Living Automotive Excellence
On the way to Zero Defect products and services
Safety must never be compromised

The Most Valuable Aspect of Cars
Is the People they Carry
Infineon established the Automotive Excellence Program in 2003

Too Valuable to Compromise

Living Automotive Excellence
- to create a competitive advantage through excellent quality
- to exceed your quality expectations
Zero Defect products to guarantee the highest safety possible

1ppm (1 defective part per million) is close to Zero Defect. Would 1ppm not be enough?

Component

1 ppm components

ECU*

300ppm defect ECU*s

Car

15,000 cars defect out of 1,000,000 (1.5%)

*ECU: Electronic Control Unit

To guarantee highest safety, we need Zero Defect
Living Automotive Excellence means Zero Defect culture in all areas and business processes

The Automotive Excellence program is based on four central pillars

- People
- Products
- Production
- Processes
Our Way to a Zero Defect Culture
Your satisfaction has utmost importance

Zero Defect Event Day
5S Program
Error Proofing
Zero Defect Training
Zero Defect Poster Campaign
Internal Audit
Full Management Commitment
Quality Bonus

Zero Defect Culture
Excellent requirement management to ensure perfect fit for customer’s application

An excellent data sheet is required to develop an excellent product that fits your application
Only products with proof of design quality

Customer Requirements

Your advantage: Each of your requirements is reliably fulfilled

Data Sheet

almost automatically

Generic verification, validation plan

Experiments
Our products are robust in automotive environment

**Infineon OptiMOS™**
No delamination even after 260°C preconditioning and 1000TC with robust package
(TC = Temperature cycles)

**4 different competitors**
Total delamination already after 260°C preconditioning (red areas)

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**Your advantage: High reliability in the field**
APC in wafer processing means highest product quality through highest process stability.

**APC Advanced Process Control:**
Real-time monitoring of key process parameters.

Equipment control:
- temperature
- etching rate
- deposition rate
- contamination

**Process control:**
- metal thickness
- resist line width
- metal line width

**SPC Statistical Process Control:**
Control Limits and Process Capability cpk.
Highest outgoing product quality by intelligent outlier screening

Intelligent PAT* Screening

under SBA** control

with Pattern Recognition

*PAT: Part Average Testing; **SBA: Statistical Bin Analysis

"Normal" Yield Loss Pareto (per BIN, Test, etc.)

"Risk"
Our deliveries have passed all quality gates first time

Our Zero Defect Principle:
No Rework in Front End and Back End Production

Your advantage: You receive first-time right products
Sustainable problem solving: No Reoccurrence

- We follow the 8D (8 disciplines) systematics
- We focus on 7.D: Permanent corrective actions and standardization
- Systematic rollout of solutions to all relevant fabs and sites
- Longterm follow-up of preventive actions within Automotive Excellence Program

1D: Team
2D: Problem verification
3D: Containment action
4D: Root cause analysis
5D: Corrective action and verification
6D: Implementation of corrective action
7D: Prevention
8D: Congratulate Team

8D flow
Definitely Zero Defect is possible!

BTS6142D: High Current PROFET

- Switching current: 50 A
- Quiescent current: 2 µA
- Technology: Chip on chip
- Devices sold in 2007: 10 million

Number of fails in 2007: Zero
Products that run with 0 ppm – 1ppm ...

> 70% of automotive volume runs with Zero Defect
> 97% of automotive volume runs @ 1ppm or better

Note: Data for Automotive & Industrial products. IFX internal data
Our customers appreciate our results

“Supplier Performance Award” for the year 2008 from Continental (after acquisition of SiemensVDO)

German “TOPIT Award” for the year 2008 for the Automotive Excellence Program

“Hitachi Quality Award” for the year 2006 for achieving customer satisfaction

“Bosch Supplier Award” for the years 2005 and 2006

2006 Toyota’s Hirose plant awarded a prize to Infineon for the company's product quality excellence

"Good Quality Performance Award 2005"
This time in total 14 suppliers were awarded and IFX is the only foreign supplier.
Automotive Excellence is the differentiator for your business success

- Excellent Requirement Management
- Intelligent Outlier Screening
- Product Robustness
- Zero Defect culture
- No Rework

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Our Quality is clearly seen as industry benchmark by almost all of our automotive customers.

Our target of Zero Defect means for you:
- no quality events
- defect-free product launches
- automotive product quality of 0 defect parts per million
- low non-conformance costs
- highest quality image in your market
- more business due to satisfied customers.

Infineon’s Automotive Excellence Program is your competitive advantage
We commit.
We innovate.
We partner.
We create value.

www.infineon.com/automotive