RENESAS ELECTRONICS
QUALITY ASSURANCE SYSTEM

AUG. 27, 2020
QUALITY ASSURANCE DIVISION
RENESAS ELECTRONICS CORPORATION
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</tbody>
</table>
 QUALITY POLICY

Renesas Electronics Group

Quality Policy

We aim to deliver customer satisfaction and enhance society by providing highly reliable and high-quality products and services.

We abide by the following principles in all stages of our business activities—including sales, design, development and manufacturing—in accordance with our corporate quality management system. We will:

- Comply with all applicable legal and regulatory requirements
- Enhance product safety and trust
- Commit to continuously improve the quality of products and services
- Strive to continually improve our quality management system
## COMPANY PROFILE

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Renesas Electronics Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headquarters</td>
<td>TOYOSU FORESIA, 3-2-24 Toyosu, Koto-ku, Tokyo 135-0061, Japan</td>
</tr>
<tr>
<td>Capital Stock</td>
<td>22,213 million yen</td>
</tr>
<tr>
<td>Established</td>
<td>November 1, 2002 (Started Operation on April 1, 2010)</td>
</tr>
<tr>
<td>Major Operations</td>
<td>Research, development, design, manufacture, sale, and servicing of semiconductor products</td>
</tr>
<tr>
<td>Employee</td>
<td>18,958 (Consolidated, as of December 31, 2019)</td>
</tr>
<tr>
<td>Representative Director</td>
<td>Tetsuya Tsurumaru, Representative Director, Chairman Hidetoshi Shibata, Representative Director, President and CEO</td>
</tr>
<tr>
<td>Stock Code</td>
<td>Tokyo Stock Exchange, First Section (Since July 24, 2003, TSE:6723)</td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.renesas.com">www.renesas.com</a></td>
</tr>
</tbody>
</table>
RENESAS GROUP CORPORATE VISION AND MISSION

VISION

Renesas creates leading semiconductor solutions that spark innovation for a connected world, building a trusted brand we can be proud of.

MISSION

1. Drive progress toward a safer, healthier, greener, and smarter world.
2. Deliver creative semiconductor solutions and support that meet and exceed customer expectations.
3. Strengthen our offering to customers in focus segments through strategic partnerships, alliances and acquisitions.
4. Develop a global culture that encourages open communication, collaboration, and respect for diversity.
5. Seek continuous improvement in everything we do.
# LEADERSHIP AND ORGANIZATION STRUCTURE
## AS OF MARCH 27, 2020

**Tetsuya Tsurumaru**
Representative Director, Chairman

**Hidetoshi Shibata**
Representative Director, President and CEO
In charge of Quality Assurance Div.

Outside Director: Tetsuro Toyoda, Jiro Iwasaki, Arunjai Mittal, Selena Loh LaCroix
Outside Corporate Auditor: Kazuki Fukuda, Kazuyoshi Yamazaki (part-time), Noboru Yamamoto (part-time), Takeshi Sekine (part-time)

### Automotive Solution Business Unit
- **Shingo Yamamoto**
  EVP / GM
- **Tomomitsu Maoka**
  SVP *1
  Deputy GM
- **Takeshi Kataoka**
  Deputy GM

### IoT and Infrastructure Business Unit
- **Sailesh Chittipeddi**
  EVP *2 / GM
- **Hiroto Nitta**
  SVP
  SoC Business
- **Chris Allexandre**
  SVP
  Sales and Corporate Digital Marketing
- **Roger Wendelken**
  SVP
  MCU Business

### Executive Vice Presidents
- **Masahiko Nozaki**
  EVP
  Production & Technology (GM)

- **Shinichi Yoshioka**
  SVP & CTO

- **Shuhei Shinkai**
  SVP & CFO
  Corporate Strategy & Finance Accounting & Control HR & General Affairs Supply Chain Management

- **Jason Hall**
  SVP & CLO
  Legal, Information System, Procurement

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*1: Chairman, Renesas Electronics (China) / *2: President, Renesas Electronics America
CEO: Chief Executive Officer / EVP: Executive Vice President / GM: General Manager / SVP: Senior Vice President / CTO: Chief Technical Officer / CFO: Chief Financial Officer / CLO: Chief Legal Officer
GLOBAL SALES NETWORK
AS OF MAY 6, 2020

- Global sales network operates in more than 20 countries
- Comprehensive R&D capabilities and support through the global network
GLOBAL MANUFACTURING NETWORK
AS OF JANUARY 1, 2020

