

**QUALITY
ASSURANCE
MANUAL**

QUALITY ASSURANCE MANUAL

This manual has been reviewed and approved by the undersigned:

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SECTION
INTRODUCTION

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1.2.1 INTRODUCTION

Isolink is a manufacturer of optoelectronic components with emphasis in optocouplers for the hi-rel/military and hybrid industries since 1987. Isolink's headquarter is located at Milpitas, California.

1.2.2 ISOLINK QUALITY PROGRAM

This manual defines the Quality Program requirements used in Isolink to assure the highest levels of Quality and Reliability from our products. The program defined in this manual is written in general terms, which are in essential compliance with the requirements of the following specifications:

ISO 10012	Calibrations System Requirements
SAE AS9003	Inspection & Test Quality System Requirements
MIL-PRF-38534	General Specification for Microcircuits
MIL-PRF-19500	General Specification for Semiconductor Devices

Compliance with the appropriate referenced specification is essential to the Quality of Isolink's products. The functional implementation of the above specifications and the program stated in this manual are achieved through detailed procedures, work instructions, material drawings, and acceptance criteria generated by the various Engineering and Quality Departments. These provide the complete documentation for control of manufacturing, reliability and quality operations.

This manual provides for and defines the responsibilities, authority and organization for the Quality and Reliability function in Isolink.

1.2.3 REVISIONS

Major revisions to this manual will be approved by the company VP Engineering, Products engineering and the QRA Manager.

Minor revisions which do not materially change the content of this manual and which do not compromise the underlying policies require only the approval of the QRA Director.

Only controlled copies of this manual will be updated.

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REVISION HISTORY

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REVISION HISTORY

<u>SECTION</u>	<u>REV</u>	<u>ISSUE DATE</u>	<u>ECN #</u>	<u>DESCRIPTION</u>
ALL	0	6/30/89	-----	GENERAL RELEASE
ALL	1	3/24/94	280	ADD QA STAMP SAMPLE AND GENERAL RELEASE
ALL	1	1/2/97	296-A	NEW QA STAMP
4.3	1	10/24/98	303	EXCEPT SECTION 4.3 CHANGE TO REV. 2
ALL	2	1/30/03	720-A	UPDATE REF. SPEC.AND CROSS REF. SPEC.
2.6	2	3/29/06	770	SECTION 2.6 CHANGE TO REV. 2.1
5.5	2	2/12/08	843	PARAGRAPH 5.5.2.4 UPDATE REF. ANSI/ASQA Z1.4 CHANGE TO REV. 2.1
1.1, 1.3	2	6/25/10	945	Table of Contents, Revision Hist.Change to Rev. 2.1 and added Appen. D
All	3	9/8/10	959	Dept. head title update

SECTION
ORGANIZATION

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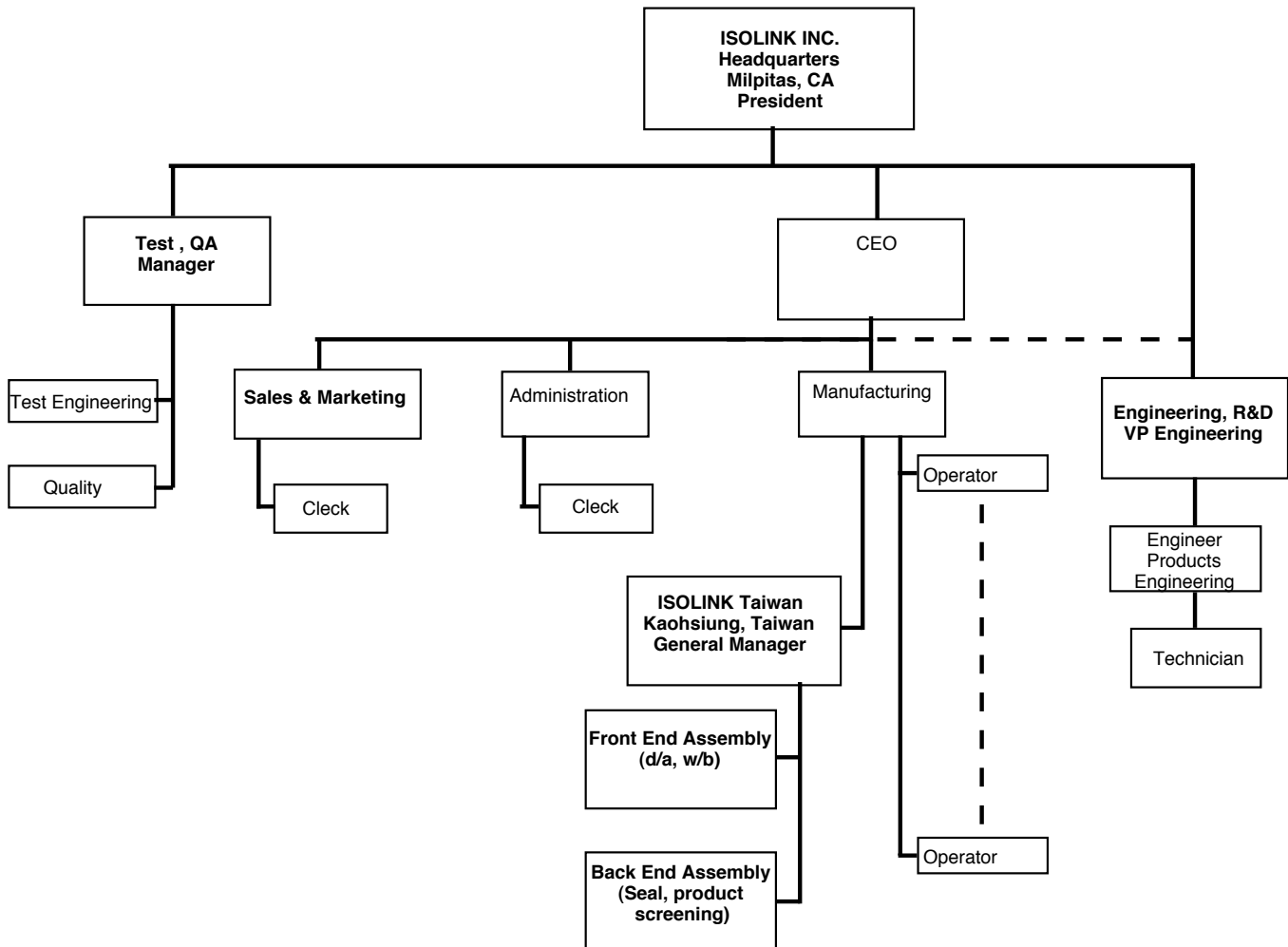
2.1.1 PURPOSE

To define the functional organization and reporting structure.

2.1.2 ORGANIZATION CHART

2.1.2.1 Functional organization chart

ISOLINK ORGANIZATION CHART



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QUALITY PLANNING

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2.2.1 PURPOSE

2.2.1.1 To define the duties and responsibilities of the Quality and Reliability Assurance Department in respect of Quality Planning.

2.2.2 SCOPE

2.2.2.1 The duties and responsibilities of the QRA Department, under the supervision of a Quality and Reliability Assurance Manager shall include, but not limited to :

2.2.2.2 Design and implementation of Quality Program to assure compliance to any accepted purchase order, drawing, specification, or any other customer document directly or indirectly applicable to the Quality or Reliability of Isolink product or materials.

