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SERIES L: ENVIRONMENT AND ICTS, CLIMATE
CHANGE, E-WASTE, ENERGY EFFICIENCY;
CONSTRUCTION, INSTALLATION AND PROTECTION
OF CABLES AND OTHER ELEMENTS OF OUTSIDE
PLANT

E-waste and circular economy

**Adequate assessment and sensitization on
counterfeit information and communication
technology products and their environmental
impact**

Recommendation ITU-T L.1034

ITU-T L-SERIES RECOMMENDATIONS

ENVIRONMENT AND ICTS, CLIMATE CHANGE, E-WASTE, ENERGY EFFICIENCY; CONSTRUCTION, INSTALLATION AND PROTECTION OF CABLES AND OTHER ELEMENTS OF OUTSIDE PLANT

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Recommendation ITU-T L.1034

Adequate assessment and sensitization on counterfeit information and communication technology products and their environmental impact

Summary

Recommendation ITU-T L.1034 provides awareness and guidance on the health and environmental impacts of counterfeit information and communication technology products. The intention is to create awareness and sensitization on human health and environmental risks, as well as measures implemented in different countries for risk mitigation.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
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Counterfeit, environmental risks, health risks, ICT products.

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FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

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In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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Introduction

Counterfeit information and communication technology (ICT) devices are commonly understood to mean "fake and substandard" [b-ITU-T QTR-CICT]. Counterfeit products can have an extremely short lifespan, quickly reach the end of their useful life and are discarded as e-waste.

Counterfeit ICT products can be found everywhere, but they are particularly prominent in developing economies. This can be attributed to diverse reasons, including low pricing, porous borders, grey and informal markets, insufficient regulatory surveillance (type approval/acceptance) and uncontrolled export-import business.

Among other ITU-related documents, the ITU-T SG11 focuses on signalling requirements, protocols, test specifications and combating counterfeit products. It is responsible for studies to combat counterfeiting products, including telecommunications/ICT and mobile device theft. [ITU-T Q.5050] provides a framework for solutions to combat counterfeit ICT devices. [b-ITU-T QTR-CICT] looks at counterfeit ICT devices in the African region. [b-ITU-D 2021] looks at assisting developing countries in implementing conformance and interoperability programmes and combating counterfeit ICT equipment and theft of mobile devices.

This Recommendation specifically describes and provides an assessment of the health and environmental risks and potential impacts of counterfeit ICT products (including separate parts and assembled components) and assesses their contribution to the generation of e-waste volumes to reduce their environmental impact and create awareness sensitization on the same.

Recommendation ITU-T L.1034

Adequate assessment and sensitization on counterfeit information and communication technology products and their environmental impact

1 Scope

This Recommendation provides awareness and guidance on what consumers and retailers should consider about counterfeit information and communication technology (ICT) products regarding environmental and health (EH) risks. The Recommendation describes counterfeit ICT products in this context to guide the assessment of the risks and potential adverse effects, sensitization of the public, and management of counterfeit goods in an environmentally sound manner. The main challenge in the management of counterfeit products is that they misrepresent legitimate ones, do not exist formally and therefore no assumptions about safety can be made. Consequently, counterfeit products can be considered to be potentially hazardous.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T Q.5050] Recommendation ITU-T Q.5050 (2019), *Framework for solutions to combat counterfeit ICT devices*.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1 counterfeit [b-WTO glossary]: Unauthorized representation of a registered trademark carried on goods identical or similar to goods for which the trademark is registered, with a view to deceiving the purchaser into believing that he/she is buying the original goods.

3.1.2 counterfeit ICT device [ITU-T Q.5050]: An information and communication technology (ICT) device that explicitly infringes the trademark, copies hardware or software designs, or infringes brand or packaging rights of an original or authentic product and, in general, infringes applicable national and/or international technical standards, regulatory requirements or conformity processes, manufacturing licensing agreements, or other applicable legal requirements.

3.1.3 e-waste/WEEE [b-ITU-T L.1031]: Electrical or electronic equipment that is waste, including all components, sub-assemblies and consumables that are part of the equipment at the time the equipment becomes waste.

NOTE – For the purpose of this Recommendation, the term e-waste and waste electrical and electronic equipment (WEEE) are used interchangeably.

3.1.4 grey market [b-Gartner]: The import and sale of devices outside regular commercial channels as defined by the original manufacturer or the relevant government, creating a parallel market to authorized distribution channels.

3.1.5 harm [ISO/IEC Guide 51]: Injury or damage to people's health, or damage to property, or the environment.

3.1.6 hazard [ISO/IEC Guide 51]: Potential source of harm.

3.1.7 risk [ISO/IEC Guide 51]: Combination of the probability of occurrence of harm and the severity of that harm.

NOTE – Limited for this recommendation to human health or safety of persons or to the environment.

3.1.8 tampered ICT device [ITU-T Q.5050]: An information and communication technology (ICT) device that had components, software, unique identifier, items protected by intellectual-protected rights or trademarks tentatively or effectively altered without the explicit consent of the manufacturer or its legal representative.

3.2 Terms defined in this Recommendation

This Recommendation defines the following term:

3.2.1 counterfeit spare part: A false or misleading appearance copy, unauthorized copy, imitation, used part falsely claimed as new or modified part, that is deliberately misrepresented as a genuine part of a manufacturer and that misrepresents environmental and health compliance, and therefore constitutes hazards for people and the environment.

4 Abbreviation and acronyms

This Recommendation uses the following abbreviations and acronyms:

EH	Environmental and Health
EMC	Electromagnetic Compatibility
EPR	Extended Producer Responsibility
ICT	Information Communication Technology
IMEI	International Mobile Equipment Identity
MNO	Mobile Network Operator
WEEE	Waste Electrical and Electronic Equipment

5 Conventions

None.

6 Genuine versus counterfeit

The World Trade Organization (WTO) regards counterfeit products in terms of the closeness of the mark used to a registered product and applies to cases where the goods inappropriately bear a validly registered trademark [b-WTO ACTA]. In that sense of trade and market, counterfeit is considered equivalent to trademark violation, and generally, it means a fake and substandard device or part [b-ITU-T QTR-CICT].

Counterfeit electronics [b-Mattioli] have financial, privacy, security, quality, physical safety, and EH risks [b-Canon]. However, we focus on the last three in this Recommendation in terms of EH implications.

Absence of testing. Through design, testing, type approval, and other market surveillance mechanisms, genuine ICT products and their parts are tested before being sold on the market to ensure that they conform to quality and safety standards. Regarding safety, genuine ICT products are tested to ensure they meet the national and international standards for, among others, exposure to emissions;