Our suppliers are critical to our success in this very competitive environment. Strong relationships throughout the supply chain are the foundation from which we are building upon. Relationships are built with clear communication of expectations, alignment of goals, mutual trust and cooperation. The purpose of this handbook is to further communicate our expectations and establish a process that will successfully align your goals with ON Semiconductor’s “Plan to Win.” This handbook has been designed primarily for our suppliers of direct materials since they are a large cost component of our finished product. Many of the elements are applicable to suppliers of other goods and services as well. The Supplier Goal Plan described in this handbook will help us both prioritize and focus on common goals. By focusing on the same priorities, our expectation is we will meet or exceed our corporate objectives for cost, delivery and quality. The result we intend to achieve is continuous growth and success for ON Semiconductor and its suppliers.

Thank you,
Mamoon Rashid
Vice President, Procurement
Global Supply Chain Organization
ON Semiconductor (Nasdaq: ONNN) offers an extensive portfolio of power- and data-management semiconductors that address the design needs of today’s sophisticated electronic products, appliances and automobiles. The company’s technology portfolio is led by its power-management products that set the industry standard by reducing “leaky electricity” in everyday products and perform the precise management of power in today’s sophisticated portable electronic devices.

It is ON Semiconductor’s goal to develop a supply base that provides the quality, productivity, and cost of ownership that enable us to be competitive in the markets we serve. ON Semiconductor is committed to ensuring that our suppliers have a clear understanding of our expectations, and have the information required to successfully meet our needs.

PURPOSE

ON Semiconductor has created a Supplier Development Program that is designed with the goal of aligning suppliers with our corporate “Cycle of Success.” At the center of Cycle of Success is ON Semiconductor’s Core Values, every piece of the cycle of success represents an area how ON Semiconductor’s expectations of suppliers tie into the cycle of success.

The Supplier Development Program encourages constant communication between ON Semiconductor and our suppliers, which enables our suppliers to better understand the role they play in the success of ON for our mutual benefit.

We have several processes in place for managing and developing our suppliers. These processes are managed following internal work instructions. This handbook is provided to our suppliers so that they can better understand these processes and their interrelationships. Any questions regarding the content of this handbook should be directed to your local site contact.

There are five steps to the Supplier Development Program: Planning, Implementation, Measurement, Improvement, and Recognition Award. Each step has been developed with the total supply management cycle in mind, from the time the supplier is first introduced as a potential supplier to the time they become fully mature and require less guidance. This handbook outlines the steps of the Supplier Development Program and provides insight to how the program ties into ON Semiconductor’s “plan to win.”

The material in this handbook is intended for (but is not limited to) suppliers of direct materials.
Building quality relationships with other companies gives ON Semiconductor a competitive advantage.

We will make purchase decisions based solely on the best interest of ON Semiconductor. Suppliers win

ON Semiconductor business based on product or service suitability, price, delivery and quality. Purchasing agreements should be documented, and clearly identify the services or products to be provided, the basis for earning payment and the applicable rate or fee. The amount of payments must be commensurate with the services or products provided.

To insure requirements are fully met, it is necessary to flow down ON Semiconductor requirements to any sub-tier suppliers the 1st tier may choose to use in support of Purchase Orders placed by ON Semiconductor. 1st tier suppliers are fully responsible for the control of all work placed by them on such sources to ensure it meets both their and our defined requirements.

We will protect business partner information that is sensitive, privileged or confidential just as carefully as our own. Only those who have a need to know should have access to confidential information. In addition, we will take the steps necessary to ensure that our business partners protect the ON Semiconductor confidential information provided to them.

ON Semiconductor requires non-disclosure agreements to protect both ON and our suppliers in the event that confidential information is exchanged. The non-disclosure agreement must be in place and have the appropriate language stated within the agreement prior to the exchange of such confidential information. The confidentiality agreement does not serve as a contract between both parties for other purposes and does not substitute for agreements such as; a purchase agreement, consulting agreement, development agreement or technology agreement. A separate confidentiality agreement is not required if prior to the exchange of information, ON and our supplier have or will have entered into another form of agreement (e.g., a purchase agreement) which contains approved confidentiality language.

ON Semiconductor is devoted to Corporate Social Responsibility (CSR) tenets as outlined in the EICC (Electronic Industry Citizenship Coalition) Code of Conduct relating to environmental, health and Safety tents. In addition, ON Semiconductor to certify that its products are free from these restricted Materials and that all metals utilized in our products are sourced from conflict mines.

