

Cognovo launches Software Defined Modem solution for LTE handsets

Halves baseband size and development costs

Cambridge, UK – 17 June 2010 – Cognovo today announces its Software Defined Modem (SDM) platform designed to significantly reduce cost, size and design complexity for developers of cellular handsets and other wireless enabled consumer electronic products. The SDM platform is already under evaluation at leading handset OEMs who are seeing for themselves how Cognovo's software centric design flow changes the rules for next generation wireless terminal development: greater flexibility, halved costs and size, and time to market reduced, all without compromising power consumption. The technology, originating from research carried out at ARM, is expected to appear in handsets during 2012.

Rapid evolution of mobile broadband services such as music download, video streaming and social networking is driving modem requirements harder than ever. *Will Strauss, President of Forward Concepts commented: "The Software Defined Radio concept has been around for a while, but with the move to HSPA and LTE a more flexible approach is becoming essential. Cognovo's combination of disruptive processor technology with a set of supporting software and tools promises to enable handset makers to bring products to market much faster than before and with significant cost savings in the modem - the most critical part of a wireless terminal."*

The Cognovo SDM platform – available now – comprises the Modem Compute Engine (MCE); a licensable processor sub-system, the innovative SDM Operating System (SDM-OS) and a fully integrated development suite. In contrast with a traditional hardware-based modem design, Cognovo's programmable approach makes it possible for OEMs and platform providers to reduce next-generation multimode development times by 9-12 months. In addition, handset developers can freeze designs much closer to deployment, as standards and requirements become fixed.

The SDM platform is based on the Ardbeg Vector Signal Processor technology spun out from ARM just six months ago. *"The software and system support that Cognovo has brought to the Software Defined Modem platform complements the many years of development by ARM of the Ardbeg Vector Signal Processor," said Warren East, CEO, ARM. "We are delighted with the rapid progress made by the Cognovo team and look forward to seeing end products utilising the platform to enhance the user mobile experience."*

The constant evolution and wide variety in mobile networks requiring support (3G, HSPA+, LTE, WiMAX, TD-SCDMA) with newer standards emerging faster than the typical silicon platform design-cycle, coupled with the need for multi-mode operation, has created challenges in adapting

to the fluid market requirements. Cognovo recognised that whilst there was a need for a fresh approach to wireless baseband design such a solution had to represent a seamless step from where developers are today.

In developing the Software Defined Modem platform, Cognovo has focused on baseband processing by combining advanced vector processing and software optimisations. The result is that Cognovo has overcome the concerns about performance and power consumption that held back previous commercial deployments into mass-market consumer terminals for Software Defined Radio, which previously had been restricted to predominately military and infrastructure applications.

The Cognovo SDM platform is dimensioned for handsets and portable devices capable of LTE Category 4 (150Mbps) but also scales to support multi-mode operation with other standards. A single-engine supporting WCDMA, HSPA, HSPA+, LTE and WiMAX enables a multimode baseband IC to be realised in a core die of less than 6mm² in 32nm geometry - significantly smaller than conventional modem ICs.

Cognovo has developed a fully integrated suite of easy to use tools including a C compiler and a system design toolkit to significantly shorten development timescales for modem designers.

Pekka Sarlund, a veteran of the wireless industry, says "Software Defined Radio has been a long time coming and is only now becoming competitive with conventional techniques. The Cognovo platform has addressed all the concerns of OEMs and I expect their techniques to change the way companies design handsets over the next few years."

As an ARM spin-out with strong TTPCom heritage, Cognovo combines 10 years of vector processor expertise alongside 15 years of baseband modem experience. With its first product sampling to lead customers, Cognovo is secure in the knowledge that it has the right product, offering the best combination of power, performance and ease of use.

Gordon Aspin, CEO of Cognovo commented, "Our platform for LTE handsets is a ground-up design, not just a re-targeting of a legacy product; and the MCE is more than just a processor, it's a platform solution for SDM." Aspin continued, "The SDM-OS operating system and the ARM-compatible tools make the Cognovo solution very easy to use, so existing development teams can very quickly adapt to the new way of implementing modems."

-Ends -

About Cognovo

Cognovo is changing the way wireless products are created. Its Software Defined Modem solution delivers reduced time to market, smaller silicon devices and more flexible terminals.

Founded in 2009 by the former TTPCom executive team and strengthened by the spin-out of ARM's Ardbeg Vector Signal Processor activity, Cognovo has already released products to market. Cognovo has offices in Cambridge UK and Leuven, Belgium, and operates globally.

For further information, please contact:

Cognovo contact

Richard Fry, VP Business Development, Cognovo

Tel: +44 1763 262477

E-mail: richard.fry@cognovo.com

Web: www.cognovo.com

PR contact

Juliet Philip / David Marsden, EML

Tel: +44 20 8408 8000

E-mail: cognovo@eml.com