

# Schedule of Accreditation

issued by

## United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 <p>1911 Accredited to ISO/IEC 17025:2017</p>	<h3>Samsung Electronics Quality Assurance Lab</h3> <p>Issue No: 159 Issue date: 10 November 2021</p>	
	<p><b>Blackbushe Business Park</b> Saxony Way Yateley Hampshire GU46 6GG</p>	<p><b>Contact: Mr B Fisken</b> Tel: +44 (0)1252 863800 Fax: +44 (0)1252 863814 E-Mail: bill.fisken@samsung.com</p>
<p><b>Testing performed by the Organisation at the locations specified below</b></p>		

### Flexible Scope

The Flexible Scope applies to the laboratory's accreditation to ISO/IEC17025:2017 for testing activities in accordance with the standards listed in section 5 of the schedule for Digital Television Testing, carried out at the Warsaw location (Site C).

The scope may also include tests on the same or similar product types against standards, or customer-specified methods that are not specifically listed in this Schedule, providing that:

- (1) The method or standard does not introduce new principles of measurement.
- (2) The method or standard does not require measurements to be made outside the parametric boundaries defined in this Schedule.

Information about flexible scopes of accreditation is available in UKAS document GEN 4.

### Locations covered by the organisation and their relevant activities

#### Laboratory locations:

Location details	Activity	Location code
<p><b>Address</b> Samsung Electronics Quality Assurance Lab Blackbushe Business Park Saxony Way Yateley Hampshire GU46 6GG</p> <p><b>Local contact</b> Mr Bill Fisken Tel: +44 (0)1252 863800 Fax: +44 (0)1252 863814 Email: bill.fisken@samsung.com</p>	<p><b>Testing:</b> Telecommunications Testing OTA Testing Field Trials Interoperability testing SAR Testing PAL Testing</p>	A
<p><b>Address</b> Samsung Electronics Co Ltd 129 Samsung-ro Yeongtong-Gu Suwon City Gyeonggi-Do Korea 16677</p> <p><b>Local contact</b> Ms Huijeong Seo Tel: +82 (0)31 8062-4291 Fax: +82 (0)31 279 7799 Email: huijeong.seo@samsung.com</p>	<p><b>Testing:</b> SAR/RF Exposure Testing Telecommunications Testing Radio OTA Testing EMC</p>	B 21C – EMC, Radio, OTA R3 – Telecommunications testing R5- EMC, Telecommunications testing, SAR/RF Exposure.



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Location details	Activity	Location code
<b>Address</b> DTV Accredited Compliance Lab Pl. Europejski 1 00-844 Warszawa Poland  <b>Local contact</b> Daniel Nowicki Bartosz Kaczmarek  Tel: +48 (0)22 377 8463 +48 (0)22 377 8263 +48 (0)22 377 8000 Email: d.nowicki@samsung.com b.kaczmarek@samsung.com	<b>Testing:</b> Digital Television Receiver Protocol and RF Testing	C

**Site activities performed away from the location listed above:**

Location details	Activity	Location code
Suitable test routes and locations providing the required network coverage, as defined in the specification or by the laboratory. The site must be suitable for the nature of the testing undertaken and will be the subject of contract review arrangements between the laboratory and the customer	<b>Testing:</b> Field Trials	D



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#### DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Terminal Devices	<b>1 EMC Tests</b>		
	1.1 Conducted emissions 150 kHz to 30 MHz	EN 55022:2010/AC:2011 EN 55032:2015	B
	1.2 Radiated Emissions E-field: 30 MHz to 6 GHz	EN 55022:2010/AC:2011 EN 55032:2015	B
	1.3 Electrostatic Discharge Up to 15 kV air Up to 8 kV contact	EN 61000-4-2:2009	B
	1.4 Radiated Immunity 80 MHz to 6 GHz Up to 10 V/m	EN 61000-4-3:2006 +A2:2010	B
	1.5 Harmonic current emissions Measurements up to 40 <sup>th</sup> Harmonic Equipment Input Current ≤16A Per Phase	EN 61000-3-2:2006+A1:2009+A2:2009 EN 61000-3-2:2014	B
	1.6 Voltage Fluctuations & Flicker 230V, 50Hz, 60Hz	EN 61000-3-3:2008 EN 61000-3-3:2013	B
1.7 Electrical fast transient/burst Up to 4.0 kV	EN 61000-4-4:2004+A1:2010 EN 61000-4-4:2012	B	



