

Prüfbericht-Nr.: <i>Test report no.:</i>	CN21LICM 001	Auftrags-Nr.: <i>Order no.:</i>	238496038	Seite 1 von 11 Page 1 of 10
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	11-Dec-2020	
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>	AI Sound bar			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	BFX-UA300			
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 sample receipt:</i>	17-Aug-2021	Test pictures see pages 8 and 9.		
Prüfmuster-Nr.: <i>Test sample no.:</i>	A003127690-001			
Prüfzeitraum: <i>Testing period:</i>	17-Aug-2021 -28-Aug-2021			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland Taiwan Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland Taiwan Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
überprüft von: <i>reviewed by:</i>	genehmigt von: <i>authorized by:</i>			
Datum: 2021.09.13 <i>Date:</i>			Datum: 2021.09.13 <i>Date:</i>	
Stellung / Position:	Section Manager/Frankie Lin		Stellung / Position:	Senior Project Manager/Brenda Chen
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 P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	4 = ausreichend N/A = nicht anwendbar
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory F(ail) = failed a.m. test specification(s)	4 = sufficient N/A = not applicable
5 = mangelhaft N/T = nicht getestet				
5 = poor 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: Frankie Lin
Date of Test Report: 2021/09/13
Date of first test: 2021/08/17
Date of last test: 2021/08/28

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: Tom Lee

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>
	Taipei test laboratory	Mr. Frankie Lin	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: AI Sound bar

Type / Model / Family: AI Sound bar
Model: BFX-UA300

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: Tom Lee

2.2 Detailed Description of OUT Samples

Sample : A003127690-001

OUT Identifier	AI Sound bar
Sample Description	BFX-UA300 is AI Sound bar, support BR/EDR/BLE
Serial No.	N/A
HW Status	V125
SW Status	19.531.17
Date of Receipt	2021/08/17
Nominal Voltage	24 V
Normal Temperature	25°C

Parameter List:

Parameter name	Value
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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	2.2 (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	Loopback Mode (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 2)	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.1/3	LE Transceiver (Connectable, Peripheral/Central)		
RF-PHY.1/4	LE 2M PHY		
RF-PHY.1/5	Stable Modulation Index - Transmitter		
RF-PHY.1/6	Stable Modulation Index - Receiver		
RF-PHY.1/7	LE Coded PHY		
RF-PHY.2/1	HCI Test Interface		
RF-PHY.2/2	UART Test Interface		

Additional information for scope: Bluetooth_v2

CatA
CatB
RF-PHY
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>
A003127690-001	(AI Sound bar)	

Sample: A003127690-001 AI Sound bar

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)

<i>Description</i>	<i>Description</i>
SIG TCRL Core 2021-01	Test Case Reference List for Core and Host version 4.2- 5.3 and later released 2021-01

3.3 List of Test Specification

Test Specification:
Date / Version
Title:
Description:

RF
2021/07/13 Version: RF.TS.p.31
RF TSS and TP System Specification 4.2 - 5.3
Radio Frequency (RF)

Test Specification:
Date / Version
Title:
Description:

RF-PHY
2021/07/13 Version: RF-PHY.TS.p16
Bluetooth LE Controller Specification 4.2 - 5.3
Bluetooth Low Energy RF PHY Test Specification

3.4 Summary

Test Specification: RF

RF.TS.p31		Test Evidence Information
Test Case ID	Test Case Description	Test Case Verdict
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-15-C	EDR Guard Time	Pass
RF/TRM/CA/BV-16-C	EDR Synchronization Sequence and Trailer	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-10-C	EDR Relative Transmit Power	Pass
RF/TRM/CA/BV-14-C	Enhanced Power Control	Pass
RF/RCV/CA/BV-01-C	Sensitivity - single 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/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/TRM/CA/BV-03-C	Power Control	Pass

