



TEST REPORT

No. 24T04Z101045-021

for

TCL Communication Ltd.

Product Name: Tablet PC

Model Name: 9491G

with

Hardware Version: 05

Software Version: 1AS0

Issued Date: 2024-6-12

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

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No. 24T04Z101045-021

REPORT HISTORY

Report Number	Revision	Description	Issue Date
24T04Z101045-021	Rev.0	1 st edition	2024-6-12

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1. Test Laboratory

1.1. Testing Location

Location 1: CTTL(Cuihu)

Address: Cuihu Cloud Center, No.1, Gaolizhang Road, Wenquan,
Haidian District, Beijing, China

1.2. Testing Environment

Normal Temperature: 15-35℃

Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2024-5-20

Testing End Date: 2024-5-30

1.4. Signature



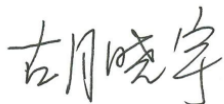
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(Prepared this test report)



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(Reviewed this test report)



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2. Client Information

2.1. Applicant Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science
Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: /
Country: China
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2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science
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City: Hong Kong
Postal Code: /
Country: China
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3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Tablet PC
Model name	9491G
BT Core Specification Version	V5.0
Hardware version:	05
Software version:	1AS0
Normal Voltage	3.9VDC(By Battery)
Additional information	/

Note: Photographs of EUT are shown in ANNEX A of this test report.

3.2. Internal Identification of AE

AE ID*	Description	SN
/	/	/

3.3. PICS Proforma

Are all mandatory features implemented? (Yes/No) YES

Item	Capability	Core Spec Reference	Status	Support [Yes]or [No]	Value
1	Power Class (1, 2, or 3)	Vol 2, Part A, 3	C.5	Yes	1
2	Power Control	Vol 2, Part A, 3	C.1	Yes	-
3	1-slot packets supported	Vol 2, Part B, 6.5	M	Yes	-
4	3-slot packets supported	Vol 2, Part B, 6.5	O	Yes	-
5	5-slot packets supported	Vol 2, Part B, 6.5	O	Yes	-
6	79 Channels	Vol 2, Part A, 2	M	Yes	-
7	Support for GFSK modulation	Vol 2, Part A, 3.1	M	Yes	-
8	Support for $\pi/4$ -DQPSK modulation	Vol 2, Part A, 3.2	C.2	Yes	-
9	Support for 8DPSK modulation	Vol 2, Part A, 3.2	C.3	Yes	-
10	Enhanced Power Control	Vol 2, Part A, 3	C.4	Yes	-
11	LE Transmitter	Vol 6, Part A, 3	C.6	Yes	-
12	LE Receiver	Vol 6, Part A, 4	C.6	Yes	-
13	LE Transceiver	Vol 6, Part A, 3&4	C.6	Yes	-
14	LE 2M PHY	Vol 6, Part A, 3&4	C.7	Yes	-
15	Stable Modulation Index - Transmitter	Vol 6, Part A, 3.1.1	C.8	No	-
16	Stable Modulation Index - Receiver	Vol 6, Part A, 3.1.1	C.9	No	-

Item	Capability	Core Spec Reference	Status	Support [Yes]or [No]	Value
17	LE Coded PHY	Vol 6, Part A, 3&4	C.7	Yes	-
18	Transmitting Constant Tone Extensions	Vol 6, Part A, 5	C.15	No	-
19	2 μ s Antenna Switching During Constant Tone Extension Transmission (AoD)	Vol 6, Part A, 5	C.10	No	-
20	1 μ s Antenna Switching During Constant Tone Extension Transmission (AoD)	Vol 6, Part A, 5	C.11	No	-
21	2 μ s Antenna Sampling During Constant Tone Extension Reception (AoD)	Vol 6, Part A, 5	C.16	No	-
22	2 μ s Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)	Vol 6, Part A, 5	C.12	No	-
23	1 μ s Antenna Sampling During Constant Tone Extension Reception (AoD)	Vol 6, Part A, 5	C.12	No	-
24	1 μ s Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)	Vol 6, Part A, 5	C.13	No	-
25	HCI Test Interface	Vol 6, Part F, 2	C.6	Yes	-
26	UART Test Interface	Vol 6, Part F, 3	C.6	No	-
27	Power Class 1	Vol 6, Part B, 4.6	C.14	No	-

C.1: Mandatory IF RF 1/1 “Power Class 1”, otherwise Optional IF RF 1/2 “Power Class 2” OR RF 1/3 “Power Class 3”, otherwise Excluded.

C.2: Mandatory IF SUM ICS 22/1 “EDR for asynchronous transports (single slot)” OR SUM ICS 22/2 “ EDR for asynchronous transports (multi-slot)” OR SUM ICS 22/4 “EDR for synchronous transports(Core 3.0 or later)”, otherwise Excluded.

C.3: Mandatory IF SUM ICS 22/1 “EDR for asynchronous transports (single slot)” OR SUM ICS 22/2 “EDR for asynchronous transports (multi-slot)”, otherwise Optional IF SUM ICS 22/4 “EDR for synchronous transports (Core 3.0 or later)”, otherwise Excluded.

Mandatory IF (SUM ICS 22/1 “EDR for asynchronous transports (single slot)” OR SUM ICS 22/2 “EDR C.4: Optional IF RF 1/4 “Power Control”, otherwise Excluded.

C.5: Mandatory to support at least one of RF 1/1 “Power Class 1” OR RF 1/2 “Power Class 2” OR RF 1/3 “Power Class 3”.

