



# Investor presentation first half-year 2012

Conference Call July 24, 2012, at 11.00 a.m. (CET)



The following documentation contains forward-looking statements that are subject to certain risks and uncertainties. Actual results may differ materially from those anticipated in this presentation.



# Agenda

#### **Overview**

Markets

Products

Hall-effect sensors Embedded controllers for smart actuators Gas sensors

Customers

Financials



# **Micronas at a glance**

Known and recognized in the automotive and industrial business as a reliable global acting partner for intelligent, sensor-based system solutions

- About 900 employees worldwide
- Own wafer fab with 6" and 8" production line
- Backend operation including testing and packaging
- Zero ppm quality to ensure customer satisfaction
- Commitment to environmental protection









# **Group structure and locations**

Micronas Semiconductor Holding AG, Zurich, Switzerland Headquarters

Micronas GmbH Freiburg, Germany

Research & Development Marketing & Sales Production



Micronas Ltd. Glenrothes, Scotland Test center, Production

Micronas Japan K.K. Tokyo, Japan, Sales office

Micronas Villach Halbleiterentwicklungs GmbH Villach, Austria

Research & Development

Micronas New Technologies GmbH Munich, Germany Research & Development Sales

Sales offices across Europe

Sales office Shanghai, China Sales office Detroit, USA

Distributor base all around the world



# Micronas – first half-year 2012

- Micronas continued its positive performance trend and can look back on a good first half year
- Net sales increased by 9 percent to 87 million compared to previous first half-year
- Gross margin rose to almost 40 percent
- EBIT margin increased from 10 to 15 percent
- Profit was up from CHF 1 to 7 million
- Manufacturing areas in Freiburg ran above 80 percent capacity
- Short-time work at the Freiburg plant was terminated by end of June 2012









# Micronas – first half-year 2012, cont.

- New Innovation Center was founded in order to boost the innovative power
- R&D and marketing activities were increased to further strengthen our global market leader position
- HAL 24xy linear Hall sensor family was released to fulfill the increased demand for performance, safety and reliability
- First volume productions of embedded controllers based on the new QFN package line for automotive were shipped
- GAS 86xyB the second generation of the smallest and most efficient multi-parametric gas sensor platform – was announced
- CHF 0.05 per share was paid out to shareholders









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# Automotive – passenger car registration

New passenger car registration for first half-year 2012





# Market and technology drivers

Environmental protection	Increased demand for high energy efficiency and $CO_2$ reduction needs optimized sensors and actuator solutions, e.g. for engines, BLDC motors and HVAC systems
Economy	Reduced overall system cost enabled by highly integrated sensors and embedded controllers, e.g. increasing magnet costs can be compensated by higher sensitivity
Safety	Increased safety demand drive growth for novel, intelligent and redundant products and system solutions
Comfort and lifestyle	High levels of functionality, low power and small form factor enable new applications and comfort features



# **Automotive application segments**

High accuracy sensors designed to withstand harsh environments: Insensitive to vibrations, temperature drift and dirt



Chassis	Programmable sensor based solutions with
and body	integrated communication links provide
and body	flexibility



# Safety

Proven history of meeting Automotive's highest quality standards. Expanding portfolio addresses increasing safety requirements





# **Industrial application fields**

Heavy machines / factory automation

Highly reliable and robust sensors to meet the demands for long lifetime within harsh environments



# Building and home automation

Intelligent sensor and actuator solutions for smart automation networks to enable increased comfort and lifestyle



# White goods / home appliances

Wide range of cost-effective sensor solutions for eco-friendly home appliances at minimal size





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# Hall-effect sensors – technology

Hall-effect sensors are the technology of choice for contact-less sensing. Micronas, the pioneer of CMOS Hall sensors, continues to innovate in this field.

#### Introduction

- Contact-less sensing improves system reliability, especially in harsh environments
- CMOS technology is the most cost-effective method to realize Hall sensors
- High levels of integration enable sensors to configure to a wide range of applications
- Micronas has a strong track record of supplying sensors that meet the most demanding quality standards





# Hall-effect sensors – functions and applications

Micronas offers the broadest portfolio of Hall sensors for automotive and industrial





# Automotive and Hall-effect sensor markets





# **Embedded controllers – technology**

The actuator market is transitioning to BLDC motors. Micronas' highly integrated solutions enable cost-effective system implementation.

#### Introduction

- Specialized high voltage, analog and embedded flash CMOS processes uniquely serve the demanding requirements of a BLDC system
- Single package enables solutions to be realized in space constrained applications
- Micronas is uniquely positioned to combine two critical aspects of motor commutation – embedded control and Hall sensors – creating solutions that are unmatched in terms of power consumption and physical dimensions





# **Embedded controllers – applications**

Adaptive intelligent control of electrical current or speed in Automotive and Industrial applications.





# Automotive and BLDC motor markets





# **My SENS**<sup>®</sup> – Gas sensing technology

Gas sensors become digital: Micronas mySENS<sup>®</sup> gas sensing technology to overcome the limitations of existing technologies.

#### Introduction

- Digital ambient sensor platform with:
  - two independent gas sensors
  - integrated relative humidity sensor
  - integrated temperature sensor
- Target gases: detection of NO<sub>2</sub>, NH<sub>3</sub>, H<sub>2</sub>, VOC, CO, CO<sub>2</sub>
- CCFET sensor (Capacitive Coupled Field Effect Transistor)
- Manufactured in-house on Micronas latest CMOS technology and open QFN package





# **My SENS** – Gas sensing markets and applications

First digital gas sensor to diversify Micronas' product portfolio and target markets.