The supplier must conform to all environmental laws, regulations and social responsibility Requirements which are required in ON Semiconductor Corporate Social Responsibility Policy.

All purchased materials used in part manufacture shall satisfy current government and safety constraints on restricted, toxic and hazardous materials; as well as environmental, electrical and electromagnetic considerations applicable to the country of manufacture and sale. All purchased materials must conform to ON Semiconductor environmental requirements described in the latest revision of Product Chemical Content Brochure BRD8022/D (68MON39567E). Suppliers must be prepared to provide supporting evidence of conformance.

ON Semiconductor requires 100% on-time delivery performance from all suppliers. ON Semiconductor will monitor the supplier’s delivery performance and request corrective actions when appropriate.

Suppliers should take the necessary actions to avoid premium freight charges. In the event that premium freight cannot be avoided, the supplier shall contact

ON Semiconductor and receive approval prior to shipment. Failure to comply may result in premium freight charges debited to the suppliers account.
GENERAL EXPECTATIONS

QUALITY SYSTEM

Suppliers are expected to develop their quality systems to recognized industry standards such as, ISO9001, ISO/TS16949, etc. ON Semiconductor shall be afforded the right to evaluate and monitor the supplier’s quality system as needed. Suppliers that currently meet recognized industry standards but have a history of poor performance or chronic quality issues will be monitored and assessed to ensure proper improvement. Supplier must be prepared to provide the copy of the latest valid certification.

RIGHT OF ENTRY

Where specified by contract, ON Semiconductor and our customers shall be afforded the right to verify at the supplier’s premises that the supplier’s product conforms to specified requirements. Verification shall not absolve the supplier of the responsibility to provide acceptable product, nor shall it preclude subsequent rejection by ON Semiconductor.

BUSINESS CONTINUITY PLANS

All suppliers are expected to develop a documented business continuity plan that enables the supplier to continue to perform critical functions and/or provide services in the event of an unexpected interruption. These plans should be made available to ON Semiconductor upon request.

PLANNING

PURPOSE

The first step in Supplier Development Program is supplier selection. We must ensure that we only select suppliers that meet our expectations and have the capability to fulfill all of our requirements. The supplier selection process enables the Strategic Sourcing team at ON to review suppliers and select the most qualified based on the supplier’s performance and the needs of ON Semiconductor. Below is a general outline to the supplier selection process.

SUPPLIER SELECTION

The supplier selection process begins when the technology development group or one of ON’s manufacturing sites has a requirement for a new material, or we are looking for alternate sources of supply for existing materials. The Strategic Sourcing Managers will review the current supply base and determine if there are any current suppliers that can meet our business needs. Our goal is to direct new business to our key or approved suppliers. If the Strategic Sourcing Manager determines that our current supply base does not have the capability to meet our needs, a new supplier will be selected.

The Strategic Sourcing Managers at ON Semiconductor have the ultimate responsibility in selecting suppliers. There are several factors that are evaluated in the selection process. Examples of these factors are listed below.

- Does the supplier have the technology to meet ON Semiconductor’s needs?
- Is the supplier cost competitive?
- Is the supplier able to meet delivery/capacity requirements?
- Does the supplier agree to support value added service programs and initiatives?
- Does the supplier have the technical, physical and financial resources to support ON Semiconductor’s future demands?

Suppliers are also evaluated based on the status of their quality system. Supplier Quality Engineers (SQE) will either visit the supplier’s manufacturing site and perform an on-site assessment, or ask the supplier to perform a self-assessment. The assessment process is outlined on page 9 of this manual.

After the supplier has been evaluated and it is determined that the supplier meets ON’s needs, the supplier is asked to provide material to begin the product qualification process, according the applicable PPAP request.
IMPLEMENTATION

PURPOSE
The implementation step ensures that the supplier’s material and processes are properly qualified by ON Semiconductor. This step also ensures that there is a material verification process in place and that suppliers stay current with material specification revisions.

QUALIFICATION REQUIREMENTS
Qualification is always required prior to the first production shipment in the following situations:

Qualification initiated by ON Semiconductor:
- A new supplier
- A new part or material not previously supplied to ON Semiconductor
- A product modified by an engineering change (e.g.: design records, specifications, material)
- A material being re-qualified which was dis-qualified due to major quality problem or production delivery time lapse

Qualification due to a change proposed by a supplier:
A change in the manufacturing of the part or material, this may include but is not limited to:
- A change in a quality conformance procedure
- A change in the site of manufacture
- New tooling
- A change/addition/deletion of a process step
- A source change for raw material
- A change in raw material composition
- A change to handling, packaging or storage methods

Supplier Change Notification
Prior to implementing a change, the supplier must submit a change request to the SQE. The change request serves to document the following:
- A description of the proposed change.
- A list of part numbers affected.

