

New low cost, high performance radio microphones extend range and simplify installation

Cambridge UK and Cambridge US – January 19, 2012 – Cambridge Consultants today launched a reference design for low cost, high performance radio microphones using the Digital Enhanced Cordless Telecommunications (DECT) platform. By taking advantage of DECT, Cambridge Consultants' new radio microphone design delivers higher audio quality with no interference and quadruples the range of existing radio microphone technology, while also lowering the total bill of materials (BOM) costs to under \$12 for each microphone.

The new microphone design deploys Cambridge Consultants' DECT-based Salix audio distribution platform, delivering high quality 15kHz audio bandwidth with automated set-up and frequency management. DECT has a dedicated license-exempt band in most countries worldwide and also ensures that the new microphone platform has high spectral density, allowing up to 40 microphones in a single space without mutual interference or spurious effects. It also extends the range of radio microphones up to 100 meters without requiring line of sight to the transmitter, as opposed to existing technologies that typically allow a range of 25 meters. DECT's automatic frequency band allocation ensures that the new microphones can be 'paired' with the receiver(s) with a simple button press.

"Many users of radio microphones are faced with significant frequency management issues that are difficult to solve with limited budgets or in-house expertise. Consequently, we have designed our new platform specifically to enable 'fit and forget' deployments—saving set-up time and cost while at the same time delivering significantly improved audio performance and range," commented Tim Whittaker, System Architect in Cambridge Consultants' Wireless Division. "DECT is a rock solid radio technology which is why we consider it ideal for installed audio, where quality and stability are the key criteria. The fact that DECT is a well-established technology also means that chips are made in huge volumes and are widely available, which enables the development of extremely low cost transmitters and receivers."

The tested and proven microphone system reference design is available as a hardware documentation package including photoplot and assembly information, with executable software for both transmitter and receiver ends. Alternatively, source code licensing is available for custom design. It comprises a transmitter board of suitable size to fit within a handheld microphone or belt-pack transmitter, and a receiver board with diversity antennas. Pairing a microphone to a receiver is by a simple one-step user process. A modern high quality, low latency music codec delivers audio with a 15kHz bandwidth.

Tim Whittaker from Cambridge Consultants will be demonstrating the Salix-based microphones as well as audio distribution systems at Integrated Systems Europe

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For more information visit: www.CambridgeConsultants.com [1]

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