2.2.2.3 Issue a QRA Manual and other documentation as required for the efficient operation of the Quality program in accordance with Isolink specifications and/or contractual requirements, as applies to the design and development, manufacturing, testing and inspection activities.

2.2.2.3.1 The QRA Manual is a compilation of Quality Assurance policies that establish the fundamental Quality Assurance objectives as defined in AS9003, MIL-PRF-38534 and MIL-PRF-19500.

2.2.2.3.2 This manual constitutes the Quality Program Plan.

2.2.2.4 Administer a statistical Quality Control Program to maintain controlled production processes and effective evaluation of the finished product.

2.2.2.5 Evaluate the Quality and Reliability requirements of contracts, field reports, customer complaints, etc., and maintain the necessary files and Quality feedback system. the objective is to provide for the timely identification and acquisition of any controls, processes, inspection equipment, tooling and skills that may be needed to ensure product Quality.

2.2.2.6 Ensure early detection and prevention of non-conforming products. Prepare and distribute reports on Quality problems to Manufacturing, Purchasing and Engineering for appropriated action.

2.2.2.7 Maintain an effective company-customer relationship with the customer Quality Assurance Representative.

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- 2.2.2.8 Continually review and revise all documents having a direct or indirect effect on the Quality of Isolink products in a timely manner to assure a flexible Quality Program and satisfy individual contract requirements. All procedure are accessible to ALL personnel performing work
- 2.2.2.9 The updating of inspection and testing techniques.
- 2.2.3 INDEPENDENT REPORTING
- 2.2.3.1 The Quality and Reliability Assurance Manager has direct, unimpeded access to top management on regular basic and shall report on the status and adequacy of the Quality Program.
- 2.2.3.2 The Quality and Reliability Managers shall be responsible for maintaining close liaison with Isolink suppliers and subcontractors to ensure understanding and conformance with Isolink Quality requirements.
- 2.2.4 QUALITY PROGRAM AUDITING
- 2.2.4.1 The Quality and Reliability Assurance Manager shall be responsible for ensuring the Quality Program, procedures, inspections, tests and outline in Section 2.8 of this manual.
- 2.2.5 QUALITY PROGRAM PLAN
- 2.2.5.1 This QRA Manual constitutes the standard Quality Program Plan for the manufacture of Isolink products. The Quality Program defined herein may be amended by a specific contract or purchase order, only to the extent that such requirements do not detract from the intent of this Manual.
- 2.2.5.2 The Quality and Reliability Assurance Department shall prepare, maintain and implement a Quality Program plan for individual programs, contracts, or purchase orders that require a specific Quality Program plan. The plan will be identified, and will be subject to approval by the customer or government representative, as appropriate.
- 2.2.6 QUALITY PROGRAM UPDATE
- 2.2.6.1 The Quality and Reliability Assurance Manager is responsible for the annual review and update of the Isolink Quality Program to ensure that it continues to meet the standards as define by:

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1. The referenced specifications.
2. Customer requirements.
3. Industry standards.

2.2.7 QUALITY PROGRAM COMPLIANCE

- 2.2.7.1 The QRA Manager is responsible for coordinating the compliance to these Quality Program requirements in all Isolink facilities, subcontractors, and vendors.

SECTION
WORK INSTRUCTION

SECTION 2.3 REV 3
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2.3.1 PURPOSE

2.3.1.1 To define the need for documented work instructions to ensure uniformity of understanding and performance, and continuity when personnel changes occur.

2.3.2 REQUIREMENTS

2.3.2.1 Documented instructions shall be prepared and maintained prescribing the performance of work in design, development, manufacture, test and inspection to the extent specified in Section 3.1 of this Manual.

2.3.2.2 These instructions shall include, but not be limited to, criteria for performing the work, defining the workmanship, defining the work flow, supervising and inspecting the work, and recording the results.

SECTION
RECORDS

SECTION 2.4 REV 3
EFFECTIVE DATE 9/8/10

2.4.1 PURPOSE

2.4.1.1 To provide objective evidence to substantiate that the Quality Program conforms to the requirements of the specifications and demonstrate that deliverable products meet the requirements of the purchase order, contract or catalog, and conform to the minimum Quality standards.

2.4.2 REQUIREMENT

2.4.2.1 Records shall be maintained, as a minimum, for incoming materials, design, manufacturing, test, inspection, training, failure analysis, calibration activities, approvals and waivers.

2.4.2.2 Design documentation shall include product definition (e.g. circuit design), design parameters, results of logic simulation and other design checking procedures, and the results of final product evaluation.

2.4.2.3 Manufacturing and test records shall permit subsequent verification that require operations were performed, equipment used, date(s) and type(s) and origin of materials used.

2.4.2.4 Inspection records shall, as a minimum, indicate the nature of the observation, the number of observations made, and the number and types of deficiencies found.

2.4.2.5 Records for inspection and testing shall indicate the inspection status and nature of corrective action if appropriate.

2.4.2.6 Calibration records shall contain, as a minimum, the requirements outlined in Section 3.2 of this manual.

2.4.2.7 Records shall be retained for a minimum of five years, and shall be available to the appropriate inspector upon request.

2.4.2.8 Sub-contractors and suppliers shall be required to retain records of their examinations, tests and revision level of process specifications whenever such records are considered essential to verify conformance to specifications.

SECTION
FAILURE ANALYSIS AND
CORRECTIVE ACTION

SECTION 2.5 REV. 3
EFFECTIVE DATE 9/8/10

2.5.1 PURPOSE

2.5.1.1 To identify conditions adverse to Quality in the areas of design, purchasing, manufacturing, testing or inspection, to analyze the cause and to implement actions necessary for correction.

2.5.2 REQUIREMENT

2.5.2.1 QRA shall operate a failure analysis function with supporting laboratory facilities.

2.5.2.2 Analysis shall be performed of IQC reports and vendor histories to establish trends and request vendor corrective action where appropriate.

2.5.2.3 In-Process QC data shall be used to detect and eliminate cause of nonconforming processes and product.

2.5.2.4 A continuing analysis shall be performed of product scrapped or reworked to determine the cause and corrective action needed.

2.5.2.5 Failures from product assurance testing shall be analyzed to determine cause and corrective action needed.

2.5.2.6 Customer returns shall be analyzed as required to determine cause and corrective action needed.

2.5.2.7 A formal system shall exist to issue corrective action requests when discrepancies are found, reference SOP-2-002 Corrective Action Specification and shall be used as a follow-up mechanism by management to ensure corrective action has been effected.

2.5.2.8 Where required by purchase order or specification, customers and/or the appropriate inspector shall be notified of nonconformance and the related corrective action.

2.5.2.9 When the corrective action requires notice to the customer or the potential recall of some product, it will be coordinated through the Marketing and Sales organizations.

SECTION
QUALITY COSTS

SECTION 2.6 REV 3
EFFECTIVE DATE 9/8/10

2.6.1 PURPOSE

2.6.1.1 To identify the quality related costs, and the responsibilities for collecting and reporting the data.

2.6.2 REQUIREMENTS

2.6.2.1 Cost data shall be collected in the Manufacturing and QRA areas, and shall be reported at appropriate intervals through the respective accounting department.

2.6.2.2 This data shall be made available to internal authorized Finance and/or Quality Assurance department.

2.6.2.3 The Accounting Department shall provide the following data to the extent that these costs are identifiable, quantified, and controlled:

- a) Cost associated with Quality Control at a vendor facility.
- b) Cost of material spoilage.
- c) Costs associated with the prevention of defects.
- d) Costs associated with the appraisal of product Quality.
- e) Failure costs, including costs associated with the correction of non-conforming materials and products, field returns, and warranty costs.
- f) Costs associated with general or specific Quality programs.
- g) Outside service charges for Quality testing.

