



**SCOTTISH
CHAPTER**
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IEEE Solid State Circuits Society – Scottish Chapter
Free Technical Event

Wednesday 25th April 2012
6pm, MWB Edinburgh, 9-10 St. Andrew Square

Talk Info

The Challenges in designing a 20MHz Bandwidth Low Noise Tracking Power Supply IC for Handsets
Designing for the RF section of handsets takes specialist RF knowledge. Designing a handset power supply IC which can track the full 20MHz bandwidth of LTE modulation schemes and do it with high efficiency and low noise takes a specialist combination of RF systems, power management and high performance analog skills. Cambridge and Edinburgh based Nujira has taken its broadcast and infrastructure experience in envelope tracking power modulators and applied it to the handset market. The talk will discuss handset RF architectures, historic and future and where power management fits into these architectures. Envelope tracking is a disruptive technology that needs a system implementation with the platform transceiver and baseband chipset. The talk will describe how efficiencies of RF power amplifiers (PA) can be dramatically improved especially on high Crest Factor signals and will talk further through the network benefits that can be realised by linearizing the PA and increasing its output power capability. The talk will also describe the systems and design engineering structure that was developed to translate a disruptive RF systems concept into an analog/power management IC.

Presenter

Gerard Wimpenny
Chief Technology Officer



Gerard brings a broad knowledge of RF and Signal Processing accumulated over 20 years to Nujira. Previously, he was Technical Director of Symbionics, with responsibility for strategic R&D, design process definition, and top level technical support for business development activities. Gerard has been instrumental in delivering numerous wireless products to semiconductor vendors, infrastructure and handset manufacturers and holds an MA degree from Cambridge University.



Free Beer and Pizza!



Access Info

The MWB sits in the corner of St. Andrew Square in Edinburgh. The main glass door maybe shut at 6pm. If a member of the Chapter is not present at the door to let you in, please contact the event organiser (Seyed) on 07815 197802 to gain access to the building.