C.6: Mandatory to support at least one of RFPHY 1/1 “LE Transmitter” OR RFPHY 1/2 “LE Receiver” OR RFPHY 1/3 “LE Transceiver”. Note: Selecting both RFPHY 1/1 “LE Transmitter” and RFPHY 1/2 “LE Receiver” is equivalent to selecting RFPHY 1/3 “LE Transceiver” and vice versa.

C.7: Excluded IF SUM ICS 21/14 “Core v4.2”, otherwise Optional.

C.8: Excluded IF SUM ICS 21/14 “Core v4.2”, otherwise Optional IF RFPHY 1/1 “LE Transmitter” OR RFPHY 1/3 “LE Transceiver”, otherwise Excluded.

- C.9: Excluded IF SUM ICS 21/14 “Core v4.2”, otherwise Optional IF RFPHY 1/2 “LE Receiver” OR RFPHY 1/3 “LE Transceiver”, otherwise Excluded.
- C.10: Optional IF RFPHY 1/8 “Transmitting Constant Tone Extensions”, otherwise Excluded.
- C.11: Optional IF RFPHY 1/9 “2 μ s Antenna Switching During Constant Tone Extension Transmission (AoD)”, otherwise Excluded.
- C.12: Optional IF RFPHY 1/11 “2 μ s Antenna Sampling During Constant Tone Extension Reception (AoD)”, otherwise Excluded.
- C.13: Mandatory IF RFPHY 1/12 “2 μ s Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)” AND RFPHY 1/13 “1 μ s Antenna Sampling During Constant Tone Extension Reception (AoD)”, otherwise Excluded.
- C.14: Excluded IF SUM ICS 21/14 “Core v4.2” AND NOT SUM ICS 21/15 “CSA 5”, otherwise Optional IF RFPHY 1/1 “LE Transmitter” OR RFPHY 1/3 “LE Transceiver”, otherwise Excluded.
- C.15: Excluded IF SUM ICS 21/14 “Core v4.2” OR SUM ICS 21/16 “Core v5.0”, otherwise Optional IF RFPHY 1/1 “LE Transmitter” OR RFPHY 1/3 “LE Transceiver”, otherwise Excluded.
- C.16: Excluded IF SUM ICS 21/14 “Core v4.2” OR SUM ICS 21/16 “Core v5.0”, otherwise Optional IF RFPHY 1/2 “LE Receiver” OR RFPHY 1/3 “LE Transceiver”, otherwise Excluded.

3.4. PIXIT Proforma(RF)

No.	Description	Value	Units	Comments
1	Timer for TX power control	80	ms	Chapter 4.5.3, RF Test Suite
2	Inband Image frequency	-2	MHz	Chapter 4.6.3 and 4.6.9, RF Test Suite
3	Value n for Intermodulation test	5	Integer	Chapter 4.6.5, RF Test Suite
4	Type of power source	DC	/	Chapter 6.4, RF Test Suite
5	Nominal power source voltage	3.9	V	Chapter 6.4, RF Test Suite
6	Nominal temperature range	-20-65	°C	Chapter 6.5, RF Test Suite
7	Antenna gain	0.2	dBi	Chapter 4.5.1 and 6.9, RF Test Suite

3.5. PIXIT Proforma(RF-PHY)

No.	Description	Value	Units	Comments
1	Inband Image frequency((1Ms/s uncoded or coded)	-2	MHz	Chapter 4.5.2, 4.5.8, 4.5.14, 4.5.20, 4.5.27, 4.5.28, 4.5.33 and 4.5.34, Bluetooth Low Energy RF-PHY Test Suite
2	Test frequency for Intermodulation test	5	Integer	Chapter 4.5.4, 4.5.10, 4.5.16 and 4.5.22, Bluetooth Low Energy RF-PHY Test Suite
3	Power source voltage	3.9	V	Vol. 6, Part A, Appendix A, Section A.1.2, Nominal Supply Voltage
4	Normal operating temperature	/	°C	Vol. 6, Part A, Appendix A, Section A.1.1, Normal Temperature and Air Humidity. The NOC test temperature shall be within $\pm 10^{\circ}\text{C}$ of this value.
5	Air humidity level for NOC tests	20-75	%	The level shall be within declared range
6	Test interface implementation	HCI	/	HCI or 2-wire UART
		115200	bps	/
7	Maximum TX packet length (MAX_TX_LENGTH)	255	Bytes	Chapter 6.7, Bluetooth Low Energy RF-PHY Test Suite
8	Maximum RX packet length (MAX_RX_LENGTH)	255	Bytes	Chapter 6.7, Bluetooth Low Energy RF-PHY Test Suite
9	Maximum TX packet length (MAX_TX_LENGTH_2M)	255	Bytes	Chapter 6.7, Bluetooth Low Energy RF-PHY Test Suite
10	Maximum TX packet length (MAX_TX_LENGTH_CODED_S2)	255	Bytes	Chapter 6.7, Bluetooth Low Energy RF-PHY Test Suite
11	Maximum TX packet length (MAX_TX_LENGTH_CODED_S8)	255	Bytes	Chapter 6.7, Bluetooth Low Energy RF-PHY Test Suite
12	Maximum RX packet length (MAX_RX_LENGTH_2M)	255	Bytes	Chapter 6.7, Bluetooth Low Energy RF-PHY Test Suite
13	Maximum RX packet length (MAX_RX_LENGTH_CODED_S2)	255	Bytes	Chapter 6.7, Bluetooth Low Energy RF-PHY Test Suite
14	Maximum RX packet length (MAX_RX_LENGTH_CODED_S8)	255	Bytes	Chapter 6.7, Bluetooth Low Energy RF-PHY Test Suite
15	Maximum TX mode output power	/	dBm	Part A, Chapter 3, Bluetooth Low Energy Controller Specification
16	Inband Image Frequency (2Ms/s)	-4	MHz	Chapter 4.5.2, 4.5.8, 4.5.14, 4.5.20, 4.5.27, 4.5.28, 4.5.33 and 4.5.34, Bluetooth Low Energy RF-PHY Test Suite