#### **Fire detection**



- Reduction of system size to almost invisible
- Improved false alarm security
- Long lifetime and low power consumption



- Comfort and energy efficiency in building automation
- Integration of climate control and air quality in a single device

#### Leakage



- High sensitivity to ambient trace gases
- Broad dynamic range of gas concentration
- Robust against overdose exposure



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# **Customer and distributor base**





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# **Micronas Group – segment information**

Mil./CHF	1st half 2012	1st half 2011
Automotive		
Net sales	81.0	72.6
Gross margin	33.0	25.9
in % of sales	40.8%	35.7%
Operating profit (EBIT)	13.9	8.5
in % of sales	17.2%	11.7%
Mil./CHF	1st half 2012	1st half 2011
Other segments		
Net sales	5.9	7.1
Gross margin	1.3	1.8
in % of sales	22.6%	24.7%
Operating profit (EBIT)	-0.8	-0.3
in % of sales	-13.5%	-3.9%







# **Segment Automotive – product lines**

Mil./CHF	1st half 2012	1st half 2011	Change in % based in CHF	Change in % based in EUR
Hall-effect sensors	76.1	65.2	17%	23%
Controllers	4.9	7.4	-34%	-30%
Total	81.0	72.6	12%	18%

Sales by product lines 1st half 2012





# **Micronas Group – regional information**

Mil./CHF	1st half 2012	1st half 2011	Change in % based in CHF	Change in % based in EUR
Europe	25.2	28.3	-11%	-6%
Asia	53.8	43.0	25%	32%
America	7.8	8.3	-6%	0%
Others	0.1	0.1	0%	0%
Total	86.9	79.7	9%	15%



Sales in Asia 1st half 2012



#### Sales in Europe 1st half 2012





# Micronas Group – order book

Mil./CHF	1st half 2012	1st half 2011		Book-to-bill
Orders on hand, beginning of period	47.5	62.7	ratio	
Net sales	86.9	79.7	1,2	
Order intake	97.3	61.6	1,0	I.
Translation adjustments	-0.5	-1.7	0,8	
Orders on hand, end of period	57.4	42.9	0,6 0,4	
Book-to-bill	1.12	0.77	0,2	
			0,0 L	

Increased orders on hand supported by customers extending their ordering horizon



# **Micronas Group – income statement**

	1st half 2012		1st half	2011
	Mil./CHF	in % of net sales	Mil./CHF	in % of net sales
Net sales	86.9		79.7	
Gross margin	34.3	39.6%	27.7	34.7%
Research & development expenses	-13.5	15.5%	-13.6	17.0%
Sales & marketing expenses	-4.9	5.6%	-4.2	5.3%
Administrative & general expenses	-3.2	3.7%	-3.4	4.3%
Other operating inc./exp.	0.4	0.5%	0.7	0.9%
Operating profit before restructuring	13.1	15.1%	7.2	9.0%
Restructuring	0.0		1.0	
Operating profit (EBIT)	13.1	15.1%	8.2	10.3%
Financial income/expenses/FX net.	-5.5		-6.8	
Pretax profit	7.6	8.7%	1.4	1.7%
Income taxes	-0.6		-0.1	
Profit for the period	7.0	8.0%	1.3	1.6%
EBITDA	18.8	21.6%	16.8	21.1%
Earnings per share in CHF	0.24		0.04	



# **Micronas Group – balance sheet**

Mil./CHF	29.6.2012	31.12.2011
Total non-current assets	77.6	81.0
Cash and cash equivalents	159.5	156.2
Other current assets	43.8	43.8
Total assets	280.9	281.0
Total shareholders' equity	136.4	129.2
in % of total assets	48.6%	46.0%
Total long-term liabilities	119.5	123.1
Total current liabilities	25.0	28.7
Total liabilities	144.5	151.8
Total shareholders' equity and liabilities	280.9	281.0
Exchange rate EUR/CHF	1.2019	1.2162

Solid financial basis with total cash of CHF 160 million and shareholders' equity of CHF 136 million or 49 percent



# Micronas Group – trade net working capital

Mil./CHF	29.6.2012	31.12.2011
Inventories	23.3	24.5
Accounts receivable	16.0	15.7
Accounts payable	7.0	9.4
Trade net working capital	32.3	30.8
Exchange rate EUR/CHF	1.2019	1.2162

The trade net working capital represents 19 percent of last 12 months net sales



# **Micronas Group – cash flow statement**

Mil./CHF	1st half 2012	1st half 2011
Cash at the beginning of the period	156.2	165.4
Cash flow from operating activities	12.2	6.2
Cash flow from investing activities	-3.3	-13.6
Cash flow from financing activities	-4.6	-3.0
thereof distribution to shareholders	-1.5	0.0
thereof repayment of long-term liabilities	-3.1	-3.0
Exchange effect on cash	-1.0	-4.4
Change in cash	3.3	-14.8
Cash at the end of the period	159.5	150.6

Positive cash flow of CHF 3 million results in total cash of CHF 160 million



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- Micronas continued its positive performance trend and can look back on a good first half year
- With its excellent product portfolio and the consistent efforts to ensure quality and reliable delivery, Micronas is the global market leader for Automotive hall sensors
- Micronas is strongly investing in the development of new hall sensors for multi-dimensional magnetic field detection
- Micronas is expanding its product portfolio by adding embedded controllers for smart actuators and gas sensors
- Micronas has excellent access to future technologies
- EBIT-margin in the first half year reached 15 percent thanks to gross margin improvement









# **Guidance for full year 2012**

Despite the uncertain economic outlook, the Board of Directors and Management expect global demand for automotive products to hold firm in the second half of the year.







They expect to see:

- net sales of around CHF 170 million
- EBIT margin of about 15 percent