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REVISION / CHANGE RECORD

REV	ECO#	APPROVED	DATE
А	NEW RELEASE / CO-16547	AS PER SATCOM RITEPRO	AS PER SATCOM RITEPRO
В	CO-19219: General updates to all Sections of the document. Definitions CCA, Key Characteristics, NC programming, PCB were added. Added new Sections 7.1 to 7.3. Added improved description of document requirements in Section 8.0. Updated first sentence of Section 8.2. Updated Section 8.3. Updated Section 8.8 – first few paragraphs and Items 10 and 20. Updated Appendix H.	AS PER SATCOM RITEPRO	AS PER SATCOM RITEPRO
С	CO-26486: Moved Appendix examples to their subsections. Added reference to MF-1405 AIRBORNE SUPPLIER QUESTIONNAIRE. In §8.0, updated documentation requirements for each shipment into table format based on CPI Part Categories. In §8.8 Form 1, provided further explanation of Fields 15 to 18 to clarify removing or adding components/parts. In Form 2 section, provided explanation and examples of Special Processes. In Form 3 section, explained how Characteristic Numbers should be chosen.	AS PER SATCOM RITEPRO	AS PER SATCOM RITEPRO

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1.0 Purpose

The purpose of this document is to identify the requirements of Suppliers to Communications & Power Industries Canada Inc. (CPI Canada) with respect to Certificates of Compliance, RoHS Compliancy Statements, Material Test Reports, Certificate of Analysis, Surface Treatment Reports, and AS9102 First Article Inspection Reports (FAIR's).

In addition, Suppliers are required to provide a signed Letter of Commitment to acknowledge their understanding and agreement to fulfill the srequirements identified in this Purchasing Specification. Refer to Letter of Commitment.

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2.0 Scope

This specification applies to CPI Canada Suppliers that provide components and assemblies for CPI's aerospace products; excluding Commercial Off-The-Shelf parts.

Any questions about this document should be directed to the CPI Buyer.

3.0 Documentation Hierarchy

Any inconsistency or conflict between or among the Purchase Order, this Procurement Specification, and Drawings, shall be resolved by the following descending order of preference:

- 1. Purchase Order
- 2. Procurement Specification P22-7000
- 3. Drawings

4.0 Reference

MF-1304 CPI'S AS9102 FIRST ARTICLE INSPECTION REPORT

MF-1405 AIRBORNE SUPPLIER QUESTIONNAIRE

REACH EC 1907/2006 REACH - Regulation EC 1907/2006 RoHS 2011/65/EU RoHS - European Directive 2011/65/EU

RoHS 2015/863 RoHS - Directive (EU) 2015/863 AS9102 SAE Aerospace Standard AS9102

5.0 Clarification of Terms

AS9102 First Article Inspection Report - FAIR (see <u>Appendix A – AS9102 First Article Inspection Report (Example)</u>): An Aerospace inspection process to validate the Supplier is capable of producing parts and assemblies that meet design requirements.

Certificate of Analysis (see Sections <u>8.5</u> and <u>8.6</u>): A Certificate issued by a CPI Supplier or Inspection/Verification/Testing/Certification company that verifies the adherence to product specifications and/or North American or International Standards. The certificate usually includes the actual test results performed on the product.

Certificate of Compliance (see Section <u>8.1</u>): A Certificate issued by a company that states conformity to fulfilling the official requirements of the Purchase Order.

Duly Authorized Representative: A person with the authority to approve the defined activity or transaction.

Letter of Commitment (see <u>LETTER OF COMMITMENT</u> <u>8.9</u>): An understanding between the Customer (CPI Canada) and CPI's Supplier to work together in ensuring the required documents (as outlined in this Purchasing Specification) are well defined and understood by the Supplier, and received as it has been defined below.

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Material Test Report (see Section <u>8.4</u>): Also known as a Mill Test Report is a quality assurance document used in the metals industry that certifies a material's chemical and physical properties and states a product made of metal (steel, aluminum, brass or other alloys) compliance with the specific standards of an international standards organization (such as ANSI, ASME, etc.).

REACH Material Declaration: A full material declaration or a SVHC material declaration.

RoHS Compliancy Statement (see Section <u>8.2</u>): A statement confirming the hazardous substances contained in supplied material or assembly is IAW European Directive (EU) 2015/863 are below specified maximums.

Surface Treatment Report (see Section <u>8.7</u>): A quality assurance document that certifies the treatment to surface of a material (typically metals) that improves the resistance or resilience of the material.

6.0 Definitions

CCA Circuilt Card Assembly, also known as PCBA, and PWBA.

C of A Certificate of Analysis or Certification of Analysis

C of C Certificate of Compliance

CPI Buyer Buyer in the Materials group at CPI that issued the Purchase Order.

Designed Tooling Product specific tooling [e.g., check fixtures, Coordinate Measurement Machine

(CMM) program] specifically made to validate the design characteristics of a

product.

Key Characteristics An attribute or feature whose variation has a significant effect on product fit,

form, function, performance, service life, or producibility, that requires specific actions for the purpose of controlling variation. A Supplier needs to determine the processes and controls to manage the variation of key characteristics.

MTR Material Test Report

NC programming Refers to the automation of machine tools that are being operated by abstractly

encoded commands on a storage medium that is being programmed.