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Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Terminal Devices (cont'd)	<b>1. EMC Tests (cont'd)</b>  1.8 Surge Up to 2 kV 1.2/50 (8/20) $\mu$ s	EN 61000-4-5:2006 EN 61000-4-5:2014	B
	1.9 Conducted disturbances Induced by Radio frequency fields 150KHz ~ 80MHz Up to 10V	EN 61000-4-6:2009	B
	1.10 Voltage dips, short Interruptions & variations  AC 230V up to 16A, Inrush current: 552A Voltage dips: Up to 100% Voltage Interruptions: Up to 100%	EN 61000-4-11:2004	B
	1.11 Product Specific Standards  These Product Specific standards are included in this Schedule, but limited to those referred basic standards that are explicitly listed in Sections 1.1 to 1.10	EN 55024:2010 EN 55035:2017 EN 301 489-1 V1.9.2 EN 301 489-1 V2.1.1 EN 301 489-3 V1.6.1 EN 301 489-3 V2.1.1 EN 301 489-7 V1.3.1 EN 301 489-17 V2.2.1 EN 301 489-17 V3.1.1 EN 301 489-19 V2.1.0 EN 301 489-24 V1.5.1 EN 301 489-52 V1.1.0	B







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As listed on Page 5	<b>2 Telecommunications Testing (cont'd)</b>		
	2.2 Rohde & Schwarz TS8980, RF, RRM testing GSM, WCDMA, LTE terminal devices	TS 34.121-1 TS 36.521-1 EN 301 908-13 TS 36.521-3 TS 51.010-1 TS 34.122 EN 301 908-2 EN 301 511	A, B A, B A, B A, B A, B B A, B A, B
	2.3 Rohde & Schwarz CMW500, Protocol GSM, WCDMA, LTE terminal devices	TS 34.123-1 TS 36.523-1 TS 34.229-1 TS 51.010-1  Verizon Voice Over Wifi Test Plan Verizon CDMA Less Type 3 Test Plan Verizon IMS Roaming Type 3 Test Plan Verizon CMAS LTE Test Plan Verizon IMS VoIP Test Plan Verizon LTE RichCommServices Test Plan Verizon LTE Data Retry Test Plan Verizon IMS registration and Retry Test Plan	B
	2.4 Comprion SIM Simulator IT3/UT3 and R&S CMW500, Anritsu MD8475A SIM, SIM Application Toolkit, USIM, USAT	TS 51.010-1 TS 51.010-4 TS 31.121 TS 31.124 TS 102 230 TS 102 384	B
2.5 Rohde & Schwarz CRTU-ATE, CMW-ATE	OMA -ETS-MMS OMA-ETS-DM	B	







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As listed on Page 5	<b>2 Telecommunications Testing (cont'd)</b>		
	2.8 Anite Conformance Toolset  GSM WCDMA, LTE GPRS, EGPRS, AMR, Inter-RAT	TS 34.123-1 TS 51.010-1 EN 301 419-1 ETS 300 607 TBR 19/20/31/32 TS 34.229-1 TS 36.523-1 TR 37.901 TS 35	B
	2.9 Anritsu ME7873F WCDMA RF and RRM tests	TS 34.121-1 EN 301 908-2	B
	2.10 Anritsu ME7873L LTE RF and RRM tests	TS 34.121-1 TS 36.521-1 TS 36.521-3 TS 34.122 EN 301 908-13	B
2.11 Anritsu ME7873LA WCDMA, LTE RF and RRM tests	TS 34.121-1 TS 36.521-1 TS 36.521-3 TS 34.122 EN 301 908-2 EN 301 908-13 Verizon LTE 3GPP Band 4 and Band 66 Supplementary RF Conformance Verizon LTE 3GPP Band 13 Supplementary RRM Conformance Test Plan Verizon LTE 3GPP Band 5 Supplementary RF Conformance Verizon LTE 3GPP Band 13 Supplementary RF Conformance Test Plan Verizon LTE Interband Test Plan Verizon LTE_3GPP Band 2 Supplementary RF Conformance	B  B  B  B  B  B	