RF PHY.TS.16		Test Evidence Information
Test Case ID	Test Case Description	Test Case Verdict
RFPHY/RCV/BV-01-C	Receiver sensitivity	Pass
RFPHY/RCV/BV-03-C	C/I and receiver selectivity performance	Pass
RFPHY/RCV/BV-04-C	Blocking performance	Pass
RFPHY/RCV/BV-05-C	Intermodulation performance	Pass
RFPHY/RCV/BV-06-C	Maximum input signal level	Pass
RFPHY/RCV/BV-07-C	PER Report Integrity	Pass
RFPHY/RCV/BV-08-C	Receiver sensitivity at 2 Ms/s	Pass
RFPHY/RCV/BV-09-C	C/I and Receiver Selectivity Performance at 2 Ms/s	Pass
RFPHY/RCV/BV-10-C	Blocking performance at 2 Ms/s	Pass
RFPHY/RCV/BV-11-C	Intermodulation performance at 2 Ms/s	Pass
RFPHY/RCV/BV-12-C	Maximum input signal level at 2 Ms/s	Pass
RFPHY/RCV/BV-13-C	PER Report Integrity at 2 Ms/s	Pass
RFPHY/RCV/BV-14-C	Receiver Sensitivity at NOC, Stable Modulation Index	Pass
RFPHY/RCV/BV-15-C	C/I and Receiver Selectivity Performance, Stable Modulation Index	Pass
RFPHY/RCV/BV-16-C	Blocking Performance, Stable Modulation Index	Pass
RFPHY/RCV/BV-17-C	Intermodulation Performance, Stable Modulation Index	Pass
RFPHY/RCV/BV-18-C	Maximum input signal level, Stable Modulation Index	Pass
RFPHY/RCV/BV-19-C	PER Report Integrity, Stable Modulation Index	Pass
RFPHY/RCV/BV-20-C	Receiver sensitivity at 2 Ms/s, Stable Modulation Index	Pass
RFPHY/RCV/BV-21-C	C/I and Receiver Selectivity Performance at 2 Ms/s, Stable Modulation Index	Pass
RFPHY/RCV/BV-22-C	Blocking performance at 2 Ms/s, Stable Modulation Index	Pass
RFPHY/RCV/BV-23-C	Intermodulation performance at 2 Ms/s, Stable Modulation Index	Pass
RFPHY/RCV/BV-24-C	Maximum input signal level at 2 Ms/s, Stable Modulation Index	Pass
RFPHY/RCV/BV-25-C	PER Report Integrity at 2 Ms/s, Stable Modulation Index	Pass
RFPHY/RCV/BV-26-C	Receiver sensitivity, LE Coded (S=2)	Pass
RFPHY/RCV/BV-27-C	Receiver sensitivity, LE Coded (S=8)	Pass
RFPHY/RCV/BV-28-C	C/I and Receiver Selectivity Performance, LE Coded (S=2)	Pass
RFPHY/RCV/BV-29-C	C/I and Receiver Selectivity Performance, LE Coded (S=8)	Pass
RFPHY/RCV/BV-30-C	PER Report Integrity, LE Coded (S=2)	Pass
RFPHY/RCV/BV-31-C	PER Report Integrity, LE Coded (S=8)	Pass
RFPHY/RCV/BV-32-C	Receiver sensitivity, LE Coded (S=2), Stable Modulation Index	Pass
RFPHY/RCV/BV-33-C	Receiver sensitivity, LE Coded (S=8), Stable Modulation Index	Pass
RFPHY/RCV/BV-34-C	C/I and Receiver Selectivity Performance, LE Coded (S=2), Stable Modulation Index	Pass
RFPHY/RCV/BV-35-C	C/I and Receiver Selectivity Performance, LE Coded (S=8), Stable Modulation Index	Pass
RFPHY/RCV/BV-36-C	PER Report Integrity, LE Coded (S=2), Stable Modulation Index	Pass
RFPHY/RCV/BV-37-C	PER Report Integrity, LE Coded (S=8), Stable Modulation Index	Pass
RFPHY/TRM/BV-01-C	Output power, -20 dBm ≤ PAVG ≤ +10 dBm	Pass
RFPHY/TRM/BV-03-C	In-band emissions	Pass
RFPHY/TRM/BV-05-C	Modulation characteristics	Pass
RFPHY/TRM/BV-06-C	Carrier frequency offset and drift	Pass
RFPHY/TRM/BV-08-C	In-band emissions at 2 Ms/s	Pass
RFPHY/TRM/BV-09-C	Stable Modulation Characteristics at 1 Ms/s	Pass
RFPHY/TRM/BV-10-C	Modulation Characteristics at 2 Ms/s	Pass
RFPHY/TRM/BV-11-C	Stable Modulation Characteristics at 2 Ms/s	Pass
RFPHY/TRM/BV-12-C	Carrier frequency offset and drift at 2 Ms/s	Pass
RFPHY/TRM/BV-13-C	Modulation Characteristics, LE Coded (S=8)	Pass
RFPHY/TRM/BV-14-C	Carrier frequency offset and drift, LE Coded (S=8)	Pass

