



Company Milestones

COMSIS was founded in 1995 by Philippe Leclair to develop transmission systems and electronic warfare equipments for the French Ministry of Defense.

Beginning in 1996, the Company shifted to the civilian radio-communications market by taking up engineering and design missions for major radio-telecommunication equipment players (*Thales, Alcatel, Samsung...*) and chipset manufacturers (*Altera, Atmel,...*).

In 2003 AF1 Group invested in COMSIS for a Wi-Fi MIMO (*Multiple Input Multiple Output*) development to validate the proof of concept.

Based on a unique expertise in telecommunications coding, system architecture and silicon design, as well as a patented [pending] implementation of space-time algorithms, the company will introduce a new generation of highly integrated IC allowing an unrivaled performance/cost ratio for 802.11n broadband Wi-Fi equipment.

COMSIS Project

COMSIS is lead by a seasoned management team with a history of technological achievements in the field of electronics for telecommunications. Leveraging on several years of component designs in wireless communications, *COMSIS'* core competency lies in a combination of expertise in information theory, hardware implementation, and IC design.

The core innovation of *COMSIS* is based on a technology known as space-time coding applied to multi-antennas systems. The *COMSIS* research team has demonstrated that, using multiple antennas at the transmitter and receiver sides, in conjunction with innovative signal processing at the receiver level, can separate mutually interfering signals thus increasing the capacity (throughput and range) proportionally to the number of antennas.

COMSIS benefits from exceptional patented Intellectual Property on space-time algorithms and modulation technologies. With more than 7 existing patents and an objective of filing two new patents per year, the barrier of entry for new competitors is considerable.

COMSIS designed and patented proprietary mathematical algorithms based on years of research, leading to realistic and embeddable codes that will dramatically improve the performances of 802.11n products.

COMSIS' core developments include advanced RF and Baseband signal processing algorithms as well as high system integration on silicon (SoC).

COMSIS is focusing on 3 activities:

- Developing partnership with companies involved in Wi-Fi market.
- Developing a demonstration kit with a COMSIS ASIC.
- Increasing Collaborative R&D projects, (RADIC-SF, SYSTEM@TIC) within the ANR (*Agence Nationale pour le Recherche, Oseo-Anvar*) to maintain its competitive advantages.

COMSIS has successfully exhibited its technology at CeBIT, IT-Korea fairs and demonstrated it to several accounts including France Telecom, Thomson., Alcatel, Samsung, LG...

COMSIS' interest in PRACOM

Pracom has assembled all the elements of the telecom value chain (users, operators, manufacturers, Labs, SMEs). Becoming a member provides COMSIS an opportunity to interface with the principal French telecommunications players and provides a venue for us to promote our technology.

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