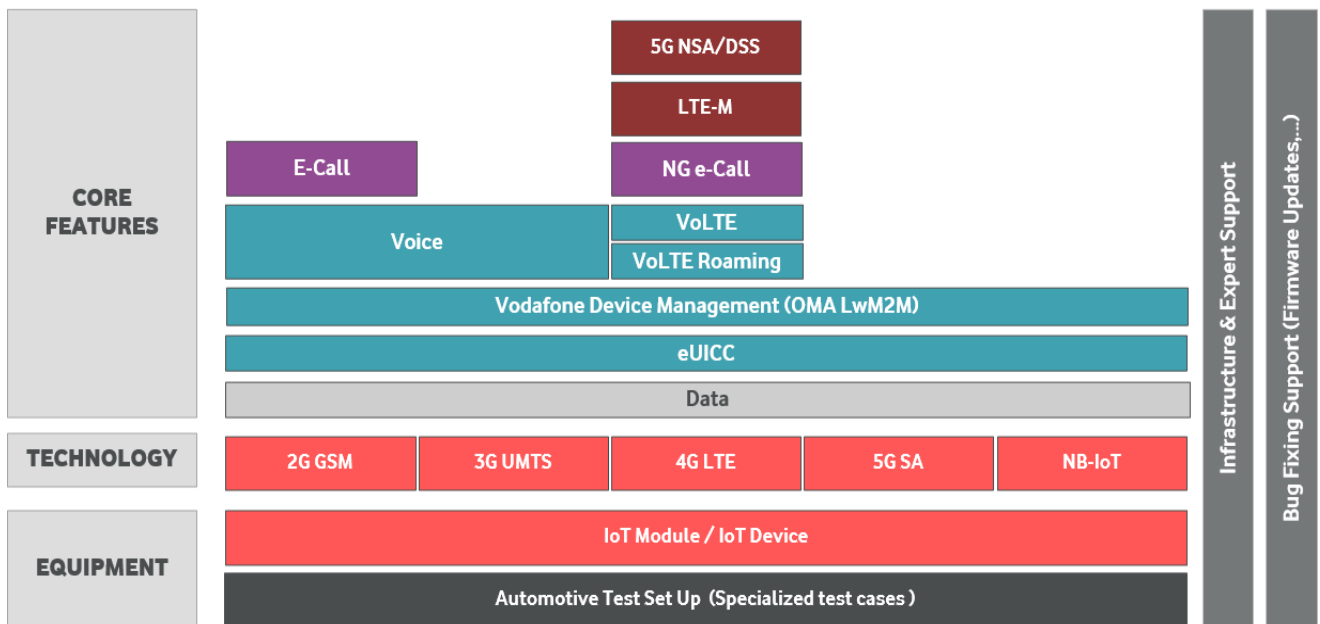




Standard Product – Catalog

The Vodafone Innovation Park offers you a realistic multi-vendor test environment and certifies Devices against the Vodafone Network requirements. We use all current radio and core technologies for this purpose. The result is a successful certification so that the Devices can be used in the Vodafone Network.

Device Certification Overview



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Legal notice: www.vodafone.de/pflichtangaben



Standard Product – Catalog

Full Test

1		2G	11		2G / 3G / 4G
2		3G	12		2G / 3G / 4G / VoLTE
3		4G	13		2G / 3G / 4G / 5G
4		NB-IoT	14		2G / 3G / 4G / 5G / VoLTE
5		NB-IoT / 2G	15		1 Legacy / 4G
6		NB-IoT / LTE Cat M	16		1 Legacy / 4G / VoLTE
7		NB-IoT / LTE Cat M / 2G	17		1 Legacy / 4G / 5G
8		LTE Cat M	18		1 Legacy / 4G / 5G / VoLTE
9		LTE Cat M / 2G	19		4G / 5G
10		2G / 3G	20		4G / 5G / VoLTE

Smart Test*

21		2G	31		2G / 3G / 4G
22		3G	32		2G / 3G / 4G / VoLTE
23		4G	33		2G / 3G / 4G / 5G
24		NB-IoT	34		2G / 3G / 4G / 5G / VoLTE
25		NB-IoT / 2G	35		1 Legacy / 4G
26		NB-IoT / LTE Cat M	36		1 Legacy / 4G / VoLTE
27		NB-IoT / LTE Cat M / 2G	37		1 Legacy / 4G / 5G
28		LTE Cat M	38		1 Legacy / 4G / 5G / VoLTE
29		LTE Cat M / 2G	39		4G / 5G
30		2G / 3G	40		4G / 5G / VoLTE

Add-ons and More

41		5G SA	45		LTE Advanced (from Cat 9 to xx)
42		VoLTE Roaming (GDSP)	46		eUICC NW Conformance
43		eCall	47		eUICC E2E
44		Next Generation eCall	48		LwM2M Device Management

Customised support and joined sessions can be offered for all available technologies and features. Please contact us if you are interested in an individual offer.

