

Prüfbericht-Nr.: <i>Test Report No.:</i>	50253496 001	Auftrags-Nr.: <i>Order No.:</i>	238103680	Seite 1 von 10 Page 1 of 10
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	01-Apr-2019	
Auftraggeber: <i>Client:</i>	FOXCONN No. 4-1, Minsheng St., Tucheng Dist., New Taipei City 236, Taiwan (R.O.C.)			
Prüfgegenstand: <i>Test item:</i>	4K OTT			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	BFX-AT100、BFX-UH200			
Auftrags-Inhalt: <i>Order content:</i>	Bluetooth RF testing			
Prüfgrundlage: <i>Test specification:</i>	Bluetooth RF Test Specification (Please refer to clause 3.3 of the test report)			
Wareneingangsdatum: <i>Date of receipt:</i>	16-May-2019	Test pictures see pages 8 and 9.		
Prüfmuster-Nr.: <i>Test sample No.:</i>	A000924614-001			
Prüfzeitraum: <i>Testing period:</i>	16-May-2019 – 17-May-2019			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland Taiwan Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TUV Rheinland Taiwan Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
Report date / tested by:		kontrolliert von / reviewed by:		
				
2019-06-03	Brenda Chen/Senior Project Manager	2019-06-03	Frankie Lin/Section Manager	
Datum	Name / Stellung	Unterschrift	Datum	Name / Stellung
Date	Name / Position	Signature	Date	Name / Position
Sonstiges / Other:				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

1 Administrative Data

1.1 Project Data

Project Responsible: Brenda Chen
Date of Test Report: 2019/06/03
Date of first test: 2019/05/16
Date of last test: 2019/05/17

1.2 Applicant Data

Company Name: FOXCONN
Address: No. 4-1, Minsheng St., Tucheng Dist., New Taipei City 236, Taiwan (R.O.C.)
Contact Person: Catherine Chen

1.3 Test Laboratory Data

The following list shows all places and laboratories involved for test result generation:

TÜV Rheinland – Taiwan

Company Name : TÜV Rheinland Taiwan Ltd.
Street : 11F, No.758, Sec. 4, Bade Rd.,
City : 105 Taipei
Country : Taiwan
Contact Person : Mr. Frankie Lin
Phone : +886 2 2172 7000 #1008
Fax : +886 2 2528 0018
E Mail : Frankie.Lin@tuv.com

Laboratory Details

<i>Lab ID</i>	<i>Identification</i>	<i>Responsible</i>	<i>Accreditation Info</i>
InterLab	Bluetooth RF Test solution	Mr. Arvin Ho	TAF registration no: TAF-3567

2 Test Object Data

2.1 General OUT Description

The following section list all OUTs (Object's Under Test) involved during testing:

OUT: 4K OTT

Type / Model / Family: 4K OTT
Model: BFX-AT100 · BFX-UH200

Product Category: Audio and Visual

Manufacturer:

Company Name: FOXCONN

Address: No. 4-1, Minsheng St., Tucheng Dist., New Taipei City 236, Taiwan (R.O.C.)

Contact Person: Catherine Chen

Parameter List:

Parameter Description	Value
Prospective Date of listing	31.12.2019

2.2 Detailed Description of OUT Samples

Sample : A000924614-001

OUT Identifier	4K OTT
Sample Description	The BFX-AT100/BFX-UH200 is a 4K OTT BOX, and use BT Chipset
Serial No.	N/A
HW Status	015
SW Status	R27
Date of Receipt	2019/05/16
Nominal Voltage	5 V
Normal Temperature	25°C

Parameter List:

Parameter name	Value
Parameter for Scope Bluetooth_v2	
Delayed_Loopback	False (N/A)
Host_Connection_Request	True (N/A)
Inquiry_Before_Connect	True (N/A)
Intermod_Interferer_Pair_Below	False (N/A)
Intermod_Test_Number	5 (N/A)
Max_Antenna_Gain	2.72 (dBi)
Maximum_TX_Mode_Output_Power	10 (mW)
OUT_RX_Image_Freq	0 (MHz)
PIN_Code	0000 (N/A)
Power_Control_Delay	0 (ms)
Preferred_Test_Mode	TxMode (N/A)
Test_Mode_Delay	0 (ms)
Unmodulated_Part_Before	0 (us)

2.3 OUT Features

Features for OUT:

<i>Designation</i>	<i>Description</i>	<i>Allowed Values</i>	<i>Supported Value(s)</i>
Features for scope: Bluetooth_v2			
RF.1/1	Power Class (Value 1)	1, 2, 3	1
RF.1/4	Power Control		
RF.1/5	1-slot packets supported		
RF.1/6	3-slot packets supported		
RF.1/7	5-slot packets supported		
RF.1/8	79 Channels		
RF.1/9	Support for GFSK modulation		
RF.1/10	Support for pi/4-DQPSK modulation		
RF.1/11	Support for 8DPSK modulation		
RF.1/12	Enhanced Power Control		
RF-PHY.1/1	LE Transmitter (Non-connectable, Broadcaster)		
RF-PHY.1/2	LE Receiver (Non-connectable Observer)		
RF-PHY.1/3	LE Transceiver (Connectable, Peripheral/Central)		
RF-PHY.2/1	HCI Test Interface		
RF-PHY.2/2	UART Test Interface		

Additional information for scope: Bluetooth_v2

CatA
 CatB
 RF4.2
 RF-PHY4.2
 TN
 VN

2.4 Setups used for Testing

For each setup a relation is given to determine if and which samples and auxiliary equipment is used. The left side list all OUT samples and the right side lists all auxiliary equipment for the given setup.

<i>Setup No.</i>	<i>List of OUT samples</i>	<i>List of auxiliary equipment</i>
<i>Sample No.</i>	<i>Sample Description</i>	<i>AE No. AE Description</i>
A000924614-001	(4K OTT)	
<i>Sample:</i>	A000924614-001	4K OTT

3 Results

3.1 General

Documentation of tested devices:

Available at the test laboratory.

Interpretation of the Test results:

The results of the inspection are described on the following pages, where 'Conformity' or 'Passed' means that the certification criteria were verified and that the tested device is conform to the applied standard.

In cases where 'Declaration' is printed, the required documents are available in the manufacturers product documentation.

In cases where 'not applicable' is printed, the test case requirements are not relevant to the specific equipment implementation.

The decision rule of conformity of this test report is following the requirements of the requested standard in this test report, and agreed among testing laboratory and manufacturer (applicant) to exclude the consideration of Measurement Uncertainty.

3.2 List of the Applicable Body

(Body for Scope: Bluetooth_v2)

Description

Description

SIG TCRL Core 2019-01-28

Test Case Reference List for Core and Host version 4.2 – 5.1 and later released 2019-01-28

3.3 List of Test Specification

Test Specification:

Date / Version

Title:

Description:

RF

2019/01/28 Version: RF.TS.5.1.0

RF TSS and TP System Specification 4.2/5.0/5.1

Radio Frequency (RF) 5.1, 5.0, 4.2

Test Specification:

Date / Version

Title:

Description:

RF-PHY

2019/01/28 Version: RF-PHY.TS.5.1.0

Bluetooth LE Controller Specification 4.2/5.0/5.1

Bluetooth Low Energy RF PHY Test Specification 5.1, 5.0, 4.2

3.4 Summary

Test Specification: RF

RF.TS.5.0.2		Test Evidence Information
Test Case ID	Test Case Description	Test Case Verdict (Pass, Fail, Waived, Referenced)
RF/TRM/CA/BV-11-C	EDR Carrier Frequency Stability and Modulation Accuracy	Pass
RF/TRM/CA/BV-12-C	EDR Differential Phase Encoding	Pass
RF/TRM/CA/BV-13-C	EDR In-band Spurious Emissions	Pass
RF/TRM/CA/BV-14-C	Enhanced Power Control	Pass
RF/TRM/CA/BV-15-C	EDR Guard Time	Pass
RF/TRM/CA/BV-16-C	EDR Synchronization Sequence and Trailer	Pass
RF/RCV/CA/BV-01-C	Sensitivity - single slot packets	Pass
RF/TRM/CA/BV-01-C	Output Power	Pass
RF/TRM/CA/BV-02-C	Power Density	Pass
RF/TRM/CA/BV-04-C	TX Output Spectrum - Frequency range	Pass
RF/TRM/CA/BV-05-C	TX Output Spectrum - 20 dB Bandwidth	Pass
RF/TRM/CA/BV-06-C	TX Output Spectrum - Adjacent channel power	Pass
RF/TRM/CA/BV-07-C	Modulation Characteristics	Pass
RF/TRM/CA/BV-08-C	Initial Carrier Frequency Tolerance	Pass
RF/TRM/CA/BV-09-C	Carrier Frequency Drift	Pass
RF/RCV/CA/BV-02-C	Sensitivity - multi-slot packets	Pass
RF/RCV/CA/BV-03-C	C/I performance	Pass
RF/RCV/CA/BV-04-C	Blocking performance	Pass
RF/RCV/CA/BV-05-C	Intermodulation Performance	Pass
RF/RCV/CA/BV-06-C	Maximum Input Level	Pass
RF/RCV/CA/BV-07-C	EDR Sensitivity	Pass
RF/RCV/CA/BV-08-C	EDR BER Floor Performance	Pass
RF/RCV/CA/BV-09-C	EDR C/I Performance	Pass
RF/RCV/CA/BV-10-C	EDR Maximum Input Level	Pass
RF/TRM/CA/BV-03-C	Power Control	Pass
RF/TRM/CA/BV-10-C	EDR Relative Transmit Power	Pass
RFPHY.TS.5.0.3		Test Evidence Information
Test Case ID	Test Case Description	Test Case Verdict (Pass, Fail, Waived, Referenced)
RF-PHY/TRM-LE/CA/BV-01-C	Output power	Pass
RF-PHY/TRM-LE/CA/BV-03-C	In-band emissions	Pass
RF-PHY/TRM-LE/CA/BV-05-C	Modulation characteristics	Pass
RF-PHY/TRM-LE/CA/BV-06-C	Carrier frequency offset and drift	Pass
RF-PHY/RCV-LE/CA/BV-01-C	Receiver sensitivity	Pass
RF-PHY/RCV-LE/CA/BV-03-C	C/I and receiver selectivity performance	Pass
RF-PHY/RCV-LE/CA/BV-04-C	Blocking performance	Pass
RF-PHY/RCV-LE/CA/BV-05-C	Intermodulation performance	Pass
RF-PHY/RCV-LE/CA/BV-06-C	Maximum input signal level	Pass
RF-PHY/RCV-LE/CA/BV-07-C	PER Report Integrity	Pass

