

Rev: 01

Page: 1 of 44

# **Appendix B - DAE & Probe Calibration Certificate**

Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





Schweizerischer Kalibrierdienst Service suisse d'étalonnage Servizio svizzero di taratura

Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

SGS-TW (Auden)

Accreditation No.: SCS 0108

C

S

Certificate No: DAE4-1260\_Nov18 **CALIBRATION CERTIFICATE** DAE4 - SD 000 D04 BM - SN: 1260 OA CAL-06 V29 Calibration procedure(s) Calibration procedure for the data acquisition electronics (DAE) Calibration date: November 30, 2018 This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%. Calibration Equipment used (M&TE critical for calibration) Primary Standards 1D # Cal Date (Certificate No.) Scheduled Calibration Kelthley Multimeter Type 2001 SN: 0810278 Sep-19 Secondary Standards ID# Check Date (in house) Scheduled Check SE UWS 053 AA 1001 04-Jan-18 (in house check) Auto DAE Calibration Unit In house check: Jan-19 Calibrator Box V2.1 SE UMS 006 AA 1002 04-Jan-18 (in house check) In house check: Jan-19 Calibrated by: Dominique Steffen Laboratory Technician Sven Kühn Deputy Manager Approved by: Issued: November 30, 2018 This calibration certificate shall not be reproduced except in full without written approval of the laboratory

Certificate No: DAE4-1260\_Nov18

Page 1 of 5

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sqs.com/terms\_e-document.htm">www.sqs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 2 of 44

Calibration Laboratory of Schmid & Partner Engineering AG sstrasse 43, 8004 Zurich, Switzerland





Schweizerischer Kalibrierdienst S Service suisse d'étalonnage C Servizio svizzero di taratura Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

#### Glossary

DAF data acquisition electronics

Connector angle information used in DASY system to align probe sensor X to the robot

coordinate system.

#### Methods Applied and Interpretation of Parameters

- DC Voltage Measurement: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- Connector angle: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - DC Voltage Measurement Linearity: Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this
  - Common mode sensitivity: Influence of a positive or negative common mode voltage on the differential measurement.
  - Channel separation: Influence of a voltage on the neighbor channels not subject to an input voltage.
  - AD Converter Values with inputs shorted: Values on the internal AD converter corresponding to zero input voltage
  - Input Offset Measurement. Output voltage and statistical results over a large number of zero voltage measurements.
  - Input Offset Current: Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - Input resistance: Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - Low Battery Alarm Voltage: Typical value for information. Below this voltage, a battery alarm signal is generated.
  - Power consumption: Typical value for information. Supply currents in various operating

Certificate No: DAE4-1260 Nov18

Page 2 of 5

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sqs.com/terms-e-document.htm">www.sqs.com/terms-e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.

No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 24803/新北市五股區新北產業園區五工路 134 號

www.tw.sas.com



Rev: 01

Page: 3 of 44

#### DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = -100...+300 mV 6.1uV . full range = Low Range: 1LSB = 61nV tull range = -1.....+3mV DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	1 Z
Hìgh Range	404.190 ± 0.02% (k=2)	404.604 ± 0.02% (k=2)	404,793 ± 0.02% (k=2)
Low Range	3.99161 ± 1.50% (k=2)	4.00001 ± 1.50% (k=2)	4.00892 ± 1.50% (k=2)

#### Connector Angle

Connector Angle to be used in DASY system	341.5°±1°
---	-----------

Certificate No: DAE4-1260\_Nov18

Page 3 of 5

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 24803/新北市五股區新北產業園區五工路 134 號 t (886-2) 2299-3279 www.tw.sas.com



Rev: 01

Page: 4 of 44

### Appendix (Additional assessments outside the scope of SCS0108)

High Range	Reading (µV)	Difference (μV)	Error (%)
Channel X + Input	200033.72	-1,26	, -0.00
Channel X + Input	20003.07	-2.10	-0.01
Channel X - Input	-20003.16	2.78	-0.01
Channel Y + Input	200038.25	3.73	0.00
Channel Y + Input	20002.41	-2.63	-0.01
Channel Y - Input	-20006.86	-0.69	0.00
Channel Z + Input	200033.80	-1.16	-0.00
Channel Z + Input	20001.51	-3.36	-0.02
Channel Z - Input	-20006.68	-0.48	0.00

Low Range	Reading (μV)	Difference (µV)	Error (%)
Channel X + Input	2001.18	0.25	0.01
Channel X + Input	200.87	-0.09	-0.04
Channel X - Input	-198.21	-0.79	-0.40
Channel Y + Input	2001.05	0.24	0.01
Channel Y + Input	199.97	-0.89	-0.44
Channel Y - Input	-199.76	-0.64	0.32
Channel Z + Input	2000.74	0.04	0,00
Channel Z + Input	199.77	-1.03	-0.51
Channel Z - Input	-200.48	-1.28	0.64

## 2. Common mode sensitivity

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	-0,90	-2.92
	- 200	4.87	2.75
Channel Y	200	-5.45	-5.41
	- 200	4.55	4.20
Channel Z	200	-16.55	-16.45
	- 200	13.88	14.44

## 3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 seo; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (µV)	Channel Z (µV)
Channel X	200		0.68	-5.24
Channel Y	200	8.97		1.84
Channel Z	200	10.48	5.66	2

Certificate No: DAE4-1260\_Nov18

Page 4 of 5

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 5 of 44

## 4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec: Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	16236	16097
Channel Y	15859	16057
Channel Z	18152	16351

#### 5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10MO

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (µV)
Channel X	0.63	-0.78	1.69	0.43
Channel Y	0.10	-0.90	1.53	0.41
Channel Z	-1.03	-2.00	0.10	0.44

#### 6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)	
Supply (+ Vcc)	+7.9	
Supply (- Vcc)	-7.6	

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

Certificate No: DAE4-1260\_Nov18

Page 5 of 5

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此數告結果僅對測試之樣品負責,同時此樣品僅保留仍天。本數告未經本公司惠面許可,不可部份複製。

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 6 of 44

Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





S Service suisse d'étalonnage C Servizio svizzero di taratura Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Client

SGS-TW (Auden)

Certificate No: EX3-3938 Oct18

## CALIBRATION CERTIFICATE

Object

EX3DV4 - SN:3938

Calibration procedure(s)

QA CAL-01.v9, QA CAL-12.v9, QA CAL-14.v4, QA CAL-23.v5, QA

CAL-25.v6

Calibration procedure for dosimetric E-field probes

Calibration date:

October 24, 2018

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%,

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-18 (No. 217-02682)	Apr-19
Reference Probe ES3DV2	SN: 3013	30-Dec-17 (No. ES3-3013_Dec17)	Dec-18
DAE4	SN: 660	21-Dec-17 (No. DAE4-660_Dec17)	Dec-18
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct.19

	Name	Function	Signature
Calibrated by	Jeton Kastrati	Laboratory Technician	tella
Approved by:	Katja Pokovic	Technical Manager	RRAG
			Issued: October 24, 2018

Certificate No: EX3-3938\_Oct18

Page 1 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sqs.com/terms-e-document.htm">www.sqs.com/terms-e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 7 of 44

Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland





Schweizerischer Kalibrierdienst S Service suisse d'étalonnage Servizio svizzero di taratura Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Glossary:

tissue simulating liquid TSL NORMx,y,z sensitivity in free space ConvF sensitivity in TSL / NORMx,y,z DCP diode compression point

crest factor (1/duty\_cycle) of the RF signal modulation dependent linearization parameters A, B, C, D

Polarization φ φ rotation around probe axis

Polarization 9 9 rotation around an axis that is in the plane normal to probe axis (at measurement center),

i.e., 9 = 0 is normal to probe axis

Connector Angle information used in DASY system to align probe sensor X to the robot coordinate system

## Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement

Techniques", June 2013
 IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from handheld and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
 IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices

used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010 d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

#### Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization 9 = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz; R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)x,y,z = NORMx,y,z \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.

  PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal
- characteristics
- Ax.y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z; A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,y,z \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).

Certificate No: EX3-3938\_Oct18

Page 2 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sqs.com/terms-e-document.htm">www.sqs.com/terms-e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.

No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 24803/新北市五股區新北產業園區五工路 134 號 t (886-2) 2299-3279

www.tw.sas.com



Rev: 01

Page: 8 of 44

EX3DV4 - SN:3938

October 24, 2018

# Probe EX3DV4

SN:3938

Manufactured: May 2, 2013 Calibrated: October 24, 2018

Calibrated for DASY/EASY Systems (Note: non-compatible with DASY2 system!)

Certificate No: EX3-3938\_Oct18

Page 3 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sqs.com/terms-e-document.htm">www.sqs.com/terms-e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 9 of 44

EX3DV4-SN:3938

October 24, 2018

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3938

#### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)^A$	0.51	0.57	0.33	± 10.1 %
DCP (mV) <sup>B</sup>	103.2	100.3	107.8	- 150.7.70

### Modulation Calibration Parameters

UID	Communication System Name		A	B dBõV	C	D dB	VR mV	Unc <sup>E</sup> (k=2)
0	CW	X	0.0	0.0	1.0	0.00	164.0	±3.5 %
		Y	0.0	0.0	1.0		174.2	
		Z	0.0	0.0	1.0	_	176.3	

Note: For details on UID parameters see Appendix.

#### Sensor Model Parameters

	C1 fF	C2 fF	Q V-1	T1 ms.V <sup>-2</sup>	T2 ms.V <sup>-1</sup>	T3 ms	T4 V-2	T5 V-1	T6
X	59.09	436,9	35.15	26.09	1.205	5.10	1.012	0.575	1.009
Y.	53.22	408,3	37.24	24.25	1,457	5.10	0.000	0.766	1.013
Z	46.65	332.5	32.92	15.26	1.153	4.98	2.000	0.225	1.006

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Certificate No: EX3-3938\_Oct18

Page 4 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sqs.com/terms-e-document.htm">www.sqs.com/terms-e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.

A The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5 and 6).

Numerical linearization parameter; uncertainty not required

Uncertainty is determined using the max, deviation from linear response applying rectangular distribution and is expressed for the square of the



Rev: 01

Page: 10 of 44

EX3DV4-SN:3938

October 24, 2018

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:3938

## Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) <sup>c</sup>	Relative Permittivity F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	41.9	0.89	9.82	9.82	9.82	0.45	0.80	± 12.0 %
835	41.5	0.90	9.50	9.50	9.50	0.50	0.85	± 12.0 %
900	41.5	0.97	9.25	9.25	9.25	0.33	1.04	± 12.0 %
1450	40.5	1.20	8,53	8.53	8.53	0.30	0.86	± 12.0 %
1750	40.1	1.37	8.32	8.32	8.32	0.36	0.90	± 12.0 %
1900	40.0	1.40	7.95	7.95	7.95	0.29	0.90	± 12.0 %
2000	40.0	1.40	7,93	7.93	7.93	0.36	0.80	± 12.0 %
2300	39.5	1.67	7.59	7.59	7.59	0.37	0.80	± 12.0 %
2450	39.2	1.80	7.17	7.17	7.17	0.38	0.83	± 12.0 %
2600	39.0	1.96	7.11	7.11	7.11	0.38	0.87	± 12.0 %
5250	35.9	4.71	5.00	5.00	5.00	0.40	1.80	±13.1 %
5600	35.5	5.07	4.65	4.65	4.65	0.40	1.80	± 13.1 %
5750	35.4	5.22	4.76	4.76	4.76	0.40	1.80	±13.1 %

<sup>&</sup>lt;sup>c</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± ±10 MHz.

\*\*All frequencies below 3 GHz, the validity of tissue parameters (ε and α) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and α) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

\*\*Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip-diameter from the boundary.

Certificate No: EX3-3938\_Oct18

Page 5 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 11 of 44

EX3DV4- SN:3938

October 24, 2018

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:3938

## Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) <sup>C</sup>	Relative Permittivity F	Conductivity (S/m) F	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	55.5	0.96	9.72	9.72	9.72	0.46	0.87	± 12.0 %
835	55.2	0.97	9,56	9.56	9.56	0.41	0.92	± 12,0 %
900	55.0	1.05	9.33	9.33	9.33	0.48	0.87	± 12.0 %
1450	54.0	1.30	7.98	7.98	7.98	0.32	0.90	± 12.0 %
1750	53.4	1.49	7.83	7.83	7.83	0.43	0.90	± 12.0 %
1900	53.3	1.52	7.52	7.52	7.52	0.33	0.96	± 12.0 %
2000	53.3	1.52	7.62	7.62	7.62	0,36	0.89	± 12.0 %
2300	52.9	1.81	7.33	7.33	7.33	0.42	0.87	± 12.0 %
2450	52,7	1.95	7.30	7.30	7.30	0.35	0.87	± 12.0 %
2600	52,5	2.16	7.15	7.15	7.15	0.33	0.95	± 12.0 %
5250	48.9	5.36	4.23	4.23	4.23	0.50	1.90	± 13.1 %
5600	48.5	5.77	3.77	3.77	3.77	0.50	1.90	± 13.1 %
5800	48.2	6.00	4.00	4.00	4.00	0.50	1.90	± 13.1 %

Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else if is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 84, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

Certificale No: EX3-3938 Oct18

Page 6 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

validity can be extended to ± 110 MHz.

At frequencies below 3 GHz, the validity of lissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvT uncertainty for indicated target tissue parameters.

Apha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip

diameter from the boundary.



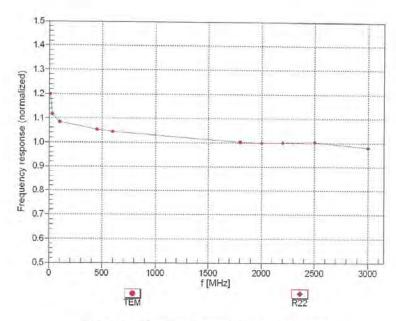
Rev: 01

Page: 12 of 44

EX3DV4- SN:3938

October 24, 2018

## Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

Certificate No: EX3-3938 Oct18

Page 7 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sgs.com/terms">www.sgs.com/terms</a> e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.

