

Investigation of the WiMedia Ultra-Wideband (UWB) Common Radio Platform Specification

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Abstract:

Limitations in current wireless technologies are making it difficult to meet today's high-speed personal area network demands. The WiMedia Alliance hopes to meet this demand through a new wireless personal area network physical layer (PHY) and Media Access Control (MAC) standard. Also known as the WiMedia Ultra-Wideband (UWB) Common Radio Platform, the standard ECMA-368 creates a base for companies to develop platforms for high-speed UWB communications. Devices using the platform can move in and out of WiMedia networks easily, transmit to other devices at speeds up to 480Mbps, while providing security via AES-128 encryption. Given these features, it has been adopted as the technology behind wireless USB and the next version of Bluetooth. As of September 2008 there were 19 registered WiMedia platforms that have obtained WiMedia certification. As technologies such as wireless USB hubs start hitting the shelves soon, many in industry will be watching to see how successful the WiMedia radio becomes.