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As listed on Page 5	<b>2 Telecommunications Testing (cont'd)</b>		
	2.12 Spirent ULTS A-GPS and SUPL tests	OMA-ETS-SUPL OMA-ETS-LPPE TS 51.010-1 TS 37.571-1 TS 37.571-2	B
	2.13 Spirent 8100-B500(LTS)	Verizon E911 LTE Only or LTE Multi-Mode Device Test Plan	B
	2.14 Comprion UT3 SWP and HCI Tests	TS 102 694-1 TS 102 695-1	B
	2.15 Comprion UT3 and Anritsu MD8475A UICC based NFC, USAT Conformance tests	TS 27 TS 31.124	B
	2.16 HEAD acoustics ACQUA with MFE VI.1/labCORE GSM, WCDMA, LTE Acoustic Test	TS 51.010-1 TS 26.132	B
	2.17 Remote SIM Provisioning Comprion RSP Conformance Platform	SGP.23	B
	2.18 Anritsu ME7873NR NR RF and RRM tests	TS 38.521-3 TS 38.521-1 TS 38.521-4 TS 38.533 EN 301 908-25	A, B A, B A, B A, B A, B



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As listed on Page 5	<b>2 Telecommunications Testing (cont'd)</b>		
	2.19 Anritsu ME7874NR NR Protocol	TS 38.523-1	B
	2.20 Keysight 5G RF/RRM Conformance Toolset	TS 38.521-1 TS 38.521-3 TS 38.521-4 TS 38.533 EN 301 908-25	B
	2.21 Keysight 5G Protocol Conformance Toolset	TS 38.523-1 TS 34.229-5	B
	2.22 Keysight 5G FR2 OTA	Verizon Wireless 5G NR Over The Air Radiated Performance Test Plan	B



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Mobile Stations Terminal Devices	<b>3 SAR/RF Exposure Tests</b>  3.1 SAR (Specific Absorption Rate) Using SPEAG DASY 5 System (sites A, E) DASY 5&6 Systems (site B)  300 MHz to 6 GHz Site A 10g reference SAR values only Site B and E	EN 50360:2001+A1:2012 EN 50360:2017 EN 50566:2013+AC:2014 EN 50566:2017 EN 50663:2017 EN 62209-1:2006 EN 62209-1:2016 EN 62209-2: 2010+A1:2019 EN 62311: 2008 EN 62479: 2010  Australian Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2014, paragraph 9 and 10	A, B B A, B B B A, B B A, B A, B A, B A, B
	3.2 Power Density  6 GHz to 100 GHz  Using SPEAG DASY 6 with RF Field Probes and support fixtures	PD IEC TR 63170:2018	B
GSM 850 mobile stations GSM 900 mobile stations GSM 1800 mobile stations GSM 1900 mobile stations 3G mobile stations  LTE Terminal Devices	<b>4 Radio and Spurious Emissions Testing</b>  4.1 Radiated Spurious Emissions 30 MHz to 40 GHz Using Full Anechoic chamber  4.2 Control and Monitoring Functions Measuring RF power	EN 301 419-1 V4.1.1 EN 301 511 V12.5.1 TS 51.010-1 EN 301 908-1 V11.1.1 EN 301 908-1 V13.1.1 TS 34.124 TS 36.124	B



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Digital Terrestrial and Cable Television Receivers and Recorders	<p><b>5 Digital Television Receiver Testing</b></p> <p>(Section covered by Flexible Scope of accreditation)</p> <p>5.1 Receiver RF Performance and Functional Testing</p> <p>DVB-T and DVB-T2</p>	<p>DTG D Book Sections 9 and 10</p> <p>NorDig Unified Test Specification for Integrated Receivers/Decoders Part II Section 2.3</p> <p>Unified Test Specification for HDTV DVB-C and DVB-T2 digital receiver for Finnish Market</p> <p>Ghana: Minimum Requirements for Reception of Digital Terrestrial and Satellite Television Services from the National Digital Television Network</p> <p>Telecommunication – Ghana Minimum Technical Specifications of Digital Terrestrial Television (DTT) &amp; Direct-To-Home (DTH) Receivers for Free-To-Air Television Reception</p> <p>ECOWAS: ECOWAS Common Minimum Technical Specifications of DTT Receivers (starting from v 1.1)</p> <p>Zambia: ZS 817:2014 ICS 33.160.25 Zambian Standard – Requirements for DVB-T2 Set Top Boxes</p>	<p>C</p> <p>C</p> <p>C</p> <p>C</p> <p>C</p> <p>C</p>