- An explanation of the reason(s) for the change, including any benefits to ON Semiconductor.
- A proposed timeline for the implementation of the change.
- Supporting data such as: records of results, conclusions from the supplier site.

Once the change request has been reviewed and the change level has been determined, the Supplier Quality Engineering organization will provide an initial response to the supplier. This response will be one of the following:
- The proposed change is not significant and the supplier may proceed with implementation.
- The proposed change is significant (Minor or Major change) and will be approved for implementation once the conditions of the qualification requirements outlined in the change request are satisfied and approved by the CAB
- The proposed change is significant and is not acceptable to ON Semiconductor and may not be implemented on product supplied to ON Semiconductor.

In the event that qualification is required, the SQE will communicate all sample and data requirements and will provide final notification of approval.
MATERIAL VERIFICATION
To ensure our customers receive only the highest quality product, ON Semiconductor has developed a material verification process that verifies supplied material conformance to specifications. ON Semiconductor SQE’s will work with suppliers to implement one of the following methods of material verification:

- Receipt and evaluation of statistical data provided by the supplier
- Confirmation of C of C or C of A
- Second or third party assessments of supplier sites
- Receiving inspection and/or testing
- Part evaluation by an accredited laboratory

There are several factors that determine which method will be used. In general, for suppliers with demonstrated process capability we will utilize assessments, whereas receiving inspection or SPC data will be required for suppliers with unstable capability. When requested, suppliers are expected to provide statistical data and/or allow quarterly assessments at their facilities. Suppliers must maintain Cpk levels above 1.67 for critical parameters. Any exceptions must be reviewed and approved by ON Semiconductor.

SPECIFICATION DISTRIBUTION AND ACCEPTANCE
The data exchange ensures our suppliers stay current with applicable material specification revisions. Suppliers are subscribed to material specifications using the supplier’s email addresses. When changes are made to specifications the supplier will be automatically notified via email. Suppliers must assign contacts that will be responsible to distribute specification changes and releases throughout the supplier’s facility. These contacts must understand the urgency to specification changes and respond accordingly when first notified.

The data exchange system provides three different types of notices:

- New Subscription (Message that indicates that you have been subscribed to message)
- Activity (Message indicating that activity is occurring on a specific document)
- Subscribe (Message indicating that a new revision has been released)

The supplier will also receive, with the final notice, a Specification Acceptance Form. Suppliers must use this form to notify the SQE that they either agree to the changes that have been made or that they have found discrepancies within the document. If discrepancies are found, the SQE will work with the supplier to correct them and ensure the material specification is in-line with their capability.

CORRECTIVE ACTION AND PREVENTIVE ACTION (CAPA)
The supplier must have a Corrective and Preventive Action System that includes containment, root cause analysis, corrective action, effectiveness verification and prevention of recurrence. When ON Semiconductor issues a Supplier Quality Incident (SQIN) for material or product out of conformance, the supplier must provide the ON Semiconductor site contact with a containment action within 24 hrs a detailed corrective action plan (in 8D format) within ON Semiconductor required 10 days cycle time.
NON-CONFORMING MATERIAL CONTROL
ON Semiconductor will not accept material, which does not conform to specified requirements, and it may be cause for rejection and return to the supplier for credit or replacement, as mutually agreed.

Occasionally, however, a supplier may wish to submit variant material for consideration. To avoid rejection upon receipt, a request for temporary deviation from specification shall be submitted to ON Semiconductor prior to shipment of the material. This request will be evaluated, and only after a written approval from ON Semiconductor, the material can be shipped to ON Semiconductor. Lack of response from ON Semiconductor does NOT constitute acceptance of the non-conforming material.

PROCESS CONTROL
The supplier must have a documented process for planning and implementing production activities. Production must occur under controlled conditions using documented and revision controlled procedure, instructions, and reference material, as requested by the ISO9001 and ISO/TS16949.

INSPECTION & TESTING
The supplier must have a documented process to verify that all requirements for ON Semiconductor product have been met prior to shipment. Appropriate measurement and test equipment must be available, and record of inspection must be maintained. Should supplier subcontract to another party for measurement, supplier must insure the subcontractor is in accordance with these requirements and provide documentation to ON Semiconductor.