* Smart Tests have a smaller test scope and are used for verification.



Product Description – Full Test Scope

- | | | |
|---|---|--|
| 1 | <input type="checkbox"/> 2G – Full Test
GSM and Basic Operations
SMS
GPRS-EDGE
USIM-ME | SoR based on SIM OTA & SS7
PAP/CHAP
Speechcodec & Ciphering |
| 2 | <input type="checkbox"/> 3G – Full Test
3G Datacard
PAP/CHAP
SMS | SoR based on SIM OTA
USIM-ME
Speechcodec & Ciphering |
| 3 | <input type="checkbox"/> 4G – Full Test
LTE-Data
PAP/CHAP
SMS | SoR based on SIM OTA
USIM-ME
LTE Voice via CSFB |
| 4 | <input type="checkbox"/> NB-IoT – Full Test
IoT Bearer_NB-IoT
USIM_ME | |
| 5 | <input type="checkbox"/> NB-IoT / 2G – Full Test
GSM and Basic Operations
SMS
GPRS-EDGE
PAP/CHAP | SoR based on SIM OTA & SS7
Speechcodecs & Ciphering
IoT Bearer_NB_IoT
USIM-ME |
| 6 | <input type="checkbox"/> NB-IoT / LTE Cat M – Full Test
IoT Bearer_NB-IoT
IoT Bearer_LTE-M
USIM_ME | |
| 7 | <input type="checkbox"/> NB-IoT / LTE Cat M / 2G – Full Test
GSM and Basic Operations
SMS
GPRS-EDGE
PAP/CHAP | SoR based on SIM OTA & SS7
Speechcodecs & Ciphering
IoT Bearer_NB_IoT & LTE-M
USIM-ME |
| 8 | <input type="checkbox"/> LTE Cat M – Full Test
IoT Bearer_LTE-M
USIM_ME | |



9	<input type="checkbox"/> LTE Cat M / 2G – Full Test GSM and Basic Operations SMS GPRS-EDGE PAP/CHAP	SoR based on SIM OTA & SS7 Speechcodecs & Cipherying IoT Bearer_LTE-M USIM-ME
10	<input type="checkbox"/> 2G / 3G – Full Test GSM and Basic Operations SMS GPRS-EDGE PAP/CHAP	SoR based on SIM OTA & SS7 Speechcodecs & Cipherying 3G Datacard USIM-ME
11	<input type="checkbox"/> 2G / 3G / 4G – Full Test GSM and Basic Operations SMS GPRS-EDGE USIM-ME PAP/CHAP	SoR based on SIM OTA & SS7 Speechcodecs & Cipherying 3G Datacard LTE Voice via CSFB LTE Data
12	<input type="checkbox"/> 2G / 3G / 4G / VoLTE – Full Test GSM and Basic Operations SMS GPRS-EDGE USIM-ME PAP/CHAP SoR based on SIM OTA & SS7	Speechcodecs & Cipherying 3G Datacard LTE Data LTE_ Voice over LTE LTE Voice via CSFB Speechcodecs EVS
13	<input type="checkbox"/> 2G / 3G / 4G / 5G – Full Test GSM and Basic Operations SMS GPRS-EDGE 3G Datacard SoR based on SIM OTA & SS7 USIM-ME	LTE Data LTE Voice via CSFB 5G Bearer PAP/CHAP Speechcodecs & Cipherying
14	<input type="checkbox"/> 2G / 3G / 4G / 5G / VoLTE – Full Test GSM and Basic Operations GPRS-EDGE SMS 3G Datacard SoR based on SIM OTA & SS7 USIM-ME LTE Data	LTE Voice via CSFB LTE Voice over LTE 5G Bearer PAP/CHAP Speechcodecs & Cipherying Speechcodecs EVS



15 1 Legacy / 4G – Full Test

- | | |
|--|--|
| <input type="checkbox"/> <u>2G / 4G:</u>
GSM and Basic Operations
GPRS-EDGE
SMS
SoR based on SIM OTA & SS7
USIM-ME
LTE Data
LTE Voice via CSFB
PAP/CHAP
Speechcodecs & Ciphering | <input type="checkbox"/> <u>3G / 4G:</u>
SMS
3G Datacard
SoR based on SIM OTA & SS7
USIM-ME
LTE Data
LTE Voice via CSFB
PAP/CHAP
Speechcodecs & Ciphering |
|--|--|
-