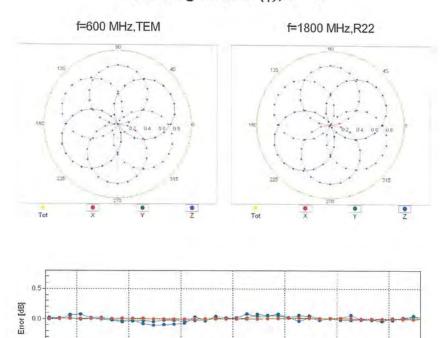


Rev: 01

Page: 13 of 44

EX3DV4- SN:3938 October 24, 2018

# Receiving Pattern ( $\phi$ ), $\vartheta = 0^{\circ}$



Roll [\*]
100 MHz
1800 MHz
1800 MHz
2500 MHz
Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Certificate No: EX3-3938\_Oct18

-0.5

Page 8 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非早有說明,什報告結果僅與個別天。木報告未經木公司書面許可,不可無份複製。

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sg.com/terms\_and\_conditions.htm">www.sg.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sg.com/terms\_e-document.htm">www.sg.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.

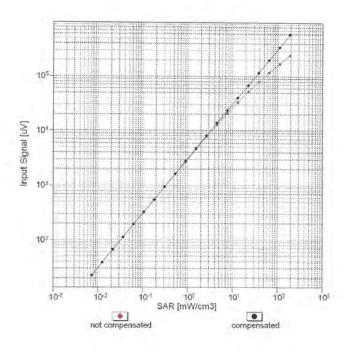


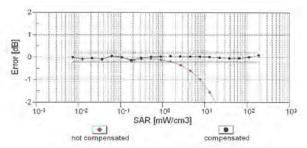
Rev: 01

Page: 14 of 44

EX3DV4- SN:3938 October 24, 2018

## Dynamic Range f(SARhead) (TEM cell , feval= 1900 MHz)





Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Certificate No: EX3-3938\_Oct18 Page 9 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sqs.com/terms-e-document.htm">www.sqs.com/terms-e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.

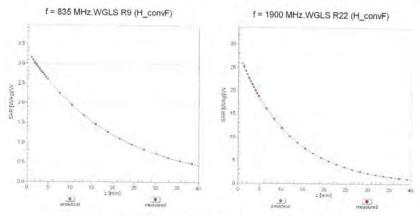


Rev: 01

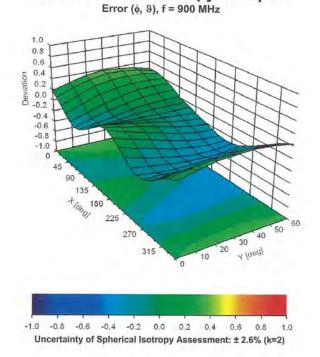
Page: 15 of 44

EX3DV4- SN:3938 October 24, 2018

# Conversion Factor Assessment



# Deviation from Isotropy in Liquid



Certificate No: EX3-3938\_Oct18

Page 10 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms\_and\_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="www.sqs.com/terms-e-document.htm">www.sqs.com/terms-e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 16 of 44

EX3DV4-SN:3938

October 24, 2018

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:3938

### Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-26.4
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1,4 mm

Certificate No: EX3-3938\_Oct18

Page 11 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Rev: 01

Page: 17 of 44

October 24, 2018 EX3DV4-SN:3938

UID	Communication System Name		A dB	B dBõV	C	dB	WR mV	Max Unc <sup>E</sup> (k=2)
0	CW	X	0.00	0.00	1.00	0.00	164.0	±3.5 %
		Y	0.00	0.00	1.00		174.2	
		Z	0.00	0.00	1.00		176.3	
10010- CAA	SAR Validation (Square, 100ms, 10ms)	X	11,84	84.28	19.03	10.00	20,0	± 9.6 %
-		Y	4.75	72.52	14.55		20.0	
	A TOTAL CONTRACTOR OF THE PARTY	Z	2.70	65.86	10.62		20.0	
10011-	UMTS-FDD (WCDMA)	X	1.25	71.04	17.46	0.00	150.0	±9.6 %
CAB	SM13-1 BB (WBBMA)	Y	0.87	65.19	13.50	0,00	150.0	1 5.0 70
		Z	1.10	69.84	16.56		150.0	
10012-	IEEE 900 111 WEEE 2 1 CU- /DCCC 1					0.41		+000
CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	Х	1.29	65.77	16.62	0.41	150.0	±9.6 %
		Υ	1.13	63.57	14.74		150.0	
VOL. 12.1		Z	1.17	64.77	15.66		150.0	
10013- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps)	X	5.06	67.01	17.40	1.46	150.0	±9.6 %
		Υ	4.93	66.63	17.09		150.0	
	Value of the second sec	Z	4.79	66.72	16.84		150.0	
10021- DAC	GSM-FDD (TDMA, GMSK)	X	100.00	118.51	30.68	9.39	50.0	± 9.6 %
		Y	100.00	117.47	30.14		50.0	
		Z	9.68	81.68	18.25		50.0	
10023- DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	100.00	118.45	30.70	9.57	50.0	±9.6 %
57.15		Y	100.00	117.42	30.17		50.0	
		Z	8.28	79.56	17.55		50.0	
10024- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X.	100.00	116.27	28.62	6,56	60.0	± 9.6 %
DAG		Y	100.00	113.88	27.38		60.0	
		Z	17.36	88.43	18.89		60.0	
10025- DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	14.85	105.13	41.16	12.57	50.0	± 9.6 %
DAG		Y	6.69	80.08	30.32		50.0	
		Z	5.13	73.32	26.13		50.0	
10026-	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	28.61	116,31	40.38	9.56	60.0	±9.6 %
DAC			Vm 110	2000 40				
		Y.	17.18	103,12	35.82	_	60.0	
7.7		Z	10.76	92.22	31.22	1.00	60.0	
10027- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	116,23	27.82	4.80	80.0	±9.6 %
		Y	100,00	112.20	25.80		80.0	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Z	100.00	105.42	22.06		80.0	
10028- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	X	100.00	117.56	27.68	3.55	100.0	± 9.6 %
		Y	100.00	111.19	24.62		100.0	
		Z	100.00	105.06	21.28		100.0	
10029- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	14.44	99.44	33.73	7.80	80.0	± 9.6 %
		Y	10.38	91.48	30.62		80.0	
		Z	6.98	83.31	26.90		80.0	15.
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	×	100.00	115.12	27.62	5,30	70.0	± 9.6 %
-/41		Y	100.00	111.80	25.93		70.0	
		2	13.15	85.08	17.21		70.0	
10031- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	X	100.00	120,41	27,44	1.88	100.0	± 9.6 %
UMM		Y	100.00	105.86	20.93		100.0	
		Z	100.00	102.30	18.93	-	100.0	

Certificate No: EX3-3938\_Oct18

Page 12 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 18 of 44

EX3DV4- SN:3938

October 24, 2018

10032- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	129.17	29.93	1.17	100.0	± 9.6 %
		Y	100.00	101.34	18.13		100.0	
10033- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	100.00	104.25 128.01	18.92 35.11	5.30	70.0	± 9.6 %
120.00		Y	30.26	106.06	28.70		70.0	
	Caracter and the second	Z	7.06	82.85	20.36		70.0	
10034- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	31.82	111.52	29.61	1,88	100.0	± 9.6 %
		Y	4.94	81.70	19.61		100.0	
*****		Z	3,36	77.14	17:43		100.0	
10035- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	X	8,76	93.74	24.54	1.17	100.0	±9.6 %
		Y	2.58	74.38	16.61		100.0	
10036-	JEEF BOO 45 4 Division to Depote Build	Z	2.45	74.78	16.51		100.0	-
CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	×	100.00	128.33	35.27	5.30	70.0	±9.6 %
_			49.56	114.02	30.85		70.0	
10037-	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Z	8.61	85.86	21.44	4.00	70.0	
CAA	ILLE GUZ: 15.1 BIUELOOUT (6-UPSK, DH3)	X	28.47	109.85	29.14	1.88	100.0	±9.6 %
		Z			19.28		100.0	
10038-	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	3.10 9.40	76.20 95.18	17.05	2.77	100.0	
CAA	TELE 002:13,1 bibelooti (0-DF3N, DF3)	Y	2.66	74,97	25.08	1.17	100.0	±9.6 %
		Z			16,94		100.0	
10039-	CDMA2000 (1xRTT, RC1)	X	2.52	75.36	16.85	0.00	100.0	200
CAB	COMPLEGIO (1881), RC1)	Y	2.91	78.68	19.30	0.00	150.0	± 9.6 %
		Z	2.98	67.94	13.51		150.0	
10042- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Halfrate)	X	100.00	79.60 114.29	18.61 27.89	7.78	150.0 50.0	± 9,6 %
		Y	100.00	112.24	26.83		50.0	
		Z	7.08	77.79	15.66		50.0	
10044- CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	0.00	111.10	2.98	0.00	150.0	± 9.6 %
		Y	0.12	121.97	13.25		150.0	
-		2	0.02	124.98	11.44		150.0	
10048- CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	100.00	120.31	32.96	13.80	25.0	±9.6 %
		Y	26.80	98.60	27.12		25.0	
40040	DEOT GOD TOUR	2	6.10	73.04	16.68		25.0	
10049- CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	100.00	118.79	31.19	10.79	40.0	±9.6 %
		Y	42.73	105.35	27,59		40.0	
10056-	LIMITS TOD CTO CODIAL A CO.	Z	6.52	75,70	16.44		40.0	
CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	Х	59,92	116.40	32.89	9.03	50.0	± 9.6 %
		Y	20.27	96.61	26.81		50.0	
10058-	EDGE EDD /TDMA BDBY TNG 100	Z	8.73	81.48	20.30		50.0	
DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	X	9,49	90.34	29.75	6.55	100.0	±9.6 %
		Y	7.41	84.68	27.34		100.0	
10059- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	Z X	5.31 1.45	78.46 68.16	24.34 17.83	0.61	100.0	±9.6 %
		Y	1.24	65.28	15.64		110.0	
		Z	1.24	66.08	16.24			
10060- CAB	(EEE 802.11b WiFi 2,4 GHz (DSSS, 5.5 Mbps)	X	100.00	136.52	35.66	1.30	110.0	±9.6 %
		Y	100.00	127.82	31.55		110.0	

Certificate No. EX3-3938\_Oct18

Page 13 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 19 of 44

EX3DV4-SN:3938

October 24, 2018

10061- CAB	IEEE 802,11b WiFi 2.4 GHz (DSSS, 11 Mbps)	×	37.93	122.29	34.76	2.04	110.0	±9.6 %
		Y	7.04	91.70	25.29		110.0	
.00	The second secon	2	3.71	82.53	21.92		110.0	
10062- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.83	66.93	16.78	0.49	100.0	±9.6 %
		Y	4.68	66.44	16.40		100.0	
4		2	4.61	66.82	16.41		100.0	
10063- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.86	67.07	16.91	0.72	100.0	±9.6 %
		Y	4.71	66.58	16.52		100.0	
Vin Spirit	La a Manda de la companya della companya de la companya della comp	Z	4.62	66.89	16.47		100.0	
10064- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	5.19	67.38	17.15	0.86	100.0	± 9,6 %
		Y	5.02	66.91	16.79		100.0	
	a substance with the company of the	Z	4.90	67.10	16.66		100.0	40.00
10065- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	5,07	67,37	17.30	1.21	100.0	±9.6 %
		Y	4.91	66.89	16.94		100.0	
		Z	4.77	66.99	16.73		100.0	
10066- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	Х	5.11	67.44	17.51	1.46	100.0	± 9.6 %
		Y	4.95	66.98	17.15		100.0	1
		Z	4.78	66.99	16.85		100.0	
10067- CAC	IEEE 802,11a/h WiFi 5 GHz (OFDM, 36 Mbps)	Х	5.40	67.52	17,91	2.04	100.0	± 9.6 %
		Y	5,26	67,17	17.62		100.0	
	The second second second	Z	5,06	67.09	17.23		100.0	Le tropic
10068- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.51	67.80	18.25	2.55	100.0	± 9.6 %
		Y	5.36	67.40	17.94		100.0	
		Z	5.11	67.14	17.41		100.0	
10069- CAC	JEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.58	67.69	18.40	2.67	100.0	± 9.6 %
		Y	5,44	67.37	18.13		100.0	
		Z	5.19	67.11	17.58		100.0	
10071- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	5.17	67.17	17.75	1.99	100.0	±9.6 %
		Y	5.05	66.81	17.46		100.0	
		Z	4.88	66.78	17.09		100.0	
10072- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	5.21	67.68	18.06	2.30	100.0	± 9.6 %
		Y	5.08	67.27	17.74		100.0	
		Z	4.87	67.11	17.28		100.0	
10073- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	5.30	67.92	18.44	2.83	100.0	± 9.6 %
		I Y	5.18	67.55	18.13		100.0	
		Z	4.94	67.26	17.56		100.0	
10074- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	5,29	67,90	18.65	3.30	100.0	± 9.6 %
		Y	5.19	67.54	18.34		100.0	
		Z	4.93	67.18	17.70		100.0	
10075- CAB	IEEE 802,11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.40	68.26	19.10	3.82	90.0	± 9.6 %
		Y	5.28	67.86	18.77		90.0	
		Z	4.98	67.33	17.99		90.0	
10076- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	5.38	67.97	19.17	4.15	90.0	±9.6 %
		Y	5.29	67.64	18.88		90.0	
		Z	5.00	67.13	18.10		90.0	-
10077- CAB	IEEE 802,11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	5.41	68.03	19.26	4.30	90.0	±9.6 %
		Y	5.32	67.72	18.98		90.0	
		Z	5.03	67.21	18.19		90.0	

Certificate No: EX3-3938\_Oct18

Page 14 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 20 of 44

EX3DV4-SN:3938

October 24, 2018.