CERTIFICATE OF CONFORMANCE (C OF C)
The supplier must issue a C of C for each lot, run or batch of product shipped to ON Semiconductor stating conformance to the requirements stipulated in the PO, detail specifications and this document. The C of C elements may appear on a traveler or other documentation accompanying a shipment, but must satisfy the following minimum requirements:

- Manufacturer’s name and address
- ON Semiconductor’ or Customer’s name and address, as applicable to the shipment
- Part/Device identification
- Lot/date code(s)
- Quantity of devices in shipment
- Statement certifying product conformance and traceability
- Name and date of transaction
- PO number
- Specification number
- Drawing number, if applicable

CERTIFICATE OF ANALYSIS (C OF A)
Certificate of Analysis requirements will be specified in the PO or Procurement Specification and ON Semiconductor detailed specifications.

STATISTICAL PROCESS CONTROL (SPC)
Suppliers must be actively pursuing the use of SPC throughout their processes. Suppliers must send applicable statistical reports to governing site as defined in the appropriate baseline and/or procurement specification.

The supplier must be able to demonstrate continual improvement through the utilization of SPC methods ($C_{pk} \geq 1.67$).

An action plan shall accompany the report for all critical parameters with a $C_{pk} < 1.67$

CALIBRATION
Calibration of equipment used in the manufacturing of product for ON Semiconductor shall be in accordance with ANSI/NCSL Z540.1, ISO/IEC Guide 25 or other National traceable standard. Should supplier subcontract to another party to perform the calibration, supplier must insure the subcontractor is in accordance with these requirements and provide documentation to ON Semiconductor.
IMPLEMENTATION

MEASUREMENT SYSTEM ANALYSIS
Before a measurement system can be used to verify a DOS (Design Output Specification) on ON Semiconductor product, it must demonstrate required detection capability. The supplier should repeat gage R & R studies when warranted by measurement system change and have a systematic method to improve gaging.

DOCUMENT CONTROL
The supplier must have a documented process to ensure that quality system documents, design specification, and other product related documents are controlled. Controlled documents must be reviewed by appropriate personnel and approved prior to their release and use.

CONTROL OF RECORDS
Quality records shall be maintained in a manner so they remain legible and retrievable upon request. As a default, without product specific requirements, the supplier shall keep the quality records. These records also include inspections, tests, Material Review Boards, product/process/equipment qualifications. In case certain records need to be kept for a longer period, then this will be specified in the baseline requirements procedure or procurement specs.

MEASUREMENT

PURPOSE
ON Semiconductor utilizes several processes to evaluate and control our supplier’s quality systems and products. Business reviews, assessments, performance rating, and material verification are used to evaluate our suppliers performance to our expectations. Below is a brief outline of the controls that ON uses.

BUSINESS REVIEWS
On an annual basis, ON Semiconductor Strategic Sourcing Managers will schedule business reviews with key suppliers. The purpose of the meetings is to review items such as:

- Supplier Performance
- Progress toward established goals-SGP
- Assignment and review of action items
- Expectations
- Technical issues
- Cost reduction opportunities
- Market conditions
- Future demand
- New products and technologies
- Additional business opportunities
- Financial issues
- Corrective action status
- Premium freight
- Quality System

The supplier must retain quality records for the provided products(s) and each components/ material within those products for a minimum of 5 years after the last shipment.

IDENTIFICATION & TRACEABILITY
The supplier is obliged to ensure the traceability of the products, that it supplies. The traceability code shall be put on each of the packing boxes for every lot that is delivered.

The supplier must ensure that in the event an error is discovered, it will be possible to identify an isolate the defective products and therefore limit the quantities and period affected by the problem.

TRAINING
The supplier must have a documented process defining qualification and training record for all personnel. Training and certification activities must be planned, carried out, and documented.
The business reviews are essential in forming and maintaining a strong relationship with our key suppliers. Both the supplier and ON are able to communicate each other’s goals and identify opportunities for improvement.

QUALITY SYSTEM ASSESSMENTS

Supplier assessments are used as a systematic and independent examination to determine whether a supplier’s quality system meets the quality standard requirements. At ON Semiconductor, assessments of key suppliers may be performed in one of two ways, onsite assessments or self-assessments. Suppliers who are ISO/TS 16949 registered do not require periodic assessments, unless ON Semiconductor is experiencing chronic quality issues caused by the supplier (Example: Average yearly Total rating score < 65%, or Average yearly Quality rating score < 23%).

