

Company Overview

Addvalue Communications is a leading one-stop product developer for digital wireless communications terminals and related digital devices. Our strength lies in customising innovative solutions for a wide range of satellite communications applications. Our domain expertise in communications technologies, core competence in software defined radio, FPGA engineering, communication software protocols, embedded firmware, digital signal processing, RF, electronics hardware and mechanical design and development have led us to numerous proven commercial successes. Combined with our flexible outsourcing business models and development project management experience, we shall stand ready to assure excellent services and supports to our clients.

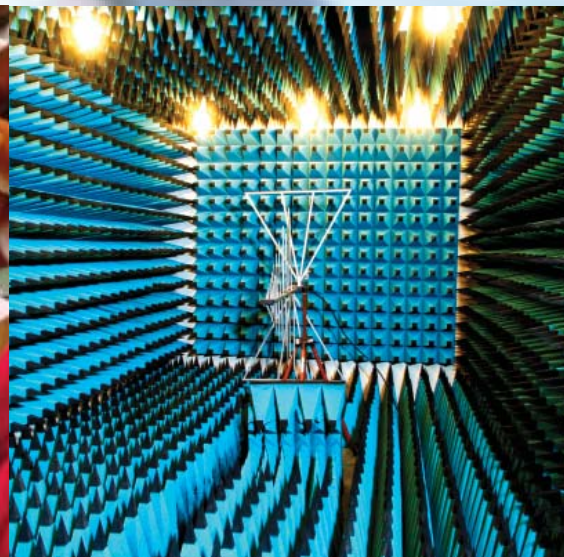
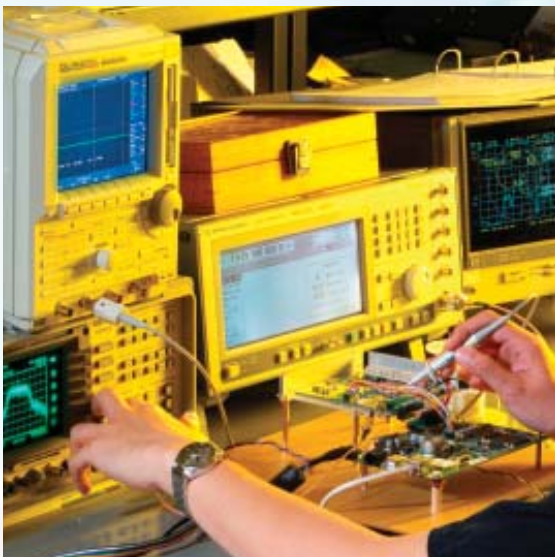
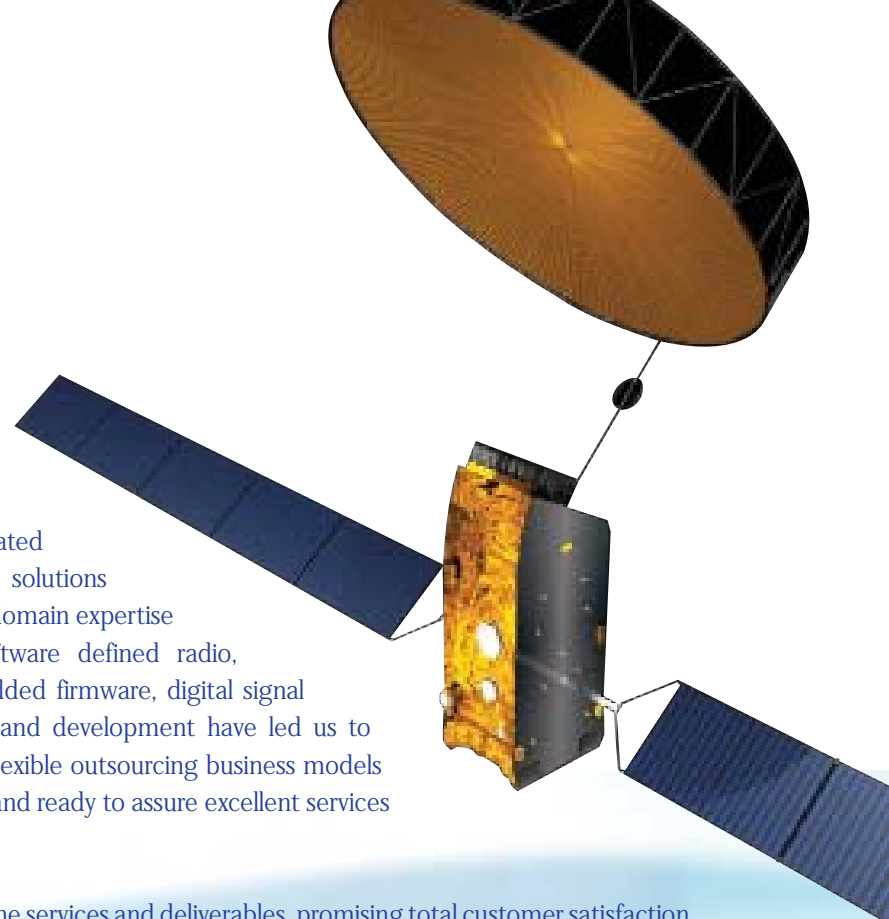
We are ISO9001:2000 certified and maintains high quality on-time services and deliverables, promising total customer satisfaction.

