



Title: “4G multi-mode modems: analysis of architecture and power consumption trends”, by F. Tomatis, ST-Ericsson Sophia Antipolis France

Abstract: Abstract: 4G multi-mode modems are used in recent smart-phones and tablets which represent the today most valuable market. Such devices require the support of multiple radio standards as well as the capacity to adapt to the rapidly evolving telecom features in order to provide the best data rate available in the market. On the other hand the emerging market of the “internet of things” and M2M devices are using the same modem technology but with different telecom requirements and reduced cost target.

We investigate how to define a well suited reconfigurable architecture for 4G multi-mode modem to reach the best trade-off in size and power consumption.

BIO:

Fabrizio Tomatis graduated in Telecommunications Engineering (majoring in Mobile Communication Systems) in 1997 from both Politecnico di Torino (Turin, Italy) and Eurecom (Sophia Antipolis, France). In July 1997, he joined VLSI Semiconductors, Sophia Antipolis as a Research and Development Engineer for algorithm development for cellular modem receiver.

He is currently working in ST-Ericsson, Sophia Antipolis where he is responsible for the algorithm development group in charge of 3G and LTE modem receiver algorithm development.

He is also a SMTS (Senior Member of Technical Staff) in the modem algorithm domain.

He is the inventors of numerous patents in 3G and LTE as well as authors of several contributions to standardization 3GPP RAN WG1 and WG4.