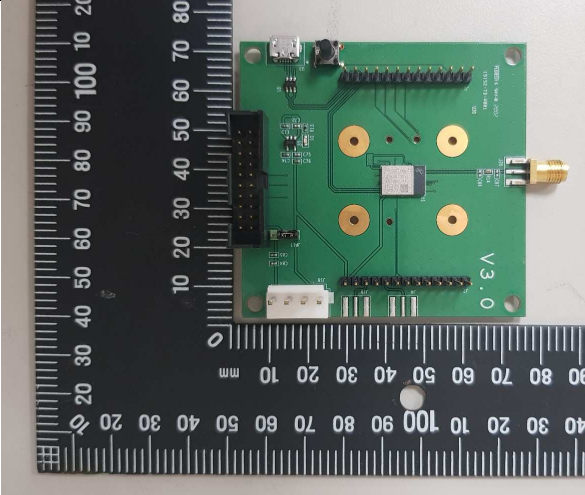





Prüfbericht-Nr.: <i>Test report no.:</i>	50359923-001	Auftrags-Nr.: <i>Order no.:</i>	238112010	Seite 1 von 7 Page 1 of 7
Kunden-Referenz-Nr.: <i>Client reference no.:</i>		Auftragsdatum: <i>Order date:</i>	18.10.2019	
Auftraggeber: <i>Client:</i>	STMicroelectronics SAS, 190 Avenue Celestin Coq, Rousset, France			
Prüfgegenstand: <i>Test item:</i>	STM32WB5MMG			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	32WB5M			
Auftrags-Inhalt: <i>Order content:</i>	IEEE 802.15.4 PHY testing			
Prüfgrundlage: <i>Test specification:</i>	ZigBee IEEE 802.15.4 Test Spec. ZigBee Doc. 14-0332-01 October, 2014			
Wareneingangsdatum: <i>Date of sample receipt:</i>	20.11.2019			
Prüfmuster-Nr.: <i>Test sample no.:</i>	A001065711-002			
Prüfzeitraum: <i>Testing period:</i>	20.02.2020 - 16.03.2020			
Ort der Prüfung: <i>Place of testing:</i>	ZigBee Test Laboratory, Taipei, Taiwan			
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>		 Recoverable Signature
Datum: 06.04.2020 <i>Date:</i>	Signed by: Brenda S. H. Chen	Datum: 06.04.2020 <i>Date:</i>	Signed by: hoa@asia.tuv.com	
Stellung / Position:	Senior Project Manager	Stellung / Position:	Vice General Manager	
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 N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested
<p>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></p>				

v05

1. Administrative Data

1.1. Project Data

<i>Project Responsible:</i>	Brenda Chen
<i>Date of Test Report:</i>	06.04.2020
<i>Date of First Test:</i>	20.02.2020
<i>Date of Last Test:</i>	16.03.2020

1.2. Applicant Data

<i>Company Name:</i>	STMicroelectronics SAS
<i>Street:</i>	190 Avenue Celestin Coq
<i>City:</i>	Rousset
<i>Country:</i>	France
<i>Contact person:</i>	JOEL HULOUX
<i>Telephone:</i>	+33442688625
<i>Fax:</i>	+33442688993
<i>E-mail address:</i>	joel.huloux@st.com

1.3. Test Laboratory Data

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

TUV Rheinland Taiwan Ltd.

<i>Company Name:</i>	TUV Rheinland Taiwan Ltd.
<i>Street:</i>	11F, No.758, Bade Road, Section 4
<i>City:</i>	105 Taipei
<i>Country:</i>	Taiwan R.O.C.
<i>Contact person:</i>	Brenda Chen
<i>Tel:</i>	+886 2 2172 7000 #1229
<i>Fax:</i>	+886 2 2528 0018
<i>E-mail:</i>	brenda.chen@tuv.com

Laboratory Details

<i>Identification</i>	<i>Responsible</i>
ZigBee Test Laboratory	Brenda Chen

2. Test Object Data

2.1. IUT Data

The following list shows all IUT's involved for the test result generation:

IUT:

<i>Product Name:</i>	STM32WB5MMG
<i>Model Name:</i>	32WB5M
<i>Sample Number:</i>	A001065711-002
<i>Hardware Version:</i>	01
<i>PHY firmware Version:</i>	01
<i>Radio Chipset:</i>	STM32WB55VGY

Manufacturer:

<i>Company name:</i>	STMicroelectronics SAS, 190 Avenue Celestin Coq, Rousset, France
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2.2. Setups used for Testing

Test setup description:

Setup no.	Description
001	General Setup according Test Specifications

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 'PASS' means that the certification criteria were verified and the tested device is conform the applied standard.

3.2. List of Test Specification

Document Title: **ZigBee IEEE 802.15.4 Test Spec.**
ZigBee Doc. 14-0332-01

Date: October 2014

3.3. Summary

3.3.1. ZigBee IEEE 802.15.4 PHY Test Results

Test Case	Verdict
TP/154/PHY24/TRANSMIT-01	PASS
TP/154/PHY24/TRANSMIT-02	PASS
TP/154/PHY24/TRANSMIT-03	PASS
TP/154/PHY24/TRANSMIT-04	PASS
TP/154/PHY24/TRANSMIT-05	PASS
TP/154/PHY24/RECEIVER-01	PASS
TP/154/PHY24/RECEIVER-02	PASS
TP/154/PHY24/RECEIVER-03	PASS
TP/154/PHY24/RECEIVER-04	PASS
TP/154/PHY24/RECEIVER-05	PASS
TP/154/PHY24/RECEIVER-06	PASS
TP/154/PHY24/RECEIVER-07	PASS
TP/154/PHY24/TURNAROUND-TIME-01	PASS
TP/154/PHY24/TURNAROUND-TIME-02	PASS

4. Test Environment Details

4.1. Test Equipment

Protocol Sniffer

Name: ubiqua
Manufacturer: Ubilogix International, Inc.
Hardware: TI CC2531, Freescale KW24D512
Software: Version 2.1 (Build 0136)

Name: Packet Sniffer
Manufacturer: Texas Instruments
Hardware: TI CC2531
Software: Version 2.18.1

IEEE802.15.4 Device

Name: Connectivity Test tool
Manufacturer: Freescale Semiconductor
Hardware: TWR-KW24D512
Software: Version 1.3

Name: Kinetis MAC
Manufacturer: Freescale Semiconductor
Hardware: USB-KW24D512
Software: Version 4.0.1

Signal Analyzer & Signal Generator

Manufacturer: Rohde & Schwarz
Type: FSV

Manufacturer: Rohde & Schwarz
Type: FPL 1003

Manufacturer: Rohde & Schwarz
Type: SMBV100A

4.2. Laboratory Conditions

Date	Temperature (C)	Humidity (%)
Feb. 2020	20	40
Mar. 2020	21	40

5. Index

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