SECTION
DESIGN CONTROL

SECTION 2.7 REV 3
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2.7.1 PURPOSE

2.7.1.2. To establish design control procedures necessary to ensure compliance with the Quality requirements of new products, purchase orders or contracts.

2.7.2 REQUIREMENT

2.7.2.1. General design procedures shall exist which as a minimum contain:

- a) Definition of functional responsibilities.
- b) The definition of packages, materials and finishes etc.
- c) The requirement for Reliability Qualification.
- d) The requirement for the timely review and implementation of the Reliability Program.

2.7.2.2. New product design flows shall include the following:

- a) Initial feasibility study and project approval.
- b) Project planning.
- c) Technical review, including product definition and the Objective Technical Specification.
- d) Definition of facility requirements for manufacturing, testing and reliability evaluation.
- e) Product documentation.
- f) Product and manufacturability evaluation.
- g) Reliability evaluation.
- h) Release to manufacturing.

SECTION
QUALITY AUDIT

SECTION 2.8 REV. 3
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2.8.1 PURPOSE

To define a policy for the periodic review and evaluation of all applicable functions and operations of Isolink, subcontractors and vendors.

2.8.2 REQUIREMENT

- 2.8.2.1 Line audits by In-Process QC comprised of audits of operators, processes, products, and documentation.
- 2.8.2.2 Quality audit personnel shall be responsible for providing audit schedules, not more than recommended 2Yrs. reporting audit findings, reviewing audit reports and providing recommendations and guidance in matters requiring corrective actions as a result of audit findings. They shall prepare periodic status reports of the overall Quality program and provide recommendations to the QRA Manager on related matters.
- 2.8.2.3 Quality audit personnel shall be responsible for the timely performance of scheduled and non-scheduled audits. Audit personnel shall independently observe the adherence to applicable procedures, tests and inspections to assure each area, department, or operation is performing in compliance with their written procedures.
- 2.8.2.4 In-process Quality audit personnel shall report, in writing, any and all deficiencies noted during their audits to their supervisor, who will review such findings and, if required, advise or make recommendations for the issuance of corrective actions.
- 2.8.2.5 Quality systems audit personnel shall report their findings directly to the affected department manager, and where necessary shall request corrective action.
- 2.8.2.6 Quality audit personnel shall assure the timely response from deficient operations and perform follow-up audits to assure that stated corrective actions have been implemented.
- 2.8.2.7 The performance of Quality audits shall be extended to all applicable departments, operations, and services, including subcontractors and vendors as required. These activities shall include, but not limited to:
- a. Quality planning
 - b. Personnel training and certification
 - c. Document control

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QUALITY AUDIT

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- d. Calibration
- e. Control of purchases
- f. Incoming inspection
- g. Production and QA testing
- h. Environmental control
- i. Material control, storage and handling
- j. Records
- k. Statistical control and analysis
- l. Customer returns and complaints
- m. Outside facilities

SECTION
RELIABILITY ASSURANCE

SECTION 2.9 REV 3
EFFECTIVE DATE 9/8/10

2.9.1 PURPOSE

2.9.1.1 To define the policy and controls which will ensure that products, processes and materials achieve Reliability objectives.

2.9.2 REQUIREMENT

2.9.2.1 Reliability planning shall encompass the entire product life cycle and shall extend to the requirements hereunder.

2.9.2.2 Reliability objectives shall be defined in accordance with contract requirements or industry standards.

2.9.2.3 Standards shall be established and documented in the form of design rules, manufacturing rules, and test specifications that will support and conform to Reliability objectives.

2.9.2.4 New product designs shall be subject to timely reviews to ensure that Reliability objectives are quantified and achievable.

2.9.2.5 Reliability qualifications shall include:

- a) Process Qualification: Evaluation of processes in the assembly and test areas.
- b) Product Qualification: Evaluation of new product designs by life and environmental tests.
- c. Material Qualification: Evaluation of materials for process changes and against environmental exposure to elements such as humidity, temperature, etc.

Additionally, all of the above requirements extend to subcontractor products and services.

2.9.2.6 Changes to products, processes, and materials shall be evaluated prior to the change being implemented to determine the validity of existing qualification data and the extent of any requalification.

2.9.2.7 On-going Reliability monitor programs based on generic families shall be maintained to ensure continued conformance to Reliability objectives.

2.9.2.8 A Reliability improvement program shall be maintained which employs data from failure analysis, generic data, IPQC reports, product evaluation and any other appropriate source.

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- 2.9.2.9 A reliability reporting program shall be maintained to provide visibility into:
- a) Qualifications
 - b) Monitors
 - c) Failure analysis
 - d) Demonstrated failure rates
 - e) Other reliability assurance testing
- 2.9.2.10 A generic data bank shall be maintained to demonstrate continued conformance with reliability objectives and contract requirements. Supplemental reliability testing shall be performed as necessary to complete the data bank.
- 2.9.2.11 New designs shall take cognizance of reliability data from previous designs.

SECTION
DOCUMENTATION AND
DRAWING CHANGES

SECTION 3.1 REV 3
EFFECTIVE DATE 9/8/10

3.1.1 PURPOSE

3.1.1.1 To define a policy for documentation and changing drawings and specifications.

3.1.2 SCOPE

3.1.2.1 The Documentation control and configuration control system shall allow for, but not be restricted to:

- a) Documents released and distributed.
- b) Configuration control of baseline documents
- c) Change control of specifications
- d) Storage and retrieval of all controlled documents
- e) Customer furnished specifications, drawings and change orders

3.1.3 REQUIREMENT

3.1.3.1 Any proposed changes to existing procedures shall be routed for approval as required by SOP-1-001, Specification System.

3.1.3.2 Document Control is required to adhere to the following procedures for maintenance of its existing functions:

- a) SOP-1-001 Specification System
- b) SOP-2-006 Drawing and Change Control.

3.1.3.3 Document Control shall be responsive to all governmental and contractual obligations as defined by respective military or customer specifications.

3.1.3.4 Customer requirements, in the form of purchase orders and specifications etc., shall be translated into internal procedures, lot travellers, etc. and subject to approval in 3.1.3.1.

3.1.3.5 Both "Controlled" and "Uncontrolled" documentation shall be administered by Document Control. For "Controlled" documents, Document Control shall insure that obsolete specifications are replaced with current issue documents at all appropriate locations. Only documents which are marked "Controlled" shall be used in the processing of products and services. "Uncontrolled" documents may be used as references in non-production oriented situations.

3.1.3.6 All appropriate documentation shall be available for review or use by the customer and maintained in either active or archive files for not less than 5 years.

SECTION
INSPECTION, MEASURING
AND TEST EQUIPMENT

SECTION 3.2 REV 3
EFFECTIVE DATE 9/8/10

3.2.1 PURPOSE

3.2.1.1 To establish the policies and procedures that will ensure the continued accuracy of inspection, measuring, and test equipment used in the manufacturing and test of Isolink products.

3.2.2 REQUIRMENTS

3.2.2.1 Programs shall be established to encompass the following areas:

- a) Preventive maintenance
- b) Repair of equipment
- c) Periodic calibration
- d) Records

3.2.2.2 The calibration program shall be distinct from repair and maintenance activities.

3.2.2.3 Calibration of inspection, measuring, and test equipment shall be performed through the use of an outside agency approved by Quality Assurance and shall be traceble to nationally or internationally recognized standard. Where such standard exist.