4 Test Equipment Details

4.1 List of Used Test Equipment

The hardware and software status are shown for the testing period.

Test Equipment Interoperability Laboratory

Lab ID: **Lab 1**
Description: Bluetooth RF Conformance Test System

Single Devices for InterLab Bluetooth RF Test Solution

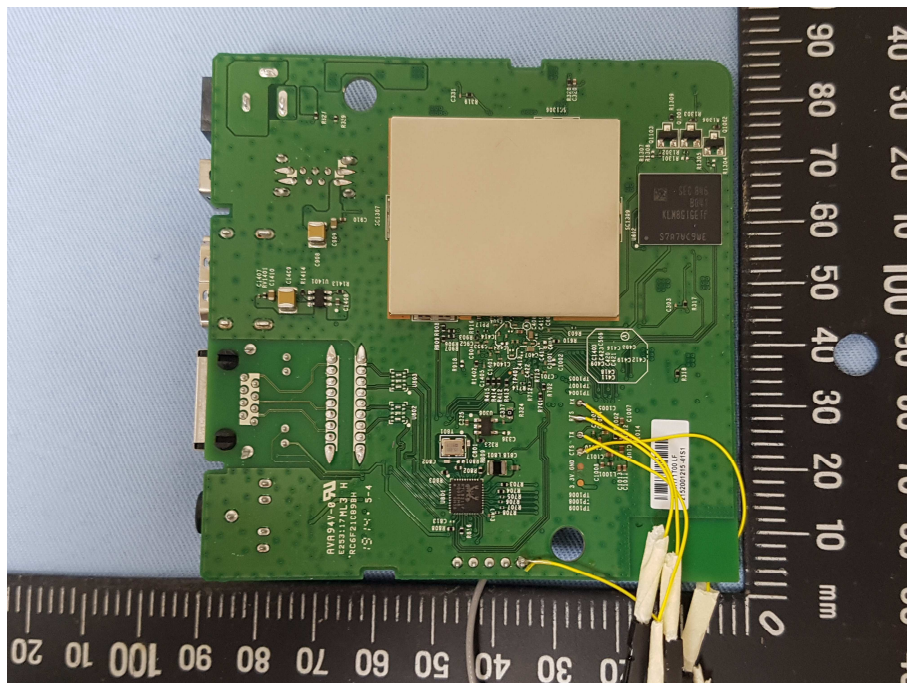
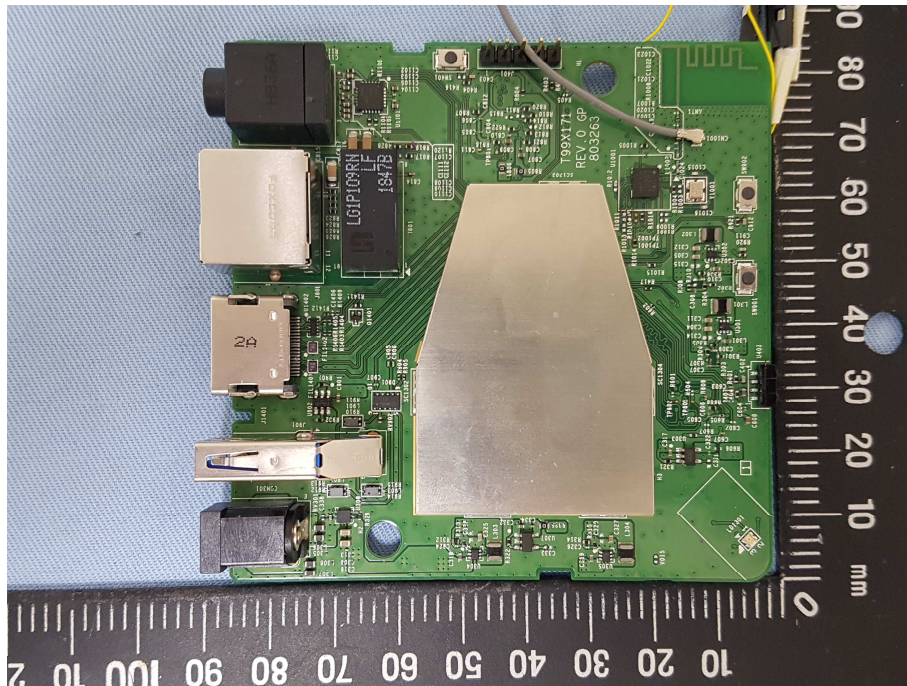
<i>Single Device Name</i>	<i>Type</i>	<i>Serial Number</i>	<i>Manufacturer</i>
Bluetooth Tester	CBT HW/SW Status	100107	Rohde & Schwarz Taiwan
	V 5.50		
Interlab RF Tester	HW/SW Status	n/a	7Layers Inc.
	Version 3.2.3		
Signal Generator	SMIQ3B	8357342/06	Rohde & Schwarz GmbH & Co. KG
Signal Generator	SMR27	100007	Rohde & Schwarz GmbH & Co. KG
Spectrum Analyzer	FSP3	101469	Rohde & Schwarz GmbH & Co. KG
Switching Unit	TOCT	030108	7Layers Inc.

