AKKREDITOITU TESTAUSLABORATORIO

ACCREDITED TESTING LABORATORY

FINAS
Finnish Accreditation Service
T287 (EN ISO/IEC 17025)

VERKOTAN OY

VERKOTAN LTD.

Tunnus ***Code***	**Laboratorio** ***Laboratory***	**Osoite** ***Address***	**www** ***www***
T287	**Verkotan Oy** ***Verkotan Ltd.***	**Elektroniikkatie 17** **90590 OULU** ***Elektroniikkatie 17*** ***FI-90590 OULU*** ***FINLAND***	**www.verkotan.com** ***www.verkotan.com***

Testausalat ***Fields of testing***
EMC/RF-testaus ***EMC/RF testing***

PÄTEVYYSALUE ***SCOPE OF ACCREDITATION***		
Testattava materiaali / tuote ***Material / product tested***	**Testattava komponentti / parametri /ominaisuus** ***Component / parameter / characteristic tested***	**Testausmenetelmä / standardi / tekniikka** ***Test method / standard specification / techniques***
EMC/RF-testaus ***EMC/RF testing***		
Langattomasti kommunikoivat laitteet *Wireless devices*	*Radiated RF Power and Receiver Performance*	*CTIA Test Plan for Wireless Device Over-the-Air Performance*
Langattomasti kommunikoivat laitteet *Wireless devices*	*User Equipment (UE) / Mobile Station (MS) Over-The-Air (OTA) antenna performance; Conformance testing*	*3GPP TS 34.114*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Measurements of User Equipment (UE) radio performances for LTE/UMTS terminals; Total Radiated Power (TRP) and Total Radiated Sensitivity (TRS) test methodology*	*3GPP TR 37.902*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Measurements of radio performances for UMTS terminals in speech mode*	*3GPP TR 25.914*
Wi-Fi -laitteet *Wi-Fi Mobile Converged Devices*	*RF Performance Evaluation*	*CTIA/Wi-Fi Alliance Test Plan for RF Performance Evaluation of Wi-Fi Mobile Converged Devices*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and electromagnetic Fields (up to 300 GHz)*	*ICNIRP*
Langattomasti kommunikoivat laitteet *Wireless devices*	*EU Council Recommendation of 12 July 1999 in the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)*	*1999/519/EC*
Langattomasti kommunikoivat laitteet *Wireless devices*	*IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques*	*IEEE 1528-2013*

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Langattomasti kommunikoivat laitteet *Wireless devices*	*Product standard to demonstrate the compliance of wireless communication devices with the basic restrictions and exposure limit values related to human exposure to electromagnetic fields in the frequency range from 30 MHz to 6 GHz: hand-held and body mounted devices in close proximity to the human body*	*EN 50566*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Product standard to demonstrate the compliance of wireless communication devices, with the basic restrictions and exposure limit values related to human exposure to electromagnetic fields in the frequency range from 300 MHz to 6 GHz: devices used next to the ear*	*EN 50360+A1*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)*	*IEC/IEEE 62209-1528*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Part 1: Devices used next to the ear (frequency range of 300 MHz to 6 GHz)*	*IEC 62209-1* *EN 62209-1*

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Langattomasti kommunikoivat laitteet *Wireless devices*	*Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 300 MHz to 6 GHz)*	*IEC 62209-2* *EN 62209-2*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)*	*IEC/EN 62479*
Langattomasti kommunikoivat laitteet *Wireless devices*	*IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields with Respect to Human Exposure to Such Fields (100 kHz–300 GHz)*	*ANSI/IEEE C95.1*
Langattomasti kommunikoivat laitteet *Wireless devices*	*IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields with Respect to Human Exposure to Such Fields (100 kHz–300 GHz)*	*ANSI/IEEE C95.3*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)*	*IEC 62311* *EN 62311*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Generic standard for assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)*	*EN 50665*

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Langattomasti kommunikoivat laitteet *Wireless devices*	*Evaluation Procedure for Mobile and Portable Radio Transmitters with Respect to Health Canada's Safety Code 6 for Exposure of Humans to Radio Frequency Fields*	*Measurement: RSS-102 (NS), RSS-102 (SAR) and RSS-102 (RF Exp.)*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Supplementary Procedure for Assessing Compliance with RSS-102 Nerve Stimulation Exposure Limits*	*Measurement: SPR-002 (NS)*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Radio Communications (Electromagnetic Radiation – Human Exposure) Standard 2014*	*Australian Communications and Media Authority (ACMA)*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Radiofrequency Radiation Exposure Evaluation: Portable Devices*	*47CFR §2.1093*
Langattomasti kommunikoivat laitteet *Wireless devices*	*RF Exposure*	*FCC Published RF Exposure KDB Procedures*
Langattomasti kommunikoivat laitteet *Wireless devices*	*Specific Absorption Rate (SAR) Estimation for Cellular Phone*	*ARIB STD-T56*
Langattomasti kommunikoivat laitteet *Wireless devices*	*IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 2: CDMA Direct Spread (UTRA FDD) User Equipment (UE)*	*EN 301 908-2, 4.2.14 Receiver Total Radiated Sensitivity (TRS) and 4.2.15 Total Radiated Power (TRP)*
Langattomasti kommunikoivat laitteet *Wireless devices*	*3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Universal Terrestrial Radio Access (UTRA) and Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) Over The Air (OTA) performance; Conformance testing*	*3GPP TS 37.544,* *6. Transmitter Performance and* *7. Receiver Performance*

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Radiolaitteet *Radio devices*	*Product standard to demonstrate the compliance of base station equipment with radiofrequency electromagnetic field exposure limits (110 MHz - 100GHz), when placed on the market*	*EN 50385*
Radiolaitteet *Radio devices*	*Determination of RF field strength, power density and SAR in the vicinity of radiocommunication base stations for the purpose of evaluating human exposure*	*EN 62232* *IEC 62232*
Radiolaitteet *Radio devices*	*Radiofrequency radiation exposure evaluation: Mobile devices.*	*47 CFR § 2.1091*
Radiolaitteet *Radio devices*	*Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10 MHz - 300 GHz)*	*EN 50663*
Radiolaitteet *Radio devices*	*Satellite Earth Stations and Systems (SES); Global Navigation Satellite System (GNSS) receivers; Radio equipment operating in the 1 164 MHz to 1 300 MHz and 1 559 MHz to 1 610 MHz frequency bands; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU*	*EN 303 413, excluding radiated spurious emissions test*
Tukiasema ja oheislaitteet *Base station and ancillary equipment*	*3rd Generation Partnership Project;* *Technical Specification Group Radio Access Network;* *NR;* *Base Station (BS) conformance testing - Part 2: Radiated conformance testing*	*3GPP TS 38.141-2, 6.2 radiated transmit power and 7.2 OTA sensitivity*

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Tukiasema ja oheislaitteet *Basestation and ancillary equipment*	*3rd Generation Partnership Project;* *Technical Specification Group Radio Access Network;* *Active Antenna System (AAS) Base Station (BS) conformance testing* *Part 2: Radiated conformance testing*	*3GPP TS 37.145-2, 6.2 radiated transmit power and 7.2 OTA sensitivity*
Kun standardista ei ole mainittu vuosilukua, niin akkreditointi koskee standardin viimeisintä versiota sekä kaikkia aiemmin julkaistuja versioita. Tarkka lista standardeista on saatavilla laboratoriosta. *When the approval year of the standard is not specified accreditation covers the latest version of the method and also previously published versions. Detailed list of standards is available from the laboratory.*		