No.	Description	Value	Units	Comments
17	Value n for Intermodulation test (2Ms/s)	5	Integer	Chapter 4.5.4, 4.5.10, 4.5.16 and 4.5.22, Bluetooth Low Energy RF-PHY Test Suite
18	Inband Image Frequency (Stable Modulation Receiver, 1Ms/s uncoded or coded)	/	MHz	Chapter 4.5.2, 4.5.8, 4.5.14, 4.5.20, 4.5.27, 4.5.28, 4.5.33 and 4.5.34, Bluetooth Low Energy RF-PHY Test Suite
19	Value n for Intermodulation test (Stable Modulation Receiver)	/	Integer	Chapter 4.5.4, 4.5.10, 4.5.16 and 4.5.22, Bluetooth Low Energy RF-PHY Test Suite
20	Inband Image Frequency (Stable Modulation Receiver, 2Ms/s)	/	MHz	Chapter 4.5.2, 4.5.8, 4.5.14, 4.5.20, 4.5.27, 4.5.28, 4.5.33 and 4.5.34, Bluetooth Low Energy RF-PHY Test Suite
21	Value n for Intermodulation test (Stable Modulation Receiver, 2Ms/s)	/	Integer	Chapter 4.5.4, 4.5.10, 4.5.16 and 4.5.22, Bluetooth Low Energy RF-PHY Test Suite
22	IQ Report Rate	/	Hex	Vol 4, Part E, Section 7.7.65.22, Core Specification.
23	The length of the Constant Tone Extension(1Ms/s)	/	bits	Vol. 6, Part F, 4, Section 4.1.7, Constant Tone Extension, RF Test Suite Vol 4, Part E, Section 7.7.87, Core Specification.
24	The length of the Constant Tone Extension(2Ms/s)	/	bits	Vol. 6, Part F, 4, Section 4.1.7, Constant Tone Extension, RF Test Suite Vol 4, Part E, Section 7.7.87, Core Specification.
25	The number of antennae	/	/	Vol 4, Part E, Section 7.7.87, Core Specification.
26	Antenna gain	0.2	dBi	Vol 6, Part A, Section 3, RFPHY Test Suite

4. Reference Documents

4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
BR/EDR	Radio Frequency (RF) Test Specification	p33
LE	RF PHY Test Specification	p19

5. Test Results

Total 54 Test cases were done; the sample(s) passed all the tests required by the client.

TC identifier	Test cases Description	Cat.	Verdict	Comments
RF/TRM/CA/BV-01-C	Output Power	A	Pass	/
RF/TRM/CA/BV-02-C	Power Density	A	Pass	/
RF/TRM/CA/BV-03-C	Power Control	A	Pass	/
RF/TRM/CA/BV-04-C	TX Output Spectrum – Frequency range	A	Pass	/
RF/TRM/CA/BV-05-C	TX Output Spectrum – 20 dB Bandwidth	A	Pass	/
RF/TRM/CA/BV-06-C	TX Output Spectrum – Adjacent channel power	A	Pass	/
RF/TRM/CA/BV-07-C	Modulation Characteristics	A	Pass	/
RF/TRM/CA/BV-08-C	Initial Carrier Frequency Tolerance	A	Pass	/
RF/TRM/CA/BV-09-C	Carrier Frequency Drift	A	Pass	/
RF/TRM/CA/BV-10-C	EDR Relative Transmit Power	A	Pass	/
RF/TRM/CA/BV-11-C	EDR Carrier Frequency Stability and Modulation Accuracy	A	Pass	/
RF/TRM/CA/BV-12-C	EDR Differential Phase Encoding	A	Pass	/
RF/TRM/CA/BV-13-C	EDR In-band Spurious Emissions	A	Pass	/
RF/TRM/CA/BV-14-C	Enhanced Power Control	A	Pass	/
RF/TRM/CA/BV-15-C	EDR Guard Time	A	Pass	/
RF/TRM/CA/BV-16-C	EDR Synchronization Sequence and Trailer	A	Pass	/
RF/RCV/CA/BV-01-C	Sensitivity – single slot packets	A	Pass	/
RF/RCV/CA/BV-02-C	Sensitivity – multi-slot packets	A	Pass	/
RF/RCV/CA/BV-03-C	C/I performance	A	Pass	/
RF/RCV/CA/BV-04-C	Blocking performance	A	Pass	/
RF/RCV/CA/BV-05-C	Intermodulation Performance	A	Pass	/
RF/RCV/CA/BV-06-C	Maximum Input Level	A	Pass	/
RF/RCV/CA/BV-07-C	EDR Sensitivity	A	Pass	/
RF/RCV/CA/BV-08-C	EDR BER Floor Performance	A	Pass	/
RF/RCV/CA/BV-09-C	EDR C/I Performance	A	Pass	/
RF/RCV/CA/BV-10-C	EDR Maximum Input Level	A	Pass	/
RF-PHY/TRM/BV-01-C	Output power, 1 Ms/s	A	Pass	/
RF-PHY/TRM/BV-03-C	In-band emissions, uncoded data at 1 Ms/s	A	Pass	/
RF-PHY/TRM/BV-05-C	Modulation Characteristics, uncoded data at 1 Ms/s	A	Pass	/
RF-PHY/TRM/BV-06-C	Carrier frequency offset and drift, uncoded data at 1 Ms/s	A	Pass	/