PCB Printed Circuit Board

PCBA Printed Circuit Board Assembly, also known as CCA, and PWBA.

PWBA Printed Wiring Board Assembly, also known as CCA, and PCBA.

QMS Quality Management System

Qualified Tooling Universal (not part specific) calibrated monitoring and measuring equipment

(e.g., go/no go gauges, thread gauges, radius gauges) used to validate product

design characteristics, that are uniquely identified and traceable to their

calibration records.

STR Surface Treatment Report

Supplier In the context of this document, Supplier represents a Supplier or Vendor of CPI

Canada.

Subcontractor In the context of this document, Subcontractor represents a contractor working

for one of CPI's Suppliers to provide goods or services.

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7.0 General Requirements

7.1 Right of Facility Access

The Supplier shall allow right of facility access to CPI Canada, CPI Canada's customers and governmental regulatory authorities, at any level of the supply chain involved in the order and to all applicable records. With adequate advanced notice, the aforementioned parties may conduct on-site process or product audits of the Supplier to ensure the requirements of this document, as well as the requirements of CPI Canada's Purchase Order, Contract (if applicable), drawings and specifications (if applicable) are being met. Refusal to allow onsite access may jeopardize the Supplier's approval status.

7.2 Record Retention

Suppliers must retain all records (i.e. Supplier's Purchase Orders, Invoices for goods received, test data, and any quality records used for manufacturing or inspecting the component or assembly provided to CPI Canada, which includes NC programming as a media of manufacturing or inspection) for a minimum period of 10 years from date of manufacture. Physical records are acceptable, but electronic records are preferred. Suppliers must retain the records provided in Section 8.0 below for a minimum period of 2 years from the date of shipment of the component or assembly provided to CPI Canada. Upon request, records shall be made available within 3 business days.

7.3 Control of Non-conforming Material

The Supplier shall have a Control of Nonconforming Material procedure in place which identifies, controls and prevents the unintended use or delivery of nonconforming material.

All materials furnished to CPI Canada shall conform to requirements of this document, as well as the requirements of CPI Canada's Purchase Order, Contract (if applicable), drawings and specifications (if applicable). All materials are subject to inspection and acceptance upon receipt.

The Supplier is not granted authority to issue "Repair" or "Use-As-Is" dispositions for products sold to CPI Canada, unless authorized in writing from CPI Canada.

To obtain approval to ship unit(s) with known non-conformance(s), the Supplier must contact the Buyer and get written approval.

If a non-conformance has been identified on parts already shipped to CPI Canada, the Supplier is required to notify CPI immediately.

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8.0 Requirements

CPI's Suppliers may supply their own documents, as long as they meet the minimum requirements of this document and shall be provided in English.

If requested information is specified as "preferred" or "if...", then the requested information is not mandatory.

Information in square brackets [] shall be provided by the Supplier, based on the information required.

In general, any correspondence to the CPI Buyer based on this Purchasing Specification shall have an email title/subject line that contains the minimum information: [FAIR Number, if applicable] [Supplier's Name].

Supplier shall notify the CPI Buyer immediately for approval to proceed when any of the following conditions occur.

- 1. A change in manufacturing source(s), process(es), inspection method(s), location of manufacture, or tooling that can potentially affect fit, form, or function.
- 2. A change or substitution of parts or materials that deviates from the approved drawing, approved vendor list or bill of material is proposed.
- 3. A change in numerical control program or translation to another media that can potentially affect fit, form, or function.
- 4. A natural or man-made event, which may adversely affect the manufacturing process.
- A lapse in production for two years shall require an update for any characteristics that may be impacted by the inactivity. This lapse is from the completion of last production operation to the actual restart of production.

In addition to Step 5 above, the Supplier Questionnaire MF-1405 must be completed by the Supplier within 7-days of receipt of Purchase Order. The PO will have a paragraph that explains the requirements in the PO line item.

Suppliers shall always meet the requirements of the PO and drawing, and in the absence of any PO or Drawing comments, the following shall be provided with each shipment. These documents shall be emailed to Receiving Inspection at CMP_Rec_Insp@cpii.com, and hardcopies of the documents supplied with shipment. The email subject line shall indicate [Part#&Revision][CPI PO#][Supplier's Name][Shipping Doc's] (ex. [08-09999-001RevB][P99999][A2Z Manufacturing][Shipping Doc's]):

- Certificate of Compliance (Section 8.1)
- RoHS Compliancy Statement (Section <u>8.2</u>) for the first shipment of part (typically at Revision A) and for the first shipment when the part Revision has increased.

In addition to the aforementioned documentation requirements with each shipment, suppliers shall provide the additional documentation mentioned in the table below, depending on the Part Category supplied to CPI Canada. If Supplier believes that their part does not belong in any of these categories, they should contact the Buyer for clarification.

