# Per-Packet Antenna Diversity Technology Available in Ultra-Small and Highly-Integrated 802.11n Wi-Fi Router-on-a-Chip

CUPERTINO, Calif. -- (BUSINESS WIRE) -- Ralink Technology Corporation announced the world's first 802.11n router-on-a-chip to include per-packet antenna diversity technology, according to the company. With MIPS CPU, 5 port 10/100 Ethernet MAC/PHY, PMU, radio, baseband and power amplifiers all contained on a single die, Ralink's new RT5350 delivers the high performance, smaller size and attractive pricing required for integration into today's high volume router, broadband connectivity, and consumer electronics products.

"Ralink's unique receive diversity algorithm intelligently chooses the best antenna on a per packet basis, resulting in optimal performance even in rapidly changing environments. This level of sophistication allows our products to maintain excellent performance even as the wireless landscape becomes more crowded," said Shinglin Chung, senior director of Consumer Solution Business Unit at D-Link Corporation.

The RT5350 router-on-a-chip includes an 802.11n media access controller (MAC) and baseband, a 2.4 GHz radio and FEM, a 360 MHz MIPS® 24K™ CPU core, and a 5-port 10/100 Ethernet MAC/PHY. The RT5350 requires fewer components and includes almost everything needed to build an AP router from a single chip. The embedded chip level per-packet antenna diversity function enhances load balance and coverage.

This results in almost 40 percent faster WLAN throughput over range compared to conventional 1x1 single antenna competing solutions in a multiple-client environment. The USB port can be configured to access external storage for Digital Home applications. In addition, the RT5350 has multiple hardware interfaces (SPI/PCM/I2S/I2C/UART/GDMA) to enable interoperability with many possible applications.

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