TC identifier	Test cases Description	Cat.	Verdict	Comments
RFPHY/TRM/BV-08-C	In-band emissions at 2 Ms/s	A	Pass	/
RFPHY/TRM/BV-09-C	Stable Modulation Characteristics, uncoded data at 1 Ms/s	A	NA	/
RFPHY/TRM/BV-10-C	Modulation Characteristics at 2 Ms/s	A	Pass	/
RFPHY/TRM/BV-11-C	Stable Modulation Characteristics at 2 Ms/s	A	NA	/
RFPHY/TRM/BV-12-C	Carrier frequency offset and drift at 2 Ms/s	A	Pass	/
RFPHY/TRM/BV-13-C	Modulation Characteristics, LE Coded (S=8)	A	Pass	/
RFPHY/TRM/BV-14-C	Carrier frequency offset and drift, LE Coded (S=8)	A	Pass	/
RFPHY/TRM/BV-15-C	Output power, With Constant Tone Extension, 1 Ms/s	A	NA	/
RFPHY/TRM/BV-16-C	Carrier frequency offset and drift, uncoded data at 1 Ms/s, Constant Tone Extension	A	NA	/
RFPHY/TRM/BV-17-C	Carrier frequency offset and drift at 2 Ms/s, Constant Tone Extension	A	NA	/
RFPHY/TRM/BV-18-C	Output power, Class 1, 1 Ms/s	A	NA	/
RFPHY/TRM/BV-19-C	Output power, 2 Ms/s	A	Pass	/
RFPHY/TRM/BV-20-C	Output power, Class 1, 2 Ms/s	A	NA	/
RFPHY/TRM/BV-21-C	Output power, With Constant Tone Extension, Class1, 1 Ms/s	A	NA	/
RFPHY/TRM/BV-22-C	Output power, With Constant Tone Extension, 2 Ms/s	A	NA	/
RFPHY/TRM/BV-23-C	Output power, With Constant Tone Extension, Class1, 2 Ms/s	A	NA	/
RFPHY/TRM/PS/BV-01-C	Tx Power Stability, AoD Transmitter at 1 Ms/s with 2 μ s Switching Slot	A	NA	/
RFPHY/TRM/PS/BV-02-C	Tx Power Stability, AoD Transmitter at 1 Ms/s with 1 μ s Switching Slot	A	NA	/
RFPHY/TRM/PS/BV-03-C	Tx Power Stability, AoD Transmitter at 2 Ms/s with 2 μ s Switching Slot	A	NA	/
RFPHY/TRM/PS/BV-04-C	Tx Power Stability, AoD Transmitter at 2 Ms/s with 1 μ s Switching Slot	A	NA	/
RFPHY/TRM/ASI/BV-05-C	Antenna switching integrity, AoD Transmitter at 1 Ms/s with 2 μ s Switching Slot	A	NA	/

TC identifier	Test cases Description	Cat.	Verdict	Comments
RFPHY/TRM/ASI/BV-06-C	Antenna switching integrity, AoD Transmitter at 1 Ms/s with 1 μ s Switching Slot	A	NA	/
RFPHY/TRM/ASI/BV-07-C	Antenna switching integrity, AoD Transmitter at 2 Ms/s with 2 μ s Switching Slot	A	NA	/
RFPHY/TRM/ASI/BV-08-C	Antenna switching integrity, AoD Transmitter at 2 Ms/s with 1 μ s Switching Slot	A	NA	/
RFPHY/RCV/BV-01-C	Receiver sensitivity, uncoded data at 1 Ms/s	A	Pass	/
RFPHY/RCV/BV-03-C	C/I and Receiver Selectivity Performance, uncoded data at 1 Ms/s	A	Pass	/
RFPHY/RCV/BV-04-C	Blocking Performance, uncoded data at 1 Ms/s	A	Pass	/
RFPHY/RCV/BV-05-C	Intermodulation Performance, uncoded data at 1 Ms/s	A	Pass	/
RFPHY/RCV/BV-06-C	Maximum input signal level, uncoded data at 1 Ms/s	A	Pass	/
RFPHY/RCV/BV-07-C	PER Report Integrity, uncoded data at 1 Ms/s	A	Pass	/
RFPHY/RCV/BV-08-C	Receiver sensitivity at 2 Ms/s	A	Pass	/
RFPHY/RCV/BV-09-C	C/I and Receiver Selectivity Performance at 2 Ms/s	A	Pass	/
RFPHY/RCV/BV-10-C	Blocking performance at 2 Ms/s	A	Pass	/
RFPHY/RCV/BV-11-C	Intermodulation performance at 2 Ms/s	A	Pass	/
RFPHY/RCV/BV-12-C	Maximum input signal level at 2 Ms/s	A	Pass	/
RFPHY/RCV/BV-13-C	PER Report Integrity at 2 Ms/s	A	Pass	/
RFPHY/RCV/BV-14-C	Receiver Sensitivity, uncoded data at 1 Ms/s, Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-15-C	C/I and Receiver Selectivity Performance, uncoded data at 1 Ms/s, Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-16-C	Blocking Performance, uncoded data at 1 Ms/s, Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-17-C	Intermodulation Performance, uncoded data at 1 Ms/s, Stable Modulation Index	A	NA	/