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Part Category		Require	ements	3
Metal components & assemblies	VFA	LAB	STR	
Non-metal components & assemblies (including EPOXY-GLASS LAMINATE BOARD that is FREE OF COPPER)	VFA	LAB		
Flexible PCB's	VFA	REA	LAB	
Printed Circuit Board Assemblies (PCBA's)	VFA	REA	LAB	PCB
Cables and Looms	VFA	MTR	TST	
Jumpers	VFA			
Fans	VFA			
Wave guide components & assemblies	VFA	LAB	STR	TST
Block-up converters (BUC's)	VFA	LAB	STR	TST
Output Components	VFA	LAB	STR	TST
Adapters, Circulators, and Band Pass Filters	VFA	LAB	STR	TST

LAB represents Material Test Report (Section 8.4) OR Certificate of Analysis Issued to CPI (Section 8.5) OR Certificate of Analysis Issued to CPI's Supplier (Section 8.6).

STR represents Surface Treatment Report (Section 8.7), if applicable.

VFA represents a Full or Partial AS9102 First Article Inspection Report (FAIR) (Section 8.8) as defined in Purchase Order, also if agreed to in the Letter of Commitment (Section 8.9). If the AS9102 FAIR is for an assembly, then any components of that assembly that are designed by CPI require an AS9102 FAIR as well.

TST represents Testing Results (as mentioned in Notes section of the drawing) that are submitted on https://transfer.cpii.com website. Any issues should be communicated to the CPI Buyer. If testing isn't indicated in the drawing Notes, then testing results are not required.

REA represents REACH Material Declaration (Section 8.3), as mentioned in drawing Notes.

MTR represents a material test report for <u>raw materials only</u>, not Commercial Off-The-Shelf (COTS) parts. One of the following is required: Material Test Report (Section 8.4) OR Certificate of Analysis Issued to CPI (Section 8.5) OR Certificate of Analysis Issued to CPI's Supplier (Section 8.6).

PCB represents three requirements: LAB, VFA, and the requirement for PCB cross-section information, and Electrical Test Data for the PCB and material, shall be submitted with the first shipment of the PCBA (typically at Revision A) and for the first shipment when the part Revision of the PCB has increased.

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8.1 Certificate of Compliance - minimum requirements

Example of a Certificate of Compliance is shown at the end of this section.

CofC's shall be emailed to Receiving Inspection at CMP_Rec_Insp@cpii.com, and hardcopies of the documents supplied with shipment. The email subject line shall indicate [Part#&Revision][CPI PO#][Supplier's Name][CofC's] (ex. [08-09999-001RevB][P99999][A2Z Manufacturing][CofC's]).

1. Title: Certificate of Compliance (C of C)

A Packing Slip with a C of C box at the bottom of the sheet is acceptable, as long as the following information is included in the Packing Slip.

2. Supplier's Name:

Supplier's Address:

3. A unique identifier:

C of C Number (preferred)

Packing Slip Number (preferred)

4. Customer Name:

CPI Canada Inc.

Address: (preferred) 45 River Drive Georgetown, Ontario Canada L7G 2J4

- 5. Date of Shipment: (format: YYY-MM-DD; preferred)
- 6. CPI Purchase Order Number:
- 7. CPI Part Number and Revision: (ex. 44-40691 Rev A)
- 8. Description of Part: (preferred, and if included must match Purchase Order)
- 9. Quantity Shipped:
- 10. List of Serial Numbers: (mandatory, if the parts have Serial Numbers)

OR

Lot # (preferred, if Serial Numbers don't exist) or Date of Manufacture (if Lot # doesn't exist).

11. Certification Statement:

The manufacturer hereby certifies that all material shipped on this Purchase Order is in accordance with contractual requirements; including the customer's drawings, specifications, and standards.

(OR The manufacturer hereby certifies that all material shipped on this purchase order is in accordance with contractual requirements, including mechanical, electrical and special process specifications as applicable.)

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Any alternate statements must be sent to the CPI Buyer for approval at least . 5-days in advance of shipment. Failure to do so may cause delays in receipt of shipment and Supplier may be requested to resubmit documentation.

For parts that are RoHS compliant, the Supplier can provide a separate document according to Section 8.2 (RoHS Compliancy Statement).

If a separate document is not preferred, then the following Statement must be added to the C of C:

The manufacturer hereby declares that all processes and manufacturing process materials utilized to assemble and test the product referenced herein are compliant with the Requirements of European Directive (RoHS) [DIRECTIVE NUMBER].

[DIRECTIVE NUMBER] will be for example (EU) 2015/863 or RoHS 2015

Any alternate RoHS statements must be sent to the CPI Buyer for approval at least 5-days in advance of shipment. Failure to do so may cause delays in receipt of shipment and Supplier may be requested to resubmit documentation.

12. Authorized Representative:

Ensure this section is completed by a QA Representative or Duly Authorized Representative

- 13. Employee's Name Printed
- 14. Signature

Electronic signature is acceptable, but must be on or just above the Signature Line.

- 15. Employee's Title
- 16. Date of Signature

If the C of C is issued from a Subcontractor to our Supplier, then traceability to our Part Number and Revision must be maintained.

If this is not shown on the C of C provided, then CPI's Supplier must provide (in addition to the Subcontractor's C of C) their C of C to demonstrate the traceability to our Part Number and Revision.

