

OCCUPATIONAL QUALIFICATION STANDARD

Electronic Equipment Assembler, EstQF Level 3

An occupational qualification standard is a document which describes the set of skills, knowledge and attitudes, i.e. competence requirements, needed to successfully accomplish duties. Occupational qualification standards are used for compiling curricula and awarding qualifications.

Occupational title	Level of Estonian Qualifications Framework (EstQF)
Electronic Equipment Assembler, EstQF Level 3	3

Possible partial professional qualifications and titles on occupational qualification certificate	
Title of partial professional qualification	Level of Estonian Qualifications Framework (EstQF)
Electronic Component Assembler, Level 3	3
Cable Assembly Manufacturer, Level 3	3

Part A DESCRIPTION OF WORK

A.1 Description of work
<p>The profession of Electronic Equipment Assembler comprises three qualifications: Electronic Equipment Assembler, Level 2, made up of two specialisations; Electronic Equipment Assembler, Level 3, made up of two specialisations; and Electronic Equipment Technician, Level 4, made up of two specialisations.</p> <p>Electronic equipment assemblers usually work for industrial companies that assemble and operate electronics or products involving electronics.</p> <p>Electronic Equipment Assembler, Level 3, manufactures wire and cable assemblies and/or electronics assemblies according to the given documentation and instructions, generally for producing serial products.</p>
A.2 Tasks
<p>A.2.1 Manufacturing electronic assemblies</p> <ol style="list-style-type: none"> 1. Assembling electronic assemblies 2. Hand soldering in the manufacturing of electronic devices 3. Identifying errors in electronic assemblies <p>A.2.2 Manufacturing cable assemblies</p> <ol style="list-style-type: none"> 1. Assembling cable assemblies 2. Hand soldering in the manufacturing of cable assemblies 3. Identifying errors in cable assemblies
A.3 Work environment and specific nature of work
<p>An electronic equipment assembler works in indoor rooms with certain special conditions that may require special garments to be worn. The specific nature of the work may involve working with small parts, which requires good eyesight and colour differentiation. An electronic equipment assembler may come into contact with chemicals in their work.</p>
A.4 Tools
<p>An electronic equipment assembler works in indoor rooms with certain special conditions that may require special garments to be worn. The specific nature of the work may involve working with small parts, which requires good</p>

eyesight and colour differentiation. An electronic equipment assembler may come into contact with chemicals in their work.

A.5 Personal qualities required for work: abilities and characteristics

The work of an electronic equipment assembler requires logical thinking skills, tolerance of routines, accuracy in movement and good eyesight (including colour differentiation).

A.6 Professional preparation

Electronic Equipment Assembler, Level 3 has usually gained their professional skills at work or through vocational or further education.

A.7 Most common occupational titles

The most common occupational titles for an electronic equipment assembler are assembly operator, operator, fitter, assembler and tuner.

Part B COMPETENCY REQUIREMENTS

B.1 Structure of occupation

Mandatory competences B.2.1-B.2.2 and B.2.3 (recurring competence) must be certified when applying for the qualification of Electronic Equipment Assembler.

Mandatory competences B.2.1 and B.2.3 must be certified when applying for the qualification of Electronic Component Assembler, Level 3.

Mandatory competences B.2.2 and B.2.3 must be certified when applying for the qualification of Cable Assembly Manufacturer, Level 3.

