The backbone for SEAMLESS COMMUNICATIONS
Infineon is the Backbone for Seamless Communications

WE ENSURE OUR CUSTOMERS’ SUCCESS with seamless communication solutions through the talent, passion and commitment of our people.

INFINEON TECHNOLOGIES provides state-of-the-art communication semiconductor solutions offering customers maximum performance at optimum cost. Our highly integrated products enable services in the areas of broadband access, RF solutions and mobile phone platforms.

WE RECOGNIZE THE INCREASING IMPORTANCE of IP-based applications, a global platform for communication services, entertainment and the workplace. Infineon is playing a key role in driving this development by providing the architectural building blocks for global seamless communications.

TODAY, MORE THAN EVER BEFORE, end users wish to make use of advanced communication services, not only in their digital home but also beyond – anywhere, anytime, and with any end device. The demand for seamless mobility becomes a deciding factor. Here again, the Infineon integrated approach to connectivity is shaping the future of the communications world.

LOOKING TO THE FUTURE, we continue to increase the integration level of our solutions. Currently, Infineon holds the industry record in this respect – from our single-chip GSM / GPRS ultra-low-cost phone solutions, through the first ever single-chip EDGE phone and up to the HSPA solution (DL 7.2 Mbps; UL 5.8 Mbps). Our proven success in 65 nm technology and 45/40 nm roadmap ensure that our customers will continue to benefit from small footprint, cost-effective and highly efficient solutions well into the future.
We Offer Maximum Performance at Optimum Cost

Complete system solutions

OUR PORTFOLIO INCLUDES everything our customers require to get even faster to market. Infineon’s systems approach extends beyond the single chip. Our products stand for best-in-class performance, highest level of integration and cutting-edge technology. We offer our customers advanced chipsets, drivers, firmware, protocol stacks, application software, engineering support, consulting and ready-to-use communications platforms.

Quality you can rely on

CONTINUOUS PRODUCT INNOVATION is an integral part of our business. We adapt our product qualification processes to ensure customer success. Working closely with the customer, our quality management system focuses on listening to and fulfilling customer requirements through a win-win partnership. Our impressive quality management toolbox includes SixSigma, 8D-methodology problem solving, CMM Level 3 appraisal in software development and a company-wide CMMI compliance project. Other stringent conformance, interoperability and field tests prepare mobile phone platforms for fast product qualification and integration into the customer’s solution.
Bringing Broadband to Life

Broadband is reality in every home. With our end-to-end broadband access solutions we enable our customers to spearhead this evolution.

A partnership you can trust

The Broadband Access Market is growing at a fast pace fueled by value-added triple-play services of video, voice and high-speed data. Infineon drives this rapidly expanding market with its wide portfolio of broadband access, CPE, infrastructure, VoIP system-on-chip and home networking products. Through innovative processes and extensive knowledge of the market and its needs, we are able to design small, highly integrated, feature-rich and low-power silicon solutions addressing the needs of system manufacturers, telecommunication operators, service providers and end users.

Partnering with leading global telecommunication system providers and operators, the Infineon advanced xDSL, VoIP, TE carrier and voice access solutions beat at the heart of the world’s most advanced broadband systems. On the user side, our customer premises equipment (CPE) devices provide all the necessary building blocks for advanced integrated access devices. Incorporating single-chip DSL transceivers and multi-port VoIP ICs with wired and wireless routers and switches, Infineon offers its customers complete hardware / software ready-to-deploy reference designs to speed design cycles and shorten time to market.
Our range of broadband products and solutions

**DSLAM, DLC and MSAN (Multiservice Access Node)**
- Multi-channel, low-power ADSL2 / 2+
- Fully standard-compliant VDSL2
- Industry-leading SHDSL.bis
- Integrated Voice / Packet Voice and Data (IVD / IPVD™)
- ATM / Ethernet access processors for high density xDSL linecards

**Broadband CPE and Home Gateways**
- Single-chip ADSL2 / 2+ and VDSL2 IAD
- Complete IAD-on-a-chip solutions for all xDSL flavours
- High performance network processors
- Single-chip IP phone
- Real single-chip DECT / CAT-IQ™ solutions
- Comprehensive software suite
- Complete system designs including Infineon ISDN, POTS and DECT solutions
- 11 b/g WLAN technology

**Infrastructure**
- World-leading TE carrier solutions
- HDLC controllers
- Advanced codec / SLIC™ devices
- Complete ISDN product portfolio
- VoIP linecard solutions

CAT-IQ™ is the registered trademark of the DECT Forum.
CAT-IQ™ is the new global technology for broadband home connectivity.
Wireless Communication Over any Distance

THE KEY TO THE FUTURE in mobile communication – we are No. 1 in RF technologies.