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Example Certificate of Compliance:

Supplier Name: [Supplier's Name] Address: [Supplier's Address]	Customer Name: (CPI Canada Inc.
C of C Number:	Date of Shipment:	YYYY-MM-DD
PI Purchase Order Number:	CPI Part Number(s 1. 2. 3.	and Revision(s):
Description of Part(s): 1. 2. 3.	Quantity Shipped: 1. 2. 3.	List of Serial Numbers: 1. 2. 3. Lot # or Date of Manufacture
	Certification Statement	
The manufacturer hereby certifies that contractual requirements; including the (OR The manufacturer hereby certifies contractual requirements, including med The manufacturer hereby declares that assemble and test the product reference.	e customer's drawings, specification that all material shipped on this purc chanical, electrical and special proce t all processes and manufacturing	ns, and standards. chase order is in accordance with ess specifications as applicable.) process materials utilized to
Directive (RoHS) [DIRECTIVE NUMBE		requirements of European
JTHORIZED REPRESENTATIVE		

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8.2 RoHS Compliancy Statement

All supplied materials and assemblies must meet the (EU) 2015/863 amendment to 2011/65/EU directive, unless a previous directive is stated on the part/assembly drawing or PO.

If the Supplier provides a RoHS Compliancy statement on their C of C as mentioned in Section <u>8.1</u> above, then a separate RoHS declaration as noted below is not required.

Example of a RoHS Compliancy Statement is shown at the end of this section.

- 1. Title: Certificate of Conformance RoHS Declaration
- 2. Company Name:

Company Address:

- 3. Part Number: European Directive (RoHS) [DIRECTIVE NUMBER] Compliance Status:
 - 1. [YES = Compliant; NO = Not Compliant]
- 4. Certification Statement:

The manufacturer hereby declares that all processes and manufacturing process materials utilized to assemble and test the product referenced herein are compliant with the Requirements of European Directive (RoHS) [DIRECTIVE NUMBER].

[DIRECTIVE NUMBER] will be for example (EU) 2015/863 or RoHS 2015.

5. Authorized Representative:

Ensure this section is completed by a QA Representative or Duly Authorized Representative

- 6. Employee's Name Printed
- 7. Signature

Electronic signature is acceptable, but must be on or just above the Signature Line.

- 8. Employee's Title
- 9. Date of Signature

If the C of C is issued from a Subcontractor to our Supplier, then traceability to our Part Number must be maintained.

If this is not shown on the C of C provided, then CPI's Supplier must provide (in addition to the Subcontractor's C of C) their C of C to demonstrate the traceability to our Part Number.

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Example CERTIFICATE OF CONFORMANCE – RoHS Declaration

CERTIFICAT Company Name: [Certi		MANCE - RoHS I	Declaration
Company Address:	neate Supplier]		
Part Number(s): 1. 2. 3.		oHS) [DIRECTIVE NUMBER] C NO = Not Compliant]	ompliance Status:
Certification Statement			
The manufacturer hereby declares that all processes and manufacturing process materials utilized to assemble and test the product referenced herein are compliant with the Requirements of European Directive (RoHS) [DIRECTIVE NUMBER].			
AUTHORIZED REPRESENTATIVE			
Print Name	Signature	Title	Date

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8.3 REACH Material Declaration

All supplied materials and assemblies must meet, REACH Regulation (European REACH regulation 1907/2006 of the European Parliament and of the Council of 18 December 2006 and its amendments, concerning the Registration, Evaluation, Authorization and Restriction of Chemicals), a compliant material declaration must be provided (IPC 1752 or equivalent).

If the Supplier provides a REACH statement on their C of C as mentioned in Section <u>8.1</u> above, then a separate REACH material declaration is not required as long as the REACH statement is equivalent to IPC 1752.

Note that if the Supplier provides a separate REACH Material Declaration, then they must email this document along with the other supporting documents to CMP_Rec_Insp@cpii.com as mentioned in Section 0 above, and provide a hard copy of the REACH Material Declaration with the shipment.

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8.4 Material Test Report - minimum requirements

CPI Canada expects that any Material Test Report received from a metal foundry will be issued to the CPI Supplier or their Subcontractor.

In addition to this Material Test Report being supplied, a separate document with the following information is required.

Note that if the Supplier prefers to provide an email instead of the separate document, then they must email this document along with the other supporting documents to CMP_Rec_Insp@cpii.com as indicated in Section 0 above, and provide a hard copy of the same email with the shipment.

Example of a Material Test Report is shown at the end of this section.

- 1. Title: MATERIAL TEST REPORT SUPPLEMENT
- 2. To: CPI Materials Department
- 3. From: Supplier's Name

Supplier's Address

Customer Name:

CPI Canada Inc.

Address: (preferred) 45 River Drive Georgetown, Ontario Canada L7G 2J4

- 5. Date of Shipment: (format: YYY-MM-DD; preferred)
- 6. CPI Purchase Order Number:
- 7. CPI Part Name and Revision:
- 8. Statement:

The Material Test Report provided from [material manufacturer/foundry name] of [material type – ex. ALUMINIUM ALLOY 6063-T5] and Lot # [lot number on MTR] dated on [provide date from MTR] was used in manufacturing the parts noted above.

9. Authorized Representative:

Ensure this section is completed by a QA Representative or Duly Authorized Representative

- 10. Employee's Name Printed
- 11. Signature

Electronic signature is acceptable, but must be on or just above the Signature Line.

