NOTES:

1. This working document is intended as a checklist for the assessor when conducting Testing Laboratory Accreditation Assessments according AS6171 Program Requirements. The ISO/IEC 17025:2017 checklist shall be utilized with this checklist.

2. Nonconformities shall be raised against the AS6171 Program Requirements, as applicable, along with ISO/IEC 17025:2017.

3. This checklist is only a tool and is not considered as the requirements of the AS6171 Program. If there is a disagreement between this checklist and AS6171 Aerospace Standard requirements as written in the AS6171 Rev. A document, the AS6171 Rev. A document shall prevail.

ASSESSMENT		
Number	**Type**	**Date(s)**
Standard(s):		
Team: (LA, TA, TE) (Lead)		
CONFORMITY ASSESSMENT BODY (CAB)		
Name	**Location(s)**	

AS6171A Clause	Summarized Requirement	Y/N NA	Objective Evidence/ Comments
3	General Requirements and Recommendations		
3A	Responsible Test Laboratory		
3A 1-5	An accredited “Responsible Test Laboratory” (RTL), who parts are sent by Requester to perform tests for suspect/counterfeit parts inspection, shall be the sole point of contact for the Requester for matters concerning the execution of those tests, including managing the overall test sequence and completing the formal test report or supplying any requested data. 1. RTL shall perform work according to Statement of Work (SOW) and/or Purchase Order (PO). 2. RTL shall perform the EVI Inspection part of AS6171/2 as a minimum even if not included in SOW or PO. 3. RTL may submit parts to a subcontracted lab for required testing if there are counterfeit detection methods in the SOW or PO for which the RTL is not accredited according to ISO/IEC 17025, or if the RTL prefers to do so. 4. RTL shall communicate with Requester to verify Test Requirements as specified in SOW and/or PO, including the tier level of risk associated with the parts (if provided). 5. If RTL subcontracts testing, RTL shall compile all subcontracted test reports/data into a single consolidated report/data package. RTL shall be responsible for providing the Test Report to Requester containing conclusion based on data from all tests results.		
3C	Test Lab Engineer’s Responsibility		
	Below are Test Lab Engineer’s responsibilities that apply to the RTL and specific requirements, when applicable, the subcontracted Test Lab: 1. Generate Test Plan and submit it to Requester for approval before commencing test activity unless Test Plan has been provided by the Requester. 2. Reach agreement with Requester on Data Retention Requirements. 3. Should be a member of one or more of the following organizations: GIDEP, ERAI, or ESCO-ACF. 4. Shall review pertinent GIDEP documents or ERAI problem reports or ESCO-ACF documents or other problem summaries on the specific part types, whether the information is or is not supplied by the User or Requester. 5. Perform Test, analyze results, and generate the Test Report.		
3.2	**Test Sequence Overview**		
	If an AS61771 Test Method is called out in the SWW or PO then that test methods shall be performed according to the requirements of the AS6171 Slash Sheet for that Test Method. If part of a specific test method is subcontracted to an approved secondary Laboratory, then a copy of the Test Sequence documentation shall accompany the devises to be tested.		
3.3	Testing Requirements and Minimum Tier Level Testing		
	For RTLs not provided with a risk tier level assessment by a Cognizant Engineer from the User organization, minimum testing required to be compliant to AS6171 shall be the Moderate Risk Level Test Sequence, Model 2.		
3.4	Suspect/Counterfeit (SC) Part Detection Sequence		
	SC Parts Detection Sequence has been established based on inspection and testing of parts by selecting the least costly inspections that are most effective, and easiest to perform first, and then to build		