- 14 manufacturing facilities owned in Japan, China, Southeast Asia, and the US
- Global partners' sites such as TSMC and GLOBALFOUNDRIES

Manufacturing sites (Front-end: 7)
Manufacturing sites (Back-end: 7)
Manufacturing and Engineering Services Companies

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ORGANIZATION OF QUALITY ASSURANCE DIVISION

Quality Assurance Division

- Strategic Quality Planning Dept.
- Quality Control Dept.
- Reliability & Failure Analysis Dept.
- Automotive MCU & SoC Quality Assurance Dept.
- Automotive Analog & Power Quality Assurance Dept.
- IoT and Infrastructure Quality Assurance Dept.
QUALITY ASSURANCE SYSTEM

We build quality into the products from the development stage, through continuous improvement of the production processes, in order for more competitive quality and reliability.

In addition to above, we have an established comprehensive quality assurance system with product quality monitoring and customer support on quality, serving for customer’s confidence in our products.

Customer Support
- Provision of Quality information
- Failure analysis
- Qualification support
- Quality meetings with customer

Customer Support ensuring customer’s confidence through provision of easy-to-understand documents and technical information, engineering support activities and quality support for customer.

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QUALITY ASSURANCE FLOW

Customer

- Sales and Marketing
- Customer Requirement
- Product Planning
- Development Requirements
  - Market Research
  - Product Planning
- Development
- Marketing Strategy

Renesas Electronics

- Design
- Review of New Product Development
- Design and Development
- Design Review
- Electrical Characteristics Approval
- Quality Qualification
- Process/Package Qualification
- Process/Package Design Approval
- Process/Package Structure Development

Engineering

- Quality Assurance
- Technical and Control Specification
- Release to Mass Production
- Quality Qualification
- Design Manual Establishment
- Trial Production

Manufacturing Plant

- Production Planning
- Production
- Inspection
- Production Order
- Sales Planning
- Quality improvement activity / quality information
- Failure analysis and corrective action
- Reception / Failure Analysis / Reporting
- Occurrence of failure
- Report
- Shipment

Incoming Inspection
- Inspection

Process/Package Structure Development
- Technical and Control Specification
- Release to Mass Production
- Quality Qualification
- Design Manual Establishment
- Trial Production
- Production Planning
- Production
- Inspection
- Production Order
- Sales Planning
- Quality improvement activity / quality information
- Failure analysis and corrective action
- Reception / Failure Analysis / Reporting
- Occurrence of failure
- Report
- Shipment
- Incoming Inspection
QUALITY ASSURANCE FLOW

- Customer Requirement
- Sales and Marketing
- Design
- Quality Assurance
- Engineering
- Manufacturing Plant

- Planning
  - Market Research
  - Product Planning
  - Development Requirements
  - Marketing Strategy
  - Review of New Product Development
  - Design and Development
  - Design Review
  - Process/Package Structure Development
  - Process/package Design Approval
  - Process/package Qualification
  - Design Manual Establishment
  - Trial Production

- Development & Design
  - Electrical Characteristics Approval
  - Quality Qualification
  - Release to Mass Production
  - Technical and Control Specification
  - Production Planning
  - Incoming Inspection
  - Production
  - Inspection

- Mass Production
  - Purchase Order
  - Sales Planning
  - Quality improvement activity / quality information

- Market & Customer
  - Shipment
  - Occurrence of failure
  - Report
  - Failure analysis and corrective action
  - Reception / Failure Analysis / Reporting

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CUSTOMER COMPLAINT HANDLING

Customer

Sales Dept.

Complain (Product, Information)

Quality Assurance Dept.

Failure Analysis

Production Dept.

Root Cause Analysis

Prevention of Reoccurrence

Countermeasures

Design Dept.

Report

Report

Tracing and support for Countermeasure implementation

Quality Assurance Dept.

Report

Sales Dept.

Reply

Customer
CORRECTIVE ACTION TREATMENT FLOW

Customer

Renesas Electronics

Manufacturing Site

Quality Control Dept.

Engineering Dept.

Production/Relevant Dept.

Definition of abnormality judgment criteria

Occurrence of Abnormality

Cause Analysis

Retroactive Verification,
Identification & Isolation
of the affected products

Issuance of process non-conformance report

Notification on
Defective Product
Shipping

For defects that are due to
design issue and cannot be
closed at manufacturing site

Analysis,
Countermeasure Plan
and Determination of
Corrective Action

Outflow Alert

Spilled Out?