- 12. Employee's Title
- 13. Date of Signature (not required for email version)

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Example Material Test Report - Supplemental

MATERIAL TEST REPORT (MTR) - SUPPLEMENTAL			
From: [Supplier's Name] Address: [Supplier's Address]	To: CPI Materials Department		
Date of Shipment: YYYY-MM-DD	Customer Name: CPI Canada Inc.		
CPI Purchase Order Number:	CPI Part Number and Revision:		
<u>Statement</u>			
The Material Test Report provided from [material manufacturer/foundry name] of [material type – ex. ALUMINIUM ALLOY 6063-T5] and Lot # [lot number on MTR] dated on [provide date from MTR] was used in manufacturing the parts noted above.			
AUTHORIZED REPRESENTATIVE			
Print Name Signature	Title Date		

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8.5 Certificate of Analysis Issued to CPI - minimum requirements

When a Certificate/Certification of Analysis is issued to CPI Canada, then the following information is required.

Example of Certificate of Analysis Issued to CPI is shown at the end of this section.

- 1. Title: Certificate of Analysis (or Certification of Analysis)
- 2. Issuer's Name:

Issuer's Address:

3. Customer Name:

CPI Canada Inc.

Address: (preferred) 45 River Drive Georgetown, Ontario Canada L7G 2J4

4. A unique identifier:

Certificate of Analysis (C of A) Number: (preferred)

- 5. Date of Manufacture or Shipment (preferred)
- 6. CPI Purchase Order Number
- 7. CPI Part Number and Revision: (if applicable)
- 8. Description of Material or Part:
- 9. Quantity Shipped:
- 10. Authorized Representative:

Ensure this section is completed by a QA Representative or Duly Authorized Representative

- 11. Employee's Name Printed
- 12. Signature

An electronic signature is acceptable, but must be on or just above the Signature Line.

- 13. Employee's Title
- 14. Date of Signature

Analysis data including:

- Statements of compliance to Canadian and/or International Standards.
- Whether the material is free from any specific materials, if applicable.
- Statement for meeting the requirements of European Directive (RoHS) [DIRECTIVE NUMBER].

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Example Certificate of Analysis Issued to CPI

CERTIFICATE OF ANALYSIS			
Issuer's Name: [Issuer's Name] Address: [Issuer's Address]		Customer Name: CPI Canada Inc.	
C of A Number:		Date of Manufacture: YYYY-MM-DD or Date of Shipment: YYYY-MM-DD	
CPI Purchase Order Number:		CPI Part Number and Revision: (if applicable)	
Description of Material or Part:		Quantity Shipped:	
AUTHORIZED REPRESENTATIVE			
Print Name	Signature	Title Date	

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8.6 Certificate of Analysis Issued to CPI's Supplier - minimum requirements

In addition to this Certificate/Certification of Analysis being issued to a Supplier of CPI Canada; a separate document with the following list below is required.

Note that if the Supplier prefers to provide an email instead of the separate document, then they must email this document along with the other supporting documents to CMP_Rec_Insp@cpii.com as indicated in Section 0 above, and provide a hard copy of the same email with the shipment.

Example of Certificate of Analysis Issued to CPI's Supplier is shown at the end of this section.

- 1. Title: Certificate of Analysis or Certification of Analysis SUPPLEMENT
- 2. To: CPI Materials Department
- 3. From: Supplier's Name

Supplier's Address

4. Customer Name:

CPI Canada Inc.

Address: (preferred) 45 River Drive Georgetown, Ontario Canada L7G 2J4

- 5. Date of Shipment: (format: YYY-MM-DD; preferred)
- 6. CPI Purchase Order Number:
- 7. CPI Part Name and Revision:
- 8. Statement:

The Certificate of Analysis [or Certification of Analysis] provided from [material manufacturer/laboratory name] of [material type – ex. ALUMINIUM ALLOY 6063-T5] and Lot # [lot number on C of A] dated on [provide date from C of A] was issued for the parts noted above.

9. Authorized Representative:

Ensure this section is completed by a QA Representative or Duly Authorized Representative

- 10. Employee's Name Printed
- 11. Signature

Electronic signature is acceptable, but must be on or just above the Signature Line.

- 12. Employee's Title
- 13. Date of Signature (not required for email version)

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Example Certificate of Analysis Issued to CPI's Supplier

From: [Supplier's Name] Address: [Supplier's Addres	ss]	To: CPI Materials Departr	nent
Date of Shipment: YYYY-MN	I-DD	Customer Name: CPI Car	nada Inc.
CPI Purchase Order Number	:	CPI Part Number and Rev	ision:
	<u>State</u>	ment	
name] of [material type - ex. A	CPI Part Number and Revision Statement icate of Analysis [or Certification of Analysis] provided from [material manufactorial type – ex. ALUMINIUM ALLOY 6063-T5] and Lot # [lot number on Cate from C of A] was issued for the parts noted above.		
JTHORIZED REPRESENTATIV	/E		

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8.7 Surface Treatment Report - minimum requirements

CPI Canada expects that any Surface Treatment Report received from a plating facility will be issued to CPI Supplier or their Subcontractor.

In addition to this Surface Treatment Report being supplied; a separate document with the following list below is required.

Note that if the Supplier prefers to provide an email instead of the separate document, then they must email this document along with the other supporting documents to CMP_Rec_Insp@cpii.com as indicated in Section <u>0 above</u>, and provide a hard copy of the same email with the shipment.

