefit defense, intelligence communities and other enterprises. The company is headquartered in Seattle, WA. Please visit the company's website at www.oneradiocorp.com for more information.

Source: OneRadio Corporation

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