AS6171A Clause	Summarized Requirement	Y/N NA	Objective Evidence/ Comments
	upon results of previous testing in accordance with the sequence to build confidence in the results. Appropriate test sequences are to be used. The lot testing shall be performed on a sample basis, as defined in the Sampling Plan If a suspect or counterfeit part is discovered somewhere sequence, results shall be documented, and the Requester notified. A decision should be made by the User or Requester in collaboration with the Test Laboratory to either continue further testing and to gather more evidence and confirm/negate the detection of a counterfeit part or stop testing and reject the lot. When possible, contact the Authorized Manufacturer to confirm test findings. If quality or reliability failures are detected in the lot, the results shall be documented, and the Requester notified if required under the terms of the PO or SOW.		
3.5	Sampling Plan		
	The sampling plan is derived from the General Specification for Microcircuits, MIL-PRF-38535, Appendix D. The plan uses the sample size series from MIL-PRF-38535, with an accept number, c, equal to zero failures of the counterfeit detection test. No indications that the part is suspect counterfeit, are allowed. If such an indication is detected and a part is determined to be a suspect/counterfeit part, then this part is considered to have failed the test and testing of the lot shall be halted. Upon notification, the Requester will have the option to resume testing. If testing is resumed, the Requester should decide if increased sampling or 100% of the lot should be tested, in consultation with the User or their Cognizant Engineer when possible.		
3.5.1	Standard Lot Sampling Plan		
	A Standard Lot is defined as any lot with more than 200 devices. The Standard Lot Sampling Plan shall, at a minimum, be in accordance with Table 8.		
3.5.2	Small Lot Sampling Plan		
	A Small Lot is defined as any lot with 200 or less devices. A Small Lot shall be tested, with c=0 acceptance level, using the Small Lot Sampling Plan in Table 9.		
3.6	Test Plan		
	When required by the Requester: A Test Plan shall be generated by Test Laboratory to document how it plans to implement SOW and/or PO. A device-specific Test Plan should be agreed upon between the Requester and Test Lab before testing is initiated. The specific details shall conform to the details outlined in Section 4, Suspect/Counterfeit Part Detection Test Methods, and shall follow 3.4, Suspect/Counterfeit (SC) Part Detection Sequence, for a given Risk Level Inspection if the Risk Level is specified by the Requester. The Test Plan should contain the information in Table 11, as applicable.		
3.7	Analysis and Interpretation of Test Results		
	An important constituent of the CP Inspection/Screening process is for the Test Laboratory to analyze the test results to prepare the final report. This effort should be made in consultation with the Requester and when possible, the User, if there is an indication of suspect/counterfeit part(s). This consultation effort is important in the event a suspect counterfeit part is discovered. This situation may require additional verification testing or documentation, if requested by		

AS6171A Clause	Summarized Requirement	Y/N NA	Objective Evidence/ Comments
	the Requester or User. The further effort to determine if a suspect part is counterfeit, (e.g., more verification testing, research, or documentation), may result in additional contractual scope. The Laboratory shall detail if: • it used an authentic sample as a comparison or • it used absolute measurements and compared the results to the SCD or data sheet limits or • it employed a combination of the two methods, or • it used consistency among the lot when a. and b. were not available. The specific details from the Requester regarding data requirements and results evaluation, outlined in the Test Requirements as part of the SOW or PO, shall be followed by the Test Laboratory. The Lab shall analyze any uncertainties in the measurements or limitations relative to the performance and resolution of the equipment		
3.7.1	Factors in Determination of Suspect/Counterfeit Parts		
	The following are some of the factors to be considered in determining if a part is suspect/counterfeit: One indicator from the parts or packaging may be sufficient if it is conclusive enough, such as a completely different die or no die in the package. At times, multiple indicators may not be adequate, as no single indicator may lead to a conclusive decision. Further testing may be necessary to better establish whether a part is suspect/counterfeit. The Test Laboratory should share early indicators with the Requester in consultation with the User when the User's identity is known to the Test Laboratory. The User or Requester may have more information on the lot of devices being inspected and may have access to the relevant Authorized Manufacturer for additional information. The Test Laboratory shall record and supply all relevant test data and relevant information collected during the investigation to the Requester in consultation with the User when the User's identity is known to the Test Laboratory to help in distinguishing potential quality issues from suspect/counterfeit issues. If the Test Laboratory determines that a part is suspect/counterfeit, then the Test Laboratory shall report this finding to the Requester. If there are enough indicators that lead to a conclusion with a reasonable level of confidence that the parts are more likely suspect counterfeit or counterfeit than not, then the Test Laboratory shall make a final determination of whether the part is suspect/counterfeit, utilizing all of the resultant test information and if possible, in consultation with the Authorized Manufacturer, and any other information obtained that is relevant to the investigation. If the indicator(s) lead to a conclusion that the parts contain quality issues, then the Test Laboratory shall document the quality issues in the final report and relevant information that led them to believe the final determination is quality related rather than counterfeit related. If parts do not exhibit indicators that lead to a conclusion with a reasonable level of confidence that the parts are suspect/counterfeit, then the Test Laboratory shall make a final determination that the parts passed required testing and that there was no evidence of counterfeiting		