Example of Surface Treatment Report - Supplement is shown at the end of this section.

- 1. Title: SURFACE TREATMENT REPORT SUPPLEMENT
- 2. To: CPI Materials Department
- 3. From: Supplier's Name

Supplier's Address

4. Customer Name:

CPI Canada Inc.

- 5. Date of Shipment: (format: YYY-MM-DD; preferred)
- 6. CPI Purchase Order Number:
- 7. CPI Part Name and Revision:
- 8. Statement:

The Surface Treatment Report provided from [plating facility/laboratory] of [plating type – ex. NON-HEXAVALENT CHROMIUM CONVERSION COATING IN ACCORDANCE WITH ASTM B921, CLASS 3] and Lot # [lot number on STR] dated on [provide date from STR] was used in manufacturing the parts noted above.

9. Authorized Representative:

Ensure this section is completed by a QA Representative or Duly Authorized Representative

- 10. Employee's Name Printed
- 11. Signature

Electronic signature is acceptable, but must be on or just above the Signature Line.

- 12. Employee's Title
- 13. Date of Signature (not required for email version)

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Example Surface Treatment Report - Supplement

SURFACE TR	EATMENT R	EPORT - SUPPL	LEMENT
From: [Supplier's Name] Address: [Supplier's Address		o: CPI Materials Department	t
Statement The Surface Treatment Report provided from [plating facility/laboratory] of [plating type - HEXAVALENT CHROMIUM CONVERSION COATING IN ACCORDANCE WITH ASTM and Lot # [lot number on STR] dated on [provide date from STR] was used in manufacture.	ı Inc.		
CPI Purchase Order Number:	C	PI Part Number and Revision	n:
	<u>Staten</u>	<u>nent</u>	
HEXAVALENT CHROMIUM CO	NVERSION COATING	S IN ACCORDANCE WITH AS	TM B921, CLASS 3]
AUTHORIZED REPRESENTATIVI	≣		
Print Name	Signature	Title	Date

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8.8 AS9102 First Article Inspection Report (FAIR)

Example of the following is shown in Error! Reference source not found..

CPI's Suppliers that are supplying AS9102 First Article Inspections are expected to understand the AS9102 Standard prior to commencing any AS9102 FAI activities. Suppliers are responsible for obtaining their own copy of the AS9102 Standard and ensuring that it is current.

If a Full or Partial AS9102 FAIR is requested on a Purchase Order from CPI then the Supplier will follow the latest version of SAE AS9102 First Article Inspection Requirement (Aerospace Standard) based on the following statement: "A First Article Inspection according to AS9102 to be completed by the Vendor." For a Partial AS9102 FAIR, additional information such as "Only a partial AS9102 FAI Report is required." will be provided on the Purchase Order for each Line Item that requires a Partial AS9102 FAIR. Interim Revisions do not require an AS9102 FAIR. Interim Revisions are indicated by a number or "dot" after the Revision letter (ex. A1 or B.).

Unless otherwise specified, electronic copies of the AS9102 FAIR's and supporting documentation shall be sent to the following email address: CMP_Rec_Insp@cpii.com, as indicated in Section <u>0 above</u>. These electronic copies will be sent any time prior to shipment to one-day after the shipment date to ensure prompt delivery of the electronic copies.

The hardcopies (originals) will be included with each part shipment.

A Full AS9102 FAIR recorded on CPI's AS9102 FAIR forms (MF-1304) with all supporting documentation is required from the Supplier. The Supplier can use their own AS9102 FAIR forms, but they comply with the minimum requirements of AS9102. If you do not have a copy of CPI's MF-1304 Form please contact the CPI Buyer.

If a Partial AS9102 FAIR is requested, then the Supplier must provide an AS9102 FAIR based on inspection of only the changes since the previous revision FAIR was issued. If the Supplier didn't perform the previous revision AS9102 FAIR, then they need to contact the CPI Buyer for clarification.

The supplier shall ensure that all instruments used for the AS9102 FAIR are calibrated and within their calibration date, and personnel shall be sufficiently trained in the use of the measuring instruments.

In general, the SAE AS9102 FAI Requirement Aerospace Standard must be followed for completion of Forms 1, 2, and 3. The following list are exceptions or highlights to assist CPI's Suppliers when providing these forms.

- Unless otherwise indicated, only one CPI part requires a First Article Inspection Report according to the AS9102 Standard.
- 2. If a circumstance arises where an additional AS9102 FAIR is required for the same part revision, then any additional AS9102 FAIR's should be numbered with a suffix "- #". As an example, if AS9102 FAIR Number "06-10009RevA" required a second FAIR, then "06-10009RevA-1" would be issued and completed.

An example where a second AS9102 FAIR is required would be when one or more Non-conformances occur (refer to Item #19 below); the first FAIR is marked as "Incomplete" and the second FAIR is marked as "Complete", once the Corrective Action(s) and Disposition(s) for the

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Non-conformance(s) has/have been completed.

3. Each Form has "Sheet _ of _" displayed that needs to be updated based on the sheet number and number of sheets for that Form only.

Unless additional sheets are required, each Sheet _ of _ should indicate "Sheet 1 of 1". Do not apply:

Sheet 1 of 3 to Form 1,

Sheet 2 of 3 to Form 2, and

Sheet 3 of 3 to Form 3.