TC identifier	Test cases Description	Cat.	Verdict	Comments
RFPHY/RCV/BV-18-C	Maximum input signal level, uncoded data at 1 Ms/s, Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-19-C	PER Report Integrity, uncoded data at 1 Ms/s, Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-20-C	Receiver sensitivity at 2 Ms/s, Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-21-C	C/I and Receiver Selectivity Performance at 2 Ms/s, Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-22-C	Blocking performance at 2 Ms/s, Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-23-C	Intermodulation performance at 2 Ms/s, Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-24-C	Maximum input signal level at 2 Ms/s, Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-25-C	PER Report Integrity at 2 Ms/s, Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-26-C	Receiver sensitivity, LE Coded (S=2)	A	Pass	/
RFPHY/RCV/BV-27-C	Receiver sensitivity, LE Coded (S=8)	A	Pass	/
RFPHY/RCV/BV-28-C	C/I and Receiver Selectivity Performance, LE Coded (S=2)	A	Pass	/
RFPHY/RCV/BV-29-C	C/I and Receiver Selectivity Performance, LE Coded (S=8)	A	Pass	/
RFPHY/RCV/BV-30-C	PER Report Integrity, LE Coded (S=2)	A	Pass	/
RFPHY/RCV/BV-31-C	PER Report Integrity, LE Coded (S=8)	A	Pass	/
RFPHY/RCV/BV-32-C	Receiver sensitivity, LE Coded (S=2), Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-33-C	Receiver sensitivity, LE Coded (S=8), Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-34-C	C/I and Receiver Selectivity Performance, LE Coded (S=2), Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-35-C	C/I and Receiver Selectivity Performance, LE Coded (S=8), Stable Modulation Index	A	NA	/
RFPHY/RCV/BV-36-C	PER Report Integrity, LE Coded (S=2), Stable Modulation Index	A	NA	/

TC identifier	Test cases Description	Cat.	Verdict	Comments
RFPHY/RCV/BV-37-C	PER Report Integrity, LE Coded (S=8), Stable Modulation Index	A	NA	/
RFPHY/RCV/IQC/BV-01-C	IQ Samples Coherency, AoD Receiver at 1 Ms/s with 2 μ s Slot	A	NA	/
RFPHY/RCV/IQC/BV-02-C	IQ Samples Coherency, AoD Receiver at 1 Ms/s with 1 μ s Slot	A	NA	/
RFPHY/RCV/IQC/BV-03-C	IQ Samples Coherency, AoD Receiver at 2 Ms/s with 2 μ s Slot	A	NA	/
RFPHY/RCV/IQC/BV-04-C	IQ Samples Coherency, AoD Receiver at 2 Ms/s with 1 μ s Slot	A	NA	/
RFPHY/RCV/IQC/BV-05-C	IQ Samples Coherency, AoA Receiver at 1 Ms/s with 2 μ s Slot	A	NA	/
RFPHY/RCV/IQC/BV-06-C	IQ Samples Coherency, AoA Receiver at 2 Ms/s with 2 μ s Slot	A	NA	/
RFPHY/RCV/IQDR/BV-07-C	IQ Samples Dynamic Range, AoD Receiver at 1 Ms/s with 2 μ s Slot	A	NA	/
RFPHY/RCV/IQDR/BV-08-C	IQ Samples Dynamic Range, AoD Receiver at 1 Ms/s with 1 μ s Slot	A	NA	/
RFPHY/RCV/IQDR/BV-09-C	IQ Samples Dynamic Range, AoD Receiver at 2 Ms/s with 2 μ s Slot	A	NA	/
RFPHY/RCV/IQDR/BV-10-C	IQ Samples Dynamic Range, AoD Receiver at 2 Ms/s with 1 μ s Slot	A	NA	/
RFPHY/RCV/IQDR/BV-11-C	IQ Samples Dynamic Range, AoA Receiver at 1 Ms/s with 2 μ s Slot	A	NA	/
RFPHY/RCV/IQDR/BV-12-C	IQ Samples Dynamic Range, AoA Receiver at 2 Ms/s with 2 μ s Slot	A	NA	/

Note: please refer to separate test log reports for the detailed test data of each test case.

6. Test Facilities Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date
1	Signal Analyzer	FSQ	200486	Rohde&Schwarz	2025-04-30
2	Vector Signal Generator	SMU200A	102082	Rohde&Schwarz	2025-04-30
3	Wideband Radio Communication Tester	CMW500	159384	Rohde&Schwarz	2024-11-11
4	Microwave Generator	SMP04	100140	Rohde&Schwarz	2025-04-30
5	Power Sensor	NRP-Z11	101751	Rohde&Schwarz	2025-02-15
6	Power Supply	NGSM	4942	Rohde&Schwarz	2025-02-15