3.2.2.4 The approved vendor shall maintain environmental controls compatible with accuracy and design characteristics of the standards and equipment used.

3.2.2.5 The standards used by the vendor for calibration of inspection, measuring and test equipment, within the state-of-the-art limitations, shall have a tolerance no greater than 10% of the allowance tolerance for the equipment being calibrated.

3.2.2.6 Frequency of calibrations shall be determined by type of equipemnt, specified accuracy, use, history of drift between successive calibrations, and other conditions affecting measurement controls. The frequency shall be at least every 12 months unless otherwise noted on the individual equipment.

3.2.2.7 It shall be permissible to reference calibration procedures published by equipment manufacturers where these are considered adequate.

3.2.2.8 Permanent records shall be maintained for inspection, measuring and test equipment in the following activities:

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- a) Preventive maintenance
- b) Repairs
- c) Calibrations

The records should include, but not be limited to, the following information:

- a) Equipment identification number
- b) Condition or state
- c) Type or nature of service
- d) The results of calibration
- e) Any adjustments made
- f) Calibration standards used

- 3.2.2.9 All equipment shall be identified with a label indicating calibration status, due date of next calibration, and if applicable, the limits for accuracy or range.
- 3.2.2.10 Following maintenance or repair, equipment shall be subject to recalibration to the extent necessary prior to being allowed back in service. The extent of the recalibration shall be determined by the nature of the repair or adjustment.
- 3.2.2.11 Where applicable, the use of correlation samples will be used to perform functional tests of equipment on a defined basis. The use of automatic or self check systems may also be used.

SECTION
CONTROL OF PURCHASES

SECTION 4.1 REV 3
EFFECTIVE DATE 9/8/10

4.1.1 PURPOSE

4.1.1.1 To define a policy for the specification, inspection, handling, storage, and control of purchases.

4.1.2 REQUIREMENT

4.1.2.1 This policy extends to but is not limited to:

- a) Raw materials.
- b) Piece parts.
- c) Gases and chemicals.
- d) Sub-contracted products and services.

4.1.2.2 Procurement drawings and specifications shall be prepared for all purchases defined in 4.1.2.1 above. Minimum contents of procurement documents shall include materials, grade, dimensions, finish, inspection criteria, and other special requirements as appropriate.

4.1.2.3 Purchase orders shall clearly state the requirements, including provisions for source inspection at vendor's facility as required, and shall specify the numbers and revisions of all applicable procurements documents.

4.1.2.4 Changes to the revision status of drawings and specifications shall be communicated to vendors via amended purchase orders.

4.1.2.5 Purchase orders shall be reviewed for content by QRA.

4.1.2.6 A vendor qualification and vendor rating procedure shall exist, as required by Section 4.2 of this manual.

4.1.2.7 A procedure shall exist for the evaluation of materials prior to use.

4.1.2.8 A procedure for the timely notification of non-conforming materials shall be established. In the event of non-conformance, vendors shall be requested to establish the cause and implement appropriate corrective action.

4.1.2.9 Adequate provisions shall be made for the handling and storage of materials, as required by Section 5.3 of this Manual.

SECTION
VENDOR QUALIFICATION
AND SELECTION

SECTION 4.2 REV 3
EFFECTIVE DATE 9/8/10

4.2.1 PURPOSE

4.2.1.1 To define the procedure for the qualification and monitoring of vendors to supply materials and services which consistently conform to specification and purchase order requirements.

4.2.2 REQUIREMENTS

4.2.2.1 A qualified vendor list (QVL) shall exist in the Material Procurement Specification (MPS) for each procured material for vendors who have met qualification requirements for materials and services provided.

4.2.2.2 Vendors shall provide evidence of a Quality program which meets the intent of AS9003 and assures control of the supplies and services they provide.

4.2.2.3 A survey of the vendor's facilities and periodic audits shall be performed at the discretion of the QRA Manager.

4.2.2.4 Product Qualification and QVL listing will require successful qualification of two samples comprising:

a) Initial samples prior to delivery of production quantities.

b) Samples from one successive delivery lots.

4.2.2.5 Requalification shall be required under one or more of the following circumstances:

a) Three successive lot failures for the same reason.

b) Five successive lot failures for multiple reasons.

c) If no deliveries are received for a period of 1 year from the date of the last delivery.

d) Critical changes which, in the opinion of the QRA Manager, require requalification.

4.2.2.6 Vendors shall be notified via Purchasing of any changes in their status, including QVL listing, requalification or disqualification.

4.2.2.7 Source inspection shall be performed at a vendor's facility at the discretion of the QRA Manager, where this deemed critical to material or service provided.

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- 4.2.2.8 Vendors shall be required to notify Isolink of critical changes to products, processes or materials to facilitate a decision on the need for requalification.
- 4.2.2.9 A historical file shall be maintained detailing the performance history of all vendors and their products, and a vendor rating system established on this performance.

SECTION
INCOMING QUALITY CONTROL

SECTION 4.3 REV 3
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4.3.1 PURPOSE

4.3.1.1 To define procedures for the inspection, test, and disposition of incoming materials.

4.3.2 REQUIREMENTS

4.3.2.1 Incoming material shall be identified, direct material and QPL parts will be maintained in a separate storage area pending the completion of inspections and tests and determination of disposition.

4.3.2.2 Inspection, testing and physical and chemical analysis to determine conformance to specification shall be defined in the appropriate Material Procurement Specification, MPS.

4.3.2.3 Following IQC, materials shall be identified by a label, stamp, tag, or other suitable means which includes an indication of inspection status.

4.3.2.4 Non-conforming material shall be segregated and submitted to MRB for disposition. Rejected materials shall be returned to the vendor with a request for corrective action.

4.3.2.5 The results of all IQC inspections shall be recorded on an IQC report/log book.

4.3.2.6 Isolink will use paragraph 3.11 of MIL-I-45208 in Purchasing Documents when Government Source Inspections are required by P.O.'s.

SECTION
IN-PROCESS QC AND
MANUFACTURING CONTROL

SECTION 5.1 REV 3
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5.1.1 PURPOSE

5.1.1.1 To define the IPQC and Manufacturing controls which shall exist to detect, record and prevent the occurrence and recurrence of defects.

5.1.2 REQUIREMENT

5.1.2.1 Manufacturing control shall be established which shall include but not limited to:

- a. Assembly diagrams
- b. Flow charts, (-3 specifications)
- c. Outline drawings, (-1 specifications)
- d. Test and product specifications, (-5 specifications)
- e. Work instructions, (PS 6-XX.XX specifications), including criteria for acceptance and rejection
- f. In-process QC specifications, (PS 2-XX.XX specifications), including criteria for acceptance and rejection
- g. Special processing documents such as travelogs, bonding diagrams, and lot travellers for special requirements.

5.1.2.2 Unless otherwise specified by contract, product shall be grouped into rational lots or sublots dependent on one or more of the following as appropriate:

- a. Equipment
- b. Operator
- c. Time
- d. Traceability requirements

5.1.2.3 The following methods shall be employed to monitor and control manufacturing operations:

- a. Equipment monitors including verification of calibration, settings, and conditions.