- 4. Any "Conditionally Required" Data Fields that are Not Applicable should be marked as N/A. Conditionally Required means 'This field shall be completed when applicable to the product (e.g., serial number shall be entered when there is a serial number) or when required by the customer.
- 5. Electronic signatures are acceptable, but must be just to the right of the "Signature" field on Forms 1, 2, and 3.

Form 1 - Part Number Accountability

- Data Field 4 Use the following format for the FAIR Number: [Part#] Rev [Revision Letter] all in one alphanumeric word. Ex. 05-10072RevA, 08-07348-003RevB
- 7. Data Field 11 Ensure the CPI Supplier Code provided is added to this Data Field.
- 8. Data Field 12 Ensure the CPI Purchase Order Number is added to this Data Field.
- 9. Data Field 14 If a Partial FAIR is requested, then ensure the "Reason for Partial FAI" section is completed. Unless instructed differently by the CPI Buyer, indicate what were the design specification changes. If there were numerous dimension changes, then indicate "numerous dimensional changes" in this field, as not every dimension change needs to be specified.
- 10. Data Fields 15, 16, 17 and 18 To be completed by the CPI Supplier. If Assembly FAI is chosen in Data Field 13, then these cells shall be completed. If any of the parts listed are CPI-designed or customized Off-The-Shelf, then the Supplier shall provide Part Serial Number(s) and FAIR Numbers. The Supplier will also provide the AS9102 FAIR's for those parts.

If a part has been added to the assembly BOM (acquired from CPI's Satcom RitePro), then it will be listed in these cells. If a part quantity has changed in the assembly BOM, then this change should not be shown in these cells. If a part has been removed from the assembly BOM, then it will be shown with a strikethrough for all four cells, and the Comments section will indicate text like "Part Numbers shown above with strikethrough were removed from the BOM."

- 11. Data Fields 19, 20, 21, and 22 To be completed by the CPI Supplier.
- 12. Data Fields 23 and 24 Optional field; no entry added.
- 13. Comments Data Field added by CPI, but is optional.

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Form 2 - Product Accountability: Materials, Special Processes, and Functional Testing

Only special processes are required to be included. Processes or steps that follow Internationally recognized standards like ASTM, IPC, etc are not required for PCB's, for example.

All materials should be included, and their specification number should be included in Data Field 6.

Surface Treatment or hardening are considered special processes, so they should be included on Form 2.

14. Data Field 8 – Ensure Supplier Name and Address are provided.

Form 3 - Characteristic Accountability, Verification, and Compatibility Evaluation

- 15. Create a Drawing with Characteristic Numbers (a.k.a. ballooned DWG or bubbled DWG). Add Characteristic Numbers (Data Field 5) according to the following priorities:
 - a. Note numbers Characteristic Number 1 is Note 1, Char# 2 is Note 2, etc.
 - b. Drawing views choose a drawing view and number all the design characteristics, then move to the next drawing view.
 - c. BOM if one exists, then indicate the BOM as one Characteristic Number. If a Key Characteristic (KC) (pentagon) is indicated, then that should be added as a separate Characteristic Number, if more KC's exist, then add another characteristic number for each.
 - d. Surface Finish if surface finish requirements exist, then choose the next characteristic number to identify the surface finish.

Data Field 5 – Ensure that a unique and consecutive number is used for each Data Field, starting at 1. Do not include a suffix after the number (ex. 1a, 1b, 2a, 2b, 2b...).

For multiple characteristics (ex. 20 holes of same depth and diameter), indicate PASS in Data Field 9, if all measurements pass the requirement. Then in the Comments Section (Data Field 14), indicate the minimum and maximum values attained.

From the multiple characteristics measured, if a characteristic is non-conforming, then list that characteristic separately; so the non-conforming information can be included on the same line as the non-conforming characteristic.

- 16. Data Field 6 Ensure that Reference Locations are included based on the drawing locations.
- 17. Data Field 7 Ensure that all Notes and all key characteristics (shown as pentagons) are included. Otherwise, the Data Field should contain N/A.

Note: Key Characteristics (KC's) in Field 5 (mentioned above) will match the KC's in Field 7.

18. Data Field 8 – Tolerance (±) has been added to this Data Field. For example, if a tolerance of ± 0.01 is applied, then only 0.01 needs to be added, and the "Difference" in Data Field 9 will be auto-calculated. (*when using CPI MF-1304)
If a tolerance other than ± X.XXX is applied (ex. -0.0, +0.01), then these values should be entered, but will not calculate the Difference in Data Field 9; as the Difference will need to be manually entered.

When necessary, ensure that the significant digits is modified for each value entered in the Requirement and Tolerance Data Fields. The correct number of significant digits must be displayed.

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19. Data Field 9 – Contains columns for the "Results" and "Difference". When a Note or key characteristic (that is qualitative) is added, then manually enter "N/A" to the Difference Data Field (removing the 0.000 value).

When necessary, ensure that the significant digits is modified for each value entered in the Results Data Fields and each value calculated in the Tolerance Data Fields. The correct number of significant digits must be displayed.