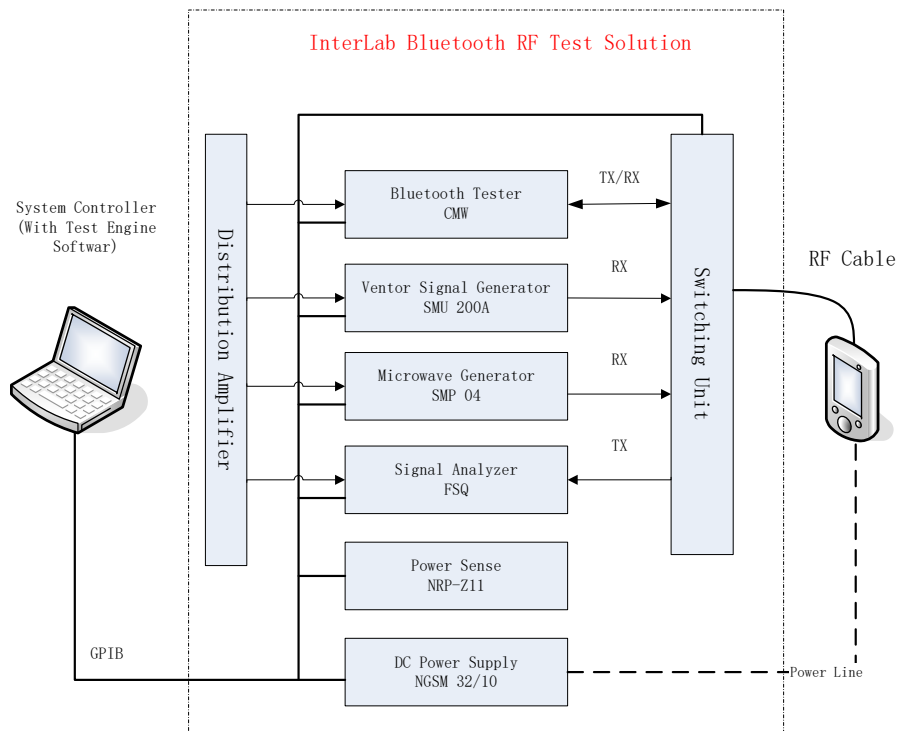


Figure 1 Test Setup Structure 1

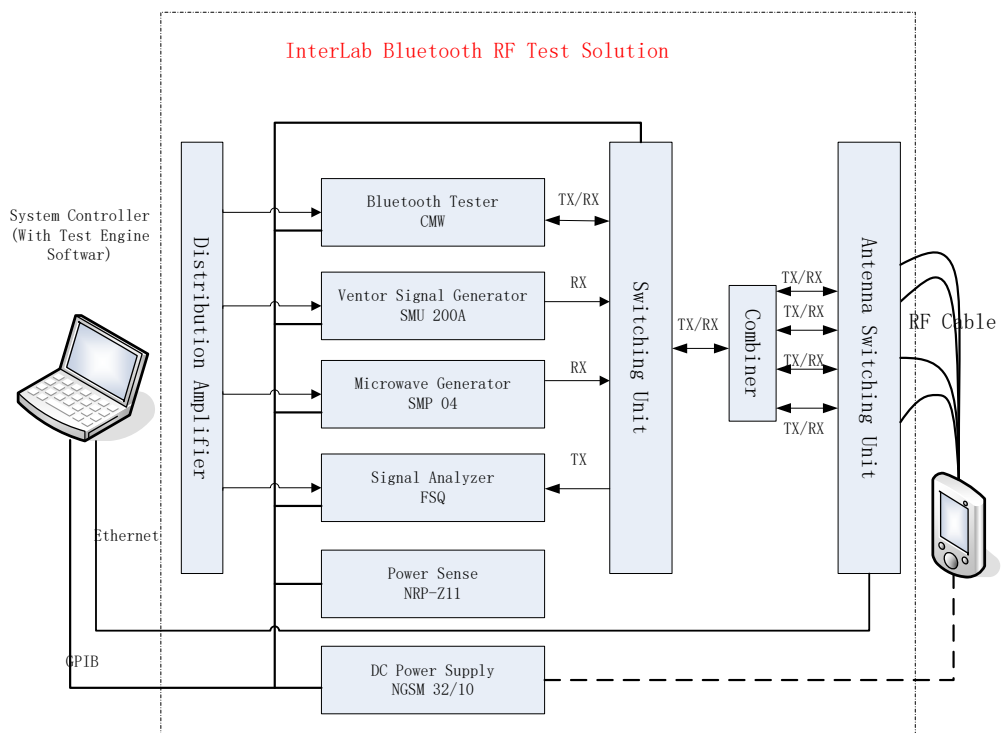


Figure 2 Test Setup Structure 2 for Direction Finding

Note:

One software unit is included on the InterLab Bluetooth RF Test Solution in order to comply with RF specification V1.2, V2.x+EDR, V3.0/3.0+HS, V4.0, V4.1, V4.2, V5.0, V5.1, V5.2, V5.3, V5.4.

- 1) The InterLab Bluetooth RF Test Solution meets demands of the Bluetooth Qualification scheme by providing complete validated RF test coverage for Bluetooth standards version 2.0+EDR, 2.1+EDR, 3.0+HS, 4.0, 4.1, 4.2, 5.0, 5.1, 5.2, 5.3 and 5.4 including Bluetooth low energy.
- 2) The InterLab Bluetooth RF Test Solution eases the test process using advanced Object Under Test automation techniques, adaptive signalling methods and configuration in order to speed up repetitive, time-consuming procedures and ensure reliable, reproducible results.

SW Version: V5.4.4

7. Measurement Uncertainty

The following uncertainty values¹ have been calculated as in the table below.

