

**ANNEXURE A**  
**SCHEDULE OF ACCREDITATION**

Facility Number: **T0812**

**Permanent Address of Laboratory:**

iSert (Pty) Ltd  
129 Khai-Apple Street  
Montana  
Pretoria  
0186

**Postal Address:**

PO Box 15100  
Lyttleton  
0140

**Tel:** (012) 548-0940

**Fax:** n/a

**E-mail:** johan@isert.co.za

**Technical Signatories:**

Mr CJ Deysel (EMC, Safety & Performance)  
Mr RM van den Berg (RF)  
Mrs L de Vries-Venter (Safety)  
Mr HE Olivier (RF)  
Mr JA du Plooy (EMC)  
Mr ES van Niekerk (Safety)

**Nominated Representative:**

Mr CJ Deysel

**Issue No.:** 10

**Date of Issue:** 06 April 2023

**Expiry Date:** 23 November 2027

Materials / Products Tested	Type of Tests / Properties Measured, Range of Measurement	Standard Specifications, Techniques / Equipment Used
<b>EMC Product standards</b>		
1. Industrial, Scientific and Medical Equipment	Electromagnetic disturbance characteristics	SANS 211:2011 / CISPR 11:2010, A1:2010 / EN 55011: 2010 (single phase only)
2. Electromagnetic compatibility requirements for household appliances, electric tools and similar apparatus	Electromagnetic compatibility – appliances, electric tools and similar apparatus Part 1: Emissions	SANS 214-1:2012, CISPR 14-1:2011/EN 55014-1:2017
3.	Electromagnetic compatibility – requirements for household appliances, electric tools and similar apparatus – Part 2: Immunity	SANS 214-2:2009, EN 55014-2:2015, CISPR 14-2:2008 (I/P current 15 A max)
4. 4. Multimedia Equipment (MME)	Electromagnetic compatibility of multimedia equipment- Emission requirements	CISPR 32:2015+A1:2019 / EN 55032:2015+A11:2020
5.	Electromagnetic compatibility of multimedia equipment- Immunity Requirements	CISPR 35: 2016 / EN 55035: 2017+A11:2020
6. Radio Equipment Directive	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements	ETSI EN 301 489-1
7.	Specific conditions for Short-Range	ETSI EN 301 489-3

	Devices (SRD) operating on frequencies between 9 kHz and 246 GHz	
8.	Specific conditions for Broadband Data Transmission Systems	ETSI EN 301 489-17
9.	Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1,5GHz band providing data communications and GNSS receivers operating in the RNSS band (ROGNESS) providing positioning, navigation, and timing data'	ETSI EN 301 489-19
10.	Specific conditions for Ultra-WideBand (UWB) devices.	ETSI EN 30 483-33
11.	Specific conditions for Ultra-WideBand (UWB) devices.	ETSI EN 301 489-52
<b>EMC Basic standards</b>		
12.	Electrical Equipment connected to Public Low-Voltage Systems	Harmonic current emissions SANS 61000-3-2:2009 / IEC 61000-3-2:2018 / EN 61000-3-2:2019
13.	Voltage changes, voltage fluctuations and flicker	SANS 61000-3-3:2009 / IEC 61000-3-3:2013+A1:2019 / EN 61000-3-3:2013+A1:2017
14.	Electrostatic immunity	SANS 61000-4-2:2009 / IEC 61000-4-2:2008 / EN 61000-4-2:2009
15.	Radiated, radio-frequency, electromagnets field immunity test	SANS 61000-4-3 2008 / IEC 61000-4-3: 2006+A1:2007+A2:2010/ EN 61000-4-3: 2006+A2:2010
16.	Electrical fast transient / burst immunity	SANS 61000-4-4:2011 / IEC 61000-4-4:2012 / EN 61000-4-4:2012
17.	Surge immunity	SANS 61000-4-5:2006 / IEC 61000-4-5:2014 / EN 61000-4-5:2014
18.	Immunity to conducted disturbances, induced by radio-frequency fields	SANS 61000-4-6:2009 / IEC 61000-4-6:2013 / EN 61000-4-6:2014
19.	Power frequency electric field immunity test	SANS 61000-4-8: 2009 / IEC 61000-4-8:2009/ EN 61000-4-8:2010
20.	Pulse magnet field immunity test	SANS 61000-4-9: 2003 / IEC 61000-4-9:2016/ EN 61000-4-9:2016
21.	Immunity to voltage dips, short interruptions and voltage variations	SANS 61000-4-11:2005 / IEC 61000-4-11: 2004+A1:2017 / EN 61000-4-11:2020