20. Data Field 10 – A dropdown menu for Designed/Qualified Tooling has been added to these Data Fields. If the instrument/equipment used for measurement has not been included, then manually enter the tooling.

For Designed or Qualified Tooling, the following information needs to be recorded in the **Comments Section** at the bottom of Form 3:

- a.) For "Designed Tooling", record the Tool Identification Number.
- b.) For "Qualified Tooling", record the gauge value or range (ex. minimum/maximum value), and the Tool Identification Number.

The Designed Tooling or Qualified Tooling used for measuring shall be calibrated, and a copy of the Calibration Certificate shall be sent to CMP_Rec_Insp@cpii.com, as indicated in Section <u>0</u> above.

21. Data Field 11 – If there are no Non-Conformances, then enter N/A.

If a Non-Conformance occurs, then proceed to do the following:

- a. Investigate the Non-conformance according to your QMS, and record the Non-conformance number in Data Field 11.
- Continue the evaluation until complete to ensure that any additional Non-conformances are found.
- c. Complete Forms 1, 2, and 3, but ensure Data Field 19 on Form 1 is checked as "Incomplete".
- d. Ensure the Corrective Action(s) and Disposition(s) for the Non-conformance(s) has/have been completed.
- e. Initiate a second FAIR ("...-1"; refer to Item #2 above) that only addresses the Non-conformance(s). Complete Forms 1, 2, and 3 and when the FAIR is complete, check Data Field 19 on Form 1 as "Complete".
- 22. Data Field 14 Ensure the applicable certificate/report number is added to this Data Field for "Notes" (ex. Note 3 indicates "Material: 2mm THICK AL. ALLOY 5052-H32", so the Certificate of Analysis would be referenced). Add additional comments/data as needed.
- 23. Comments Data Field added by CPI, but is optional.

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8.9 Letter of Commitment

Refer to Letter of Commitment at the end of this section.

A Letter of Commitment is required between Communications and Power Industries Canada Inc. and its Aerospace Suppliers to formalize the commitment between the parties in meeting the requirements of this Purchasing Specification.

Vendor selection for aerospace programs will be based on the response to this Letter of Commitment. Preference may be given to vendors that can support the AS9102 FAIR requirements.

The Letter of Commitment must be completed and signed by a Duly Authorized Representative of the Supplier.

Once completed, an electronic copy of the Letter of Commitment must be sent to the CPI Buyer with an email Subject Line that contains the following information: Aerospace Letter of Commitment [Supplier's Name].

	LETTER OF C	COMMITMENT	
Supplier's Official Cor	mpany Name	grees to fulfil the above requirementions $\underline{7.0}$ to $\underline{0}$.	nts for all
Must select only one of the ch	neckboxes below:		
Supplier's Official	Company Name	_ does not agree to fulfil the AS91	102 FAIR
requirements for CPI Canada	. ,		
Supplier's Official	Company Name	_ agrees to fulfil the AS9102 FAIR	requirements for
CPI Canada included in Secti			
AUTHORIZED REPRESENTATI	VE		
Print Name	Signature	Title	Date

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Appendix A – AS9102 First Article Inspection Report (Example)

	FORM:	DART HUMOS	D ACCOUNTAGE	III ITV	-	eet 1 of
Part Number.	2. Part Name:	PART NUMBE	3. Serial Numb		4. FAIR Number:	
Patt Nullion.	Z. Part Name.		J. Senai Numo	W.	4. PAIR HUMDEL	
Part Revision Level:	6. Drawing Number:		7. <u>Drawing Revi</u>	sion Level:	8. Additional Changes:	
Manufacturing Process	10. Organization Name:		11. Supplier Cox		12. P.O. Number.	
Reference:	10. Organization Name.		11. <u>Subblier Co</u>	2	12. P.O. Number.	
Detail Part:	14. Full FAI: Par	tial FAI:	Baceline Part N	lumber (Inclu	ding revision level):	
sembly FAI:	Reason for Partial FAI:					
f above part number is a detail		an helmi				
	embly, go to the "INDEX" sect f part numbers or sub-ass		required to make	ra tha seean	aunds haton vide	
lo. 15. Part Number:	16. Part Name:	periory numbers	17. Part Serial		18. FAIR Number:	
1	To Partition		7.0.0	Tuning tr	Transmission.	
2						
4						
5						
6						
8						
9						
11						
12						
13						
14						
6						
17						
18						
10						
omments:						
Name: onature: . Date: (MWDD/YY)			□ FAI Compl	ete	☐ FAI Not Complete	
Reviewed By: (Name)			23. <u>Customer A</u>			
(Signature)			24. Date:	(Signature)	1	
The state of the s						

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Appendix A – AS9102 First Article Inspection Report (Example)

4. FAIR Number:		3. Serial Number:		FORM 2 - PRODUC' 2. Part Name:	Part Number:
0	0		0		0
10. Certificate of Conformance Number:	9. <u>Customer</u> <u>Approval</u> <u>Verification:</u>	8. Supplier:	7. Code:	6. <u>Specification</u> <u>Number:</u>	Material or Process Name:
			mber:	12. Acceptance Report Nur	Functional Test
					Procedure Number
					Comments:
					Name: prature: Date: (MWDD/YY)

MF-13040

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Appendix A – AS9102 First Article Inspection Report (Example)