10081- CAB	CDMA2000 (1xRTT, RC3)	X	1.20	70.94	15.87	0.00	150.0	± 9.6 %
		Y	0.68	63.33	10.59		150.0	
	A STATE OF THE STA	Z	0.97	69.12	14.01	To a contract	150.0	
10082- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Fullrate)	X	1.35	61.30	6.54	4.77	80.0	± 9.6 %
		Y	1.15	60.10	5.56		80.0	
77	The same of the sa	2	0.90	60.00	4.82		80.0	
10090- DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	116.34	28.67	6.56	60.0	± 9.6 %
		Y	100,00	113.98	27.45		60.0	
		Z	16.80	88.08	18.81		60.0	
10097- CAB	UMTS-FDD (HSDPA)	X	1.98	69.10	16.78	0.00	150.0	± 9.6 %
		Y	1.66	66.14	14.64		150.0	
	Andrew Company of the	Z	1.92	69.38	16.52		150.0	
10098- CAB	UMTS-FDD (HSUPA, Subtest 2)	X	1.94	69.09	16.77	0.00	150.0	± 9.6 %
		Y	1.62	66,08	14.59		150.0	
	The second secon	Z	1.87	69.33	16.49		150.0	
10099- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	28.67	116.31	40.37	9.56	60.0	± 9.6 %
		Y	17.22	103.14	35.83		60.0	
10100		Z	10.80	92,24	31.22		60.0	
10100- CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	Х	3.51	72.21	17.62	0.00	150.0	± 9.6 %
		Y	2.94	69.12	15.85		150.0	
10101-	LTC FDD (DC HD) LC	Z	3.29	71.84	17.33		150.0	
CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.42	68.37	16.44	0.00	150.0	±9.6 %
_		Y	3.15	66.88	15.45		150.0	
10100	146 666 146 146 146 146 146 146 146 146	Z	3.25	68.19	16.19		150.0	
10102- CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.51	68.25	16.50	0.00	150.0	± 9.6 %
_		Y	3.25	66.87	15.57		150.0	
10100		2	3.35	68.16	16.28	1-1.7	150.0	
10103- CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	9.10	80.51	22,32	3.98	65.0	±9.6 %
		Y	7.71	77.60	21.05		65.0	
70.70		Z	6.72	75.86	19.85		65.0	
10104- CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	8.36	77.67	22.08	3.98	65.0	± 9.6 %
		Y	7.55	75.78	21.18		65.0	
10700	1.00	Z	6.54	73.78	19.84		65.0	
10105- CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	8.22	77.35	22.27	3.98	65.0	± 9.6 %
		Y	7.00	74.28	20.84		65.0	
10108-	LTE FOR INC FOL	Z	6.41	73.35	19,98		65.0	
10108- CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	3.07	71.32	17.44	0.00	150.0	±9.6 %
		Y	2.58	68.37	15.67		150.0	
10109-	LTE EDD (OC EDM)	Z	2.85	71.00	17.15		150.0	
10109- CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	×	3.09	68.24	16.43	0.00	150.0	± 9.6 %
		Y	2.80	66.64	15.30		150.0	
10110-	LTE EDD /SC EDMA 1000/ DC 5111	Z	2.92	68.15	16.17		150.0	
CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.51	70.39	17.16	0.00	150.0	± 9.6 %
		Y	2.08	67.38	15.21		150.0	
10111-	LTE-EDD /SC EDMA 4000/ DD 51111	Z	2.30	70.10	16.80		150.0	
CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.83	69,15	16.90	0,00	150.0	±9.6 %
_		Y	2.49	67.13	15.44		150.0	
		7	2.71	69.56	16.76		150.0	

Certificate No: EX3-3938\_Oct18

Page 15 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 21 of 44

EX3DV4-SN:3938

October 24, 2018

10112- CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X.	3.20	68.13	16.43	0.00	150.0	±9.6 %
-112		Y	2.93	66.65	15.39		150.0	
		Z	3.04	68.13	16.21		150.0	
10113- CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	2.98	69.16	16.96	0.00	150.0	±9.6%
		Y	2.64	67.31	15.61		150.0	
		Z	2.87	69.66	16.87		150.0	
10114- CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	5.21	67.32	16.54	0.00	150.0	±9.6 %
		Y	5.08	66.85	16.21		150.0	
-	A STATE OF THE PARTY OF THE PAR	Z	5.06	67.43	16.43		150.0	
10115- CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.56	67.60	16.68	0.00	150.0	± 9.6 %
		Y	5.42	67.13	16.37		150.0	
		Z	5.34	67.52	16.48		150.0	
10116- CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.33	67.58	16.59	0.00	150.0	±9.6 %
		Y	5.19	67.09	16.26		150.0	
		Z	5.15	67.61	16.44		150.0	
10117- CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	5.21	67.33	16.56	0.00	150.0	±9.6 %
		Y	5.06	66.76	16.19		150.0	
		Z	5,03	67.31	16.39		150.0	
10118- CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16- QAM)	X	5.63	67,75	16.76	0.00	150.0	± 9.6 %
		Y	5,50	67.34	16.48		150.0	
		Z	5.41	67.66	16.55		150.0	
10119- CAC	IEEE 802,11n (HT Mixed, 135 Mbps, 64- QAM)	X	5.30	67.52	16.58	0.00	150.0	± 9.6 %
		Y	5.16	67.02	16.24		150.0	
	7	Z	5.13	67.55	16.43		150,0	
10140- CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	Х	3.56	68.24	16.42	0.00	150.0	± 9.6 %
		Y	3.29	66.88	15.49		150.0	
		Z	3,39	68.15	16.19	1	150.0	
10141- CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	Х	3,68	68.26	16.55	0.00	150.0	± 9.6 %
		Y	3.42	66.99	15.68		150.0	
		Z	3.52	68.25	16.36		150.0	
10142- CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	Х	2.31	70.61	17.10	0.00	150.0	±9.6 %
		Y	1.84	67.11	14.76		150.0	
		Z	2.12	70.48	16.65		150.0	
10143- CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.77	70.28	16.99	0.00	150.0	± 9.6 %
		Y	2.31	67.48	15.00	-	150.0	
		Z	2.68	70.99	16.78		150.0	1
10144- CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	2.51	67.86	15.37	0.00	150.0	± 9.6 %
		Y	2.14	65.60	13.59		150.0	
		2	2.29	67.65	14.67		150.0	
10145- CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	1.73	69.60	15.10	0.00	150.0	± 9.6 9
		Υ	1.11	63,66	10.90		150.0	
		2	1.33	67.08	12.73		150.0	
10146- CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	4.24	75.96	17.12	0.00	150.0	±9.69
		Y	2.46	68.71	13.45		150.0	
A August	the Constitution of the Co	Z	2.36	68,35	12,25		150.0	
10147- CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	6.45	81.86	19.47	0.00	150.0	±9.6 9
		Y	3.10	71.79	14.97		150.0	
		Z	3.29	72.21	14.01		150.0	

Certificate No: EX3-3938\_Oct18

Page 16 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 22 of 44

EX3DV4-SN:3938

October 24, 2018

10149- CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	3.10	68.31	16.47	0.00	150.0	± 9.6 %
		Y	2.81	66.69	15.35		150.0	
	Land Control of the Control	2	2.93	68.23	16:22		150.0	
10150- CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	3.21	68,18	16.48	0.00	150.0	± 9.6 %
		Y	2.94	66.70	15.43		150.0	
		Z	3.05	68.20	16.26		150.0	
10151- CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	10.13	83.77	23.67	3.98	65.0	± 9.6 %
		Y	8.42	80.52	22.26		65.0	
		Z	6.89	77.61	20.59		65.0	
10152- CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	8.04	78.08	22.05	3.98	65.0	± 9.6 %
		Y	7.13	75.91	20.96		65.0	
		Z	6.04	73.58	19.44		65.0	
10153- CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	8.44	78.92	22.75	3.98	65.0	± 9.6 %
		Y	7.56	76.89	21.74		65.0	
		Z	6.48	74.70	20.30		65.0	
10154- CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.59	70.97	17.50	0.00	150.0	± 9.6 %
		Y	2.12	67.77	15.47		150.0	
		Z	2.38	70.74	17.16		150.0	
10155- CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.83	69.15	16.90	0.00	150.0	± 9.6 %
	The second secon	Y	2.49	67.14	15.45		150.0	-
	S ALL DO GREEN FROM THE TOTAL	Z	2.71	69.57	16.78		150.0	
10156- CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	2,21	71.19	17.23	0.00	150.0	±9.6 %
		Y	1.68	67.01	14.46		150.0	
		Z	2.01	71.01	16.65		150.0	
10157- CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	Х.	2,40	68.89	15.72	0.00	150.0	±9.6 %
		Y	1.95	65.89	13.48		150.0	
		Z	2.19	68.70	14.94		150.0	
10158- CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.98	69.22	17.01	0.00	150.0	±9.6 %
		Y	2.65	67.36	15.65		150.0	
	THE RESERVE OF THE PERSON NAMED IN COLUMN 1	Z	2.88	69.75	16.93		150.0	
10159- CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	2.54	69,44	16.05	0.00	150.0	±9.6 %
		Y	2.05	66.31	13.77		150.0	
		2	2.34	69.42	15.34		150.0	
10160- CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	×	2.96	69.71	16.97	0.00	150.0	± 9.6 %
		Υ	2.62	67.67	15.60		150.0	
4040:	1	Z	2.78	69.58	16.72		150.0	
10161- CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	Х	3,11	68.11	16.44	0.00	150.0	± 9.6 %
		Υ	2.83	66.60	15.34		150.0	
10100	Little Bank Land Land	Z	2.95	68.19	16.22		150.0	
10162- CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	3.21	68.15	16.50	0.00	150.0	±9,6 %
		Y	2.94	66.74	15.46		150.0	-
10105		Z	3.06	68.32	16.32		150.0	
10166- CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	х	4.07	71.03	19.91	3.01	150.0	±9.6 %
		Υ	3.79	69.95	19:36		150.0	
40400		Z	3.83	71.36	19.76		150.0	
10167- CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	5.42	74.80	20.67	3.01	150.0	±9.6 %
		Y	4.77	72.79	19.75		150.0	

Certificate No. EX3-3938\_Oct18

Page 17 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 23 of 44

EX3DV4- SN:3938

October 24, 2018

10168- CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	6.05	77.17	21.98	3.01	150.0	± 9.6 %
		Υ	5.30	75.09	21.09		150.0	
		Z	6.36	79.86	22.71		150.0	
10169- CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	3,85	72,93	20.70	3,01	150.0	± 9.6 %
		Υ	3,33	70.15	19.41		150.0	
		Z	3.47	72.51	20.23		150.0	
10170- CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	Х	6.37	81.48	23.72	3.01	150.0	±9.6 %
		Y	4.75	76.10	21,63		150.0	
		Z	7.01	85.04	24.72		150.0	
10171- AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	4.87	75.76	20.53	3.01	150.0	±9.6 %
		Y	3.87	71.72	18.83		150.0	
		Z	4.54	76.13	20.23		150.0	
10172- CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	×	80,41	131,60	39.78	6.02	65.0	±9.6 %
		Y	18.51	103.18	32.14		65.0	
		Z	14.22	97.99	29.18		65.0	
10173- CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	100.00	127,75	36.65	6.02	65.0	±9.6 %
		Y	30.31	107.15	31.45		65.0	
		Z	25.08	102.02	28.13		65.0	
10174- CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	60.73	116,92	33.35	6.02	65.0	± 9.6 %
		Y	21.73	99.84	28.80		65.0	
		2	17.08	94.57	25.40		65.0	
10175- CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	3.78	72.50	20,41	3.01	150.0	± 9.6 %
	2. 0.19	Y	3.29	69.80	19.15		150.0	
		Z	3.40	71.98	19.88		150.0	
10176- CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	.X	6,38	81.51	23.73	3.01	150.0	± 9.6 %
		Y	4.76	76.12	21.65		150.0	
	The second secon	Z	7.03	85,08	24.74		150.0	
10177- CAI	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	3.82	72.71	20.53	3.01	150.0	±9.6 %
		Y	3.32	69.97	19.25		150.0	
		Z	3.44	72.23	20.02		150.0	
10178- CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM)	X	6.26	81.12	23.55	3.01	150.0	± 9.6 %
		Y	4.70	75.86	21.51		150.0	
	The state of the s	Z	6.85	84.54	24.51		150.0	11
10179- CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz. 64-QAM)	X	5.53	78.38	21.95	3.01	150.0	±9.6 %
		Y	4.26	73:73	20.08		150.0	1
		Z	5.53	80.03	22.20		150.0	
10180- CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	X	4.85	75.63	20.46	3.01	150.0	± 9.6 %
		Y	3.85	71.63	18.78		150.0	
	to the second property of the contract of	Z	4.51	75.97	20.14		150.0	
10181- CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	×	3.82	72.69	20.52	3.01	150.0	± 9.6 %
		Y	3.31	69.95	19.24		150.0	
	A CONTRACTOR OF THE PARTY OF TH	Z	3.44	72.20	20.01		150.0	
10182- CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	6.25	81.09	23.54	3.01	150.0	± 9.6 %
		Y	4.70	75.84	21.50		150.0	
	Value of the state	Z	6.83	84.50	24.49		150.0	
10183- AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	4.84	75.60	20,44	3.01	150.0	±9.6 %
		Y	3.85	71.61	18.77		150.0	
		Z	4.50	75.94	20.13		150.0	

Certificate No: EX3-3938\_Oct18

Page 18 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 24 of 44

EX3DV4- SN:3938

October 24, 2018

10184- CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	3.83	72.74	20.54	3.01	150.0	± 9.6 %
		Y	3.32	70.00	19.27	1.1	150.0	
		Z	3.45	72.26	20.04		150.0	
10185- CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	6.29	81.18	23.58	3.01	150.0	± 9.6 %
		Y	4.72	75.91	21.53		150.0	
		2	6.88	84.63	24.55		150.0	
10186- AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM)	X	4.86	75.68	20.48	3.01	150.0	± 9.6 %
		Y	3.87	71.68	18.80		150.0	
		Z	4,53	76.04	20.17		150.0	
10187- CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	3.84	72.79	20.60	3.01	150.0	±9.6.%
		Y	3.33	70.05	19.33		150.0	
		Z	3.46	72.34	20.11		150.0	
10188- CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	×	6.59	82.17	24.06	3.01	150.0	±9.6 %
		Y	4.88	76.63	21.93		150.0	
	A STATE OF THE STA	Z	7.44	86.21	25.23		150.0	
10189-	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz.	X	5.01	76.28	20.81	3.01	150.0	±9.6 %
AAF	64-QAM)	- 8	200			2.01	130.0	2 310 7
		Y	3,96	72.12	19.08		150.0	
		Z	4.72	76.84	20.60		150.0	
10193-	IEEE 802.11n (HT Greenfield, 6.5 Mbps,	X	4.64	66.78	16.35	0.00	150.0	±9.6 %
CAC	BPSK)	Y	4.48	66.22	15.91	0.00	1.27	I 9.0 %
		Z	4.48				150.0	
10194-	IEEE 802.11n (HT Greenfield, 39 Mbps.	X	4.48	66.93	16.19		150.0	
CAC	16-QAM)	F-1		67.15	16.46	0.00	150.0	±9.6 %
-		Y	4.66	66.55	16.03		150.0	
10195-	JEEF 900 AA- WIT O S AL OF AR	Z	4.65	67.23	16.31		150.0	
CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.88	67.16	16.47	0.00	150.0	±9.6 %
_		Y	4.70	66.58	16.05	-	150.0	
10196-	IEEE BOO II AMERICAN	2	4.69	67.26	16.32		150.0	
CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X.	4.66	66.88	16.38	0.00	150.0	± 9.6 %
_		Υ	4.49	66.29	15.93		150.0	
		Z	4.48	66.99	16.21		150.0	
10197- CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16- QAM)	X	4.85	67.17	16,47	0.00	150.0	±9.6 %
		Y	4.67	66.58	16.04	-	150.0	
		Z	4.66	67.25	16.32		150.0	
10198- CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64- QAM)	X	4.88	67.18	16.48	0.00	150.0	± 9.6 %
_		Y	4.70	66.60	16.06		150.0	
40044	lege als ve	Z	4.69	67,27	16.33		150.0	
10219- CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	X	4.61	66.90	16.35	0.00	150.0	±9,6 %
		Y	4.43	66.30	15.89		150.0	
	1000	Z	4.43	67.01	16.18		150.0	
10220- CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16- QAM)	Х	4.85	67,15	16.47	0.00	150.0	± 9.6 %
		Y	4.67	66.56	16.04		150.0	
10001	Land to the second of	Z	4.65	67.22	16.31		150.0	
10221+ CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64- QAM)	X	4.89	67.10	16.46	0.00	150.0	± 9.6 %
		Y	4.71	66.53	16.05		150.0	
	Sant Plant Transfer	Z	4.70	67.20	16.31		150.0	
10222-	IEEE 802.11n (HT Mixed, 15 Mbps,	X	5.19	67.35	16.57	0.00	150.0	±9.6 %
CAC	BPSK)	Y	5.03	66.77	16.18	,0.00		I 3.0 %
		2	5.03	67,33			150.0	
		4	0.01	07,00	16.39		150.0	