16 1 Legacy / 4G / VoLTE – Full Test

- | | |
|--|--|
| <input type="checkbox"/> <u>2G / 4G / VoLTE:</u>
GSM and Basic Operations
GPRS-EDGE
SMS
SoR based on SIM OTA & SS7
USIM-ME
LTE Data
LTE Voice via CSFB
LTE_Voice over LTE
PAP/CHAP
Speechcodecs & Ciphering
Speechcodecs EVS | <input type="checkbox"/> <u>3G / 4G / VoLTE:</u>
SMS
3G Datacard
SoR based on SIM OTA & SS7
USIM-ME
LTE Data
LTE Voice via CSFB
LTE_Voice over LTE
PAP/CHAP
Speechcodecs & Ciphering
Speechcodecs EVS |
|--|--|
-

17 1 Legacy / 4G / 5G – Full Test

- | | |
|---|---|
| <input type="checkbox"/> <u>2G / 4G / 5G:</u>
GSM and Basic Operations
GPRS-EDGE
SMS
SoR based on SIM OTA & SS7
USIM-ME
LTE Data
LTE Voice via CSFB
PAP/CHAP
Speechcodecs & Ciphering
5G Bearer NSA, DSS | <input type="checkbox"/> <u>3G / 4G / 5G:</u>
SMS
3G Datacard
SoR based on SIM OTA & SS7
USIM-ME
LTE Data
LTE Voice via CSFB
PAP/CHAP
Speechcodecs & Ciphering
5G Bearer NSA, DSS |
|---|---|
-



18 **1 Legacy / 4G / 5G / VoLTE – Full Test**

- | | |
|---|--|
| <input type="checkbox"/> 2G / 4G / 5G / VoLTE:
GSM and Basic Operations
GPRS-EDGE
SMS
SoR based on SIM OTA & SS7
USIM-ME
LTE Data
LTE Voice via CSFB
LTE Voice over LTE
PAP/CHAP
Speechcodecs & Cipherring
5G Bearer NSA, DSS
Speechcodecs EVS | <input type="checkbox"/> 3G / 4G / 5G / VoLTE:
SMS
3G Datacard
SoR based on SIM OTA & SS7
USIM-ME
LTE Data
LTE Voice via CSFB
LTE Voice over LTE
PAP/CHAP
5G Bearer NSA, DSS
Speechcodecs EVS |
|---|--|
-

19 **4G / 5G – Full Test**

- | | |
|--|---|
| LTE Data
LTE Voice via CSFB
5G Bearer NSA, DSS
PAP/CHAP | SMS
USIM-ME
SoR based on SIM OTA
Speechcodecs & Cipherring |
|--|---|
-

20 **4G / 5G / VoLTE – Full Test**

- | | |
|--|--|
| LTE Data
LTE Voice via CSFB
LTE Voice over LTE
5G Bearer NSA, DSS
PAP/CHAP | SMS
USIM-ME
SoR based on SIM OTA
Speechcodecs EVS |
|--|--|
-



Product Description – Smart Test Scope

21	<input type="checkbox"/>	2G – Smart Test GSM and Basic Operations SMS GPRS-EDGE	SoR based on SIM OTA & SS7 Speechcodec & Ciphering
22	<input type="checkbox"/>	3G – Smart Test 3G Databcard Speechcodec & Ciphering	SMS SoR based on SIM OTA
23	<input type="checkbox"/>	4G – Smart Test LTE-Data LTE Voice via CSFB Speechcodec & Ciphering	SMS SoR based on SIM OTA
24	<input type="checkbox"/>	NB-IoT – Smart Test IoT Bearer_NB-IoT	
25	<input type="checkbox"/>	NB-IoT / 2G – Smart Test GSM and Basic Operations SMS GPRS-EDGE PAP/CHAP	SoR based on SIM OTA Speechcodecs & Ciphering IoT Bearer_NB_IoT
26	<input type="checkbox"/>	NB-IoT / LTE Cat M – Smart Test IoT Bearer_NB-IoT IoT Bearer_LTE-M	
27	<input type="checkbox"/>	NB-IoT / LTE Cat M / 2G – Smart Test GSM and Basic Operations SMS GPRS-EDGE	SoR based on SIM OTA Speechcodecs & Ciphering IoT Bearer_NB_IoT & LTE-M
28	<input type="checkbox"/>	LTE Cat M – Smart Test IoT Bearer_LTE-M	
29	<input type="checkbox"/>	LTE Cat M / 2G – Smart Test GSM and Basic Operations SMS GPRS-EDGE	SoR based on SIM OTA Speechcodecs & Ciphering IoT Bearer_LTE-M