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	based on the testing performed. The Test Laboratory shall include the final disposition statement that the parts passed required testing in the C of QC issued for the lot in accordance with 3.10.1.		
3.8	Test Reports		
	The Test Report shall be generated by the Test Lab Engineer to document how the Test Laboratory followed the Test Plan to implement the requested counterfeit parts inspection request from the Requester. The Report shall document the criteria as described in 3.7, Analysis and Interpretation of Results that yielded any test conclusions regarding the authenticity of the components under test. The specific details of the Report shall be in conformance with the details outlined in Section 4, Suspect/Counterfeit Part Detection Test Methods specified in the detailed Inspections. All detailed Inspections shall be documented, and the resultant report shall be a conclusion of all the individual inspection The Test Report shall contain the following elements, at a minimum: 1. Identifying information - Part name, part number, manufacturer, lot size, lot date code, lab report number, Test Laboratory Certification identification, customer name, date of analysis. 2. Test document name - Test Requirements contained in the SOW or PO. If additional testing is required, identify the tests and/or test document. 3. Revision number of the Test Requirements (if applicable). 4. Tier Level of the Test Requirements (if applicable). 5. Results - Indicate if the parts are “acceptable” or “not acceptable” on the basis of counterfeit risk. When there is evidence that the parts being examined are suspected of having been counterfeited using methods that are not detectable by the Test Sequence in the SOW or PO, it shall be documented in the test report. 6. The name (printed) and the signature or stamp (electronic or ink) of the individual(s) who performed each specific Test Method, and the name (printed) and the signature or stamp of the individual(s) authorized to accept and/or approve the test results, if different from the individual(s) who performed the test. 7. General description - This section provides a description of the analysis, the AS6171 Test Methods followed and revisions thereof used in the test evaluation, and the AS6171 General Requirements revision. Typical information included in this section would be the basic testing requirements, additional testing requirements, quantity of parts tested using each Test Method, any unique information provided (specific examples include part origin and previous testing known to have been performed on the lot(s) being evaluated), and any known risk mitigation information obtained in support of the analysis. 8. Summary - A narrative description of the findings for the analysis and the relevant measurement uncertainties and/or equipment limitations. This section would include observations related to part authenticity, part quality, and any other general observations. If the part is a programmable device, this section includes an indication of whether the part received by the Test Laboratory was blank or programmed. 9. Analysis history when available to the Test Laboratory - This section identifies any known history related to the part under analysis which influences the test plan and final test report conclusion. Examples may include: previous acceptable lots of the same part number or counterfeit parts identified (any previous associated test report number is to be provided for reference); GIDEP document number; or ERAI problem report summaries for the specific part type. 10. Detailed analysis description - This section provides a detailed description of all the analysis steps performed, including the actual sequence followed during the analysis, and the conclusions from the analysis. If testing is performed it must be reported and cannot be excluded.		

