



IDS

Value innovation for emerging needs

Uncontested
silicon solutions
for wireless and
sensor systems





Our Company

- Founded in 1996 – roots back in 1982
- Privately owned – customer focused
- Resources of 15+ highly motivated and creative engineers
- Headquarters in Ljubljana, Slovenia
- Our products represent unique silicon system solutions for emerging wireless and sensor applications
- Our services cover any part of the value chain from system perception through chip design to final delivered products



Our Vision & Mission

IDS strives to make our customers most competitive in their current and emerging wireless- and sensor-based applications by providing uncontested system solutions.





Our Products

- Products (ASICs and ASSPs)
 - RFID and Related Wireless Products
 - Tags, RFID readers and near field communication (NFC)
 - Integrated Sensors
 - Magnetic field, capacitive sensing and photo detectors
 - Power Management
 - Step-up dc-dc converters and LDOs
 - Multi-Purpose Products
 - Ultra low power 8-bit microcontrollers



Our Services

- Design Services / IP Provider
 - From system level perception through chip design and layout to test and production transfer for best overall solution
 - System approach to assure most competitive solution
 - Fast to market through vast IP re-use
 - IPs protected through patents providing unique selling propositions to our customers
 - Incentive through customers success



Our Resources

- Flat organisational structure
 - Task and project focused
 - Team and network oriented
- Engaged groups of highly qualified and creative engineers who excel in system, analogue and mixed signal design
- Co-operation with external partners and resources
- Long term relationships with strategic semiconductor and OEM partners
- Custom CAD system interfacing industry standard tools (e.g. Cadence™) and wafer fabs
- Pool of future-oriented IPs and patents



Our Competences

- RFID and other related low data rate wireless technologies
- Sensors (motion control, positioning, interpolation)
- Low power consumption and power management for battery-operated devices
- Excellent control of board and chip layout and parasitic elements in RF systems
- Design expertise for automotive applications
- End-user/system approach for competitive solutions



Our Achievements

- First multi-protocol fully compliant ISO14443, ISO15693 and EPC RFID Reader
- Micro power ($<2\mu\text{W}$) LF, HF & UHF RFID tags
- Magnetic sensor systems ($<10\mu\text{m}$ spatial resolution)
- Capacitive sensing systems with $< 1\text{e}/\sqrt{\text{Hz}}$ noise
- 128 channel X-Ray sensor interface chip
- Best resolution integrated interpolators (x400)
- Worldwide first single-chip telephone IC



Our ASSP Roadmap

Product	Description	Status	Availability
IDS-EN40	Flash Converter /Interpolator (x40)	Samples	Now
IDS-EN400	Flash Converter /Interpolator (x400)	Samples	Q4/05
IDS-PM24	Step-Up DC-DC Converters	MPW	Q3/05
IDS-R13MP	Multi-Protocol 13.56 MHz RFID Reader	Samples	Q1/06
IDS-MC51	Ultra Low Power 8-bit Controller	Concept	Q3/06



IDS-EN40 Flash Converter/Interpolator

- Fast A/D Sine/Cosine to Digital Incremental Converter
 - Compatible with optical and magnetic transducer systems
 - Wide temperature range: -40 to +120°C
 - Selectable interpolation factor (up to 40 transitions)
 - Package: 20 and 24 pin TSSOP
 - Applications
 - Linear and rotary encoders
 - Optical systems – direct coupling to photo diodes
 - Magnetic systems
 - Availability: Samples now



IDS-EN400 Flash Converter/Interpolator

- Fast A/D Sine/Cosine to Digital Incremental Converter
 - Compatible with optical and magnetic transducer systems
 - Wide temperature range: -40 to +120°C
 - Selectable interpolation factor (up to 400 transitions)
 - Package: 32-pin TQFP
 - Applications
 - Linear and rotary encoders
 - Optical systems – direct coupling to photo diodes
 - Magnetic systems
 - Availability: Samples in November 2005



IDS-R13MP 13.56MHz RFID Reader

- Multi-Protocol 13.56 MHz RFID Reader
 - ISO14443, ISO15693 and EPC compatible
 - Patented PM to AM conversion eliminating communication holes
 - Improved interference rejection through patented AGC system
 - Package: 32 pin PQFP
 - Applications
 - Handheld and fixed position interrogators:
 - Logistics, manufacturing, security, transportation, leisure, laundry, tickets, library, passports
 - Availability: Samples and demo kit in November 2005



IDS-PM24 Series Step-Up DC-DC Converters

- For Single-Cell Battery-Powered Devices
 - Compatible with Maxim MAX1724EZK27/30/33
 - High temperature range: -40°C to +100°C
 - Step-up from 1.2V to 2.7V, 3.0V or 3.3V
 - Package: Thin SOT23-5 and SOT23-6
 - Applications
 - Portable and handheld devices:
 - Remote Controls, MP3 Players, PDAs, Personal Medical Devices, Remote Wireless Transmitters and Receivers
 - Availability: Samples in November 2005



IDS-MC51 Series Ultra Low Power Microcontroller

- 8-bit microcontroller for battery-powered devices
 - Supply voltage range 0.95 to 3.6V
 - Ultra-low power consumption
 - Active mode: 100 μ A @ 1MHz, 3.3V
 - Standby mode (RTC): 1 μ A
 - Off mode (RAM retention): 0.1 μ A
 - Compatible with 8051 development tools
 - Package: 28 pin TSSOP
 - Applications
 - Battery-powered portable and handheld devices:
 - Remote Controls, MP3 Players, PDAs, Personal Medical Devices, Remote Wireless Transmitters and Receivers
 - Availability: Samples in September 2006



You have to **create**
something **new**
to see
something **new**

www.ids-microchip.com

Thank You!