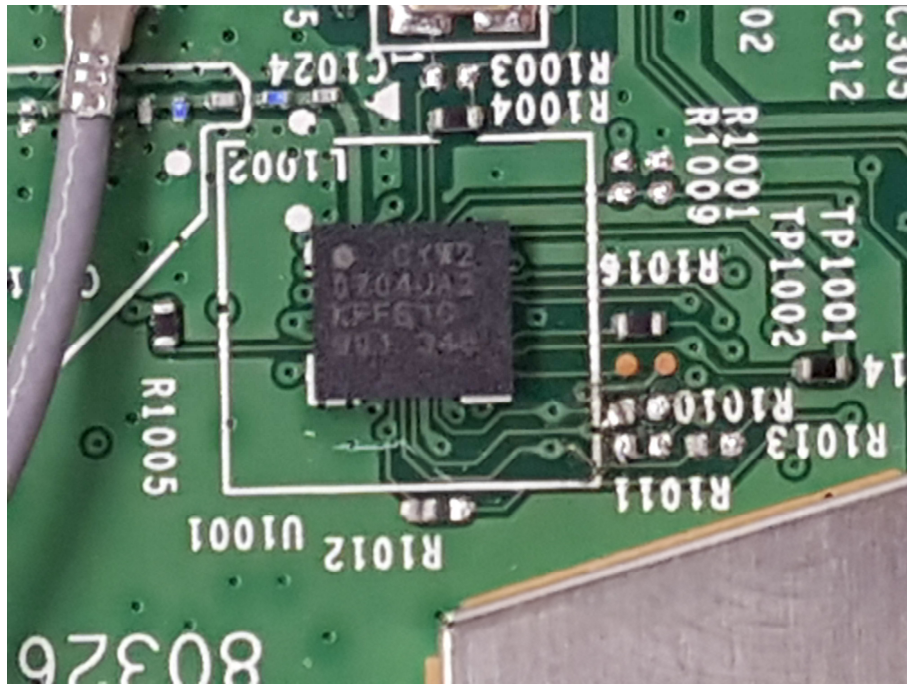
4.2 Laboratory Environmental Conditions

<i>Laboratory</i>	<i>Date</i>	<i>Temperature</i>	<i>Humidity</i>	<i>Air Pressure</i>
Lab 1	2019/05/16	24°C	47%	1020 hPa
Lab 1	2019/05/17	24°C	46%	1020 hPa

5 Annex

5.1 Additional Information for Sample Description





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