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Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<p><b>5. Digital Television Receiver Testing (cont'd)</b></p> <p>5.1 Receiver RF Performance and Functional Testing (cont'd)</p> <p>DVB-T and DVB-T2 (cont'd)</p>	<p>Malaysia Malaysia Specifications on Common Test Suite for Digital Terrestrial Television Broadcast Service Receiver MCMC MTSFB TC T011:2020 using Malaysia DVB-T2 RF Performance Test Suite Ver 1.0 SKMM MTSFB TC T004:2013</p> <p>ETSI EN 303 340 V1.2.1 (2020-09) Digital Terrestrial TV Broadcast Receivers; Harmonised Standard for access to radio spectrum</p> <p>Slovakia: TNI 36 7554 Technical Specification of DVB-T/-T2 Receivers Intended for the Slovak Market</p> <p>Czech Republic: Methodology of DVB-T2 receiver testing according to D-Book Minimum requirement for receiving device for providing services in DVB-T and DVB-T2 networks, D-Book Version 4.03 (August 2016)</p> <p>Croatia: Recommendation on minimum receiver technical requirements for the reception of DVB-T2 signal in the Republic of Croatia</p>	<p>C</p> <p>C</p> <p>C</p> <p>C</p>



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Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<p><b>5. Digital Television Receiver Testing (cont'd)</b></p> <p>5.1 Receiver RF Performance and Functional Testing (cont'd)</p> <p>DVB-T and DVB-T2 (cont'd)</p>	<p>Thailand: Technical standards for digital terrestrial television receivers NBTC BS 4002-2560 (2017)</p> <p>Singapore: IMDA TS DVB-T2 IRD Issue 1 Revision 1, November 2017 Technical Specification for Integrated Receiver Decoder for use with second generation Digital Terrestrial Television broadcasting system (DVB-T2)</p> <p>Vietnam: QCVN 63:2020/BTTTT National Technical Regulation on Digital Receiver Used in DVB-T2 Digital Terrestrial Television Broadcasting</p> <p>Germany: Minimum Requirements for DVB-T2 Devices in Germany</p> <p>Indonesia: Indonesia Technical requirements for telecommunications tools and/or devices for the purpose of broadcast television and radio broadcasts</p> <p>Samoa: Samoa OOTR Digital Broadcasting Receiver Specification</p>	<p>C</p> <p>C</p> <p>C</p> <p>C</p> <p>C</p>



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Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<p><b>5. Digital Television Receiver Testing (cont'd)</b></p> <p>5.1 Receiver RF Performance and Functional Testing (cont'd)</p> <p>DVB-T and DVB-T2 (cont'd)</p> <p>ATSC 3.0</p> <p>DTMB</p> <p>DVB-C</p>	<p>UAE: UAE.S 5017 :2014 Receiver Specification Requirements for Digital Terrestrial TV Broadcasting in UAE</p> <p>Korea and USA: ATSC 3.0 Recommended Practice: ATSC 3.0 PHY Lab Performance Test Plan (A/325)</p> <p>Cuba: Mandatory Technical and Operative Specifications for Cuba's Digital Terrestrial Television Receivers</p> <p>Ficom Finnish CATV Test Specification for Digital Receivers version 2, Cable Tuner and Demodulator</p> <p>NorDig Unified Test Specification for Integrated Receivers/Decoders Part II Section 2.2 Unified Test Specification for HDTV DVB-C and DVB-T2 digital receiver for Finnish Market Using RF Test Procedures</p>	<p>C</p> <p>C</p> <p>C</p> <p>C</p> <p>C</p>





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Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<p><b>5. Digital Television Receiver Testing (cont'd)</b></p> <p>5.1 Receiver RF Performance and Functional Testing (cont'd)</p> <p>DVB-S DVB-S2</p>	<p>Freesat RF Conformance testing to Using in-house test procedure</p> <p>ETSI EN 303 372-2 V1.1.1 (2016-04) Satellite Earth Stations and Systems (SES); Satellite broadcast reception equipment; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU Part 2: Indoor unit</p> <p>NorDig Unified Test Specification for Integrated Receivers/Decoders Part II Section 2.1</p> <p>Ghana: Minimum Requirements for Reception of Digital Terrestrial and Satellite Television Services from the National Digital Television Network</p> <p>Telecommunication – Ghana Minimum Technical Specifications of Digital Terrestrial Television (DTT) &amp; Direct-To-Home (DTH) Receivers for Free-To-Air Television Reception</p>	<p>C</p> <p>C</p> <p>C</p> <p>C</p>