Leading in RF technologies

INFINIEON OFFERS a wide range of scalable RF engines for all mobile standards. With an outstanding “first to market” track record, the Infineon SMARTi™ transceivers provide a comprehensive product portfolio for 2G, 3G, LTE and WiMAX covering multiband and multimode systems. The SMARTi™ portfolio is developed in CMOS technology, providing our customers with robust, power-efficient and cost-optimized RF solutions. The Infineon user-friendly reference designs for SMARTi™ transceivers enable a quick system implementation, ensuring fast time to market. Infineon’s strong RF capabilities enable the seamless system-on-chip integration of RF technology into Infineon’s basebands.

INFINIEON CUSTOM RF offers over three decades of experience in development, design and manufacturing of world-class communication systems. Foundry customers may access RF-CMOS, bipolar and SiGe process technology which have been developed in concert with the application-specific IP available. We are the best choice for lowest power, minimum leakage and noise-sensitive solutions. Superior process modeling, specialized design kits and communication system application knowledge lead to a short time to market and reliable cost-efficient manufacturing.

INFINIEON, with its OMNITUNETM portfolio of RF tuners, is the market leader in the digital terrestrial TV reception segment. The latest RF tuner devices can operate at low voltages that allow for a reduction in power consumption without compromising quality or performance. These new products are perfectly suited for both stationary and mobile applications such as high-quality display, mobile phone, in-car TV, laptop and other mobile devices. Infineon’s new OMNIVIATM mobile TV system-on-chip integrates the DVB-H/T demodulator, RF tuner and memory, making TV reception possible at any place and at any time.

INFINIEON IS A WORLD-LEADING manufacturer of RF power LDMOS semiconductors for wireless infrastructure and TV broadcast amplifiers. With our advanced LDMOS technology and thermally enhanced packages, we offer one of the most comprehensive product portfolios in the industry.
RF Solutions

Connectivity in Motion

Our range of RF products and solutions

RF Engine for Mobile Phones & High data-rate PC Cards
- Comprehensive leading-edge SMARTi™ transceiver portfolio for all mobile system standards (2G, 3G, LTE and WiMAX)
- Multiband and multimode HSDPA, HSUPA, Rx diversity
- Highest level of integration and lowest bill of materials
- FTA-compliant RF engines / RF reference designs
- BAW filter for performance-critical applications and mobile devices

Custom RF
- RF CMOS, bipolar, SiGe process technologies
- IP blocks
- ASIC design services
- Wafer manufacturing & test
- Assembly & test
- High-volume production
- Multi-Project-Wafers

Tuner – Mobile Phones, PDA, PC / Laptop, TV / Set-Top Box and Car TV
- Single-chip mobile TV tuner and demodulator for DVB-H / T
- Low power portable digital TV tuner ICs for DVB-T, ISDB-T, T-DMB and digital radio (DAB) standards
- Stationary TV tuner ICs for analog TV (PAL, NTSC), digital TV (DVB-T / C, ISDB-T, ATSC), digital / analog hybrid TV tuners and digital radio (DAB) standards
- Digital terrestrial and satellite TV for China (e.g. CMMB, DMB)

RF Power LDMOS Transistors and ICs
- Power levels from 10W up to 300W
- Frequencies from 450 MHz up to 2700 MHz
- Transistors with the highest peak power in the industry
- Complete RF power transistor lineups for all major cellular, wireless broadband and broadcast standards including GSM / EDGE, WCDMA, CDMA2000, TD-SCDMA, WiMAX, WiBro, UHF, DVB
- Integrated RF power amplifier ICs with operation from 700 MHz to 2.2 GHz
- Plastic and ceramic RoHS-compliant packages
- Reference circuits
Unlimited Ways of Staying in Contact

Setting the Integration Benchmark from single-chip integration to advanced 3G solutions – We are the trendsetters!

Cutting-edge mobile phone solutions

Leadership in Phone-on-a-Chip™. Infineon is a market leader in integrating cellular baseband, RF and power management into a single chip, enabling our customers to produce ultra-low-cost and ultra-slim phones which have the smallest board space, lowest bill of materials and best-in-class RF performance. Our 2nd generation single-chips X-GOLD™101 for ultra-low-cost GSM/GPRS phones and X-GOLD™206 for low-cost multimedia EDGE phones were the world’s first to ship. The VISION™ dual-core family offers integrated application processors supporting multimedia, audio, video and high level operating systems. Our next generation single-chips X-GOLD™213 and X-GOLD™113 take the integration one step further by including FM radio functions in the latest 65 nm CMOS technology targeting low-cost mass market multimedia phones.

