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FOR IMMEDIATE RELEASE

M17 Announces New Open-Source Hardware for Amateur Radio Enthusiasts and Enhancements to Current Offerings

M17 launches innovations in hardware, software, and UHF/VHF digital voice protocols, all of which are open-source.

March 29, 2024 — Funded by a grant from Amateur Radio Digital Communications (ARDC), M17 is excited to announce enhancements to their current hardware solutions for amateur radio operators as well as a new hardware offering:

- Module17 – an M17 modem that converts a 9600 baud capable radio into an M17 transceiver;
- OpenHT – a cutting-edge QRP dual-band handheld transceiver (HT) that utilizes SDR technology; and
- **[NEW]** Remote Radio Unit (RRU) – a comprehensive, UHF FM/M17 'repeater in a box', optimally designed for close antenna placement, enhancing signal strength and reliability.

Module17 is undergoing significant enhancements, evolving from revision 0.1e to 1.0. Improvements to Module17 will focus on design and ergonomics, featuring an extruded aluminum case for aesthetic appeal. The anticipated release of revision 1.0 is forthcoming. In the interim, a preview revision 0.99 is available, which addresses previous non-critical hardware bugs.

OpenHT is one of the pioneering open-source SDR HTs available, potentially the first of its kind. Its prototype, released last year, supports 70cm and 13cm bands, offering versatile transmission capabilities such as FM (including M17), AM, SSB, BPSK/QPSK, and higher order modulations, such as 16QAM. M17's ongoing development efforts include VHSIC Hardware Description Language (VHDL) code for the programmable logic components of the radio, further enhancing its functionality.

Work is also underway for the development of a RRU transceiver, aiming to provide a comprehensive FM/M17 repeater for remote sites or masts. The RRU includes features such as an N connector for direct antenna connection, eliminating the need for a long coax, and a multimode optical fiber duplex pair, allowing for improved RF performance. The RRU supports

SDR IQ transceivers, allowing for additional modes, and can also output RF power exceeding 50W (CW). The current working prototype, revision B, facilitates linking to M17 reflectors and integrates Raspberry Pi interface software for M17 reflector linking.

All of the aforementioned hardware is developed entirely from open-source designs, adhering to TAPR, CC BY-NC-SA 4.0 and/or GNU GPLv2/v3 licenses, exemplifying M17's commitment to innovation and community collaboration.

"I believe the work done by our Project's team and contributors will free the amateur radio community from the use of proprietary digital voice modes, also allowing for easier data transfer," says M17 Founder and Lead Developer Wojciech Kaczmarski (SP5WWP). "We have achieved a lot already, yet still there's plenty of work ahead of us. I encourage everyone to join the effort, as the Project won't succeed without community's help."

To learn more about M17, visit https://m17project.org/.

About M17 Project

The M17 Project is an open-source initiative that offers a new digital communication protocol tailored specifically for amateur radio enthusiasts. Unique to this project is its commitment to transparency and community involvement, allowing users, developers, and hobbyists to engage with each other and enhance the protocol. The M17 Project provides cutting-edge features, such as digital voice and data communication, as well as robust encryption options to ensure secure transmissions. Most importantly, it is compatible with existing amateur radio hardware, facilitating an easy adoption process for users. For more information about the M17 Project, please visit https://m17project.org/.

About Amateur Radio Digital Communications (ARDC)

Amateur Radio Digital Communications (ARDC) is a California-based foundation with roots in amateur radio and the technology of internet communication. The organization got its start by managing the AMPRNet address space, which is reserved for licensed amateur radio operators worldwide. Additionally, ARDC makes grants to projects and organizations that follow amateur radio's practice and tradition of technical experimentation in both amateur radio and digital communication science. Such experimentation has led to advances that benefit the general public, including the mobile phone and wireless internet technology. ARDC envisions a world where all such technology is available through open source hardware and software, and where anyone has the ability to innovate upon it. To learn more about ARDC, please visit https://www.ardc.net/.

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