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	11. Datasheet or specification information - This section includes a copy of the datasheet or device specification, or excerpts of applicable sections of the datasheet or specification, as well as part dimensional data. 12. Subcontracted test results - If certain inspections are performed by subcontracted laboratories, the consolidated test report includes the following; a. The Subcontractor(s) Test Laboratory Certification information. b. The report/data provided by the subcontractor - the original report/data, or a copy of the original report/data with no modification or transcribing of the inspection and the test data. c. Include in the summary of test results an assessment of any discovery of a suspect/counterfeit part reported by the subcontracted test facility, regardless of whether the subcontracted test facility was contracted to perform the inspection and testing that detected the suspect/counterfeit part. The report also includes any recommendations for re-inspections and/or re-tests, based on information provided by the subcontracted inspection and test facility. 13. Test equipment list - This section includes a list of all test equipment utilized for the assessment. The list contains a description of the equipment, a unique ID number or serial number, and the calibration expiration date. For equipment that does not require calibration, the date should indicate “N/A”. For equipment that is calibrated for each use, the date should indicate “calibrated prior to use”, or “auto-calibrated”, as appropriate. 14. Images - Images are clear and focused and provide sufficient detail and resolution to clearly identify visual observations from the analysis. 15. For each specific Test Method, all unique or anomalous observations found during the testing. 16. Counterfeit Defect Coverage (CDC), Counterfeit Type Coverage (CTC), Under-Covered Defects (UCDs) and Not- Covered Defects (NCDs) for the tests performed, using either the tables in Appendix E (if applicable), or AS6171/1, or SAE Counterfeit Defect Coverage Tool. The Test Laboratory report shall become the intellectual property of the party procuring the test results.		
3.9	Training, Qualification, and Certification		
3.9.1	Personnel Training, Qualification, and Certification		
	All Personnel performing work affecting product quality shall be competent on the basis of appropriate education, training, skills and experience. The employer shall determine the necessary competence for personnel performing work affecting product quality in accordance with the following paragraphs and as specified in the applicable AS6171 Slash Sheet(s). In addition, the employer shall develop and maintain a written training plan for qualification and certification of employees whose job duties/responsibilities affect product quality.		
3.9.1.1	Written Training Plan		
	The written training plan shall include the following, as a minimum, applicable to all personnel performing work affecting product quality: 1. The levels of qualification and/or certification used by the employer 2. Duties and responsibilities for these personnel 3. Training and experience requirements for these personnel, including the specific courses required 4. Certification and recertification requirements 5. Records and record keeping requirements 6. Requirements for expiration, suspension, revocation, and reinstatement of certifications.		
3.9.1.2	Instructor Qualification and Approval		
	The employer shall document the suitability of any instructors selected to perform training and qualify/approve instructors based on their level		

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	of education, training, skills, and experience in the test method being trained.		
3.9.1.3	Outside Agencies or Consultants		
	The employer shall document the suitability of any outside agency or consultant selected to perform training, with sufficient detail to justify the outside agency or consultant's ability to perform the required training.		
3.9.1.4	Course Outlines		
	Each course in the training plan shall be conducted in accordance with a detailed course outline approved by the employer, to include at a minimum the following: 1. Basic theory 2. Test principles 3. Applicable specifications, codes, operating procedures, and work instructions 4. A list of reference material		
3.9.1.5	Qualification and Certification		
	The employer shall determine which job duties/responsibilities require qualification and/or certification. Qualification may be approved based on education, training, skills and experience. The employer may require examinations to evaluate and document qualification. Certification requires personnel to be qualified, and to pass written, practical and/or physical examinations to evaluate competency in their required job duties and responsibilities. Certification shall require periodic re-certification by examination, at a frequency to be determined by the employer.		
3.9.1.6	Examinations		
	The level of examinations shall be determined by the employer. Examinations may be written, practical or physical examinations, or a combination of these. Examinations used to verify the technical qualifications of personnel shall be made available to personnel only during administration of the examinations. A practical examination shall consist of a demonstration of proficiency in performing tasks that are typical of those to be accomplished in the performance of the candidate's duties. Practical examinations shall be administered using a checklist to assure adequate coverage and to assist in the administration and grading of the examination. If the candidate is required to demonstrate proficiency in the application of a process as well as interpretation of results, test samples shall be used. No more than 50% of the samples used in the examination shall have been previously used for training.		
3.9.1.7	Documentations and Records		
	The following records and documentation shall be maintained: 1. Personnel training history. 2. Personnel experience history. 3. Personnel qualification, including the extent and documentation of formal education when used to meet qualification requirements. 4. Personnel certification, including the expiration date of the certification. 5. Instructor qualification and approval. 6. Approval of outside agencies/consultants that provide training. 7. Training plan and course outline(s) 8. Test specimens used for practical examination, including a description of their actual condition and/or counterfeit indications. All training, qualification, and certification records shall be maintained in accordance with the employer's training plan and made available for audit by the facility's customers or regulatory agencies.		