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- b. Operator monitors to verify compliance with work instructions.
 - c. Environment monitors including but not limited to temperature and humidity.
 - d. Control of chemicals.
 - e. Process monitoring to verify conformance of the process to defined tolerances.
 - f. Product parameter monitoring to verify that the overall process meets the designed electrical parameters.
 - g. Periodic process requalification to verify that a process continues to meet its objective.
 - h. Product monitoring including lot or subplot acceptance inspections to verify conformance with specifications.
- 5.2.2.4 Discrepancies found in any of the IPQC or Manufacturing controls will result in corrective action being effected.
- 5.2.2.5 Records of all activities shall be maintained in the Manufacturing and IPQC areas and shall be used as evidence of conformance or non-conformance in addition to monitoring trends and costs.

SECTION
PRODUCT ASSURANCE

SECTION 5.2 REV 3
EFFECTIVE DATE 9/8/10

5.2.1 PURPOSE

5.2.1.1 To establish a policy to verify conformance of the product to data sheet, contract or specification requirements.

5.2.2 REQUIREMENT

5.2.2.1 Prior to shipment each lot will be inspected to ensure that:

- a. Product offered for shipment has been tested and is of the type and quantity designated by the purchase order, and will meet the requirements as defined therein.
- b. Product marking and external visual requirements have been met.
- c. The proper documentation is available and correct.
- d. Adequate packaging and labelling had been used in accordance with defined requirements.

5.2.2.2 Records shall be maintained of all inspections and tests.

5.2.2.3 Discrepant products shall be segregated for disposition and corrective action.

5.2.2.4 Only products which have been verified to comply with the full requirements of the contract or specification will be released to the finished product store for shipment to customers.

SECTION
HANDLING, STORAGE AND DELIVERY

SECTION 5.3 REV 3
EFFECTIVE DATE 9/8/10

5.3.1 PURPOSE

5.3.1.1 To define the policy for the preservation, packing, handling, storage and delivery of Isolink products and materials to provide the necessary protection to prevent their damage, loss, deterioration, degradation, and substitution.

5.3.2 REQUIREMENT

5.3.2.1 This policy applies to all materials and products including, but not limited to, the following areas:

- a. Incoming materials
- b. Work in process
- c. Storage and inventory control points
- d. Non-conforming materials
- e. Shipment to other facilities, including subcontractor's facilities

5.3.2.2 Material shall be segregated and adequately identified at all points with respect to type, quantity, location, source, and inspection status.

5.3.2.3 Proper environmental controls shall be used to prevent damage or loss due to deterioration, degradation, or corrosion, as appropriate to the nature of the material or product.

5.3.2.4 Adequate handling procedures shall be established to prevent abuse, misuse and damage. Materials and products will be transported and stored in approved boxes, bins, carriers, etc.

5.3.2.5 Identification of materials and product shall be verified at QC gates.

5.3.2.6 Store issues shall normally follow a first-in, first-out procedure in order to maximize stock rotation.

5.3.2.7 Materials or products having a limited shelf life shall be adequately identified, and procedures implemented to remove from stock and disposition by the termination date.

5.3.2.8 Materials shall be packed for shipment in a manner which satisfies all government, contract and carrier regulations, and shall be labelled with proper identification, handling, and warning information.

SECTION
NON-CONFORMING MATERIAL

SECTION 5.4 REV 3
EFFECTIVE DATE 9/8/10

5.4.1 PURPOSE

5.4.1.1 To define the policy for the evaluation and disposition of materials, products, processes and services that do not meet applicable specifications, drawings, quality standards, or other product requirements.

5.4.2 REQUIREMENT

5.4.2.1 Non-conforming materials and products shall be identified and segregated in suitable holding areas pending investigation of the cause and disposition.

5.4.2.2 Non-conforming processes and services shall require immediate investigation and determination of the effects on product quality. Any disposition of non-conforming materials other than "Scrap", "Return to Vendor", or "Rework to Full Drawing Compliance" must be submitted to customer for approval prior to continue processing. Based on this determination, one or more of the following shall apply:

- a. Revision of the process specification.
- b. Revision of the inspection criteria.
- c. Suspension of the process pending corrective action.
- d. Approval granted to continue processing for a limited period.

5.4.2.3 Where economically feasible, and with due regard to contractual requirements, nonconformances shall be investigated to establish the nature and cause, for the purpose of providing feedback and initiating corrective action. Additionally, consideration shall be given to the effect on other items from the same lot, process or service.

5.4.2.4 Material Review Board (MRB) procedures shall be established, reference SOP-2-003, Control of Non-conforming Material, for the purpose of determining disposition of non-conforming materials, products, processes and services. The MRB, as a minimum, shall consist of representatives from QRA, Manufacturing, Engineering, and customer as required.

5.4.2.5 Documented procedures shall be established to request concessions or waivers where appropriate.

5.4.2.6 Rework to full drawing compliance shall be performed in accordance with documented procedures, unless disallowed by contract or specification. The associated costs of scrap and rework shall be quantified and recorded.

5.4.2.7 Records shall be retained of the nature and extent of non-conformance, and the dispositions of associated materials and products.

SECTION
STATISTICAL QUALITY CONTROL

SECTION 5.5 REV 3
EFFECTIVE DATE 9/8/10

5.5.1 PURPOSE

5.5.1.1 To define the policy for the use of sampling plans and other statistical techniques to verify conformance to Quality levels consistent with required confidence levels.

5.5.2 REQUIREMENT

5.5.2.1 If permitted by contract, recognized sampling plans for attributes and/or variables shall be used in the areas of:

- a. Lot acceptance
- b. Destructive testing
- c. Quality conformance inspection
- d. Reliability and qualification testing

5.5.2.2 Choice of sampling plans shall take cognizance of the nature, size and homogeneity of lots, and accepted procedures of random sampling shall be observed.

5.5.2.3 Statistical Quality Control charts will be used when their use will provide effective control of Quality. Charts will be used and maintained at appropriate locations to provide maximum use as an action and defect prevention tool.

5.5.2.4 Maximum use shall be made of sampling plans and control charts published by recognized sources (e.g. ANSI/ASQC Z1.4, MIL-STD-105E, MIL-PRF-38534 Appendix B). Where use is not made of these documents, internally designed sampling schemes may be used provided they follow accepted statistical principles.

5.5.2.5 Statistical techniques for the presentation and analysis of data shall be used wherever such procedures are appropriate to maintain the required control of quality.

SECTION
INDICATION OF INSPECTION STATUS

SECTION 5.6 REV 3
EFFECTIVE DATE 9/8/10

5.6.1 PURPOSE

5.6.1.1 This policy establishes the method for identifying the inspection status of materials and products in all areas from incoming materials to outgoing shipment.

5.6.2 REQUIREMENT

5.6.2.1 Inspection status of materials and products shall be identified by means of approved inspection stamps applied to line documentation, inspection records, decals and shipment documentation.

5.6.2.2 Issues and withdrawals of inspection stamps shall be controlled and recorded through the Document Control Center.

5.6.2.3 Inspection stamps shall uniquely identify the inspector and their use shall be restricted to the assignee.

5.6.2.4 Withdrawn stamps shall not be re-issued for use for a period of one year following withdrawal.

5.6.2.5 Isolink inspection stamps shall not resemble government or customer stamps.

SECTION
CUSTOMER AND ISOLINK COORDINATION

SECTION 6.1 REV 3
EFFECTIVE DATE 9/8/10

6.1.1 PURPOSE

6.1.1.1 To establish the procedure for customer source inspection, equipment use, metrology requirements, and other contract related use or acquisition of equipment.

