

Latest Summit White Paper Explores Wi-Fi and Bluetooth Coexistence

This new white paper from Summit discusses methods of interference mitigation for Wi-Fi and Bluetooth Coexistence

Akron, Ohio --- Bluetooth is a wireless technology designed for short-range wireless connections between devices in a Wireless Personal Area Network (WPAN). 802.11-compliant Wi-Fi technology connects devices and an infrastructure in a Wireless Local Area Network (WLAN). Bluetooth and Wi-Fi transmit in different ways using differing protocols; because Bluetooth and 802.11b, 802.11g, and 802.11n-compliant devices operate in the same 2.4 GHz frequency band, they are mutual interferers. Bluetooth and Wi-Fi radios often operate in the same physical area and many times in the same device; this interference can impact the performance and reliability of both wireless interfaces.

Several methods of interference mitigation through temporal, spacial, and frequency isolation have been developed and are described in this white paper. While each is effective, all come at the cost of some performance reduction. Migrating Wi-Fi operation to the 5 GHz band eliminates Bluetooth/Wi-Fi mutual interference while providing increased network capacity.

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About Summit

Summit Data Communications is a provider of industrial-grade and medical-grade wireless modules. Summit's rugged Wi-Fi and Bluetooth products provide secure and reliable wireless connectivity for mobile devices such as data collection terminals and medical equipment that operate in challenging environments such as factories, warehouses, and hospitals. More than 1.4 million Summit wireless modules are in use today at companies of all sizes around the world.