Test case	Measurement	Uncertainty
RF/TRM/CA/BV-01-C: Output Power	Absolute RF power:	± 0.86 dB
RF/TRM/CA/BV-02-C: Power Density	Absolute RF power:	± 0.86 dB
RF/TRM/CA/BV-03-C: Power Control	Absolute RF power:	± 0.86 dB
RF/TRM/CA/BV-04-C: TX Output Spectrum Frequency range	Absolute RF power:	± 0.86 dB
RF/TRM/CA/BV-05-C: TX Output Spectrum - 20dB Bandwidth	Absolute RF power:	± 0.86 dB
RF/TRM/CA/BV-06-C: TX Output Spectrum Adjacent channel power	Absolute RF power (for unwanted emissions in the BT band):	± 0.86 dB
	Absolute RF power (wanted channel):	± 0.86 dB
RF/TRM/CA/BV-07-C: Modulation Characteristics	Freq dev uncertainty in payload (GFSK)	± 4 kHz
	Freq drift uncertainty (GFSK)	± 1 kHz
	Absolute radio frequency	± 5 kHz
RF/TRM/CA/BV-08-C: Initial Carrier Frequency Tolerance	Freq dev uncertainty in payload (GFSK)	± 4 kHz
	Freq drift uncertainty (GFSK)	± 1 kHz
	Absolute radio frequency	± 5 kHz
RF/TRM/CA/BV-09-C: Carrier Frequency Drift	Freq dev uncertainty in payload (GFSK)	± 4 kHz
	Freq drift uncertainty (GFSK)	± 1 kHz
	Absolute radio frequency	± 5 kHz
RF/TRM/CA/BV-10-C: EDR Relative Transmit Power	Relative RF power:	± 0.62 dB
RF/TRM/CA/BV-11-C: EDR Carrier Frequency Stability and Modulation Accuracy	Absolute radio frequency:	± 5 kHz
	RMS DEVM	3%
	Relative drift radio frequency:	± 1 kHz
RF/TRM/CA/BV-12-C: EDR Differential Phase Encoding	Symbol Error	± 1 ppm
	Frequency Accuracy	$<0.5\mu\text{s}$ or ± 1 ppm
RF/TRM/CA/BV-13-C: EDR In-band Spurious	Absolute RF power (for unwanted emissions in the BT	± 0.86 dB

Test case	Measurement	Uncertainty
Emissions	band):	
	Absolute RF power (wanted channel):	± 0.86 dB
RF/TRM/CA/BV-14-C: EDR Enhanced Power Control	Absolute RF power:	± 0.00 dB
RF/RCV/CA/BV-01-C: Sensitivity - single slot packets	Absolute RF power (wanted channel):	± 0.68 dB
RF/RCV/CA/BV-02-C: Sensitivity - multi slot packets	Absolute RF power (wanted channel):	± 0.68 dB
RF/RCV/CA/BV-03-C: C/I Performance	Absolute RF power (wanted channel):	± 0.87 dB
	Absolute RF power (for interfering signal):	± 1.12 dB
RF/RCV/CA/BV-04-C:Blocking Performance	Absolute RF power (wanted channel):	± 0.87 dB
	Absolute RF power (for 1st interfering signal):	± 1.12 dB
	Absolute RF power (2nd interfering signal):	± 1.57 dB
RF/RCV/CA/BV-05-C: Intermodulation Performance	Absolute RF power (wanted channel):	± 0.87 dB
	Absolute RF power (for 1st interfering signal):	± 1.12 dB
	Absolute RF power (for 2nd interfering signal):	± 1.24 dB
RF/RCV/CA/BV-06-C: Maximum Input Level	Absolute RF power (wanted channel):	± 0.68 dB
RF/RCV/CA/BV-07-C: EDR Sensitivity	Absolute RF power (wanted channel):	± 0.68 dB
RF/RCV/CA/BV-08-C: EDR BER Floor Performance	Absolute RF power (wanted channel):	± 0.68 dB
RF/RCV/CA/BV-09-C: EDR C/I Performance	Absolute RF power (wanted channel):	± 0.87 dB
	Absolute RF power (for interfering signal):	± 1.12 dB
RF/RCV/CA/BV-10-C: EDR Maximum Input Level	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/TRM/BV-01-C: Output Power at NOC	Absolute RF power:	± 0.86 dB
RF-PHY/TRM/BV-03-C:In-band Spurious Emissions at NOC	Absolute RF power (for unwanted emissions in the BT band):	± 0.86 dB

Test case	Measurement	Uncertainty
	Absolute RF power (wanted channel):	± 0.86 dB
RF-PHY/TRM/BV-05-C: Modulation Characteristics	Freq dev uncertainty in payload (GFSK)	± 4 kHz
	Freq drift uncertainty (GFSK)	± 1 kHz
	Absolute radio frequency	± 5 kHz
RF-PHY/TRM/BV-06-C: Carrier Frequency offset and drift at NOC	Freq dev uncertainty in payload (GFSK)	± 4 kHz
	Freq drift uncertainty (GFSK)	± 1 kHz
	Absolute radio frequency	± 5 kHz
RF-PHY/TRM/BV-08-C: In-band emissions at 2 Ms/s	Absolute RF power (for unwanted emissions in the BT band):	± 0.86 dB
	Absolute RF power (wanted channel):	± 0.86 dB
RF-PHY/TRM/BV-09-C: Stable Modulation Characteristics, uncoded data at 1 Ms/s	Freq dev uncertainty in payload (GFSK)	± 4 kHz
	Freq drift uncertainty (GFSK)	± 1 kHz
	Absolute radio frequency	± 5 kHz
RF-PHY/TRM/BV-10-C: Modulation Characteristics at 2 Ms/s	Freq dev uncertainty in payload (GFSK)	± 4 kHz
	Freq drift uncertainty (GFSK)	± 1 kHz
	Absolute radio frequency	± 5 kHz
RF-PHY/TRM/BV-11-C: Stable Modulation Characteristics at 2 Ms/s	Freq dev uncertainty in payload (GFSK)	± 4 kHz
	Freq drift uncertainty (GFSK)	± 1 kHz
	Absolute radio frequency	± 5 kHz
RF-PHY/TRM/BV-12-C: Carrier frequency offset and drift at 2 Ms/s	Freq dev uncertainty in payload (GFSK)	± 4 kHz
	Freq drift uncertainty (GFSK)	± 1 kHz
	Absolute radio frequency	± 5 kHz
RF-PHY/TRM/BV-13-C: Modulation Characteristics, LE Coded (S=8)	Freq dev uncertainty in payload (GFSK)	± 4 kHz
	Freq drift uncertainty (GFSK)	± 1 kHz
	Absolute radio frequency	± 5 kHz
RF-PHY/TRM/BV-14-C: Carrier frequency offset and drift, LE Coded (S=8)	Freq dev uncertainty in payload (GFSK)	± 4 kHz
	Freq drift uncertainty (GFSK)	± 1 kHz
	Absolute radio frequency	± 5 kHz
RF-PHY/TRM/BV-18-C: Output Power (power class1)	Absolute RF power:	± 0.86 dB
RF-PHY/RVCV/BV-01-C:	Absolute RF power (wanted	± 0.68 dB