6.1.2 REQUIREMENT

6.1.2.1 Source inspection of contractor and subcontractor product or service shall be carried out in conformance with contract or procurement requirements.

6.1.2.2 The QRA Department will provide assistance and information to the customer Quality Assurance Representative (QAR) within the limits of the contract.

6.1.2.3 When required, Isolink measuring and test equipment will be provided for use by the customer QAR. Scheduling the time for use will be done with the appropriate department Manager. Only authorized, trained personnel will be allowed to operate the equipment.

6.1.2.4 The QRA Department will notify the contracting offices in a timely manner of any precision measurement need exceeding the known state-of-the-art or not meeting the 10% tolerance requirement of Section 3.2 of this manual.

6.1.2.5 By agreement with the QRA Manager, samples shall be supplied to the QAR on request for confirmatory testing either in-plant or at the customers' facilities.

6.1.2.6 Differences in test results will be resolved through the corrective action system.

SECTION
CONTROL OF GOVERNMENT &
CUSTOMER PROPERTY

SECTION 6.2. REV. 3
EFFECTIVE DATE 9/8/10

6.2.1 PURPOSE

6.2.1.1 To detail the procedure for controlling property owned by a customer or the government and is to be used by Isolink in the testing or inspection of products for that customer or the government.

6.2.2 REQUIREMENT

6.2.2.1 Upon receipt, all property furnished by the government or a customer shall be logged in and the following recorded:

Type of equipment
Equipment identification number
Condition of equipment
Calibration status
Name of customer or government representative

6.2.2.2 Care will be taken when handling and using this equipment to avoid damage due to storage, handling, and use.

6.2.2.3 A functional check will be performed to insure the equipment was received in good working condition. Equipment found to be operating improperly will not be used. A report indicating what problem was found will be sent to the customer or government representative.

6.2.2.4 Once accepted, the equipment shall be subjected to specified maintenance and calibration schedules.

6.2.2.5 Before returning the equipment, sufficient inspection will be performed to assure that the property is in good working condition.

SECTION
PREVENTIVE ACTION

SECTION 6.3. REV. 3
EFFECTIVE DATE 9/8/10.

6.3.1 PURPOSE

6.3.1.1 To detail the process by which the QA Department issues, Monitor and provides closure to Corrective Action Request (CAR).

6.3.2 SCOPES

6.3.2.1 It is the responsibility of the the QRA Manager or appointee to issue CAR's when process or quality system deficiencies is discovered. The QA Manager shall monitor activities performed in response to CAR's, and shall evaluate for effectiveness.

6.3.3 PROCEDURE

6.3.3.1 CAR's may be issued for a number of reasons by QA Manager or Appointee, including but not limit to:

- 6.3.3.1.1 Deficiencies in QA System
- 6.3.3.1.2 Non-compliance with Quality System
- 6.3.3.1.3 Ineffective procedure, policy, or instruction
- 6.3.3.1.4 Inadequate training
- 6.3.3.1.5 Uncontrolled documentation

6.3.3.2 CAR's shall be issued directly to the Dept. Manager(s) responsible for correcting the deficiency. the QA Manager or appointee shall audit the disposition of the CAR to ensure effectiveness, and shall document findings on CAR form.

6.3.3.3 QA Manager shall assign a due date to each CAR upon issu. The due date shall be of reasonable time allowed to complete the CAR, recommended not to exceed 30 days. Past due CAR's may be submitted by QA Manager to the VP & GM for disposition.

APPENDIX A

ISOLINK APPROVED FORMS AND STAMPS :

Incoming Material QC Inspection Report

Quality Assurance Outgoing Inspection

Nonconformance Material Report (NMR)

Material Review Board Report (MRBR)

Failure Analysis Form

Typical Assembly Diagram

Engineering Change Notice Form

Corrective Action Form

Lot Traveller

Isolink Test Specification

Isolink Approved Stamps

Q.A. Die Shear/Wire Bond Pull Test Data

Inspection / Test Data Report



INCOMING MATERIAL Q.C. - INSPECTIONS REPORT

date Rec'd _____

Vendor:	Part # Description
C O F C REQUIRED: YES <input type="checkbox"/> NO <input type="checkbox"/>	Quantity: Inv./Pack Slip P.O.#
C O D C #	

No of Lots:	Lot Nos:						
ANALYSIS Parameter	Spec. Drawing #	Lot Size	S. S.	AQL	A/R	Findings	Acc. Rej.

VISUAL							
ELECTRICAL							

SAMPLE FORM

<input type="checkbox"/> MRB Q.A. PURCHASING PRODUCT ENG.	<table style="width: 100%;"> <tr> <td style="text-align: center;">FINAL DISPOSITION</td> <td style="width: 50px;"></td> </tr> <tr> <td style="text-align: center;"><div style="border: 1px solid black; width: 150px; height: 60px; margin: 0 auto;"></div></td> <td></td> </tr> </table> <table style="width: 100%; margin-top: 20px;"> <tr><td>TO STORES</td><td>_____</td></tr> <tr><td>CONSUMED IN TESTS</td><td>_____</td></tr> <tr><td>SHORTAGE</td><td>_____</td></tr> <tr><td>R.T.V.</td><td>_____</td></tr> <tr><td>OTHER</td><td>_____</td></tr> <tr><td>TOTAL</td><td>_____</td></tr> </table>	FINAL DISPOSITION		<div style="border: 1px solid black; width: 150px; height: 60px; margin: 0 auto;"></div>		TO STORES	_____	CONSUMED IN TESTS	_____	SHORTAGE	_____	R.T.V.	_____	OTHER	_____	TOTAL	_____
FINAL DISPOSITION																	
<div style="border: 1px solid black; width: 150px; height: 60px; margin: 0 auto;"></div>																	
TO STORES	_____																
CONSUMED IN TESTS	_____																
SHORTAGE	_____																
R.T.V.	_____																
OTHER	_____																
TOTAL	_____																



**QUALITY ASSURANCE .
OUTGOING INSPECTION**

LOT #

date

Customer	Customer Drawing #	P.O. #
Isolink Part #	Quantity	C of C Required ? <input type="checkbox"/> Yes <input type="checkbox"/> No

ANALYSIS Parameter	Spec. Drawing #	Lot Size	S. S.	<input type="checkbox"/> LTPD <input type="checkbox"/> AQL	A/R	Findings	Acc. Rej.
VISUAL							
ELECTRICAL							
OTHERS							

SAMPLE FORM

MRB

FINAL DISPOSITION

Q.A. _____

Prod. Eng. _____

Mat'l. Cont. _____

TO STORES _____

CONSUMED
IN TESTS _____

SHORTAGE _____

R.T.V. _____

OTHER _____

TOTAL _____

NONCOMFORMANCE MATERIAL REPORT (NMR)

RMA# OR NMR# Date

PART #

LOT #

VENDOR Submitted By

CUSTOMER

Description Of Discrepancy

Disposition:

Accept Qty

Use As Is Qty

Rework Qty

Rework Procedure

Scrap Qty2

MRB#

QA Engineer Engineering

Purchasing (as necessary)

MATERIAL REVIEW BOARD REPORT (MNRB)

MRB# OR RMA# Date
NMR #
LOT #
VENDOR Submitted By
CUSTOMER

Description Of Discrepancy

Disposition:

Use As Is Qty
Rework Qty

Rework Procedure

Scrap Qty2

Corrective Action

QA Engineer Engineering
Purchasing

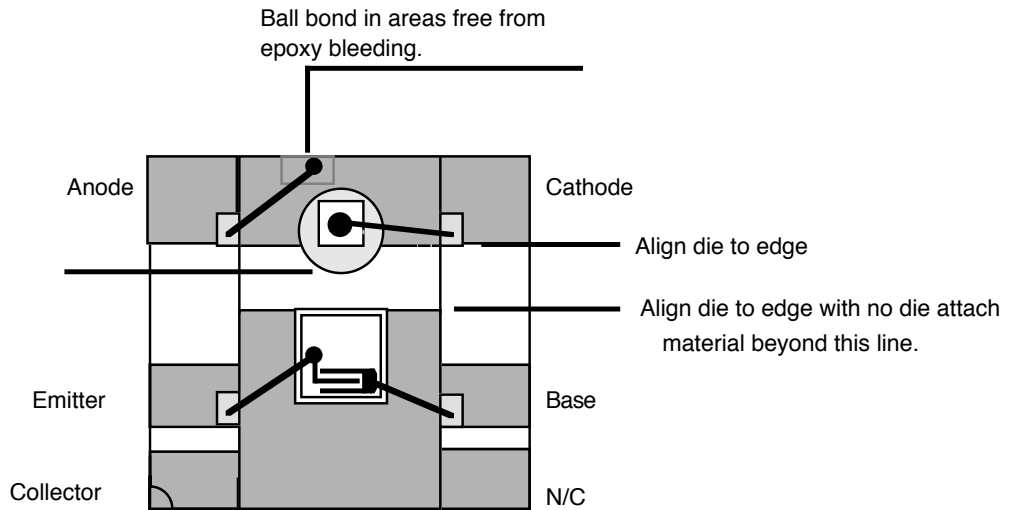
FAILURE ANALYSIS FORM

CUSTOMER	PRODUCT	DATE CODE	DATE
FAILURE MODE			
LOT QUANTITY	SAMPLE SIZE	REJECT	
APPLICATION/PRODUCT HISTORY		CUSTOMER CONTACT	
FAILURE ANALYSIS: <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.3; font-size: 48px; font-weight: bold; pointer-events: none;"> SAMPLE FORM </div>			
CONCLUSION:			
RECOMMENDED CORRECTIVE ACTION:			
Q A MGR. _____	PROD. ENG. _____	MANUFACTURING _____	CUSTOMER SERVICE _____

ASSEMBLY DIAGRAM

OLX - XXX - XX

REV	DESCRIPTION	DATE	APP




NOTE:

1. Wire bond to the inside edge of the bonding pad on the package as shown.

SAMPLE FORM

- PACKAGE -
- DETECTOR -
- EMITTER -
- WIRE -
- EMIT. D/A -
- DET. D/A -

DRAWN		 ISO LINK Inc.	
CHECK		TITLE ASSEMBLY DIAGRAM Sample	
ENG/DES			
APP'D			
FINISH		DWG.NO. OLI - 100 - ED	REV. 0
SCALE		SHEET 1 OF 1	



ECN# 1000
SHT OF

Date 1/22/2003

Initiated

Rev # To Rev. # Product Line (s)

Document #

Document Title

Changes Major Minor

AVAILABILITY OF EQUIP/MATL

Q.A. Data

Reason For Change

SAMPLE FORM

Parts on Order or In Current Inventory

Part# Description Value

Note Disposition

Spec. Originator Spec. sign. Spec. sign.

date date date



CORRECTIVE ACTION

DATE
PART#
LOT#

SUBMITTED BY

PROBLEM DEFINITION

CORRECTIVE ACTION

SAMPLE FORM

Q.A. ENGINEER

ENGINEERING

SUPERVISOR

PURCHASING

VENDOR

(for purchased parts)

ISOLINK TEST SPECIFICATIONS

CUSTOMER NAME:

DEVICE NUMBER:

REV:

CUSTOMER DWG:

REV:

DEVICE FAMILY:

NO.	TEST	CONDITIONS	TEMP C	PRODUCTION LIMITS		CUSTOMER LIMITS		UNIT	NOTE
				MIN	MAX	MIN	MAX		
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									

SAMPLE FORM

ASSEMBLY DIAGRAM:

FLOW CHART:

OUTLINE DRAWING:

NOTES:

QA ENGINEER: _____

ENGINEERING: _____

MANUFACTURING ENG. _____

**SAMPLES OF ISOLINK APPROVED
STAMPS AND LABLE**

ISOLINK DOC. CONT.	RELEASE PRINT		
	REV.	REL. DATE	REL. BY

CONTROLLED PRINT ISOLINK. INC.



REJECTED

JOB NO.	REJECTED	P. O. NO.
PART NO.	SERIAL NO.	
PART NAME		
NUMBER OF PIECES REJECTED		
REASON		
DISPOSITION:		
INSPECTOR		DATE



Q.A. DIE SHEAR/WIRE BOND PULL TEST DATA

DEVICE _____

LOT# _____

CUSTOMER _____

OPERATOR _____

DIE SHEAR TEST	SPEC. _____	DESPOSITION
-----------------------	-------------	--------------------

DATE	DIE TYPE	SI/DIE ATTACH MATERIAL REMAINING			
		≥50%	25% - 50%	<25%	0%
MINIMUM STRENGTH	_____				
1	_____				
2	_____				
3	_____				
4	_____				
5	_____				

DESTRUCTIVE WIRE PULL TEST

DATE	SPEC. Min 4gm _____	DESPOSITION
------	--------------------------------	--------------------

SAMPLE SIZE: _____ NUMBER OF WIRES TESTED: _____
 WIRE DIAMETER: _____ WIRE MATERIAL: _____
 MINIMUM STRENGTH: _____

UNITS #										
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

- LEGEND:
- | | |
|-------------------|--------------------|
| A - LIFT ON DIE | D - BREAK ON PAD |
| B - BREAK ON NECK | E - LIFT AT STITCH |
| C - BREAK AT SPAN | |

APPENDIX B
AS9003 CROSS REFERENCE TO ISOLINK DOCUMENTS

AS9003 PARA.#	Isolink QA Manual REV.2	Isolink Standard Operating Procedure	Isolink Process Spec.
4.1 Management Responsibility			
4.1.1	1.2.2	SOP-2-001	
4.1.2	2.2.2.1	SOP-2-001	
4.2 Quality System			
4.2.1	2.2.2.3.2		
4.2.2	2.2.2.7		
4.3 Contract review			
4.3.a		SOP-2-009	
4.3.b		SOP-2-009	
4.3.c		SOP-2-009	
4.5 Document and Data Control			
4.5.1	3.1.3	SOP-2-006	
4.5.2	3.1	SOP-2-001	
4.6 Purchasing			
4.6.1	4.1.1.1	SOP-2-010	
4.6.2	4.1.2.2	SOP-2-010 Par. 4.3	
4.6.3	4.1.2.3	SOP-2-011	
4.6.4		SOP-2-010 Par. 4.5	
4.6.5		SOP-2-011	
4.6.6		SOP-2-010	
4.6.7	4.2		
4.7 Control of Customer Supplied Product			
4.7	2.7	N/A	
4.8 Product Identification and Traceability			
4.8	5.1		PS-6-XX.XX
4.9 Process Control			
4.9.1	5.1.1	SOP-2-012, 013	
4.9.2	5.1.2	SOP-1-001 Par. 8.1.2	
4.9.3		SOP-1-001 Par. 8.1.2	
4.9.4			PS-6-05.01
4.9.5	N/A		
4.9.6		SOP-2-016, 020	
4.10 Inspection and Testing			
4.10.1		SOP-2-008	PS-6-12.01
4.10.2		SOP-2-009	PS-6-12.01
4.10.3		SOP-2-013	
4.10.4		SOP-2-013	
4.10.5			
4.12.2		SOP-2-004	
4.12.3	5.6.2	SOP-2-004	