AS6171A Clause	Summarized Requirement	Y/N NA	Objective Evidence/ Comments
3.9.2	Test Laboratory/Test Facility Resources		
	The Test Laboratory/Test Facility shall have documented procedures under revision control and have the proper equipment, capabilities and personnel in place to conduct the counterfeit parts inspection herein that it contracts to perform, including the following: 1. Meet OSHA's regulations that pertain to a Test Laboratory Facility. 2. Have the proper test equipment, fixtures, support/calibration/standardization equipment, test material, and reference standards defined in the specific procedures in Section 4 herein. 3. Subcontracting of test methods per the AS6171 Slash Sheets shall only be performed by the RTL. If any inspections are to be subcontracted by the RTL, the RTL shall notify and obtain written approval from the Requester of its intent to subcontract, prior to the initiation of testing. 4. Sufficient technical personnel shall be employed by the Test Laboratory, with the proper credentials as defined in the specific AS6171 Slash Sheets, to perform the tests the Lab contracts to perform.		
3.9.3	Test Laboratory Proficiency		
	The Test Laboratory shall be able to demonstrate proficiency in those inspection and testing methods for detecting counterfeit electronic parts by being able to identify known counterfeit parts. The Test Laboratory shall establish an auditable method and a process to validate that the Test Lab is able to meet the provisions of the specific proficiency requirements. The Test Lab demonstrates its competency through key comparisons, inter-laboratory comparisons, or proficiency tests appropriate to validate their testing capability. The process and methodology selected by the Test Lab shall include the following: 1. Demonstration that the required training is obtained by the personnel and is periodically refreshed; 2. Evidence that the lab can detect counterfeit parts using the specific inspection technique; 3. Documentation showing that the equipment chosen to do the work meets the accuracy, resolution and repeatability required; 4. Documentation that the laboratory has had its competency independently assessed through the process of laboratory accreditation or has performed a complete self-assessment; 5. A written procedure documenting the specific inspection process. Examples of specific proficiency requirements for the specific counterfeit parts inspection process are documented in the individual AS6171 Slash Sheets.		
3.9.3.1	Vision Requirements		
	The following are minimum near and color vision requirements that shall be met by test lab personnel either using uncorrected vision or corrected vision (using non-darkening or non-tinted eyeglasses or contact lenses): 1. Near Vision. Jaeger # 1 eye chart at 14 inches (355.0 mm), reduced Snellen 20/20, or equivalent in at least one eye. 2. Color Vision. Ability to distinguish red, green, blue, and yellow colors as prescribed in Dvorine Charts, Ishihara Plates or AO-HRR Tests. A practical test, using color coded wires or electrical parts, is acceptable for color vision testing. The employer shall determine appropriate vision requirements for far vision and depth perception. If vision correction is necessary to satisfy vision requirement 1 above, then the same vision correction shall be used during inspection and testing for counterfeit part detection. Any limitation in color perception shall be evaluated by the responsible authority of the company prior to certification and shall be approved in writing.		