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Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<p><b>5. Digital Television Receiver Testing (cont'd)</b></p> <p>5.2 Service Information Testing</p> <p>DVB-T, DVB-T2</p>	<p>DTG D-Book Section 8 Using DTG SI Test Suite</p> <p>Freeview New Zealand Digital Television Receiver Specification Using DTG Testing SI Test Suite</p> <p>Ghana: Minimum Requirements for Reception of Digital Terrestrial and Satellite Television Services from the National Digital Television Network</p> <p>Telecommunication – Ghana Minimum Technical Specifications of Digital Terrestrial Television (DTT) &amp; Direct-To-Home (DTH) Receivers for Free-To-Air Television Reception Using Ghana SI/PSI Test Suite</p> <p>Zambia: ZS 817:2014 ICS 33.160.25 Zambian Standard – Requirements for DVB-T2 Set Top Boxes</p> <p>ECOWAS: ECOWAS Common Minimum Technical Specifications of DTT Receivers (starting from v 1.1)</p>	<p>C</p> <p>C</p> <p>C</p> <p>C</p> <p>C</p> <p>C</p>



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Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<p><b>5. Digital Television Receiver Testing</b> (cont'd)</p> <p>5.2 Service Information Testing (cont'd)</p> <p>DVB-T, DVB-T2 (cont'd)</p>	<p>Malaysia: Malaysia Specifications on Common Rest Suite for Digital Terrestrial Television Broadcast Service Receiver MCMC MTSFB TC T011:2020 using Malaysia Using Malaysia SI/PSI Test Suite DVB-T2 SI/PSI Conformance Test Suite Ver1.0. SKMM MTSFB TC T004:2013.</p> <p>Slovakia: TNI 36 7554 Technical Specification of DVB-T/-T2 Receivers Intended for the Slovak Market</p> <p>Czech Republic: Methodology of DVB-T2 receiver testing according to D-Book Minimum requirement for receiving device for providing services in DVB-T and DVB-T2 networks, D-Book Version 4.03 (August 2016)</p> <p>Croatia: Recommendation on minimum receiver technical requirements for the reception of DVB-T2 signal in the Republic of Croatia</p> <p>Indonesia: Indonesia Technical requirements for telecommunications tools and/or devices for the purpose of broadcast television and radio broadcasts</p>	<p>C</p> <p>C</p> <p>C</p> <p>C</p> <p>C</p>



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Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<b>5. Digital Television Receiver Testing</b> (cont'd)  5.2 Service Information Testing (cont'd)  DVB-T, DVB-T2 (cont'd)	Thailand: Technical standards for digital terrestrial television receivers NBTC BS 4002-2560 (2017)	C
		Singapore: IMDA TS DVB-T2 IRD Issue 1 Revision 1, November 2017 Technical Specification for Integrated Receiver Decoder for use with second generation Digital Terrestrial Television broadcasting system (DVB-T2)	C
		Vietnam: QCVN 63:2020/BTTTT National Technical Regulation on Digital Receiver Used in DVB-T2 Digital Terrestrial Television Broadcasting	C
	DVB-S, DVB-S2	Samoa: Samoa OOTR Digital Broadcasting Receiver Specification  Freesat Requirements for Interoperability Part 3 Using DTG Testing SI Test Suite	C
	5.3 MHEG Interactivity Testing  DVB-T, DVB-T2	DTG D-Book Sections 13 to 19 Using MHEG Test Suite  Freeview Australia Digital Television Receiver Specification Using DTG Testing Freeview Australia MHEG Test Suite	C



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Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<b>5. Digital Television Receiver Testing (cont'd)</b>		
	5.3 MHEG Interactivity Testing (cont'd)		
	DVB-T, DVB-T2	Freeview New Zealand Digital Television Receiver Specification Using DTG Testing Freeview NZ MHEG Test Suite	C
	DVB-S, DVB-S2	Freeview Ireland Digital Television Receiver requirements Using DTG Testing MHEG Test Suite	C
		Freesat Requirements for Interoperability Part 3 Using DTG Testing Freesat MHEG Test Suite	C
	5.4 Over the Air Download		
	DVB-T, DVB-T2	DTG D-Book Section 23 Using Internal Validation Procedure	C
		Malaysia Specifications on Common Test Suite for Digital Terrestrial Television Broadcast Service Receiver MCMC MTSFB TC T011:2014 using Malaysia DVB-T2 Over Air Download (OAD) Test Suite Ver1.0. SKMM MTSFB TC T004:2013.	C
		ECOWAS Common Minimum Technical Specifications of DTT Receivers (starting from v 1.1)	C
	Thailand: Technical standards for digital terrestrial television receivers NBTC BS 4002-2560 (2017)	C	C



