

**Press Release**

***For Immediate Release***

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## **Vubiq Networks Protects RFID Innovation with New Patent Publication, Increasing Bit Density and Lowering Costs of Chipless Data Tags**

**IRVINE, CA, June 23, 2020** – Vubiq Networks, Inc., the innovation leader in millimeter wave wireless broadband technology, products and solutions, today announced that the U.S. Patent and Trademark Office and the World Intellectual Property Organization / Patent Cooperation Treaty (WIPO/PCT) have both published the company's latest patent application entitled ***High Bit Density Millimeter Wave RFID Systems, Devices, and Methods Thereof***. The U.S. Patent application has assigned publication number 0184161, while the WIPO/PCT has assigned publication number 118058.

The newly published patent application defines advanced, high-bit density chipless radio frequency identification (RFID) technology using the company's innovative millimeter wave polarimetric synthetic aperture radar (POLARSAR) hyperimaging techniques that incorporates polarization and phase detection. The new technology provides orders of magnitude higher bit density for RFID tags as compared to prior art or other competitive approaches.

"This new patent will provide additional worldwide protection for our RFID technology," said Mike Pettus, founder and CTO of Vubiq Networks. "Our technology exploits the natural physics of antennas at a tremendously small scale. The result is a chipless RFID data tag that approaches the cost of printing a bar code, but with the ability to contain hundreds of data bits on the size of a postage stamp."

The comprehensive patent application includes "reduction to practice" by addressing both hardware and software applications. It provides for very high density chipless tag data encoding through the use of innovative geometrical layout of the patch antennas as the tag elements. The technology provides for reduced optimized element spacing, providing very high bit density for chipless RFID.

"Utilizing our innovative POLARSAR technology, not only can the high-density data be retrieved from the tag, but also physically located," explained Vubiq CEO John Dilworth. "Our millimeter wave hyperimaging technology can read tags through materials such as cardboard, pill bottles, and envelopes. This breakthrough approach significantly reduces costs, while providing performance advantages and features not available with existing solutions."

Additional RFID patents and patent applications held by Vubiq Networks include:

- US Patent Number 7460014, issued December 2, 2008 – RFID System Utilizing Parametric Reflective Technology.
- US Patent Number 7498940, issued March 3, 2009 – RFID System Utilizing Parametric Reradiated Technology.
- US Patent Application 62746829, submitted October 17, 2018 – Multimode Millimeter Wave RFID Systems and Methods Thereof.

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The increased data density and lower tag costs associated with this new technology are important developments for the burgeoning RFID marketplace, especially for emerging Internet of Things (IoT) applications. The current \$11 billion RFID market is expected to explode to \$40 billion by 2025.

“The reduced size and costs of new radar chip technology hitting the market today will enable our RFID technology to be integrated in low-cost handheld devices, and even in smartphones like the recent introduction by Google,” said Mr. Dilworth. “This could potentially lead to smartphones incorporating RFID tag readers based on our POLSAR technology.”

### **About Vubiq Networks**

Vubiq Networks, Inc. is a privately held millimeter wave innovation company headquartered in Irvine, California. With over 15 years of experience in telecommunications and extremely high frequency (EHF) applications, the company continues to expand its global reach into cutting-edge markets such as 5G connectivity, wireless fabric architecture, chipless RFID data tag hyperimaging, IoT smart sensors, EHF medical applications, and more. The company’s portfolio of 13 U.S. patents, two U.S. patent applications, and now two European patents provides the foundation for continued design and delivery of innovative technology solutions. For further information, visit [www.vubiqnetworks.com](http://www.vubiqnetworks.com).

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