4 Test Equipment Details

4.1 List of Used Test Equipment

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

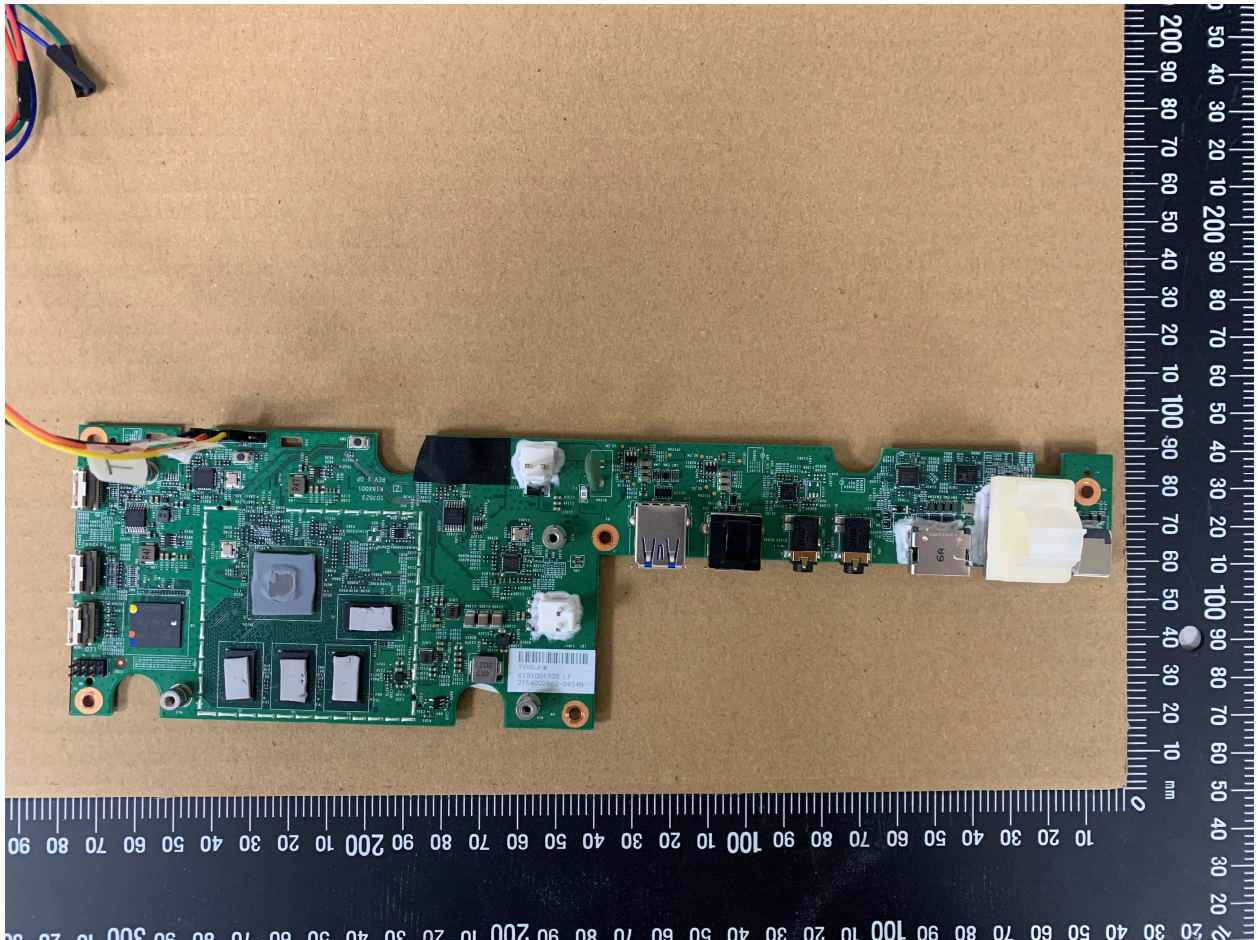
<i>Single Device Name</i>	<i>Type</i>	<i>Serial Number</i>	<i>Manufacturer</i>
Bluetooth Tester	CBT	100107	Rohde & Schwarz Taiwan
	HW/SW Status		
	V 5.50		
Interlab RF Tester		n/a	7Layers Inc.
	HW/SW Status		
	Version 5.1.5		
Signal Generator	SMIQ3B	8357342/06	Rohde & Schwarz GmbH & Co. KG
Signal Generator	SMR27	100007	Rohde & Schwarz GmbH & Co. KG
Spectrum Analyzer	FSP3	100108	Rohde & Schwarz GmbH & Co. KG
Switching Unit	TOCT	030108	7Layers Inc.
Bluetooth Tester	CMW270	100665	Rohde & Schwarz Taiwan
	HW/SW Status		
	V 3.7.100		
CTE-RF-Bluetooth		n/a	TÜV Rheinland
	HW/SW Status		
	Version 43.1		
Signal Generator	SMIQ03B	100231	Rohde & Schwarz GmbH & Co. KG
Signal Generator	SMB100A	177888	Rohde & Schwarz GmbH & Co. KG
Spectrum Analyzer	FLS3	101943	Rohde & Schwarz GmbH & Co. KG