Test case	Measurement	Uncertainty
Receiver sensitivity at NOC	channel):	
RF-PHY/RCV/BV-03-C: C/I and receiver selectivity performance	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for interfering signal):	± 1.12 dB
RF-PHY/RCV/BV-04-C: Blocking performance	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for 1st interfering signal):	± 1.12 dB
	Absolute RF power (2nd interfering signal):	± 1.57 dB
RF-PHY/RCV/BV-05-C: Intermodulation performance	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for 1st interfering signal):	± 1.12 dB
	Absolute RF power (2nd interfering signal):	± 1.24 dB
RF-PHY/RCV/BV-06-C: Maximum input signal level	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-07-C: PER report integrity	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-08-C: Receiver sensitivity at 2 Ms/s	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-09-C: C/I and Receiver Selectivity Performance at 2 Ms/s	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for interfering signal):	± 1.12 dB
RF-PHY/RCV/BV-10-C: Blocking performance at 2 Ms/s	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for 1st interfering signal):	± 1.12 dB
	Absolute RF power (2nd interfering signal):	± 1.57 dB
RF-PHY/RCV/BV-11-C: Intermodulation performance at 2 Ms/s	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for 1st interfering signal):	± 1.12 dB
	Absolute RF power (2nd interfering signal):	± 1.24 dB
RF-PHY/RCV/BV-12-C: Maximum input signal level at 2 Ms/s	Absolute RF power (wanted channel):	± 0.68 dB

Test case	Measurement	Uncertainty
RF-PHY/RCV/BV-13-C: PER Report Integrity at 2 Ms/s	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-14-C: Receiver Sensitivity, uncoded data at 1 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-15-C: C/I and Receiver Selectivity Performance, uncoded data at 1 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for interfering signal):	± 1.12 dB
RF-PHY/RCV/BV-16-C: Blocking Performance, uncoded data at 1 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for 1st interfering signal):	± 1.12 dB
	Absolute RF power (2nd interfering signal):	± 1.57 dB
RF-PHY/RCV/BV-17-C: Intermodulation Performance, uncoded data at 1 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for 1st interfering signal):	± 1.12 dB
	Absolute RF power (2nd interfering signal):	± 1.24 dB
RF-PHY/RCV/BV-18-C: Maximum input signal level, uncoded data at 1 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-19-C: PER Report Integrity, uncoded data at 1 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-20-C: Receiver sensitivity at 2 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-21-C: C/I and Receiver Selectivity Performance at 2 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for interfering signal):	± 1.12 dB
RF-PHY/RCV/BV-22-C: Blocking performance at 2 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for 1st interfering signal):	± 1.12 dB
	Absolute RF power (2nd interfering signal):	± 1.57 dB

Test case	Measurement	Uncertainty
	interfering signal):	
RF-PHY/RCV/BV-23-C: Intermodulation performance at 2 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for 1st interfering signal):	± 1.12 dB
	Absolute RF power (2nd interfering signal):	± 1.24 dB
RF-PHY/RCV/BV-24-C: Maximum input signal level at 2 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-25-C: PER Report Integrity at 2 Ms/s, Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-26-C: Receiver sensitivity, LE Coded (S=2)	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-27-C: Receiver sensitivity, LE Coded (S=8)	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-28-C: C/I and Receiver Selectivity Performance, LE Coded (S=2)	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for interfering signal):	± 1.12 dB
RF-PHY/RCV/BV-29-C: C/I and Receiver Selectivity Performance, LE Coded (S=8)	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for interfering signal):	± 1.12 dB
RF-PHY/RCV/BV-30-C: PER Report Integrity, LE Coded (S=2)	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-31-C: PER Report Integrity, LE Coded (S=8)	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-32-C: Receiver sensitivity, LE Coded (S=2), Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-33-C: Receiver sensitivity, LE Coded (S=8), Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-34-C: C/I and Receiver Selectivity Performance, LE Coded (S=2),	Absolute RF power (wanted channel):	± 0.68 dB
	Absolute RF power (for	± 1.12 dB

Test case	Measurement	Uncertainty
Stable Modulation Index	interfering signal):	
RF-PHY/RCV/BV-35-C: C/I and Receiver Selectivity	Absolute RF power (wanted channel):	± 0.68 dB
Performance, LE Coded (S=8), Stable Modulation Index	Absolute RF power (for interfering signal):	± 1.12 dB
RF-PHY/RCV/BV-36-C: PER Report Integrity, LE Coded (S=2), Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB
RF-PHY/RCV/BV-37-C: PER Report Integrity, LE Coded (S=8), Stable Modulation Index	Absolute RF power (wanted channel):	± 0.68 dB

Note 1: All values reflect a 95% confidence level.

ANNEX A: EUT photograph



EUT Photo



EUT Photo

*****END OF REPORT*****