30	<input type="checkbox"/> 2G / 3G – Smart Test GSM and Basic Operations SMS GPRS-EDGE	SoR based on SIM OTA Speechcodecs & Cipherng 3G Datacard
31	<input type="checkbox"/> 2G / 3G / 4G – Smart Test GSM and Basic Operations SMS GPRS-EDGE SoR based on SIM OTA	Speechcodecs & Cipherng 3G Datacard LTE Data LTE Voice via CSFB
32	<input type="checkbox"/> 2G / 3G / 4G / VoLTE – Smart Test GSM and Basic Operations SMS GPRS-EDGE SoR based on SIM OTA Speechcodecs & Cipherng	3G Datacard LTE Data LTE Voice over LTE LTE Voice via CSFB Speechcodecs EVS
33	<input type="checkbox"/> 2G / 3G / 4G / 5G – Smart Test GSM and Basic Operations GPRS-EDGE SMS 3G Datacard SoR based on SIM OTA	LTE Data LTE Voice via CSFB 5G Bearer (NSA/DSS) Speechcodecs & Cipherng
34	<input type="checkbox"/> 2G / 3G / 4G / 5G / VoLTE – Smart Test GSM and Basic Operations GPRS-EDGE SMS 3G Datacard SoR based on SIM OTA LTE Data	LTE Voice over LTE LTE Voice via CSFB 5G Bearer Speechcodecs & Cipherng Speechcodecs EVS
35	<input type="checkbox"/> 1 Legacy / 4G – Smart Test <input type="checkbox"/> 2G / 4G: GSM and Basic Operations GPRS-EDGE SMS SoR based on SIM OTA LTE Data LTE Voice via CSFB Speechcodecs & Cipherng	<input type="checkbox"/> 3G / 4G: SMS 3G Datacard SoR based on SIM OTA LTE Data LTE Voice via CSFB Speechcodecs & Cipherng



36 1 Legacy / 4G / VoLTE – Smart Test

- | | |
|--|---|
| <input type="checkbox"/> <u>2G / 4G / VoLTE:</u>
GSM and Basic Operations
GPRS-EDGE
SMS
SoR based on SIM OTA
LTE Data
LTE Voice over LTE
LTE Voice via CSFB
Speechcodex & Ciphering
Speechcodex EVS | <input type="checkbox"/> <u>3G / 4G / VoLTE:</u>
SMS
3G Datacard
SoR based on SIM OTA
LTE Data
LTE Voice over LTE
LTE Voice via CSFB
Speechcodex EVS |
|--|---|
-

37 1 Legacy / 4G / 5G – Smart Test

- | | |
|--|---|
| <input type="checkbox"/> <u>2G / 4G / 5G:</u>
GSM and Basic Operations
GPRS-EDGE
SMS
SoR based on SIM OTA
LTE Data
LTE Voice via CSFB
Speechcodex & Ciphering
5G Bearer NSA, DSS | <input type="checkbox"/> <u>3G / 4G / 5G:</u>
SMS
3G Datacard
SoR based on SIM OTA
LTE Data
LTE Voice via CSFB
5G Bearer NSA, DSS |
|--|---|
-

38 1 Legacy / 4G / 5G / VoLTE – Smart Test

- | | |
|---|--|
| <input type="checkbox"/> <u>2G / 4G / 5G / VoLTE:</u>
GSM and Basic Operations
GPRS-EDGE
SMS
SoR based on SIM OTA
LTE Data
LTE Voice over LTE
LTE Voice via CSFB
Speechcodex & Ciphering
5G Bearer NSA, DSS
Speechcodex EVS | <input type="checkbox"/> <u>3G / 4G / 5G / VoLTE:</u>
SMS
3G Datacard
SoR based on SIM OTA
LTE Data
LTE Voice over LTE
LTE Voice via CSFB
5G Bearer NSA, DSS
Speechcodex EVS |
|---|--|
-

39 4G / 5G – Smart Test

- | | |
|---|-----------------------------|
| <input type="checkbox"/> LTE Data
LTE Voice via CSFB
5G Bearer NSA, DSS | SMS
SoR based on SIM OTA |
|---|-----------------------------|
-

40 4G / 5G / VoLTE – Smart Test

- | | |
|---|--|
| <input type="checkbox"/> LTE Data
LTE Voice over LTE
LTE Voice via CSFB
5G Bearer NSA, DSS | SMS
SoR based on SIM OTA
Speechcodex EVS |
|---|--|
-



Product Description – Add-ons and More

41 **5G SA – Add-on**
5G Bearer SA

42 **VoLTE Roaming (GDSP) – Add-on**
VoLTE customized to IoT
Speechcodec EVS

43 **eCall – Add-on**
IoT eCall
Consulting Service
dev. Support

44 **NGeCall – Add-on**
IoT eCall
Consulting Service
dev. Support

45 **LTE Advanced (from Cat 9 to xx) – Add-on**
LTE Advanced

46 **eUICC NW Conformance – Add-on**
eUICC SIM Toolkit

47 **eUICC E2E – Add-on**
eUICC SIM profile handling

48 **LwM2M Device Management – Add-on**
IoT LwM2M