Certificate No: EX3-3938\_Oct18

Page 19 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Rev: 01

Page: 25 of 44

EX3DV4-SN:3938

October 24, 2018

10223- CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16- QAM)	X	5.54	67.61	16.71	0.00	150.0	±9.6 %
		Y	5.35	66,99	16.32		150.0	
		2	5.29	67.45	16.47		150.0	
10224- CAC	IEEE 802,11n (HT Mixed, 150 Mbps, 64- QAM)	X	5.24	67.46	16.55	0.00	150.0	±9.6 %
		Y	5.08	66.87	16.16		150.0	
	A - V Bay	2	5.06	67.45	16.38		150.0	
10225- CAB	UMTS-FDD (HSPA+)	X	2.94	66.61	15.90	0.00	150.0	±9.6 %
		Y	2.72	65.45	14.90		150.0	
		Z	2.80	66.78	15.59	-3300	150.0	
10226- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	100.00	127.97	36.79	6.02	65.0	± 9.6 %
		Y	33.01	108.86	32.02		65.0	
		Z	28.60	104.35	28.88		65.0	
10227- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	71.64	120,02	34.24	6.02	65.0	± 9.6 %
		Y	27.56	104.08	30.11		65.0	
	G. Committee and the second second	Z	21.67	98.19	26.50		65.0	
10228- GAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	Х	83.76	133.19	40.33	6.02	65.0	± 9.6 %
		Y	27.23	111,37	34.65		65.0	
-000		Z	14.92	99.20	29.65		65.0	
10229- CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM)	×	100.00	127.75	36.66	6.02	65.0	± 9.6 %
		Y	30.45	107,22	31.48		65.0	
		Z	25.36	102:20	28.19		65.0	
10230- CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM)	X	64.64	118.06	33.66	6.02	65.0	±.9.6 %
		Y	25.67	102.71	29.64		65,0	
		2	19.55	96.45	25.91		65.0	
10231- CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz., QPSK)	×	74.78	130.72	39.63	6.02	65.0	± 9.6 %
		Y	25.26	109.74	34.10		65.0	
ALC: T		Z	13.84	97.69	29.10		65.0	
10232- CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM)	X	100.00	127.76	36.66	6.02	65.0	± 9,6 %
		Y	30.44	107.22	31.48	15.	65.0	
		Z	25.32	102.18	28,18	Dea =	65.0	
10233- CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	X	64.74	118.10	33.67	6.02	65.0	± 9.6 %
		Y	25.65	102.71	29.64		65.0	
		Z	19.51	96.43	25.91		65.0	
10234- CAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	66.79	128.16	38.87	6.02	65.0	±9.6 %
		Y	23.59	108.16	33.53		65.0	1
	the second secon	Z	12.92	96.23	28.52		65.0	
10235- CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	.X.	100.00	127.77	36.66	6.02	65.0	± 9.6 %
-		Y	30.53	107.29	31.50		65.0	
		Z	25.37	102.23	28.19		65.0	
10236- CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	65.78	118.34	33.73	6.02	65.0	±9.6 %
1.		Y	25.93	102.87	29.68		65.0	
J		Z	19.72	96.57	25.94		65.0	
10237- CAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	76.22	131.13	39.74	6.02	65.0	±9.6 %
		Y	25.46	109.93	34.16		65.0	
		Z	13.89	97.78	29.12		65.0	
10238- CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	Х	100.00	127.76	36.66	6.02	65.0	±9.6 %
		Y	30.42	107.23	31.48		65.0	
		Z	25.26	102.15	28.17		65.0	

Certificate No: EX3-3938 Oct18

Page 20 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

f (886-2) 2298-0488

SGS Taiwan Ltd.



Rev: 01

Page: 26 of 44

EX3DV4-SN:3938

October 24, 2018

10239- CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	Х	64.82	118,13	33.68	6.02	65.0	±9.6 %
		Y	25.62	102.71	29.64		65.0	
40.00		Z	19.45	96.40	25.90		65.0	
10240- CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	75.84	131.04	39.71	6.02	65.0	± 9.6 %
		Y	25.37	109.86	34.14	1	65.0	
		Z	13.84	97.74	29.11		65.0	
10241- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	12,34	87.77	28.06	6.98	65.0	±9.6 %
		Y	10.61	84.69	26.80	-	65.0	
		Z	9.45	83.27	25.34		65.0	
10242- CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	×	11,90	86.96	27,68	6.98	65.0	±9.6 %
		Y	9.43	82.13	25.70		65.0	
		Z	8.88	82.07	24.81		65.0	
10243-	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz,	X	9.29	83.62	27.37	6.98	65.0	±9.6 %
CAA	QPSK)		222	1.4.7.00		0.00	2.37	1.5.0 //
		Y	7.60	79.19	25.41		65.0	
10016		Z	6.90	78.26	24.23		65.0	
10244- CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	11.62	85.25	22.95	3.98	65.0	± 9.6 %
		Y	9.03	81.02	21.07		65.0	
1007-	Later the second second	Z	5.90	74.19	17.01		65.0	- I
10245- CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	×	11.21	84.37	22.59	3,98	65.0	± 9.6 %
		Y	8.74	80.23	20.72		65.0	1000
		Z	5.76	73.60	16.72	E. 744	65.0	
10246- CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	13.76	91.33	25.01	3.98	65.0	± 9.6 %
		Y	8.27	82.50	21.35		65.0	
		Z	5.24	75.79	17.95		65.0	
10247- CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	8.15	80.38	21.81	3.98	65.0	±9.6 %
		Y	6.57	76.53	19.78		65.0	
	The second secon	Z	5.10	72.95	17.52		65.0	
10248- CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	7.96	79.46	21,43	3.98	65.0	± 9.6 %
		Y	6.50	75.86	19.49		65.0	
	The Royal Barrier of the State	Z	5.09	72.45	17.30	_	65.0	
10249- CAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	×	14.67	92.89	26.21	3.98	65.0	± 9.6 %
		Y	9.72	85.51	23.23		65.0	
	A CONTRACTOR OF THE PARTY OF TH	Z	6.59	79.52	20.29		65.0	
10250- CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	8.79	81.74	23.60	3.98	65.0	± 9.6 %
		Y	7.53	78.89	22.19		65.0	
	A STATE OF THE STA	Z	6.20	76.02	20.42		65.0	-
10251- CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	8.02	78.77	22.12	3.98	65.0	± 9.6 %
		Y	7.01	76.36	20.84		65.0	
		Z	5.83	73.77	19.14		65.0	-
10252- CAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	12.21	89.16	25.66	3.98	65.0	±9.6 %
		Y	9.34	84.33	23.66		65.0	
10050	1	Z	7.08	80.06	21.46	-	65.0	
10253- CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	7.75	77.29	21.77	3.98	65.0	± 9.6 %
		Y	6.93	75.28	20.72		65.0	
inar.	LITE TOP IGG TOWN	Z	5.92	73.10	19.23		65.0	
10254- CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	8.16	78.13	22.42	3.98	65.0	± 9.6 %
		Y	7.34	76.22	24.40		1000	
		1	1.04	10.22	21.42		65.0	

Certificate No: EX3-3938\_Oct18

Page 21 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 27 of 44

EX3DV4- SN:3938

October 24, 2018

10255- CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	9.52	82.96	23.63	3.98	65.0	±9.6 %
		Y	8.03	79.93	22.27		65.0	
		Z	6.60	77.07	20.60		65.0	
10256- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz. 16-QAM)	×	10,25	82.65	21.16	3.98	65.0	± 9.6 %
		Y	7.42	77.45	18.77		65.0	
		Z	4.37	69.73	14.06		65.0	
10257- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	9.67	81.35	20.60	3.98	65.0	± 9.6 %
		Y	7.07	76,36	18.24		65.0	
		Z	4.27	69.13	13.71		65.0	
10258- CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	11.24	87,41	23.06	3.98	65,0	±9.6 %
		Y	6.32	77.82	18.86		65.0	
	tarner de la company	Z	3.88	71.16	15.20		65.0	
10259- CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	8.37	80.75	22,39	3.98	65.0	±9.6 %
		Y	6.95	77.37	20.63		65.0	
	Lancas and the same of	2	5.53	74.09	18.58		65.0	
10260- CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz; 64-QAM)	X	8.31	80.29	22.23	3.98	65.0	±9.6 %
		Y	6.94	77.04	20,51		65.0	
		Z	5.55	73.86	18.49	4-7-4	65.0	
10261- CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	12.47	89.95	25,58	3.98	65.0	±9.6 %
		Y	9:00	84.05	23.10		65.0	
		Z	6.47	78.99	20.51	1000	65.0	
10262- CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	8.78	81,69	23.56	3.98	65.0	± 9.6 %
	10 00 1117	Y	7.52	78.83	22.15		65.0	
		Z	6.19	75.95	20.38		65.0	
10263- CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	8.01	78.76	22.12	3.98	65.0	± 9.6 %
200		Y	7.00	76.35	20.83		65.0	
		Z	5.82	73.75	19.13		65.0	
10264- CAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	Х	12.07	88.92	25.56	3.98	65.0	± 9.6 %
		Y	9.25	84.11	23.56		65.0	
		Z	7.01	79.85	21.36		65.0	
10265- CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	8.04	78.09	22,05	3.98	65.0	± 9.6 %
07.11	The second secon	Y	7.13	75.91	20.97		65.0	
		Z	6.04	73.58	19.44		65.0	
10266- CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	8.44	78.91	22.74	3.98	65.0	± 9.6 %
		Y	7.55	76.88	21.73		65.0	
		Z	6,47	74.69	20.29		65.0	
10267- CAF	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	10.11	83.73	23.66	3.98	65.0	±9.6 %
		Y	8.41	80.47	22.25		65.0	
	T TO THE TAX TO STREET A STREET	Z	6.87	77.57	20.57		65.0	2.57
10268- CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	×	8.39	77.19	22.02	3.98	65.0	±9.6 %
		Y	7.65	75.51	21.20		65.0	
		Z	6.70	73.67	19.92		65.0	
10269- CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	8.26	76.63	21.86	3.98	65.0	±9.6 %
-		Y	7.58	75.05	21.07		65.0	
		Z	6.67	73.30	19.83		65.0	-
10270- CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	8.88	79.53	22,20	3.98	65.0	±9.6 %
		Y	7.84	77.34	21.20		65.0	
					19.86			

Certificate No: EX3-3938 Oct18

Page 22 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 28 of 44

EX3DV4-SN:3938

October 24, 2018

10274- CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.69	67.00	15.83	0.00	150.0	±9.6 %
		Y	2.47	65.61	14.67		150.0	
		Z	2.60	67.27	15.58		150.0	
10275- CAB	UMTS-FDD (HSUPA, Sublest 5, 3GPP Rel8.4)	X	1.83	70.14	16.96	0.00	150.0	± 9.6 %
		Y	1.44	66.20	14.31		150.0	
		Z	1.70	69.74	16.44	1. 1.	150.0	
10277- CAA	PHS (QPSK)	X	3.93	66.44	11.36	9.03	50.0	±.9.6 %
		Y	3.47	64.75	10.20		50.0	
		Z	2.62	62.17	7.82		50.0	
10278- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	Х	14.62	89.25	23.47	9.03	50.0	±9.6 %
		Y	7,61	78.00	18.87	1	50.0	
	Land Street Control of the Control o	Z	4.29	69.20	13.78		50.0	Towns.
10279- CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	14.85	89.41	23.56	9.03	50.0	± 9.6 %
		Y	7.77	78.24	18.99		50.0	
1000		2	4.39	69.44	13.93		50.0	
10290- AAB	CDMA2000, RC1, SO55, Full Rate	Х	2.10	73.72	17.06	0.00	150.0	±9.6 %
		Y	1.20	65.83	12.24		150.0	
10291-	CD444 0000 DOS COST T T T	Z	1.79	72.49	15.56		150.0	
AAB	CDMA2000, RC3, SO55, Full Rate	X	1.16	70.51	15.66	0.00	150.0	± 9.6 %
		Y	0.67	63,17	10.49		150.0	
10000	CDAMARONA DOS CORO E UE	Z	0.94	68.71	13.80		150.0	
10292- AAB	CDMA2000, RC3, SO32, Full Rate	X	1.93	79.24	19.72	0.00	150.0	±9.6 %
		Y	0.76	65.41	12.01		150.0	
10293-	OBILIANA DES SOS ESTA	Z	2.01	80.04	18.85		150.0	
10293- AAB	CDMA2000, RC3, SO3, Full Rate	X	4.24	91.88	24.62	0.00	150.0	± 9.6 %
_		Y	0.99	68.94	14.19		150,0	
10295-	CDMA2000 DC4 CO2 4/00 D-4-257	Z	16.88	110.82	28.51		150.0	
AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	×	12.27	89.66	26.50	9.03	50.0	±9.6 %
		Y	10.64	85.72	24.40		50.0	
10297-	LTC COD (CO COLL) COO CO	Z	6.99	77.74	20.11		50.0	
AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	3.09	71.44	17.51	0.00	150.0	±9.6%
_		Y	2,59	68.47	15.73		150.0	
10298-	TE EDD ICC COM SON DD COM	Z	2.87	71.14	17.24	9.0	150.0	
AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	2.03	71.15	16.52	0.00	150.0	±9.6 %
		Y	1.39	65.75	12.91		150.0	
10299-	LTE-FDD (SC-FDMA, 50% RB, 3 MHz,	Z	1.75	70.22	15.26		150.0	1
AAD	16-QAM)	X	4.66	77.12	18.36	0.00	150.0	±9.6 %
		Y	3.14	71.60	15.64		150.0	
10300-	LTE-FDD (SC-FDMA, 50% RB, 3 MHz,	Z	3.75	74.00	15.70	0.00	150.0	
AAD	64-QAM)	X	2.97	69,66	14.52	0.00	150.0	± 9.6 %
		Z	2.26	66.29	12,46		150.0	
10301- AAA	IEEE 802.16e WIMAX (29:18, 5ms; 10MHz, QPSK, PUSC)	X	5,32	66.32 66.98	11.62 18.36	4.17	150.0 50.0	± 9.6 %
		Y	5.22	66.88	18.11	_	ED O	
	TAKE THE PARTY OF	Z	4.67	65.61	17.38		50.0	
10302-	IEEE 802.16e WIMAX (29:18, 5ms,	X	5.74	67.34	18.93	4.00	50.0	1020
AAA	10MHz, QPSK, PUSC, 3 CTRL symbols)	Y	5.58	66.87		4.96	50.0	± 9.6 %
		2	5.16		18.46		50.0	
		-	0.10	66.25	18.09		50.0	