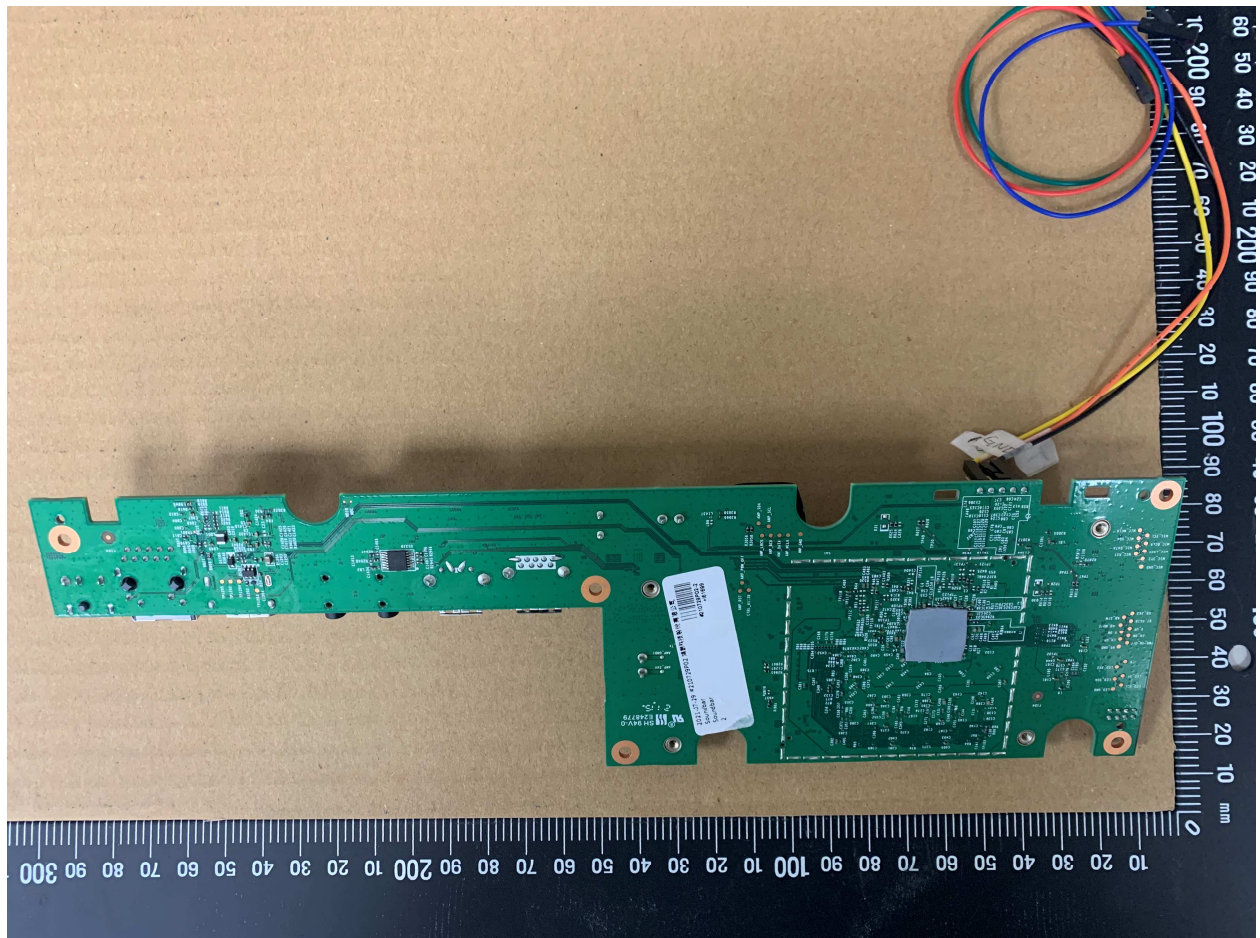
4.2 Laboratory Environmental Conditions

<i>Laboratory</i>	<i>Date</i>	<i>Temperature</i>	<i>Humidity</i>	<i>Air Pressure</i>
Lab 1	2021/08/17	24°C	64%	1010 hPa
Lab 1	2021/08/23	24°C	64%	1010 hPa
Lab 1	2021/08/26	24°C	64%	1010 hPa
Lab 1	2021/08/27	24°C	64%	1010 hPa
Lab 1	2021/08/28	24°C	64%	1010 hPa

5 Annex

5.1 Additional Information for Sample Description





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