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**Samsung Electronics Quality Assurance Lab**  
Issue No: 159 Issue date: 10 November 2021

Testing performed by the Organisation at the locations specified

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code
Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<b>5. Digital Television Receiver Testing (cont'd)</b>		
	5.4 Over the Air Download (cont'd)  DVB-S, DVB-S2	Freesat Requirements for Interoperability Part 3 Using Internal Validation Procedure	C
	5.5 Active Format Description Testing	DTG D-Book sections 3 and 24 Using DTG Testing AFD Test Suite	C
	5.6 Time-exclusive Service Testing DVB-T, DVB-T2	DTG D-Book Section 7 Using DTG Testing Timex Test suite	C
	5.7 Linear Service DVB-T2  DVB-S, DVB-S2	DTG D-Book Section 22 Using Linear Services Test suite  Freesat Requirements for Interoperability Part 3 Using DTG Testing Linear Services Test suite	C
5.8 Freeview+ DVB-T, DVB-T2      DVB-S, DVB-S2		DTG D-Book Section 22 Using DTR Test Suite	C
		Freeview Australia Digital Television Receiver Specification Using DTG Testing Freeview Australia DTR Test Suite	C
		Freeview New Zealand Digital Television Receiver Specification Using DTG Testing Freeview NZ DTR Test Suite	C
		Freesat Requirements for Interoperability Part 3 Using DTG Testing Freesat  DTR Test Suite	C



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Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<b>5. Digital Television Receiver Testing</b> (cont'd)		
	5.9 MPEG2 Demultiplexer and Video/Audio Decoder Testing  DVB-T, DVB-T2	NorDig Unified Test Specification for Integrated Receivers/Decoders section 2.5 Using Labwise Streamwise Suite and in-home Test Suite	C
	DVB-T, DVB-T2, DVB-C	Unified Test Specification for HDTV DVB-C and DVB-T2 digital receiver for Finnish Market using Labwise test suite and Internal Validation Procedure	C
	DVB-C	Ficom Finnish CATV Test Specification for Digital Receivers version 2 Using Labwise Streamwise Suite and Internal Validation Procedure	C
	5.10 SI and Navigator  DVB-T, DVB-T2	NorDig Unified Test Specification for Integrated Receivers/Decoders section 2.5 Using Labwise Streamwise Suite and Internal Validation Procedure  RikstV Test Specification for Integrated Receiver Decoders Sections 9, 10, 11, 15, 18, C Using Internal Validation Procedure	C
	DVB-T, DVB-T2, DVB-C	Unified Test Specification for HDTV DVB-C and DVB-T2 digital receiver for Finnish Market Using Labwise test suite and Internal Validation Procedure	C



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Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<b>5. Digital Television Receiver Testing (cont'd)</b>  5.10 SI and Navigator (Cont'd)  DVB-C	Ficom Finnish CATV Test Specification for Digital Receivers version 2 Using Labwise Streamwise Suite and Internal Validation Procedure	C
	5.11 Bootloader (system software update)  DVB-T, DVB-T2  DVB-T, DVB-T2, DVB-C	NorDig Unified Test Specification for Integrated Receivers/Decoders section 2.6 Using Internal Validation Procedure  RiksTV SSU Test Specification Using Internal Validation Procedure  Unified Test Specification for HDTV DVB-C and DVB-T2 digital receiver for Finnish Market Using Internal Validation Procedure	C
	DVB-C	Ficom Finnish CATV Test Specification for Digital Receivers version 2 Using Internal Validation Procedure	C
	5.12 Teletext and subtitling, RCU, User preferences  DVB-T, DVB-T2	NorDig Unified Test Specification For Integrated Receivers/Decoders sections 9, 10 ,11, 16  RiksTV Test Specification for Integrated Receiver Decoders Sections 5, 8, 17, 19, 20, 21, C Using Labwise test Suite and Internal Validation Procedure	C