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	Near vision tests for test lab personnel shall be administered annually and after any vision-corrective surgery, and all other vision tests shall be administrated prior to certification or recertification by a qualified examiner using standard instruments and techniques. The qualified examiner shall be either an ophthalmologist or optometrist.		
3.9.4	Calibration		
	The Test Laboratory shall have an established calibration system (to include policy and procedures) that is documented and under revision control, with the following requirements: 1. Control measurement processes to ensure the accuracy of measurement results affecting Test Methods specified in all AS6171 Slash Sheets that are used by the Test Laboratory. 2. Traceability via an unbroken chain of calibrations to the National Institute of Standards and Technology (NIST), or to an institution recognized by NIST through international agreements (e.g., the International System of Units [SI]). 3. Compliance with respect to the accuracy, repeatability, reproducibility, and use of Measuring and Test Equipment (MTE) per the requirements of American National Standards Institute/National Conference of Standards Laboratories (ANSI/NCSL) Z540.3 and Z540.1 or equivalent and applicable requirements of Society of Automotive Engineers (SAE) AS9100, subject to the clarifications and modifications provided in the AS6171 Slash Sheets. Examples of specific calibration requirements for the individual counterfeit parts inspection procedures are documented in the individual AS6171 Slash Sheets.		
3.9.5	Device Handling Requirements		
	The Test Laboratory shall have an established device handling system (to include policy and procedures) that is documented and under revision control, including ESD, moisture/humidity, radiological precautions, and handling requirements so as not to introduce damage to parts. If the Test Laboratory has test equipment that emits radiation, the Test Laboratory shall have controls implemented to minimize inadvertent exposure of radiation sensitive devices to ionizing radiation. The following general requirements shall be observed in device handling: 1. Devices shall not be subjected to conditions in which voltage or current transients cause the maximum ratings to be exceeded. 2. Precautions shall be observed in testing microelectronic devices in radiographic fields of energy, not to exceed specified dose levels if available. Special handling requirements for parts segregated for potential use in surface analysis are specified in 3.5.		
3.9.5.1	ESD Sensitive Devices		
	The Test Laboratory shall have a documented internal process and procedure to handle ESD sensitive devices in accordance with either ANSI/ESD S20.20 or JEDEC STD JESD625.		
3.9.5.2	Moisture Sensitive Devices		
	The Requester in consultation with the User should notify the Test Laboratory of the Moisture Sensitivity Level (MSL) of the devices, in the event the Test Lab cannot determine the information via the part manufacturer website and the information from the packaging label markings if applicable. The Requester in consultation with the User should also notify the Test Laboratory whether special handling, bake-out, and moisture-controlled packaging per JEDEC J-STD-033 is required as part of the SOW or PO. The Test Lab should not rely solely on the packaging label markings since the information could be falsified or have changed during the part lifecycle.		
3.9.5.3	Radiation Sensitive Devices		