Certificate No: EX3-3938\_Oct18

Page 23 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 29 of 44

EX3DV4- SN:3938

October 24, 2018

10303- AAA	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	×	5.54	67.22	18.91	4:96	50.0	±9.6 %
		Y	5.37	66.70	18.39		50.0	
		2	4.93	65,95	17.95		50.0	
10304- AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	5.28	66.83	18,25	4.17	50.0	±9.6 %
		Y	5.10	66:29	17.74		50.0	
	A CONTRACT OF STREET	Z	4.73	65.82	17.46		50.0	
10305- AAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	5.67	72.27	22.34	6.02	35.0	±9.6 %
		Y	5.72	72.48	21,90		35.0	
		Z	4.66	68.90	20.05		35.0	
10306- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	5.47	68.37	20.21	6.02	35.0	±9.6 %
		Y	5.52	69:50	20.64		35.0	
	The Profit of the Control of the Con	Z	4.82	67.24	19.32		35.0	
10307- AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	5.58	70.12	21.19	6.02	35.0	±9.6 %
		Y	5.54	70.11	20.79		35.0	
		Z	4.75	67.57	19.37		35.0	
10308- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	×	5.58	70.46	21.39	6.02	35.0	± 9.6 %
		Y	5.56	70.49	21.00		35.0	
		Z	4.74	67.84	19.54		35.0	
10309- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	×	5,56	68,68	20.38	6.02	35.0	± 9.6 %
		Y	5.61	69.80	20.81		35.0	
		Z	4.87	67.43	19.45	-	35.0	
10310- AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	5.54	69.67	21.04	6.02	35.0	± 9.6 %
	, , , , , , , , , , , , , , , , , , , ,	Y	5.51	69.73	20.68		35.0	
		Z	4.78	67.38	19.33		35.0	
10311- AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	Х	3.47	70.67	17,10	0.00	150.0	± 9.6 %
		Y	2.93	67.81	15.46		150.0	
		Z	3.26	70.40	16.86		150.0	
10313- AAA	IDEN 1:3	X	10.55	84.71	20.54	6.99	70.0	±9.6 %
		Y	5.52	75.51	16.93		70.0	
		Z	3.35	69.99	14.11	-	70.0	
10314- AAA	IDEN 1:6	X	24.93	102.67	28.79	10.00	30.0	±9.6 %
		Y	8.40	84.46	22.81		30.0	
		Z	4.59	75.67	18.98		30.0	-
10315- AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	×	1.16	65.40	16.44	0.17	150.0	±9.6 %
		Y	1.01	63.11	14.44		150.0	
		Z	1.08	64.77	15.73	1.7	150.0	
10316- AAB	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 96pc duty cycle)	X	4.72	66.92	16.53	0.17	150.0	± 9.6 %
		Y	4.56	66.38	16.12		150.0	
		2	4.51	66.86	16.22		150.0	
10317- AAC	IEEE 802,11a WIFI 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	.X.	4.72	66,92	16.53	0,17	150.0	± 9.6 %
		Y	4.56	66.38	16.12		150.0	
		Z	4.51	66.86	16.22		150.0	1
10400- AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.84	67,20	16.45	0.00	150.0	±9.6 %
177	ATTENDED	Y	4.66	66.61	16.02		150.0	
	Troches Charles	Z	4.63	67.25	16.28		150.0	-
10401- AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.46	67.20	16.49	0.00	150.0	±9.69
		Y	5.35	66.85	16,23		150.0	
		Z	5.28	67:24	16:32		150.0	

Certificate No: EX3-3938\_Oct18

Page 24 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 30 of 44

EX3DV4-SN:3938

October 24, 2018

10402- AAD	IEEE 802:11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	Х	5.76	67.75	16.60	0.00	150.0	± 9.6 %
		Y	5.61	67.21	16.26		150.0	
A. =	Programme and the second	Z	5.57	67.70	16.42		150.0	
10403- AAB	CDMA2000 (1xEV-DO; Rev. 0)	X	2.10	73.72	17,06	0.00	115.0	±9.6 %
		Y	1.20	65.83	12.24		115.0	
		2	1.79	72.49	15.56		115.0	
10404- AAB	CDMA2000 (1xEV-DO, Rev. A)	X	2.10	73.72	17.06	0.00	115.0	± 9.6 %
		Y	1.20	65.83	12.24		115.0	1.2
		Z	1.79	72.49	15.56		115.0	
10406- AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	100.00	122.19	31.29	0.00	100.0	±9.69
		Y	29.24	105.80	27.50		100.0	
		Z	100.00	114.73	27.11		100.0	
10410- AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	×	100,00	121.06	30.81	3.23	80.0	±9.6 %
		Y	100.00	121.88	31.03		80.0	
	and the second s	Z	83.71	111.58	25.89		80.0	
10415- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	1.03	63.90	15.54	0.00	150.0	± 9.6 %
		Y	0.91	61.92	13.65		150.0	
70000		Z	0.99	63.88	15.24		150.0	
10416- AAA	IEEE 802.11g WiFi 2.4 GHz (ERP- OFDM, 6 Mbps, 99pc duty cycle)	X	4.64	66.82	16,39	0.00	150.0	±9.6 %
		Y	4.48	66.26	15.97		150.0	
		Z	4.48	66.96	16,25		150.0	
10417- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	×	4.64	66.82	16,39	0.00	150.0	± 9.6 %
	The state of the s	Y	4.48	66.26	15.97		150.0	
10110		Z	4.48	66.96	16.25	1	150.0	
10418- AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	.X.	4.63	66,97	16.41	0.00	150.0	±9,6%
		Y	4.47	66,40	15.97		150.0	
72772		Z	4.47	67.14	16.29	-	150.0	
10419- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.65	66,92	16.41	0.00	150.0	± 9.6 %
		Y	4.49	66.36	15.98		150.0	
		Z	4.49	67.08	16.28		150.0	
10422- AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.78	66.92	16.42	0.00	150,0	± 9.6 %
		Y	4.61	66.37	16.01		150.0	
10423-	IFFE OOD II. WE'R	Z	4.61	67.05	16.28		150.0	
10423- AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	4.98	67.29	16,55	0.00	150.0	± 9.6 %
		Y	4.79	66.71	16.13		150.0	
10424-	IEEE 902 11a (UT Consensal A TO C	Z	4.77	67.36	16.39		150.0	
AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.89	67,24	16.52	0,00	150.0	±9.6 %
		Y	4.70	66.65	16.10		150.0	-
10425-	IEEE 902 11a /UT Concept 14 / Time	Z	4.69	67.32	16.37		150.0	
AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.44	67.47	16.62	0.00	150.0	±9.6 %
		Y	5.32	67.05	16.33		150,0	
10426-	IEEE 802.11n (HT Greenfield, 90 Mbps,	Z	5.25	67.48	16,46		150.0	
AAB	16-QAM)	X	5.45	67.50	16.63	0.00	150.0	±9.6 %
_		Y	5.32	67.06	16.33		150.0	
		Z	5.26	67.50	16.46		150.0	

Certificate No: EX3-3938\_Oct18

Page 25 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 31 of 44

EX3DV4- SN:3938

October 24, 2018

10427- AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	X	5,47	67.52	16.63	0.00	150.0	±9,6%
		Y	5.33	67.04	16.31		150.0	
		Z	5.28	67.50	16.46		150.0	
10430- AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.44	70.94	18.55	0.00	150.0	±9.6 %
		Υ	4.14	70.00	17.76		150.0	
		Z	4.53	72.71	19.04		150.0	
10431- AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.38	67.45	16.50	0,00	150.0	±9.6 %
PACIFIE .	1	Y	4.17	66,74	15,93		150.0	
		Z	4.18	67.60	16.31		150.0	_
10432- AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.67	67.30	16.51	0.00	150.0	± 9.6 %
		Y	4.47	66,66	16.03		150.0	
		Z	4.47	67.41	16.34		150.0	
10433- AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	×	4.90	67.28	16.55	0.00	150.0	± 9.6 %
		Y	4.72	66.69	16.12		150.0	
		Z	4.71	67.36	16.39		150.0	
10434- AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.58	71 86	18.63	0.00	150.0	± 9.6 %
		Υ	4.21	70.69	17.67		150.0	
		Z	4.78	74.08	19.21		150.0	
10435- AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	120.88	30.73	3.23	80.0	± 9.6 %
		Y	100.00	121.69	30.95		80.0	
		Z	66.38	108.66	25.18		80.0	
10447- AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.72	67.65	16,10	0.00	150.0	±9.6 %
		Y	3.44	66.58	15.18		150.0	
		2	3.50	67.81	15.74		150.0	
10448- AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	X.	4,21	67,23	16.37	0.00	150.0	± 9.6 %
1.0.10	-	Y	4.00	66.50	15.77		150.0	
		Z	4.02	67,40	16.18		150.0	
10449- AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	X	4.46	67.14	16.42	0.00	150.0	±9.6 %
		Y	4.27	66.48	15.91		150.0	
		Z	4.28	67.27	16.26		150.0	
10450- AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.64	67.06	16.42	0.00	150.0	± 9.6 %
		Y	4.47	66.43	15.96		150.0	
		Z	4.47	67.16	16.26	-	150.0	4
10451- AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	3.66	68.00	15.89	0.00	150.0	± 9.6 %
		Y	3.33	66.69	14.77		150.0	
		Z	3.40	68.05	15.38		150.0	
10456- AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.29	68,08	16.78	0.00	150.0	± 9.6 %
		Y	6,17	67.63	16.50		150.0	
	Liver State	Z	6.11	68,01	16.58		150.0	
10457- AAA	UMTS-FDD (DC-HSDPA)	×	3.83	65,45	16.13	0.00	150.0	±9.6%
		Y	3.72	64.89	15.67		150.0	
-	Farm Turners and Times	Z	3,74	65.60	15.98		150.0	
10458- AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	4.16	70.93	18.07	0.00	150.0	± 9.6 %
		Y	3.83	69.80	17.01		150.0	
-	The street of the land of the same	Z	4.35	73.12	18.49		150.0	
10459- AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	5.20	68.00	18.25	0.00	150.0	±9.69
		Y	5.01	67.77	17.91		150.0	
		Z	5.25	69.65	18.70		150.0	

Certificate No: EX3-3938\_Oct18

Page 26 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 32 of 44

EX3DV4-SN:3938

October 24, 2018

10460- AAA	UMTS-FDD (WCDMA, AMR)	X	1.12	72.77	18.83	0.00	150.0	±9,6 %
		Y	0.73	65.44	13.95		150.0	
2	AND ASSESSMENT OF THE PARTY OF	Z	1.01	71.76	18.00		150.0	
10461- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	126,43	33.33	3.29	80.0	± 9.6 %
		Y	100.00	125.87	32.93		80.0	
		Z	90.37	116.03	27.82		80.0	
10462- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	×	100.00	109.98	25.58	3.23	80.0	± 9.6 9
		Y	100.00	109.45	25.26		80.0	_
		7	1.10	60,79	7.88		80.0	
10463- AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	106.70	24.02	3.23	80.0	± 9.6 %
1777		Y	49.13	98.79	22.03		B0:0	
		Z	1.03	60.00	7.05		80.0	
10464- AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	124.44	32.24	3.23	80.0	±9.6 %
	1	Y	100.00	123,71	31.77		80.0	
	and the second s	Z	25.98	98.94	23.07		80.0	
10465-	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-	X	100.00	109.41	25.30	3.23	80.0	±9.6 %
AAB	QAM, UL Subframe=2,3,4,7,8,9)	Y	100.00	108.89	24.99	3.23	2.00	1 9.0 W
		Ż	1.05	60.34	7.60		80.0	_
10466-	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-	X	100.00	106.17		0.00	80.0	
AAB	QAM, UL Subframe=2,3,4.7,8,9)	×	17.42	100000	23.77	3.23	80.0	±9.6 %
_		Z		87.73	19.16		80.0	
10467- AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.03	60.00 124.67	7.00 32.35	3.23	80.0	±9.6 %
	3, 3(1 02 3danamo 2,3,1,7,0,3)	Y	100.00	123.95	31.88		00.0	
		Z	34.96				80.0	
10468- AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	102.47	23.96 25.38	3.23	80.0	± 9.6 %
		Y	100.00	109.06	25.07		20.0	
		Z	1.06	60.45			80.0	
10469- AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	106.18	7.67 23.77	3.23	80.0 80.0	±.9.6 %
	alotti (oto)	Y	18.04	88.11	19.26		00.0	
		Z	1.03	60.00	7.00		80.0	
10470- AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	124.71	32,35	3,23	80.0	± 9.6 %
		Y	100.00	123.98	31.88		80.0	_
		Z	35.24	102.56	23.97		80.0	-
10471- AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	×	100.00	109.53	25.35	3,23	80.0	±9.6 %
		Υ	100.00	109.01	25.04		80.0	
	Erichand Transfer	Z	1.05	60.40	7.64		80.0	
10472- AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	×	100.00	106.13	23.74	3.23	80.0	± 9.6 %
		Y	17.90	88.00	19.21		80.0	
		Z	1.03	60.00	6.99		80.0	
10473- AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	100.00	124.67	32,34	3.23	80.0	± 9.6 %
		Y	100.00	123.95	31.87		80.0	
18.691		Z	34.67	102,34	23.91		80.0	
10474- AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	×	100.00	109.54	25.35	3.23	80.0	±9.6 %
		Y	100.00	109.01	25.04		80.0	
(D. (D.		Z	1.05	60.39	7.63		80.0	
10475- AAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	106,14	23.74	3.23	80.0	±9.6 %
		Y	17.52	87.78	19.16		40.0	
		1.	17.02	07.70	19.16		80.0	