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Digital Terrestrial and Cable Television Receivers and Recorders (cont'd)	<b>5. Digital Television Receiver Testing (cont'd)</b>  5.12 Teletext and subtitling, RCU, User preferences (cont'd)  DVB-T, DVB-T2, DVB-C	Unified Test Specification for HDTV DVB-C and DVB-T2 digital receiver for Finnish Market Using Labwise test suite and Internal Validation Procedure	C
	5.13 HbbTV conformance testing	Test specification for HbbTV using HbbTV test suites, Ligada iSuite test harness and Internal validation procedure  ECOWAS Common Minimum Technical Specifications of DTT Receivers (starting from v 1.1)  Malaysia Specifications on Common Test Suite for Digital Terrestrial Television Broadcast Service Receiver MCMC MTSFB TC T011:2020 using Malaysia Hybrid Broadcast TV (HBBTV) Test Suite Ver1.0. SKMM MTSFB TC T004:2013. SKMM MTSFB TC G002:2020.	C



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GSM 850 Mobile stations, GSM 900 Mobile stations, GSM 1800 Mobile stations, GSM 1900 Mobile stations, 3G mobile stations LTE Mobile Stations Wi-Fi mobile devices Notebook PC devices Wrist worn Device	<b>6 OTA Testing</b>		
	6.1 OTA TRP and TIS Testing	CTIA Test Plan for Mobile Station Over the Air Performance Revision 3.1	A, B
	Frequency Range 700 MHz to 6000 MHz Site A 700 MHz to 6000 MHz Site B	CTIA Test Plan for Wireless Device Over the Air Performance Revision 3.7.1 Revision 3.8.2 Revision 3.9	A, B A, B A
	850, 900, 1800, 1900 Bands For GSM	Vodafone Specification for Terminals on Over the Air RF Performance v5.1 (Except MIMO OTA)	A
	WCDMA FDD I, II, IV, V, VI, VII, VIII, IX, XIX	3GPP TS 25.144 3GPP TS 34.114 3GPP TS 37.114 3GPP TS 37.544	A, B A, B A B
	CDMA* 850, 1700, 1900, 2100 Bands	CTIA & Wi-Fi Alliance Test Plan for RF Performance Evaluation of Wi-Fi Mobile Converged Devices Revision 2.1 Revision 2.2	A, B A, B A
	AGPS for GSM/WCDMA (Site B) AGPS for LTE (Site B)		
	Wi-Fi 2.4 and 5 GHz, Bands 802.11a/b/g 802.11n	CTIA Test Plan for 2x2 Downlink MIMO and Transmit Diversity Over-the-Air Performance Revision 1.2	B
	LTE FDD1-26 Bands	ETSI 301 908-2 v13.1.1 ETSI 301 908-13 v13.2.1	A, B A, B
	LTE FDD Band 27-31 LTE TDD 33-44 Bands		
	LTE FDD Band 66		
	TD-SCDMA A, F (Site B)		
	LTE Carrier Aggregation (2DN, 1TX) (3DN, 1TX)		



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Terminal Devices	<b>7. 3GPP Cellular Field Trials</b>  5G-NR E-UTRAN UTRAN GERAN	As required by GCF-CC Annex F5.1  <b>GSMA TS 11</b>  5G-NR, E-UTRAN, UTRAN, GERAN, SMS, SIM, NI  <b>GSMA TS.42</b>  NI (DualSIM)	A, D
	<b>8. 3GPP IMS subsystem Field Trials</b>  VoLTE VoWiFi RCS	As required by GCF-CC Annex F5.2  <b>GSMA TS.11</b> IP-CANI, VoLTE, VoWiFi RCS (CPR), RCS (UP)	A, D
	<b>9. Application Enabler Interoperability testing</b>  MMS UICC based NFC services	As required by GCF-CC Annex F5.3  <b>OMA-ETS-MMS_INT_V1.3</b> OMA MMS  <b>GSMA TS27, TS26:</b> UICC based NFC	A



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Terminal Devices	<b>10. Product Analysis</b> CT Radiography testing using low energy X-ray equipment up to 160 kV Digital Radiography testing using low energy X Ray equipment up to 160 kV Visual testing using digital Photography Visual testing using Micro photography	Testing carried out to internal procedures: PAL 04 Issue 1: Product Analysis Laboratory Inspection Procedure PAL 02 Issue 1: Visual Records Procedure	A
END			