B.2 Competences

MANDATORY COMPETENCES

B.2.1 Manufacturing electronic assemblies	EstQF Level 3
<p>Tegevusnäitajad</p> <ol style="list-style-type: none"> 1. Koostab elektroonikakoostud, järgides tööjuhendit, toote dokumentatsiooni ja koostu puhtuse nõudeid ning tuginedes koostule kehtestatud kvaliteedikriteeriumitele ning IPC J-STD-001 ja/või IPC-A-610* või samaväärsetele standarditele. 2. Käsitseb ja valmistab jootmiseks ette elektroonika komponente ja materjale. 3. Teeb käsijootmist, järgides tööjuhendit, toote dokumentatsiooni ja/või IPC J-STD-001, IPC-A-610 või samaväärsete standardite elektroonikakooste puudutavaid kvaliteedikriteeriume ning kasutades erinevaid käsijootmise tööriistu. 4. Tuvastab visuaalselt elektroonikakoostude võimalikud vead, lähtudes tööjuhendist ja standarditest. 5. Tuvastab vigaseid kooste vastavalt etteantud diagnostikajuhistele. <p>Knowledge:</p> <ol style="list-style-type: none"> 1) different electronic components; 2) quality criteria of IPC J-STD-001 and IPC-A-610 or a similar electronic assembly standards. 	
B.2.2 Manufacturing cable assemblies	EstQF Level 3
<p>Tegevusnäitajad</p> <ol style="list-style-type: none"> 1. Koostab kaabli- ja juhtmeköidised või -koostud, järgides tööjuhendit, toote dokumentatsiooni ja koostu puhtuse nõudeid ning tuginedes koostule kehtestatud kvaliteedikriteeriumidele ning IPC J-STD-001 ja/või IPC/WHMA-A-620 või samaväärsete standardite nõuetele; 2. Otsastab ja valmistab ette kaableid ja kaablikooste; 3. Teeb kaablikoostude valmistamisel käsijootmist, lähtudes tööjuhendist ja kasutades erinevaid käsijootmisel kasutatavaid tööriistu; 4. Hindab visuaalselt kaablikoostu komponentide vastavust nõuetele; 	

5. Tuvastab kaablikoostude võimalikud vead, lähtudes etteantud diagnostikajuhistest.

Knowledge:

- 1) names of cable components;
- 2) technologies used in the manufacturing of cable and wire assemblies;
- 3) quality criteria of IPC J-STD-001 and IPC/WHMA-A-620 or another similar cable assembly standard.

RECURRING COMPETENCES

B.2.3 Recurring competences of Electronic Component Assembler, Level 3	EstQF Level 3
<p>Performance indicators:</p> <ol style="list-style-type: none"> 1. follows the work process and pays attention to quality and efficiency; follows principles of tool maintenance; 2. uses their work zone for its intended purpose and keeps it organised (5S principles) and uses materials and tools prudently and economically; 3. follows working environment and safety requirements (including waste sorting) by using work safety equipment and safe and ergonomic work methods; 4. follows ESD and RoHS principles; 5. makes sure that measurement and work tools meet work requirements by checking the labels (labels indicating calibration); 6. uses specialist terminology and understands and follows the requirements of instructional documents; follows documentation requirements set by the organisation; 7. participates in teamwork; 8. uses a computer in their work at the Basic User Level on the Digital Competence Self-Assessment Scale (see Annex 1). 	
<p>Assessment method(s):</p> <p>Recurring competences are evaluated as part of the assessment of the other competences listed in the occupational qualification standard.</p>	

Part C GENERAL INFORMATION AND ANNEXES

C.1 Information concerning compilation and certification of occupational qualification standard and reference to classification of occupations	
1. ID of occupational qualification standard in register of occupational qualifications	08-16022018-1.2/6k
2. Occupational qualification standard compiled by:	Karin Andressoo, Enics Eesti AS Milko Milatskov, Stoneridge Electronics AS Arno Kolk, Elektroonikatööstuse Liit Mart Ronk, Pärnumaa Kutsehariduskeskus Andres Ojalill, Tallinna Polütehnikum
3. Occupational qualification standard approved by:	Information Technology and Telecommunication
4. No. of decision of Sectoral Council	8
5. Date of decision of Sectoral Council	16.02.2018
6. Occupational qualification standard valid until	09.02.2023
7. Occupational qualification standard version no.	6
8. Reference to International Standard Classification of Occupations (ISCO 08)	8212 Electrical and Electronic Equipment Assemblers
9. Reference to European Qualifications Framework (EQF)	3
C.2 Occupational title in foreign language	

English:	Electronic Equipment Assembler, EstQF Level 3
English:	Electronics Assembly Operator, EstQF Level 3
Russian:	Сборщик электронных устройств
C.3 Annexes	
Lisa 1 Scale of self-assessment in digital competence	