Certificate No: EX3-3938\_Oct18

Page 27 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 33 of 44

EX3DV4-SN:3938

October 24, 2018

10477- AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16- QAM, UL Subframe=2,3,4,7,8,9)	X	100.00	109,37	25.27	3,23	80.0	± 9.6 %
		γ	100.00	108.84	24.96		80.0	
-50-5		Z	1.03	60.28	7.55		80.0	
10478- AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64- QAM, UL Subframe=2,3,4,7,8,9)	×	100.00	106.09	23.72	3,23	80.0	± 9.6 %
		Y	17.03	87.46	19.06		80.0	
		Z	1.03	60.00	6.98		80.0	
10479= AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	Х	32.47	108.40	30.35	3,23	80.0	± 9.6 %
		Y	23.42	102.58	28.36		80.0	
		Z	8.33	85.84	21.97		-80.0	
10480- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2.3,4,7,8,9)	X	42.90	105.02	27.50	3.23	80.0	±9.6 %
		Y	20.70	94.12	24.14		80.0	
		Z	6.08	76.74	17.02		80.0	
10481- AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	32.63	100.01	25.80	3.23	80.0	± 9.6 %
-		Y	15.67	89.38	22.38		80.0	
		Z	4.46	72.49	15.13		80.0	
10482-	LTE-TDD (SC-FDMA, 50% RB, 3 MHz,	X	9.20	87.35	23.04	2.23	80.0	±9.6 %
AAB	QPSK, UL Subframe=2,3,4,7,8,9)	Y	3.94	74.35	17.65	2.20	80.0	23.0 %
		Z	2.70	70.00	15.33		80.0	
10483-	LTE-TDD (SC-FDMA, 50% RB, 3 MHz,	X	15.24	90.75	23.81	2.23	80.0	±9.69
AAB	16-QAM, UL Subframe=2,3,4,7,8,9)	Y	9.78	83.78	21.08	2.23	80.0	2 9.6 7
		Z	3.87	71.04	15.19		80.0	
10484- AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	×	12.87	88.08	23.00	2.23	80.0	±9.6 %
1		Y	8.49	81.59	20.36		80.0	
		Z	3.66	70.14	14.84		80.0	
10485- AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.98	85.70	23.28	2.23	80.0	±9.69
		Y	4.36	75.94	19.15		80.0	
		Z	3.22	72:33	17.26		80.0	
10486- AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.36	76,17	19.55	2.23	80.0	±9.6 9
		Y	3.79	70.74	16.72		80.0	
		Z	3.08	68.57	15.26		80.0	
10487- AAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.22	75.40	19.25	2.23	80.0	±9.6 %
rarac	DF-QAM, DE CADITATIO-E,O,T, (O,O)	Y	3.77	70.31	16.54		80.0	
		Z	3.08	68:23	15.10		80.0	
10488- AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.58	81.06	22.14	2.23	80.0	±9.6%
		Y	4.49	74.73	19.35		80.0	-
		Z	3.58	72.12	17.94		80.0	T
10489- AAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz. 16-QAM, UL Subframe=2,3,4,7,8,9)	×	4.86	73.47	19.42	2.23	80.0	± 9.6 %
	an ann our constitution and introduction	Y	4.01	70.32	17.71		80.0	
		Ż	3.48	68.92	16.70		80.0	
10490-	LTE-TDD (SC-FDMA, 50% RB, 10 MHz.	X	4.88	72.95	19.23	2.23	80.0	±9.69
10490- AAE	64-QAM, UL Subframe=2,3,4,7,8,9)	Y	4.10	70.09	17.64	223	80.0	20.01
		Z			16.66		80.0	
10491-	LTE-TDD (SC-FDMA, 50% RB, 15 MHz.	X	3.57 5.85	68.77 76.95	20.70	2.23	80.0	± 9.6 %
AAE	QPSK, UL Subframe=2,3,4,7,8,9)	1.54	4 ===	70.00	10.00		00.0	1
		Y	4.52	72.66	18.69		80.0	+
		Z	3.82	70.84	17.60	0.00	80.0	4000
10492- AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4:94	71.68	18.90	2.23	80.0	±9.65
		5 24	4.31	69.40	17.63		80.0	
		Y	3.83	68.32	16.79		80.0	_

Certificate No: EX3-3938\_Oct18

Page 28 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions for Electronic Documents at <a href="https://www.sgs.com/terms">www.sgs.com/terms</a> and <a href="https://www.sgs.com/terms</a> and <a href="https://wwww.sgs.com/terms</a> and <a href="https://www.sgs.com/ter Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 34 of 44

October 24, 2018

10493- AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.97	71.38	18.79	2.23	80,0	±9.6 %
		Y	4,37	69,24	17.58		80.0	
	The second secon	Z	3.90	68.20	16.76		80.0	
10494- AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	×	6.95	79,86	21.58	2.23	80.0	± 9.6 %
		Y	4.99	74.37	19.18		80.0	
		Z	4.13	72.26	18.02		80.0	-
10495- AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	×	5.07	72.39	19.18	2.23	80.0	± 9.6 %
		Y	4.37	69.87	17.84		80.0	
		Z	3.87	68.70	16.98		80.0	
10496- AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.07	71.80	18.98	2.23	80.0	±9.6 %
		Y	4.43	69.53	17.74		80.0	
		Z	3.95	68.45	16.92		80.0	
10497- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	7.77	84.28	21.25	2.23	80.0	± 9.6 %
		Y	2.76	69.51	14.83		80.0	
	The second secon	Z	1.83	65.26	12.27		80.0	
10498- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	×	4.10	72.22	15.94	2.23	80.0	±9.6 %
		Y	2.08	63.53	11.20		80.0	
		Z	1.49	60.84	9.11		80.0	
10499- AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	×	3.88	71.14	15.38	2.23	80.0	± 9.6 %
		Y	2.02	62.98	10.80		80.0	
	The second second	Z	1.45	60.40	8.75		80.0	
10500- AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7.8,9)	X	6.85	82.59	22.44	2.23	80.0	±9,6 %
		Y	4.30	75.01	19.09		80.0	
	A comment of the comm	Z	3.32	71.99	17.46		80.0	-
10501- AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2.3,4,7,8,9)	Х	5.08	74.80	19.39	2.23	80.0	±9.6 %
		Y	3.90	70.59	17.11		80.0	
		Z	3.27	68.83	15.87		80.0	
10502- AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.08	74.42	19.19	2.23	80.0	± 9.6 %
		Y	3.94	70.38	16,98		80.0	
		Z	3.32	68.68	15.75		80.0	
10503- AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.47	80.76	22,03	2.23	80.0	±9.6 %
		Y	4.42	74.51	19.24		80.0	
10001	1	2	3.53	71.90	17:84		80.0	
10504- AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	4.84	73.36	19.37	2.23	80.0	±.9.6 %
_		Y	3.99	70.22	17.65		80.0	
10505	LEE TOP ING TOTAL	Z	3.46	68.82	16.64		80.0	
10505- AAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	×	4.85	72.84	19.17	2.23	80.0	±9.6 %
		Y	4.07	69.98	17.58		80.0	
10506-	LTE TOO GOO FROM LOOK	Z	3.55	68.67	16.60		80.0	
AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.87	79.65	21.49	2.23	80.0	±9.6 %
		Υ	4.94	74.20	19.10		80.0	
10507-	LITE TOD (SC EDM) 1000 DD 15	2	4.10	72.10	17.94		0.08	
AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	×	5.05	72.32	19.14	2.23	80.0	±9.6%
		_						
		Y	4.35	69.81	17.80		80.0	

Certificate No: EX3-3938\_Oct18.

Page 29 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 35 of 44

EX3DV4-SN:3938

October 24, 2018

10508- AAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.05	71.72	18,93	2.23	80.0	± 9.6 %
		Y	4.41	69.46	17,70		80.0	
		Z	3.93	68.38	16.87	-	80.0	
10509- AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	6.42	76.31	20.23	2.23	80.0	±9.6 %
712		Y	5.10	72.45	18.45		80.0	
		Z	4.44	71.04	17.56		80.0	
10510- AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	Х	5.41	71.43	18,82	2,23	80.0	± 9,6 %
		Y	4.81	69.39	17.73		80.0	
	A CONTRACTOR OF THE PARTY OF TH	Z	4.34	68.44	16.99		80.0	
10511- AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.40	70.96	18.67	2,23	80.0	±9.6 %
		Y	4.84	69.09	17.65	-	80.0	
		Z	4.39	68.21	16.94		80.0	
10512- AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	×	7.47	79.47	21.24	2,23	80.0	±9.6 %
		Y	5.46	74.25	18.99		80.0	
		Z	4.64	72.47	17.97	- Colo	80.0	10000
10513- AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	5.39	72.08	19.07	2.23	80.0	±9.6 %
		Y	4.72	69.76	17.86		80.0	
		Z	4.23	68.69	17.07		80.0	
10514- AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	5.30	71.34	18.83	2.23	80.0	±9.6 %
		Y	4.71	69.27	17.73		80.0	
		Z	4.25	68.30	16.97		0.08	
10515- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	0.99	64.18	15.67	0.00	150.0	± 9.6 %
		Y	0.87	62.03	13.65		150.0	
		Z	0.96	64.13	15.35		150.0	
10516- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	1.07	82.62	23.29	0,00	150.0	±9.6 %
		Y	0.42	66.18	13.67		150.0	
		Z	0.79	78.03	21.08		150.0	
10517- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.89	67,34	17.01	0.00	150.0	± 9.6 %
		Y	0.70	63.35	13.75		150.0	
10518-	IEEE 802,11a/h WiFi 5 GHz (OFDM, 9	X	0.83 4.64	66.82 66.90	16.43 16.38	0.00	150.0	± 9.6 %
AAB	Mbps, 99pc duty cycle)	100	4.47	66.33	15.94		150.0	
		Z	4.47	67.04	16.24		150.0	
10519- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X.	4.85	67.18	16.51	0.00	150.0	± 9.6 %
nnu	mopo, sopo daty dydio/	Y	4.67	66.59	16.08		150.0	
		2	4.65	67.25	16.34		150.0	
10520- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.71	67.17	16,45	0.00	150.0	±9.6 %
		Y	4.52	66.54	15.99		150.0	
	The state of the s	Z.	4.51	67.23	16.28	20.7	150.0	
10521- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.64	67,19	16,44	0.00	150.0	± 9.6 %
1		Y	4.45	66.53	15.97		150.0	
		Z	4.44	67.24	16.27		150.0	
10522- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.69	67.17	16.48	0,00	150,0	± 9.6 %
1		Y	4.51	66.60	16.04		150.0	
		Z	4.50	67.33	16.35		150.0	

Certificate No: EX3-3938\_Oct18

Page 30 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 36 of 44

EX3DV4- SN:3938

October 24, 2018

10523- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.56	67.08	16.34	0.00	150.0	± 9.6 %
	The American	Y	4.38	66.45	15.88	1	150.0	
200		Z	4.39	67.23	16.22		150.0	
10524- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.64	67.13	16.46	0.00	150.0	± 9.6 %
		Y	4.45	66.52	16.01		150.0	
	the Total and Tell and Tell and	Z	4:44	67.24	16.32		150.0	1
10525- AAB	IEEE 802,11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.60	66.17	16.06	0.00	150.0	± 9.6 %
		Y	4.43	65.55	15.60		150.0	
		Z	4.44	66.33	15.94	1.7	150.0	
10526- AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.80	66,57	16.20	0.00	150.0	± 9.6 %
	The state of the s	Y	4.60	65.93	15.75		150.0	
		Z	4.61	66.68	16.07		150.0	1200
10527- AAB	IEEE 802,11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.72	66.55	16.16	0.00	150.0	± 9.6 %
		Y	4.52	65.88	15.69		150.0	
	has no seem to the	Z	4.53	66.66	16.02		150.0	
10528- AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	×	4.73	66.57	16.19	0.00	150.0	± 9.6 %
		Y	4.54	65.90	15.72		150.0	
		Z	4.55	66.67	16.05		150.0	
10529- AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.73	66.57	16.19	0.00	150.0	± 9.6 %
		Y	4.54	65.90	15,72		150.0	-
		Z	4.55	66.67	16.05		150.0	
10531- AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.74	66.72	16,22	0.00	150.0	±9.6 %
		Y	4.53	66.01	15.73		150.0	
	7. San State A. A. P. A. Waller and	Z	4.53	66.77	16.06		150.0	
10532- AAB	IEEE 802,11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.60	66.59	16.17	0.00	150.0	± 9.6 %
-	CALL ST.	Y	4.39	65.86	15.66		150.0	
		Z	4.40	66.64	16.01		150.0	
10533- AAB	IEEE 802,11ao WiFi (20MHz, MCS8, 99pc duty cycle)	.X.	4.75	66,60	16.17	0.00	150.0	± 9.6 %
		Y	4.55	65.94	15.70		150.0	
		Z	4.56	66.73	16.05		150.0	
10534- AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.24	66.67	16.21	0.00	150.0	± 9.6 %
		Y	5.08	66.08	15.82		150.0	
		Z	5.06	66.70	16.06		150.0	_
10535- AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	Х	5.31	66.81	16,26	0.00	150.0	±9.6%
		Y	5.14	66.24	15.89		150.0	
2000		Z	5.12	66.85	16.13		150.0	
10536- AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duly cycle)	X	5.18	66.81	16.25	0.00	150.0	± 9.6 %
		Y	5.01	66.19	15.84		150.0	
40500		Z	5.00	66.84	16.11		150.0	
10537- AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	5.24	66.77	16.23	0.00	150.0	±9.6 %
		Y	5.07	66.17	15.84		150.0	
40500	THE STATE OF THE S	Z	5.06	66.79	16.08		150.0	
10538- AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.35	66.82	16.29	0.00	150.0	±9.6 %
_		Y	5.17	66.21	15.90		150.0	
10510	IPPE SAN IN CONTRACTOR	Z	5.14	66.79	16.12		150.0	
10540- AAB	IEEE 802,11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.25	66.78	16,29	0.00	150.0	±9.6 %
		Y	5.09	66.21	15.91		150.0	