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	The Test Laboratory should be notified by the Requester in consultation with the User the maximum radiation exposure that the device may experience during testing. This information should be supplied to the Lab in the Test Procedure from the Requester as part of the SOW or PO. Requirements for measurement and reporting of radiation exposure may be found in 3.2 of the Radiological Inspection Procedure, AS6171/5.		
3.9.5.4	Test Traveler and Sampling Procedure		
	The Test Laboratory shall generate a document or traveler (referred to as the Test Traveler in this standard) to itemize and track the implementation of the Test Sequence being performed in response to the SOW or PO. Note: The Test Traveler could be either a paper document or an electronic document. The Test Traveler shall as a minimum delineate or outline the following: 1.Pertinent Requester information and device lot information, including name of Requester and address, device type, quantity and nomenclature, original device container (tape/reel), lot size, date/lot code, name of the device manufacturer (i.e., OCM), and country of origin. Additional information, if available, may be included as appropriate, such as the name and address of the User, if known. 2.The specific Test Sequence of test methods to be performed (such as EVI, Radiological, XRF, etc.) and required device handling procedures; the quantity of devices to be inspected; and Risk Tier Level of the devices if specified by the Requester. 3.The specific method by which samples were selected for inspection; e.g., randomly from beginning, center, or end of reel, or devices with anomalous variations compared to the lot. 4.Initial or signature of technician completing specific Test Methods per the AS6171 Slash Sheets, and the date of completion. 5.Applicable comments or observations.		
3.9.5.5	Temperature and Relative Humidity		
	In facility areas where the devices may be exposed to the ambient laboratory environment, including test inspection areas, the temperature and relative humidity shall be controlled and documented during handling and inspection in accordance with ANSI/ESD S20.20 or JEDEC STD JESD 625. In areas of low relative humidity, follow the requirements specified in ANSI/ESD S20.20 Ionization Standard, S3.1.		
3.9.6	Personnel Safety		
	The Test Laboratory shall meet all applicable safety requirements, laws, and regulations of the Country where the Test Laboratory is located. Example: For the USA it would be Occupational Safety and Health (OSHA) requirements for a "Nationally Recognized Testing Laboratory" (NRTL).		
3.10	Data and Report Retention Requirements		
	The Test Laboratory is to observe the following requirements in the recording and retention of test data and test reports: 1. Recording of data shall be in conformance with the request from the Requester. 2. All test data and test reports supplied to the Requester shall be retained by the Test Laboratory for a minimum of 10 years, or longer if specified by agreement with the Requester, in a manner to protect against damage from fire, flood, and other environmental hazards. Effective data management solutions for long-term data retention and access shall be developed by the Test Laboratory. The impermanence of digital media is well recognized. Computer hard drives and portable media such as flash drives fail or wear out. It has been found that some CD and DVD media degrade after only 6 to 8		

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	years, and that certain common inks can damage media. Storage methods, media and marking techniques of archival quality shall be used along with a robust backup schedule. Centrally managed digital archives, such as library services or cloud storage, shall follow backup schedules and have disaster recovery procedures. To ensure consistent data management and standardization of digital data, it is preferred that all digital systems used for acoustic microscopy and radiography be compliant with the requirements of ASTM E2339 DICONDE. If a DICONDE compliant system is unavailable then TIFF or other lossless file formats shall be used for image capture to maintain bit depth and spatial resolution (during imaging, the use of file formats involving lossy compression is not permitted, including lossy versions of JPEG, although these may be used during reporting). Regardless of file format, the original image used for evaluation shall be retained (e.g., without altering the original spatial resolution and pixel values). Records shall also include images with any additional image processing that was required for interpretation and evaluation for acceptance.		
3.11	Certificate of Quality Conformance (CoQC) Requirements		
	Upon completion of the Test Sequence by the Test Lab, a Certificate of Quality Conformance (CoQC), stating that all requirements in the SOW or PO have been met by the Test Lab, shall be issued and supplied to the Requester along with the Test Report. If one or more test methods are subcontracted to a secondary Test Laboratory, then upon completion of the secondary inspection with no counterfeit anomalies found, the secondary Lab shall supply a copy of its CoQC for work performed back to the RTL. The RTL shall retain the CoQC obtained from the secondary Lab in accordance with the document retention requirements in 3.10 and provide a copy to the Requester upon request. The CoQC shall contain the following information: 1.Test Laboratory Name and Address where counterfeit parts inspection performed. 2. Test report number. 3. Date of CoQC. 4. Tier level of inspection (if identified), and any deviations from that outlined in the Requester Directed Test Sequence. 5. Counterfeit Defect Coverage (CDC), Counterfeit Type Coverage (CTC), Under-Covered Defects UCDs), and Not- Covered Defects (NCDs) for tests performed using either the tables in Appendix E (if applicable), or AS6171/1, or the SAE Counterfeit Defect Coverage Tool. 6. Final disposition statement that the parts either passed required testing provided all parts passed testing in accordance with 3.7.1, or that the parts did not pass required testing. This statement shall also include any quality issues/nonconformances identified during the test process. 7. Requester Organization Name and Address ordering the counterfeit parts inspection, and the User Organization Name and Address when the User's identity is known to the Test Laboratory. 8. Information on devices being inspected that includes the device manufacturer and part number, device packaging (e.g., PEM, Ceramic, Potted Devices), mechanical configuration (e.g., SOJ, BGA), lot size, country of origin of manufacture (if known), date/lot code (if known), and serialization (if known). 9. Statement certifying the Test Method(s) performed, with the date(s) of inspections, and the AS6171 General Requirements revision level, and the AS6171 Slash Sheet revision levels used in the test evaluation.		

