

Quality Requirements Summary for Suppliers

Area of Requirement	Requirement
<i>Environmental requirements</i>	
EU ROHS: 2011/65/EC and amendments thereof.	Any item provided to Bittium must be RoHS compliant. Please inform exemption number when applicable (as listed in Annex III and IV of 2011/65/EU).
EU REACH: EC 1907/2006 and amendments thereof.	Any item provided to Bittium must be REACH compliant. <ul style="list-style-type: none"> - Does not contain any of the substances included in ANNEX XIV List of substances subjected to authorization (https://echa.europa.eu/authorisation-list) - Does not contain any of the substances included in ANNEX XVII List of restricted substances (https://echa.europa.eu/substances-restricted-under-reach) - Please inform Substances of Very High Concern (SVHC) inclusion - Please inform SVHC list version. https://echa.europa.eu/web/guest/candidate-list-table <ul style="list-style-type: none"> o When SVHC is included, please inform substance name (including CAS No.) and concentration information [%/ppm].
Persistent Organic Pollutants (POP): EC 850/2004 and amendments thereof.	Any item provided to Bittium should not include intentionally added or used POP substances.
Fluorinated greenhouse gases (F-Gas): EU 517/2014 and amendments thereof.	Any item provided to Bittium should not include intentionally added or used F-Gas substances.
Ozone depleting substances (ODS): EC 1005/2009 and amendments thereof.	Any item provided to Bittium should not include intentionally added or used ODS substances.
EU Packaging Directive: 94/62/EC and amendments thereof.	Any packaging provided to Bittium must be compliant to EU packaging Directive.
WEEE: 2012/19/EU and amendments thereof.	Any item provided to Bittium must be compliant with the requirements of EU WEEE Directive.

Area of Requirement	Requirement
<i>Quality requirements for production</i>	
<i>Measurement system capability</i>	For identified key measurement systems where a measurement system capability analysis has been mutually agreed: Type 1 Gage study: % Var (Repeatability) < 15 % Gage R&R study AIAG acceptance limits are applied: <ul style="list-style-type: none"> • GRR < 10 %, Measurement system is capable. • 10 % < GRR < 30 %, Measurement system acceptable upon Bittium consideration. • GRR > 30 % Measurement system is unacceptable.
<i>Process Capability</i>	For identified key processes where a process capability analysis has been mutually agreed: C _{pk} target: > 1.67, P _{pk} target: > 1.33

Quality requirements for PCB: s	
<i>Acceptability of electronic assemblies</i>	IPC610: class 2 by default (Use of class 3 must be mutually agreed)
Quality requirements for Batteries	
<i>Regulative requirements</i>	EU Battery Directive (2006/66/EC, EU 2023/1542)
<i>Safety requirements</i>	<p>Safety requirements documented in:</p> <ul style="list-style-type: none"> • UL 1642 • UL 2054 • IEC 62133-2 • UN38.3 • IEEE 1725, Lithium-Ion battery's compliance with the IEEE Standard for Rechargeable Batteries for Cellular Telephones
<i>Visual Quality requirements</i>	Visual Quality Specification for Pouch Cell Batteries (002QW1028)
Quality requirements for Chargers	
<i>Safety requirements</i>	<p>Chargers are required to have:</p> <ul style="list-style-type: none"> • CE marking • UL certificate of compliance • UL certificate of plastic case material • IEEE 1725 compatibility
Quality requirements for Cables	
<i>Acceptability of cable assemblies</i>	<p>Quality Control of Cables (002QW1025)</p> <ul style="list-style-type: none"> • Criteria according to IPC/WHMA-A-620D class 2 by default unless manufacturing drawing has further specifications • For fiber optic cables criteria according to IEC 61300-3-35. For single mode cables the criteria are defined using IEC 61300-3-35 criteria, return loss of ≥ 45dB, unless manufacturing drawing has further specifications
Visual quality requirements	
<i>Visual quality requirement guideline</i>	Visual Quality Specification (002QW1027)
<i>Visual quality requirements for screens</i>	General Quality Specification for Integrated Display and Touch Window (002QW1020)
<i>Visual quality requirements for accessories</i>	NCP Visual Quality Specification for Accessory Products (002QW1026)
<i>Painting and coating requirements</i>	Painting and coating specification (002QW1019)

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Summary of Changes

Version	Date	Changes Between Releases	Status
4.0.0	2022.05.04	Appearance, environmental requirement and regulative requirement update	Approved