Certificate No: EX3-3938\_Oct18

Page 31 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 37 of 44

EX3DV4- SN:3938

October 24, 2018

10541- AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	X	5.24	66.69	16.24	0.00	150.0	±9.6 %
		Y	5.06	66.08	15.84		150.0	
		Z	5.05	66.69	16.08		150.0	
10542- AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.38	66.72	16.27	0.00	150.0	±9.6 %
		Y	5.22	66.16	15.90		150.0	
	Land Control of the C	Z	5.20	66.74	16.12		150.0	
10543- AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	X	5.47	66.74	16.29	0.00	150.0	±9.6 %
		Y	5.30	66.21	15.95		150.0	
		Z	5.27	66.76	16.14		150.0	
10544- AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.52	66.77	16.19	0.00	150,0	± 9.6 %
		Y	5.38	66.20	15.82	- 1	150.0	
		Z	5.37	66.80	16.04		150.0	
10545- AAB	IEEE 802,11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.72	67.14	16.31	0.00	150.0	±9.6 %
		Y	5.58	66.63	15.99		150.0	
		Z	5.53	67.12	16.15		150.0	
10546- AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X.	5,61	67.04	16,28	0.00	150.0	± 9.6 %
		Y	5.45	66.44	15.91		150.0	
	Law leads and a second and a second	Z	5.43	66.99	16.10		150.0	
10547- AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.70	67.12	16.31	0.00	150.0	±9.6 %
4-00		Y	5.53	66.49	15.92		150.0	
	ATTENDED BY AND ADDRESS OF THE PARTY OF THE	Z	5.50	67.02	16.11		150.0	275
10548- AAB	JEEE 802.11ac WiFI (80MHz, MCS4, 99pc duty cycle)	X	5.93	67.96	16,70	0.00	150.0	±9.6 %
		Y	5.82	67.53	16.41		150.0	
		Z	5.64	67.63	16.39		150.0	-
10550- AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.63	67.00	16.27	0.00	150.0	±9.6 %
		Y	5.47	66.43	15.91		150.0	
		Z	5.45	67.00	16.12	-0.00	150.0	
10551- AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.65	67.07	16.26	0.00	150.0	± 9.6 %
		Y	5.48	66.48	15.89		150.0	
	- ve v v v v v v v v v v v v v v v v v v	Z	5.46	67.04	16.10		150.0	
10552- AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	×	5.55	66.86	16.18	0.00	150.0	± 9.6 %
		Y	5.39	66.26	15.80		150.0	
		Z	5.39	66.89	16.04		150.0	
10553- AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.65	66.91	16,22	0.00	150.0	± 9.6 %
		Ÿ	5.48	66.32	15.86		150.0	
		Z	5.47	66.91	16.07		150.0	
10554- AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	×	5.92	67.13	16.27	0.00	150.0	± 9.6 %
	13 1 Lt	Y	5.78	66.58	15.93		150.0	
		Z	5.77	67.13	16.11		150.0	-
10555- AAC	IEEE 802,11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	6.06	67.44	16.39	0.00	150.0	± 9.6 %
		Υ	5,92	66.89	16.06		150.0	
		Z	5.88	67.38	16.21	-	150.0	-
10556- AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	×	6.07	67.47	16.40	0.00	150.0	± 9.6 %
		Y	5.94	66.94	16.07		150.0	
		Z	5.90	67.42	16,23		150.0	
10557- AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	X	6.06	67.43	16.40	0.00	150.0	±.9.6 %
		Y	5.91	66.85	16.05		150.0	
		Z	5.87	67.36	16.22		150.0	

Certificate No: EX3-3938\_Oct18

Page 32 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 38 of 44

EX3DV4- SN:3938

October 24, 2018

10558- AAC	IEEE 802,11ac WIFI (160MHz, MCS4, 99pc duty cycle)	×	6.11	67.60	16.50	0.00	150.0	±9.6 %
		Y	5.96	67.02	16.15		150.0	
		2	5.91	67.50	16.30		150.0	
10560- AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	6,11	67.46	16.47	0.00	150.0	± 9.6 %
		Y	5.95	66.87	16,11		150.0	
	No. of the last of	Z	5.92	67.38	16.28		150.0	
10561- AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	6.02	67.40	16.48	0.00	150.0	±.9.6 %
		Y	5.87	66.84	16,13		150.0	
		Z	5.84	67.33	16.29		150.0	
10562- AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	6.16	67.82	16.69	0.00	150.0	±9.6 %
		Y	6.01	67.26	16.35		150.0	
	A TRANSPORT OF THE PARTY OF THE	Z	5.93	67.63	16.44		150.0	1.4
10563- AAC	IEEE 802.11ac WIFI (160MHz, MCS9, 99pc duty cycle)	Х	6.47	68.29	16.86	0.00	150.0	± 9.6 %
		Y	6.34	67.82	16.58		150.0	
		Z	6.09	67.70	16.43		150.0	
10564- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 99pc duty cycle)	×	4.97	66.98	16.53	0.46	150.0	± 9.6 %
		Y	4.81	66.46	16.14		150.0	
		Z	4.78	67.02	16.32	Table	150.0	
10565- AAA	IEEE 802,11g WiFi 2.4 GHz (DSSS- OFDM, 12 Mbps, 99pc duty cycle)	X	5.23	67.46	16.85	0.46	150.0	±9.6 %
	and a second	Y	5.05	66.93	16.47		150.0	
		2	5.01	67.49	16.66		150.0	
10566- AAA	IEEE 802:11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 99pc duty cycle)	X	5.06	67.34	16.69	0.46	150.0	± 9.6 %
		Y	4.88	66.77	16.28		150.0	
12510		Z	4.84	67.32	16.46	120	150.0	
10567- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 99pc duty cycle)	X	5,09	67,74	17.04	0.46	150.0	±9.6 %
		Y	4.91	67.15	16.63		150.0	
	A STATE OF THE STA	Z	4.89	67.80	16.87		150.0	
10568- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 36 Mbps, 99pc duty cycle)	X	4.97	67,07	16,45	0.46	150.0	±9,6 %
		Y	4.80	66.54	16.05		150.0	
	A STATE OF THE PARTY OF THE PAR	- 2	4.74	67,03	16,19		150.0	
10569- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 99pc duty cycle)	X.	5.03	67.78	17.08	0.46	150.0	±9.6 %
		Y	4.86	67,22	16.68		150.0	
		Z	4.85	67.93	16.95		150.0	
10570- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 54 Mbps, 99pc duty cycle)	.X.	5.08	67.62	17.01	0.46	150.0	±9.6 %
		Y	4.90	67.08	16.62		150.0	
10571-	lete con the control of the control	Z	4.88	67.73	16.86		150.0	
10571- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.32	66.77	17.12	0.46	130.0	±9.6 %
		Y	1.14	64.23	15.06	3	130.0	
10570	IEEE DOE AND STORY	Z	1.17	65.28	15.86		130.0	- 1
10572- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.36	67.60	17,59	0.46	130.0	±9.6 %
		Y	1.16	64.80	15.39		130.0	
10070	TEER DOS AND THE STATE OF THE S	Z	1.19	65.98	16.28		130.0	
10573- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	100.00	150.25	40,35	0.46	130.0	± 9.6 %
		Y	1.94	81.80	20.21		130.0	
10071	IEEE AAA III NAME	Z	5.37	101.40	27.76		130.0	
10574- AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	X	1.86	77,53	22.17	0.46	130.0	± 9.6 %
		Υ	1.28	70.31	17.98		130.0	
		Z	1.45	73.83	20.12		130.0	

Certificate No: EX3-3938\_Oct18

Page 33 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 39 of 44

EX3DV4- SN:3938 October 24, 2018

10575- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps, 90pc duty cycle)	X	4.77	66.82	16.63	0.46	130.0	±9.6 %
1.1.1		Y	4.62	66.32	16.23		130.0	
		2	4.56	66.75	16.29		130.0	
10576- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 9 Mbps, 90pc duty cycle)	X	4.80	66.99	16.69	0.46	130.0	± 9.6 %
	C. Conference of	Y	4.64	66.47	16.29		130.0	
		Z	4.59	66.94	16.38		130.0	
10577-	IEEE 802.11g WiFi 2,4 GHz (DSSS-	X	5.03	67.31	16.86	0.46	130.0	±9.6 %
AAA	OFDM, 12 Mbps, 90pc duty cycle)	Y	4.85	66.78	16.47	0.70	130.0	2 0.0 70
		Z	4.78	67.21	16.54	_	130.0	_
10578- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 18 Mbps, 90pc duty cycle)	X	4.93	67.50	16.98	0.46	130.0	±9.6 %
	Of Diff, 10 Hope, 30ps saily systey	Y	4.75	66.94	16.57		130.0	
		Z	4.69	67.42	16.68		130.0	
10579- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 24 Mbps, 90pc duty cycle)	X	4.69	66.84	16.33	0.46	130.0	±9.6 %
-V-V-1	Or Divi, 24 Mopa, Supe duty cycley	Y	4.52	66.24	15.89		130.0	
		Z	4.43	66.57	15.89		130.0	
10580-	IEEE 802.11g WiFi 2.4 GHz (DSSS-	X	4.74	66.81	16.32	0.46	130.0	±9.6%
AAA	OFDM, 36 Mbps, 90pc duty cycle)	Y	4.74	66.26	15.90	0,40	130.0	1 3.0 %
72227		Z	4.47	66.59	15.90	5.10	130.0	
10581- AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 48 Mbps, 90pc duty cycle)	×	4.83	67.59	16.95	0.46	130.0	±9.6 %
		Y	4.65	66.98	16.51		130.0	
		Z	4.59	67.47	16.62		130.0	-
10582- AAA	OFDM, 54 Mbps, 90pc duty cycle)	X	4.64	66.58	16.12	0.46	130.0	±.9.6 %
		Y	4.47	66.00	15.67		130.0	
		Z	4.36	66.28	15.65		130.0	
10583⊦ AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.77	66.82	16.63	0.46	130.0	±9.6 %
		Y	4.62	66.32	16.23		130.0	
		Z	4.56	66.75	16.29		130.0	
10584÷ AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.80	66,99	16.69	0.46	130.0	±9.6 %
, , ,	mope, sope daty sydies	Y	4.64	66.47	16.29		130.0	
-		Z	4.59	66.94	16.38		130.0	
10585- AAB	IEEE 802,11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	×	5.03	67.31	16.86	0.46	130.0	±9.6 %
MAD	Widgs, sope daty cycle)	Y	4.85	66.78	16.47		130.0	
		Z	4.78	67.21	16.54		130.0	
10586- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	X	4.93	67,50	16.98	0.46	130.0	±9.6 %
2.300	maket cake and almal	Y	4.75	66.94	16.57		130.0	
		Z	4.69	67.42	16.68	11.71	130.0	
10587- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.69	66.84	16,33	0.46	130.0	±9.6 %
neu	maps, sopo daty byoto/	Y	4.52	66.24	15.89		130.0	
		2	4.43	66.57	15.89	-	130.0	
10588- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.74	66.81	16.32	0.46	130.0	±9.6 %
AMO	Michal Sobe dary Gyde)	Y	4.57	66.26	15.90		130.0	
		Z	4.47	66.59	15.90		130.0	
10589- AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.83	67.59	16.95	0.46	130.0	± 9.6 %
MAD	mups, supe duty cycle)	Y	4.65	66.98	16.51		130.0	
		Z	4.59	67.47	16.62		130.0	
10590-	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54	X	4.64	66.58	16.12	0.46	130.0	± 9.6 %
10590- AAB	Mbps, 90pc duty cycle)		100	- 199	365.75	4,40	7,522	2 3.0 7
		Y	4.47	66,00	15.67		130.0	
		Z	4,36	66.28	15.65		130.0	

Certificate No: EX3-3938\_Oct18

Page 34 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 40 of 44

EX3DV4- SN:3938

October 24, 2018

10591- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	×	4.92	66.87	16.71	0.46	130.0	± 9.6 %
		Y Z	4.77	66.38	16.34		130.0	
10592- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	5.09	66.82	16.40 16.84	0.46	130.0	± 9.6 %
1200	1000	Y	4.93	66,72	16.47		130.0	+
	Landa Contract of the Contract	Z	4.86	67.15	16.53		130.0	
10593- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	×	5.02	67.17	16.74	0.46	130.0	± 9,6 %
_		Y	4.85	66.64	16.36		130.0	
10594-	1555 000 14 NESTE - 1910	2	4,77	67.04	16.40		130.0	
AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	×	5.07	67.32	16.89	0.46	130.0	±96%
		Y	4.90	66.80	16.51		130.0	
10595-	IEEE 802.11n (HT Mixed, 20MHz.	Z	4.83	67.23	16.57	0.10	130.0	-
AAB	MCS4, 90pc duty cycle)	X	5.05	67.29	16.79	0.46	130.0	± 9.6 %
		Z			16.40		130.0	
10596-	IEEE 802.11n (HT Mixed, 20MHz.	X	4.80	67.17 67.29	16.46	D 40	130.0	(A F 1)
AAB	MCS5, 90pc duty cycle)	Y	4.98	66.75	16.80	0.46	130.0	±9,6 %
		Z	4.73	67.16	16,40		130.0	_
10597-	IEEE 802.11n (HT Mixed, 20MHz.	X	4.94	67.23	16.70	0.46	130.0	+0.00
AAB	MCS6, 90pc duty cycle)	Y	4.76	66.66	16.70	0.46	130.0	±9.6 %
		Z	4.68	67.05	16.33		130.0	-
10598- AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	4.92	67.49	16.98	0.46	130.0	± 9,6 %
		Y	4.74	66.90	16.55		130.0	
	Market Committee of the	Z	4.68	67,34	16.63		130.0	
10599- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	х	5.58	67.43	16.88	0.46	130.0	± 9.6 %
		Y	5.44	56,96	16.56		130.0	
		Z	5.34	67.25	16.55		130.0	
10600- AAB	IEEE 802,11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	×	5.74	67.88	17.07	0.46	130.0	± 9.6 %
_		Υ	5.60	67.47	16.79		130.0	
10001	(FFF and 1) Victoria	Z	5.43	67.51	16.64		130.0	-
10601- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.61	67.61	16.95	0.46	130.0	± 9.6 %
_		Y	5.48	67.17	16.66		130.0	
10602-	IEEE 900 ta- (UT Mond ADMI)	Z	5.35	67.37	16.60		130.0	
AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.70	67.58	16.86	0.46	130.0	± 9.6 %
		Y	5.56	67.17	16.58		130.0	
10603- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.45	67.40 67.93	16.52 17.16	0.46	130.0	± 9.6 %
	January Sydio)	Y	5.65	67.49	40.07		1555	
		Z	5.52	67.69	16.87 16.81		130.0	
10604-	IEEE 802.11n (HT Mixed, 40MHz.	X	5.58	67.37	16.87	0.46	130.0	1000
AAB	MCS5, 90pc duty cycle)	Y	5.44	66.92	16.57	0.46	130.0	± 9.6 %
		Z	5.37	67.27	16.59	-	130.0	
10605- AAB	IEEE 802.11n (HT Mixed, 40MHz. MCS6, 90pc duty cycle)	X	5.68	67.64	17.00	0.46	130,0	±9.6 %
		Y	5.56	67.28	16.75		130.0	
10000		Z	5.43	67.44	16.66		130.0	_
10606- AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.46	67.16	16.64	0.46	130.0	±9.6 %
		Y	5.33	66.69	16.32		130.0	-
		2	5.20	66.87	16.23		10010	

