

# **Inverted-F Laptop Antenna With Enhanced Bandwidth for Wi-Fi/WiMAX Applications**

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***Abstract***—A novel printed multiband inverted-F antenna (IFA) for laptop computers is presented. The antenna has a simple structure and it is sufficiently narrow to easily fit on each side of the housing of the display unit of the laptop. The antenna is designed to operate in all the allocated Wi-Fi and WiMAX frequency bands while providing near omnidirectional coverage in the horizontal plane. The multiband performance of the proposed antenna and its omnidirectionality are validated by measurements.

***Index Terms***—Inverted-F antenna (IFA), IFA with slotted monopole, multiband antenna, printed IFA.