PERFORMANCE RATING

ON Semiconductor has developed a performance rating system that measures key suppliers in the areas of Quality, Delivery, Cost, Growth, and Service. The supplier’s performance is tracked on a quarterly basis and is frequently reviewed to ensure that suppliers are meeting ON’s needs. Each category is weighted based on the criticality to ON (Cost 30%, Quality 30%, Delivery 20%, Service 10% and Technology 10%).

The rating system also serves as a useful tool in tracking data in several ways such as:

- Tracking a supplier's progress
- Evaluating suppliers by commodity
- Evaluating suppliers by ON manufacturing site

The system works well and has become a useful tool in the supplier development process. Following is the measurement criteria defined for each area.
**MEASUREMENT**

**Quality**
- Incoming Quality Incidents
- Line Quality Incidents
- Repeat Quality Incidents
- Quality System Assessments
- 8D Responsiveness and Effectiveness

**Delivery**
- Stockouts
- Delivery Performance
- Capacity

**Cost**
- Price Leadership
- Participation in cost reductions
- Participation in Key Programs

**Service**
- Responsiveness

**Technology**
- Capability to meet current technology requirements
- Technology roadmap aligns with ON Semiconductor future technology

At the end of each quarter the Supplier Quality team will evaluate the performance of the key suppliers and notify the suppliers of the results (See Figure 3).

Suppliers with scores below 65% of Total scores and/or below 23% of Quality scores will have specific improvement action plan include onsite assessment.

---

**1) Silicon Wafer Supplier Performance Ranking**

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Gresham</th>
<th>Pocatello</th>
<th>Phx</th>
<th>Azu</th>
<th>Czech</th>
<th>Malaysia</th>
<th>Belgium</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>92</td>
<td>90</td>
<td></td>
<td>94</td>
<td>90</td>
<td></td>
<td></td>
<td>91</td>
</tr>
<tr>
<td>1</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>87</td>
<td>85</td>
<td></td>
<td>94</td>
<td></td>
<td></td>
<td></td>
<td>88</td>
</tr>
<tr>
<td>4</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Exceed the Goal and achieve over 90 points
2) Perfect score on Quality, Delivery, Service and Technology
3) Maintain high score since 2008

**2) Performance Rating Trend by Category**

<table>
<thead>
<tr>
<th>AAA</th>
<th>2008</th>
<th>Q1/09</th>
<th>New Criteria</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4 Q2/Q4/2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>COST</td>
<td>30%</td>
<td>20</td>
<td>23</td>
<td>30%</td>
<td>29</td>
<td>22</td>
</tr>
<tr>
<td>Quality</td>
<td>26%</td>
<td>26</td>
<td>26</td>
<td>30%</td>
<td>39</td>
<td>30</td>
</tr>
<tr>
<td>Delivery</td>
<td>24%</td>
<td>22</td>
<td>23</td>
<td>20%</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Service</td>
<td>16%</td>
<td>10</td>
<td>10</td>
<td>10%</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Technology</td>
<td>10%</td>
<td>10</td>
<td>10%</td>
<td>10%</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>86</td>
<td>91</td>
<td>100%</td>
<td>89</td>
<td>91</td>
</tr>
</tbody>
</table>

Figure 3. Supplier Performance Rating
IMPROVEMENT

PURPOSE
To remain competitive we must continuously improve our products and processes and work with our suppliers to improve them as well. To achieve this, ON Semiconductor has developed the Supplier Goal Plan (SGP). The SGP is used to prioritize goals and track progress. This process enables both the supplier and ON Semiconductor to work together and form the strong working relationship it takes to become a winning team.

SUPPLIER GOAL PLAN (SGP)
The ON Semiconductor SGP process is used to identify goals and opportunities for improvement based on the controls listed in the previous section (i.e. performance rating, assessments, material verification, etc.).

The process is simple. First, the Procurement Operations team within ON Semiconductor will evaluate the overall performance of the supplier. After opportunities for improvement or specific goals are identified, ON Semiconductor will schedule a meeting with the supplier to review the results. During this meeting, both parties will work together to develop and agree upon the SGP. This process ensures a working relationship between both parties and helps the supplier understand how they can improve their performance. The Supplier Goal Plan will be reviewed on a semi-annual basis minimum. Time will be set aside for suppliers to provide updates during scheduled business reviews or other previously scheduled meetings.
For a comprehensive listing of ON Semiconductor Sales Offices, please visit: www.onsemi.com/salessupport