Market-Proven 3G Solutions. Infineon’s current 3G platform XMM™6080 supports HSUPA up to 7.2 Mbps with outstandingly small footprint and extremely low power consumption. Our next generation platforms will take system integration, footprint and power consumption to new benchmark levels. The next generation 3G platform XMM™6180 consists of a single-chip baseband and power management unit together with the SMARTi™ UE RF transceiver, introducing new features such as HSUPA up to 5.8 Mbps. These platforms will be enhanced by state-of-the-art connectivity functionality such as BT 2.1, ultra-sensitive A-GPS and mobile TV, and they will pave the way for 3G single-chip and dual-core architecture platforms with integrated connectivity technologies.

Multi-Standard Challenge. To address the need to support an increasing number of cellular, connectivity and multimedia standards in a mobile phone, Infineon now offers its innovative software-defined-radio technology. This programmable architecture allows implementation of a multitude of standards on a single piece of silicon by reconfiguring the signal processing paths via software. Ubiquitous communication and appealing features within the cost, size, and power constraints of mass-market mobile phones are now becoming reality.

Comprehensive Software solutions are provided by our COMNEON GmbH subsidiary. Comneon offers proven and cutting-edge software solutions for protocol stacks, multimedia and the IMS device framework. Our software is rigorously tested and designed to reduce customer time-to-market and R&D costs.
Continuous Innovations

Highly integrated 2G to 3G platforms

Ultra-low-cost Platforms
- Single-chip GSM / GPRS solutions
- Highest integration level, smallest board space
- Supporting color displays, FM radio, MP3 in smallest memory footprint
- Lowest bill of materials with 4-layer PCB

Low-cost Multimedia Platforms
- Single-chip low-cost EDGE / GPRS solutions
- VISION™ dual-core EDGE / GPRS solutions
- Low-cost HSDPA / EDGE solutions
- Provides a rich audio and video experience

Enhanced Feature Phone Platforms
- HSDPA 7.2 Mbps / HSUPA 5.8 Mbps
- 5 Mpix camera, high video performance of CIF / 30 fps
- HVGA displays
- USB high-speed OTG
- BT 2.1, A-GPS, FM radio, WLAN, DVB-H, NFC and WiMAX

Smartphone Platforms
- HSDPA 7.2 Mbps / HSUPA 5.8 Mbps
- Smartphone solutions with leading multimedia application processor partners
- Support for multiple HLOS – Symbian, Linux, Windows Mobile

Mobile software

Protocol Stack 3G – WCDMA Dual Mode Type II
- Modular Architecture with Layer 1 Control, Layer 2 and Layer 3
- 3GPP Release 99: WCDMA FDD with full Inter-RAT HO
- 3GPP Release 5: Supporting HSDPA
- 3GPP Release 6: Supporting HSUPA and MBMS

Protocol Stack 2G – EDGE / GPRS / GSM
- Scalable 2G Protocol Stack proven in mass production for more than 15 years
- 3GPP Release 5: EDGE with DTM Class 11
- 3GPP Release 4: EDGE Class B, Multislot Class 12, MCS 1-9
- 3GPP Release 99: GSM / GPRS

IMS Client
- 3GPP Rel.5 IMS device framework
- Mature and proven in many IoTs
- OMA-standardized PoC, Presence and Instant Messaging
- GSMA video and image sharing
- VoIP incl. supplementary services
- Fixed-Mobile-Convergence through NGN/VCC
The Future is Now

To create customer value and cost-effective solutions, we concentrate on our core competencies in hardware, software, systems and peripherals.

Share our vision for success. Being successful in today’s and tomorrow’s communication markets means being customer-driven, attentive to market needs and capable of acting quickly to meet any technological and business requirement. At Infineon we are committed to providing cost-effective solutions, and building trust through partnership-orientated business relationships.

The convergence of voice, video and data communication means that the sharp distinction between communication, computing and consumers will soon disappear. By offering all the necessary elements for future IP-based communication, Infineon is ideally positioned to drive this convergence towards seamless communication.

To secure their future in the communication market, companies are making Infineon their full-service partner of choice in the area of semiconductor products, software and solutions.