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	10. Signature (electronic or ink) of the authorized Test Laboratory official.		
4	Suspect/counterfeit Part Detection Test Methods		
	The test methods associated with this document can be found in separate AS6171 Slash Sheets. The following is a list of the AS6171 Slash Sheets containing the test methods: AS6171/1: Suspect/Counterfeit Test Evaluation Method AS6171/2: Techniques for Suspect/Counterfeit EEE Parts Detection by External Visual Inspection, Remarking and Resurfacing, and Surface Texture Analysis Test Methods AS6171/3:Techniques for Suspect/Counterfeit EEE Parts Detection by X-ray Fluorescence Test Methods AS6171/4: Techniques for Suspect/Counterfeit EEE Parts Detection by Delid/Decapsulation Physical Analysis Test Methods AS6171/5: Techniques for Suspect/Counterfeit EEE Parts Detection by Radiological Test Methods AS6171/6:Techniques for Suspect/Counterfeit EEE Parts Detection by Acoustic Microscopy (AM) Test Methods AS6171/7: Techniques for Suspect/Counterfeit EEE Parts Detection by Electrical Test Methods AS6171/8: Techniques for Suspect/Counterfeit EEE Parts Detection by Raman Spectroscopy Test Methods AS6171/9: Techniques for Suspect/Counterfeit EEE Parts Detection by Fourier Transform Infrared Spectroscopy (FTIR) Test Methods AS6171/10: Techniques for Suspect/Counterfeit EEE Parts Detection by Thermogravimetric Analysis (TGA) Test Methods AS6171/11: Techniques for Suspect/Counterfeit EEE Parts Detection by Design Recovery Test Methods		
5	Material Control		
	Test Laboratory shall establish a documented process to control lots which contain suspect or confirmed counterfeit parts.		
5.1	Control of Nonconforming Parts and Scrap		
	Individual electronic parts that have been found to be nonconforming, or otherwise unsuitable for use because of destructive testing, shall be segregated from conforming material, and the bags or containers in which they are placed shall be identified (e.g., labeled, tagged, or marked) as containing nonconforming parts. Disposition of nonconforming parts, including suspect/counterfeit parts, shall be determined by agreement between the Test Laboratory and the Requester (in consultation with the User, when possible).		
5.1.1	Control of Suspect or Confirmed Counterfeit Parts		
	If the test results indicate that parts may be suspect/counterfeit, the following steps shall be implemented by the Test Laboratory: 1. Notify the Requester in consultation with the User when the User's identity is known to the Test Laboratory that the parts are suspect/counterfeit; and 2. Segregate the suspect/counterfeit parts, and identify (e.g., label, tag or mark) the bags or containers in which they are placed as containing suspect/counterfeit parts. 3. Notify the Requester in consultation with the User when the User's identity is known to the Test Laboratory, that the Requestor or the User should report the findings to law enforcement, and to GIDEP, ERAI, and other counterfeit reporting databases as applicable.		