APPENDIX B
AS9003 CROSS REFERENCE TO ISOLINK DOCUMENTS

AS9003 PARA.#	QA Manual	Isolink Standard Operating Procedure	Isolink Process Spec.
4.11 Control of Inspection, Measuring and Test Equipment			
4.11.1	3.2.1.1	SOP-2-020	
4.11.2	3.2.2.3	SOP-2-020 Par. 4.1	
4.11.3	3.2.2.9	SOP-2-020 Par. 5.0	
4.11.4		SOP-2-020 Par. 5.0	
4.12 Inspection and Test Status			
4.12.1	5.6.1.1	SOP-2-004	
4.13 Control Of Nonconforming Product			
4.13.1	5.4.1	SOP-2-003	
4.13.2		SOP-2-003 Par. 5.0	
4.13.2.1		N/A	
4.13.2.2		N/A	
4.13.2.3		SOP-2-003 Par. 5.0	
4.13.3		SOP-2-003 Par. 5.0	
4.13.4		SOP-2-003 Par. 5.0	
4.13.5		SOP-2-003 Par. 6.0	
4.14 Corrective and Preventive Action			
4.14.1		SOP-2-002	
4.14.2		SOP-2-002 Par.4.0	
4.15 Handling, Storage, Packing, Preservation, and Delivery			
4.15	5.3	SOP-2-014	
4.16 Control of Quality Records			
4.16.1	2.4		
4.16.2			
4.16.3			
4.17 Internal Quality Assessment			
4.17	2.8.1		
4.18 Training			
4.18		SOP-2-019	
4.19 Servicing			
4.19	N/A		
4.20 Statistical Techniques			
4.20.1	5.5		
4.20.2	5.5		

.....

APPENDIX C
ISOLINK STANDARD OPERATING PROCEDURES
INDEX

1.0 ADMINISTRATION CONTROL

SOP-2-001 Quality Assurance Organization
SOP-2-002 Corrective Action
SOP-2-003 Control of Nonconforming Material
SOP-2-004 Evidence of Inspection and Test
SOP-2-005 SOP Change Procedure
SOP-2-024 Product ID and Traceability

2.0 DESIGN CONTROL

SOP-2-006 Drawing and Change Control
SOP-2-007 Quality Assurance Instructions
SOP-2-008 Inspection and Test Documentation
SOP-2-009 Customer Specification Review

3.0 PROCUREMENT CONTROL

SOP-2-010 Procurement Document Review
SOP-2-011 Receiving Inspection

4.0 MANUFACTURING CONTROL

SOP-2-012 In-process Inspection
SOP-2-013 Final Inspection
SOP-2-014 Shipping Inspection
SOP-2-015 Material Control, Production Storage
SOP-2-019 Training & Certification of Personnel
SOP-2-020 Calibration of Isolink Internal equipment
SOP-2-021 Freezer monitor procedure

5.0 EQUIPMENT CONTROL

SOP-2-016 Electrical Test Equipment Calibration
SOP-2-020 Calibration of Isolink internal equipment

6.0 CONFIGURATION CONTROL

SOP-2-017 Customer Configuration Control Notification

7.0 ELECTROSTATIC DISCHARGE PROCEDURES

SOP-2-018 ESD Handling Procedures

8.0 TRAINING

SOP-2-019 Training and Certification of personnel

APPENDIX D

COUNTERFEIT COMPONENTS AVOIDANCE PROGRAM

Isolink Inc. is well aware of the issue with Counterfeit Components in the supply chain and Isolink Inc. has adopted the following measures to prevent the sale of Counterfeit Components under the Isolink brand name.

- 1) Engage in direct sale to OEMs. Where sale is via an authorized Rep, distributor or EMS, a letter of authorization from the OEMs is required.
- 2) All samples provided for Engineering evaluations or prototyping are documented.
- 3) Manufacturing is performed in Isolink facilities and all manufacturing fallout are destroyed by Isolink.
- 4) Components send to external contractors for specialized screening per MIL-PRF-38534 and MIL-PRF-19500 are returned to Isolink after the process and inspection.
- 5) Obsolete material is destroyed by Isolink.
- 6) Old Date Code Material and Surplus material are retained at Isolink Inc.
- 7) Retuned components are inspected.
- 8) Isolink Inc. purchases its build of material directly from OEMs and has a formal procedure for selecting, approving and monitoring its suppliers. Approved suppliers provide thier products with Certificate of Compliance (C of C). These C of C are retained on files for a minimum period of 5 Years.
- 9) Isolink ship directly to its end customers and no third party warehousing is utilized.

Should you have further questions or comment pertaining to Isolink Inc. Counterfeit Avoidance measures, please do not hesitate to contact us.

APPENDIX E

ES Standard Quality System Cross to Isolink Documents

PARA.#	QA Manual Rev. 3	Isolink SOP	Isolink Proc. Spec.
Scope			
1.1 Requirements		SOP-1-001	
Document Management Requirements			
2.1 Document Management	6.1		PS-6-XX.XX
2.2 Management of Records		SOP-2-009, 024	
Leadership Responsibility			
3.1 Objectives	1.2	SOP-2-XXX	
3.2 Configuration Control		SOP-2-006	
3.3 Leadership Commitment	1.2.2		
3.3.1 Commitment		SOP-2-009	
3.3.2 Ownership and Authorization	2.1		
3.3.3 Supplier/Contractor Communication	2.1	SOP-2-009	
Resource Leadership			
4.1 Provisioning		SOP-2-021	
4.2 Resources Capabilities		SOP-2-019	
4.3 Facilities			PS 2-14.05
4.4 Environment			PS 2-14.05
Product Fulfillment and Support			
5.1 Planning of Product Fulfillment and Support	4, 5		
5.2 Review of Requirements Related to the Product	4.1.2.2	SOP-2-010	
5.3 Procurement	4.2	SOP-2-010	
5.3.1 Procurement Process		SOP-2-010, 3-XXX	
5.3.2 Procurement Information			MPS XX.XX
5.3.3 Verification of Procured Product		SOP-2-011	
5.3.4 Supply Chain Process	4.2		
5.4 Manufacturing and Service Support	6.3		
5.4.1 Control of Manufacturing and Service Support	5.0		
5.4.2 Validation of Processes for Manufacturing and Service Support	5.0		

5.4.3 Identification and Traceability		SOP-1-XXX, 2-024	
5.4.4 Lockheed Martin and other Customer Property	6, 6.2		
5.4.5 Preservation and Storage of Product		SOP-2-015	
5.5 Monitoring and Measuring Devices		SOP-2-016, 2-020, 5-XXX	
Measurement, Analysis, and Improvement			
6.1 General		SOP-2-012	
6.2 First Article Inspection			PS 6.14.03
6.3 Monitoring and Measurement		SOP 2-008	
6.4 Sampling Inspection	5.5, 5.5.2.4		
6.5 Control of Nonconforming Product		SOP-2-003, 2-012, 2-013, 2-014, 2-015	
6.6.1 Corrective Action		SOP-2-002	
6.6.2 Preventive Action	6.3		