**RF Standards**


<p><b>22.</b>Harmonised standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU;</p>	<p>Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz;</p>	<p>ETSI EN 300 220-1</p>
<p><b>23.</b></p>	<p>Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 2: Harmonised Standard for access to radio spectrum for non specific radio equipment</p>	<p>ETSI EN 300 220-2</p>
<p><b>24.</b></p>	<p>Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques;</p>	<p>ETSI EN 300 328</p>
<p><b>25.</b></p>	<p>Global System for Mobile communications (GSM); Mobile Stations (MS) equipment;</p>	<p>ETSI EN 301 511 only for section 4.2.5, 4.2.16, 4.2.17, 4.2.12 &amp; 4.2.13</p>
<p><b>26.</b></p>	<p>IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements</p>	<p>ETSI EN 301 908-1</p>
<p><b>27.</b></p>	<p>IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 2: CDMA Direct Spread (UTRA FDD) User Equipment (EU)</p>	<p>ETSI EN 301 908-2</p>
<p><b>28.</b></p>	<p>IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU; Part 13: Evolved Universal Terrestrial Radio Access (E-UTRA), User Equipment (UE)</p>	<p>ETSI EN 301 908-13</p>
<p><b>29.</b></p>	<p>Short Range Devices (SRD); Radio equipment in the frequency range 9 KHz to 25 MHz and inductive loop systems in the frequency range 9 KHz to 30 MHz; Harmonised standard covering the essential requirements of article 3.2 of Directive 2014/53/EN</p>	<p>ETSI EN 300 330</p>
<p><b>30.</b></p>	<p>Fixed Radio Systems; characteristics and requirements for point-to-point equipment and antennas; Part 2-2: Digital systems operating in frequency bands where frequency co-ordination is applied; Harmonized EN covering the essential requirements of article</p>	<p>ETSI EN 302 217-2</p>

	3.2 of the R & TTE Directive	
31.	5 GHz RLAN; Harmonised Standard covering the essential requirements.	ETSI EN 301 893
32.	'Satellite Earth Stations and Systems (SES); Global Navigation Satellite System (GNSS) receivers; Radio equipment operating in the 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'	ETSI EN 303 413 Clause 4.2.2 only
<b>Energy Efficiency</b>		
33.	Energy efficiency of electronic apparatus	SANS 941:2020
34.	Methods of measurement for the power consumption of audio, video and related equipment	SANS 62087-1:2017 IEC 62087-1:2015
<b>Safety Performance</b>		
35.	Information technology equipment - Safety. General requirements	SANS 60950-1:2014 IEC 60950-1:2013
36.	Audio/ video, information and communication technology equipment - Part 1: Safety requirements	EN 62368-1:2014 + A11:2017/ IEC 62368-1:2014 EN 62368-1:2020+A11:2020 IEC 62368-1:2018
37.	Safety requirements for electrical equipment for measurement, control, and laboratory use General requirements	EN 61010-1: 2010+A1:2019 IEC 61010-1: 2017
38.	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-201: Particular requirements for control equipment	EN 61010-2-201: 2018 IEC 61010-2-201: 2017
39.	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-030: Particular requirements for equipment having testing or measuring circuits	EN 61010-2-030: 2021+A11:2021 IEC 61010-2-030: 2017

---

Original Date of Accreditation: 24 November 2017

ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

  
 \_\_\_\_\_  
 Accreditation Manager