Our design services flow covers initial product conceptualisation, development and evaluation, qualification and regulatory approval, field trial, pilot run and mass production.



Our Capabilities

- Hardware and RF Design
- Baseband and FPGA Design
- Software Design
- Manufacturing Support
- Engineering Project Management
- Design for Manufacture
- Test Development for Production
- Quality Engineering



Our Technologies

RF and Antenna

RF competency includes RF analog front-end HPA and LNA design for high-power wireless products such as I-band satellite terminals. Proven capabilities in the design and development patch or omni-directional antenna, antenna integration and matching for a wide variance of fixed and mobile wireless terminals. Design and development of VHF to 5.6GHz products for consumer devices are well within the proven libraries of our RF capabilities

Baseband Processing

Strong domain knowledge of digital communications technologies and the application of software defined radio. Practical design expertise and development know-how for modern communications at system level and modular level systems. Competent in digital signal processing physical layer FPGA or DSP processor design to perform standard or bespoke solutions for digital signal processing modules such as up/down converter, I/Q modulation/demodulation, error correction coding/decoding, encryption/ decryption and voice coders

Embedded Telecommunications Software Development

Diverse development expertise in Embedded Telecommunications Software that includes embedded RTOS (e.g., VxWorks, WinCE.NET, e-Linux, etc.), Board Support Packages and Device Drivers for a wide range of low to high end processors, a wide range of Communication Protocols (e.g., DECT, Bluetooth, UMTS/3GPP, TCP/IP, VoIP, WiFi and other proprietary Communication Protocols etc.), Voice CODECs (e.g., AMBE+2, ADPCM G.726, SB-ADPCM G.722, etc.), a wide range of interface protocols (e.g., USB, PC, SPI, CAN bus etc.), Digital Signal Processing (e.g., Echo Cancellation), Encryption Techniques and Graphical User Interface.

Industry standard Software Development Processes are used with a strong emphasis on quality, software reusability and robustness. Emphasis is placed on comprehensive design, with rigorous reviews and fully automated host-based testing, leading to a more reliable product in a shorter lifecycle

High-speed digital electronics developments based on FPGA/CPLD are carefully done through the following process:

- Design methodology study:
 - IP block selection
 - FPGA selection
- VHDL/Verilog coding
- Simulation and verification (using test bench and software test suites)
- Development boards and system integration and test
- Functional system test and verification
- Floor planning and Place and Route for optimized performance
- Static timing analysis
- FPGA to ASIC transitions
- Optimisation and synthesis to target technology

In Addvalue, we have the expertise and intellectual property in the key building blocks of a typical wireless / RF communication product as represented in the block diagram.

For licensing of our IP, please contact us for more information.

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Hardware , FPGA Design and Board Level Development

Competent in developing circuitry for analog signal, power supply, logic control and device interface commonly used for most communications equipment. Proficient in designing multi-layer PCB layout utilizing modern design tools to achieve design goals for EMC/EMI conformance, manufacturability and testability.