Certificate No: EX3-3938\_Oct18

Page 35 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 41 of 44

EX3DV4- SN:3938

October 24, 2018

10607- AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	×	4.76	66.21	16.35	0.46	130.0	± 9.6 %
		Y	4.60	65.66	15.94		130.0	
		2	4.55	66.17	16.05		130.0	
10608- AAB	JEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	×	4.97	66.64	16.51	0.46	130.0	±9.6 %
	34,000	Y	4.79	66.07	16.11		130.0	
		Z	4.73	66,56	16.21		130.0	
10609- AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.86	66.52	16.38	0.46	130.0	± 9.6 %
MAD	Supe daty cycle)	Y	4.68	65.92	15.94		130.0	
	1	Z	4.62	66.40	16.04		130.0	
10610- AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.91	66.68	16.54	0.46	130.0	±9.6 %
7 4 165	sope day of sing	Y	4.73	66.08	16.11		130.0	
		Z	4.67	66.58	16.22		130.0	
10611- AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.83	66.50	16.39	0.46	130.0	±9.6 %
7010	Sopo daty cycle)	Y	4.65	65.89	15.96		130.0	
		Z	4.59	66.36	16.05		130.0	
10612-	IEEE 802.11ac WiFI (20MHz, MCS5,	X	4.85	66.66	16.44	0.46	130.0	±9.6%
AAB	90pc duty cycle)	Y	4.66	66.04	16.00	0.40	130.0	2.0.0 70
		Z	4.59	66.49	16.08		130.0	
10613-	IEEE 802.11ac WiFi (20MHz, MCS6,	X	4.86	66.57	16.33	0.46	130.0	±9.6 %
AAB	90pc duty cycle)	^ Y	4.67	65.94	15.89	0.40	130.0	1 9.0 %
10001	THE SAN THE PARTY OF THE PARTY	Z	4.59	66.36	15.95	0.10	130.0	1000
10614- AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.80	66.77	16.57	0.46	130.0	±9.6 %
		Y	4.60	66.11	16.11		130.0	
		Z	4.55	66,63	16.24		130.0	
10615- AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.83	66.31	16.17	0.46	130.0	± 9.6 %
		Y	4.65	65.72	15.74		130.0	
	Autor and Service Control	Z	4.57	66.14	15.79		130.0	
10616- AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.40	66.72	16.51	0.46	130.0	±9.6 %
		Y	5,25	66.20	16.17		130.0	
- A -		Z	5.18	66.58	16.21		130.0	
10617- AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.46	66.82	16,52	0.46	130.0	±9.6 %
1010	sopodaty sydio	Y	5.32	66.35	16.21		130.0	
		Z	5.23	66.70	16.24		130.0	
10618- AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.36	66.91	16.59	0.46	130.0	± 9.6 %
		Y	5.20	66.37	16.23		130.0	
		Z	5.13	66.77	16:30		130.0	
10619- AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	×	5.38	66.73	16.44	0.46	130.0	± 9.6 %
. 0.00	separation of the separation o	Y	5.23	66.21	16.09		130.0	
		Z	5.14	66.53	16.10		130.0	
10620- AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	×	5.49	66.81	16.52	0.46	130.0	± 9.6 %
7 1110	pulse said plotel	Y	5.33	66,26	16.17	-	130.0	
		Z	5.23	66.56	16.17		130.0	
10621- AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.47	66,89	16,68	0.46	130.0	± 9.6 %
MAD	Sopic daty cycles	Y	5.31	66,35	16.33		130.0	
		Z	5.24	66,76	16.40		130.0	
10622-	IEEE 802,11ac WiFi (40MHz, MCS6,	X	5.47	67.00	16.72	0.46	130.0	±9.69
AAB	90pc duty cycle)	^ Y	5.33	66.52	16.41	W.HO.	130.0	2.0.0 /
		Z	5.25	66.89	16.45		130.0	-

Certificate No: EX3-3938\_Oct18

Page 36 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 42 of 44

October 24, 2018

10623- AAB	IEEE 802 11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.36	66.59	16.41	0.46	130.0	± 9.6 %
		Y	5.20	66.04	16.05		130.0	
	Anna Control of the C	2	5.12	66.39	16.07		130.0	
10624- AAB	1EEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5,54	66.74	16.54	0.46	130.0	± 9.6 %
		Y	5.40	66.26	16.22		130.0	
		2	5.31	66.59	16.23		130.0	
10625- AAB	IEEE 802,11ac WiFi (40MHz, MCS9, 90pc duty cycle)	x	5,91	67,68	17.05	0.46	130.0	± 9.6 %
		Y	5.81	67.35	16.82		130.0	
	The state of the s	Z	5.60	67.33	16.65	-	130.0	
10626- AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	×	5.66	66.76	16.44	0.46	130.0	± 9.6 %
		Y	5.54	66.25	16.12		130.0	
		Z	5.47	66.64	16.16		130.0	
10627- AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	×	5.90	67.26	16.64	0.46	130.0	± 9.6 %
		Y	5.79	66.84	16.38		130.0	
		Z	5.67	67.08	16.34		130.0	
10628- AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.73	66.91	16.42	0.46	130.0	± 9.6 %
		Y	5.58	66.38	16.08		130.0	
		Z	5.49	66.66	16.06		130.0	
10629- AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.81	66.97	16.43	0.46	130.0	± 9.6 %
		Y	5.67	66.48	16.13		130.0	
10000		Z	5.56	66.69	16.07		130.0	
10630- AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	×	6.26	68.50	17.19	0.46	130.0	± 9,6 %
		Y	6.18	68.17	16.96		130.0	
		Z	5.83	67,70	16.58		130.0	
10631- AAB	IEEE 802,11ac WiFi (80MHz, MCS5, 90pc duty cycle)	х	6,19	68,38	17.32	0.46	130.0	± 9.6 %
	The second secon	Y	6.03	67.83	16.99		130.0	
		2	5.86	67.92	16.89		130.0	
10632- AAB	IEEE 802 11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.89	67,37	16.83	0.46	130.0	±9.6 %
		Y	5.75	66.88	16.53		130.0	
		Z	5.67	67.23	16.57		130.0	
10633- AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.81	67.14	16,55	0.46	130.0	±9.6 %
		Y	5.64	66.53	16.18		130.0	
		Z	5.57	66.89	16.21		130.0	
10634- AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.79	67.15	16,62	0.46	130.0	±9.6 %
		Y	5.63	66.56	16.26		130.0	
10005	IEEE OOD IN THE	Z	5.56	66.95	16.31		130.0	
10635- AAB	IEEE 802,11ac WiFi (80MHz, MCS9, 90pc duty cycle)	×	5.68	66.48	16.03	0.46	130.0	±9.6 %
_		Y	5.52	65.92	15.67		130.0	
nana	JEEG COD LA LANGE CODE	Z	5,41	66.16	15.62		130.0	
10636- AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	6.07	67:13	16.52	0.46	130.0	± 9.6 %
_		Y	5.95	66.65	16.23		130.0	
10637-	IEEE BOO 11 WIE (1991)	Z	5.87	66.97	16.23		130.0	
AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.23	67.50	16.68	0.46	130,0	± 9.6 %
		Y	6.11	67.04	16.40		130.0	
0638-	IEEE 000 44 MEE	Z	6.00	67.28	16.36		130.0	
10638- NAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	X	6.23	67.47	16.65	0.46	130.0	± 9.6 %
_		Y	6.11	67.00	16.36	1	130.0	
		Z	6.01	67.28	16.34			

Certificate No: EX3-3938\_Oct18

Page 37 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 43 of 44

EX3DV4-SN:3938

October 24, 2018

10639- AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	6,23	67.49	16.70	0.46	130.0	±9.6 %
		Y	6.09	66.97	16.39		130.0	
		Z	6.00	67.25	16.37		130.0	
10640- AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	6.25	67.53	16.67	0.46	130.0	± 9.6 %
		Y	6.11	67.01	16.35		130.0	
		Z	5.99	67.21	16.29		130.0	
10641-	IEEE 802.11ac WiFi (160MHz, MCS5,	X	6.25	67.31	16.57	0.46	130.0	± 9.6 %
AAC	90pc duty cycle)	Y	6.13	66.85	16,30		130.0	7
		2	6.03	67.11	16.26		130.0	
10642- AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.33	67.65	16.91	0.46	130.0	±9.6 %
		Y	6.18	67.13	16.60		130.0	
		Z	6.10	67.47	16.62		130.0	
10643- AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	6.15	67.31	16.65	0.46	130.0	± 9.6 %
7.5.100		Y	6.02	66.82	16.34		130.0	
		Ż	5.91	67.06	16.30		130.0	
10644-	IEEE 802.11ac WiFi (160MHz, MCS8,	X	6.35	67.93	16.98	0.46	130.0	± 9.6 %
AAC	90pc duty cycle)	Y	6.21	67.40	16.65	D.70	130.0	2 3.0 %
		Z	6.05	67.49	16.53		130.0	
10645-	IEEE 802.11ac WiFi (160MHz, MCS9,	X	6.71			0.46		* O C N
AAC	90pc duty cycle)			68.51	17.21	0.46	130.0	± 9.6 %
		Y	6.68	68.36	17.09		130.0	_
10010	1.75 700 100 5011. 1.00 5111	Z	6.25	67.70	16.59	0.00	130.0	. 0.00
10646- AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	86,17	140.32	45,40	9.30	60.0	±9.6 %
		Y	39.04	122.44	40.63		60.0	
		Z	18.19	104.43	33.83		60.0	
10647- AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	80.45	139.77	45.45	9.30	60.0	± 9.6 %
	7-1-2-11-2-1	Y	36.72	121.94	40.66		60.0	4
		Z	16.41	102.98	33.52		60.0	
10648- AAA	CDMA2000 (1x Advanced)	X.	0.87	66,51	13.20	0.00	150.0	± 9.6 %
		Y	0.58	61.72	9.15		150.0	1
		Z	0.69	64.69	11.24		150.0	
10652- AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	4.31	69.00	17.79	2.23	80.0	± 9.6 %
		·Y	3.89	67.35	16.71		80.0	
		Z	3.64	67_10	16.29		80.0	
10653- AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X.	4.72	67.91	17.64	2.23	80.0	±9.6 %
		Y	4.40	66.72	16,87		0.08	
	The state of the s	Z	4.16	66.48	16.48	1	80.0	
10654- AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X.	4.64	67.52	17,60	2.23	80.0	±9.6 %
		Y	4.36	66.39	16.88		80.0	
		2.	4.14	66.16	16.50		80.0	
10655- AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.69	67.54	17,64	2.23	80.0	±9.6 %
		Y	4.42	66.40	16.92		80.0	
	V	Z	4.19	66.14	16.53		80.0	
10658- AAA	Pulse Waveform (200Hz, 10%)	X	100.00	116.89	30.15	10.00	50.0	±9.6 %
7.5.61		· Y	27.27	97.34	24.81		50.0	
		Z	5.41	73.00	14.99		50.0	
10659-	Pulse Waveform (200Hz, 20%)	X	100.00	114.06	27.78	6,99	60.0	± 9.6 %
		1000						
AAA		Y	100.00	111.99	26.70		60.0	

Certificate No: EX3-3938\_Oct18

Page 38 of 39

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the full-like extent of the law. prosecuted to the fullest extent of the law.

SGS Taiwan Ltd.



Rev: 01

Page: 44 of 44

EX3DV4-SN:3938

October 24, 2018

10660- AAA	Pulse Waveform (200Hz, 40%)	X	100.00	113.57	26.20	3.98	80.0	± 9.6 %
77501717		Y	100.00	108.48	23.71		80.0	
		Z	17.55	86.88	16.64		80.0	
10661- AAA	Pulse Waveform (200Hz, 60%)	X	100.00	116.76	26.28	2.22	100.0	± 9.6 %
		Y	100.00	105.43	21.11		100.0	
		Z	100.00	100.82	18.62		100.0	
10662- AAA	Pulse Waveform (200Hz, 80%)	X	100.00	127.89	28.96	0.97	120.0	± 9.6 %
		Y	3.43	74.94	10.68		120.0	
Vice part in		Z	100.00	98.67	16.42		120.0	
10670- AAA	Bluetooth Low Energy	X	100.00	117.22	26.83	2.19	100.0	± 9.6 %
		Y	100.00	107.88	22.47		100.0	
		Z	100.00	104.58	20.49		100.0	

Uncertainty is determined using the max, deviation from linear response applying rectangular distribution and is expressed for the square of the

Certificate No: EX3-3938\_Oct18

Page 39 of 39

# - End of report -

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/terms\_and\_conditions.htm">www.sgs.com/terms\_and\_conditions.htm</a> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/terms\_e-document.htm">www.sgs.com/terms\_e-document.htm</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

f (886-2) 2298-0488

SGS Taiwan Ltd.