

# EtherChip EC482 will bring "Active Steering" tech for Wi-Fi

February 19 2015, by Nancy Owano

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Ethertronics EtherChip EC482 is a Game Changer in the Cable and Satellite Markets with a Host of Advantages for Service Providers, OEMs and Consumer

Vendors and consumers can agree: connectivity matters, and not just poetically speaking, or in the context of social networking. As for many, staying digitally connected is quite real a requirement and has become a lifeline of its own, in terms of ability to do work and in terms of access to vital information. San Diego-based Ethertronics is a business that

provides connectivity via antenna and RF systems solutions. On Tuesday the company announced news of an active steering IC, with embedded processor for Multiple Input Multiple Output (MIMO) applications. This is the EtherChip EC482, with potential impact on cable and satellite markets. The company said its team can integrate EC482 products, including access points, set-top boxes, WiFi clients, WiFi extenders, wearables and other Internet of Things (IoT) devices.

Translating what this means, *Gigaom's* senior writer Kevin Fitchard, who covers mobile broadband, carriers and wireless technologies, said that the new chip from Ethertronics "will bring its active steering algorithms to Wi-Fi antennas, increasing their [range](#) and boosting their throughput in less than optimal conditions." Ethertronics Chief Scientist Jeff Shamblin told Fitchard that with the new version of the EtherChip, "active steering helps signals navigate multiple walls and ceilings which often separate a router from a Wi-Fi device."

Quoted in *RCR Wireless News*, Shamblin, referring to the Active Steering technology, said, "Now that we can dynamically control the radiation pattern, not only can we improve the [communication](#) link you're trying to establish, we can start to null out interfering sources, so it brings interference mitigation."

The *EE Times* explained that the company was leveraging its experience developing embedded antennas to create a line of dedicated beamforming chips. "Algorithms on EC482's processor monitor RF link performance on a wireless device to generate up to four radiation patterns and [select](#) the optimal antenna for the best performance," wrote Jessica Lipsky, associate editor. "The company's EtherChip EC482 aims to improve RF signal for Wi-Fi and 5 GHz backend applications."

The company said the EtherChip EC482 had "superior single- and multi-antenna performance at frequencies even beyond the WiFi high-band."

The operating frequency range is 100 MHz to 7000 MHz. The small footprint is just 3.0 x 3.0 x 0.75 mm<sup>3</sup> in a QFN 24-pin package. Very low power consumption is required for operation, said the news release, which makes the EC482 suitable for even battery-operated systems.

Ethertronics will show its new EtherChip EC482 and "Active Steering" solutions during Mobile World Congress next month in Barcelona.

Laurent Disclos, Ethertronics CEO, shared his predictions in January for the new year in *RCR Wireless News*. "Regardless of the application – streaming a favorite show via a 5 GHz set-top [box](#), keeping tabs on one's health via a wearable, or simply placing a voice call via a smartphone – the antenna is the only RF sensor in a wireless device, and those of us working to make that heartbeat stronger will have an exciting year in 2015, and beyond."

The *EE Times* report said EC482 chips will be in mass production in the second quarter of this year.

**More information:** — [Press release](#)

— [www.ethertronics.com/](http://www.ethertronics.com/)

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