Yes

No

Decision of Treatment on Concerned Products

Instructions on the
product and process

Countermeasure on
Products / Process

Verification and Approval

Implementation of Corrective Action

Effect Evaluation

Horizontal Development of Corrective Action

Customer Quality Control Dept.

Engineering Dept.

Production/Relevant Dept.

Effect Evaluation

For defects that are due to
design issue and cannot be
closed at manufacturing site

Information on Cause
and Corrective Action
## ISO, IATF CERTIFICATION

### [Japan]

<table>
<thead>
<tr>
<th>Company</th>
<th>ISO 9001</th>
<th>IATF 16949</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Renesas Electronics Corporation</strong></td>
<td>Yes</td>
<td>(*)</td>
</tr>
<tr>
<td>Headquarters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Musashi Site</td>
<td></td>
<td>(*)</td>
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<tr>
<td>Takasaki Site</td>
<td></td>
<td>(*)</td>
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<tr>
<td>Naka Site</td>
<td></td>
<td>(*)</td>
</tr>
<tr>
<td>Yonezawa Factory</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Oita Factory</td>
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<td>Yes</td>
</tr>
<tr>
<td>Nishiki Factory</td>
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<td>Yes</td>
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<tr>
<td>Naka Factory</td>
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<td>Yes</td>
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<tr>
<td>Takasaki Factory</td>
<td></td>
<td>Yes</td>
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<tr>
<td>Shiga Factory</td>
<td></td>
<td>Yes</td>
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<tr>
<td>Yamaguchi Factory</td>
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<td>Yes</td>
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<tr>
<td>Saijo Factory</td>
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<td>Yes</td>
</tr>
<tr>
<td>Kawashiri Factory</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Renesas Semiconductor Manufacturing Co., Ltd.</strong></td>
<td>Yes</td>
<td></td>
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<tr>
<td>Naka Factory</td>
<td></td>
<td>Yes</td>
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<tr>
<td>Takasaki Factory</td>
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<td>Yes</td>
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<tr>
<td>Shiga Factory</td>
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<tr>
<td>Yamaguchi Factory</td>
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<td>Yes</td>
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<tr>
<td>Saijo Factory</td>
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<td>Yes</td>
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<tr>
<td>Kawashiri Factory</td>
<td></td>
<td>Yes</td>
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<tr>
<td><strong>Renesas Engineering Services Co., Ltd.</strong></td>
<td>-</td>
<td>(*)</td>
</tr>
</tbody>
</table>

(*): Remote supporting function.
## ISO, IATF CERTIFICATION

### [Global]

<table>
<thead>
<tr>
<th>Company</th>
<th>ISO 9001</th>
<th>IATF 16949</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renesas Electronics America Inc.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Renesas Semiconductor (Beijing) Co., Ltd.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Renesas Semiconductor (Suzhou) Co., Ltd</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Renesas Semiconductor KL Sdn. Bhd.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Renesas Semiconductor (Malaysia) Sdn. Bhd.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Renesas Semiconductor (Kedah) Sdn. Bhd.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Renesas Semiconductor Design (Malaysia) Sdn. Bhd.</td>
<td>Yes</td>
<td>-</td>
</tr>
<tr>
<td>Renesas Design Vietnam Co., Ltd.</td>
<td>Yes</td>
<td>-</td>
</tr>
<tr>
<td>Renesas Semiconductor Design (Beijing) Co., Ltd.</td>
<td>Yes</td>
<td>(*)</td>
</tr>
<tr>
<td>Renesas Electronics Europe GmbH</td>
<td>Yes</td>
<td>(*)</td>
</tr>
<tr>
<td>Renesas Electronics (Shanghai) Co., Ltd.</td>
<td>Yes</td>
<td>(*)</td>
</tr>
<tr>
<td>Renesas Electronics Taiwan Co., Ltd.</td>
<td>Yes</td>
<td>-</td>
</tr>
<tr>
<td>Renesas Electronics Singapore Pte. Ltd.</td>
<td>Yes</td>
<td>(*)</td>
</tr>
<tr>
<td>Integrated Device Technology</td>
<td>Yes</td>
<td>-</td>
</tr>
<tr>
<td>IDT Europe GmbH</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

(*) Remote supporting function.