

RF Test Report

Report No.: AGC09377170502EE06

PRODUCT DESIGNATION : Tablet PC
BRAND NAME : Vonino
MODEL NAME : Navo S
CLIENT : Vonino Electronics (HK) Limited
DATE OF ISSUE : May. 10, 2017
STANDARD(S) : EN 300 440-1 V1.6.1: 2010-08
: EN 300 440-2 V1.4.1: 2010-08
REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	May. 10, 2017	Valid	Re-certification Report

Note: The report of the model (Navo S) is based on the original report- No. AGC06327160802EE06, which was named after (K701X), with some changed basic information and the adapter's brand name. All the test data is refer to the original report.

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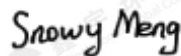


1. TEST REPORT CERTIFICATION

Applicant	Vonino Electronics (HK) Limited
Address	#1109, 11/F, Kowloon Center 33 Ashley Road , Tsim Sha Tsui, Kowloon, Hong Kong
Manufacturer	Vonino Electronics (HK) Limited
Address	#1109, 11/F, Kowloon Center 33 Ashley Road , Tsim Sha Tsui, Kowloon, Hong Kong
Product Designation	Tablet PC
Brand Name	Vonino
Test Model	Navo S
Date of test	Aug.09,2016 to Aug.17,2016
Deviation	None
Condition of Test Sample	Normal
Report Template	AGCRT-EC-SRD1/RF

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. for compliance with the requirements set forth in the European Standard ETSI EN 300 440-1/-2. The results of testing in this report apply to the product/system which was tested only. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Tested By



Snowy Meng(Meng Linying)

Aug.17,2016

Reviewed By



Bart Xie(Xie Xiaobin)

May. 10, 2017

Approved By



 Solger Zhang(Zhang Hongyi)
 Authorized Officer

May. 10, 2017

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2. GENERAL INFORMATION

Details of technical specification refer to the description in follows:

The EUT is a short range, lower power, Wireless transmitter and receiver.

It is designed by way of utilizing the pulse modulation achieves the system operating.

Details of technical specification refer to the description in follows:

Test Mode	GPS Mode(Only receive)
Receiver Frequency	1575.42MHz
Receiver Category	3
Modulation Type	BPSK
Antenna Gain	1.0dBi
Power Supply	Normal Voltage:DC3.7V Limit Voltage : DC4.2V

Note: For more details, please refer to the user's manual.

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3. MEASUREMENT UNCERTAINTY

All the measurement equipments and accessories have been carefully selected to meet the maximum measurement uncertainty specified below:

Parameters	Uncertainty
Radio frequency	$\pm 1 \cdot 10^{-7}$
RF power (conducted)	$\pm 2.5\text{dB}$
Radiated emission of transmitter, valid to 26.5GHz	$\pm 6\text{dB}$
Radiated emission of transmitter, valid between 26.5GHz and 66GHz	$\pm 8\text{dB}$
Radiated emission of receiver, valid to 26.5GHz	$\pm 6\text{dB}$
Radiated emission of receiver, valid between 26.5GHz and 66GHz	$\pm 8\text{dB}$
Temperature	$\pm 1^\circ\text{C}$
Humidity	$\pm 5\%$
Voltage (DC)	$\pm 1\%$
Voltage (AC, < 10kHz)	$\pm 2\%$

Note: For radiated emissions above 26.5GHz it may not be possible to achieve measurement uncertainties complying with the levels specified in this table. In these cases alone it is acceptable to employ the alternative interpretation procedure specified in clause 10.1

For the test methods, according to the present document the uncertainty figures shall be calculated according to the methods described in the TR 100 028 [i.4] and shall correspond to an expansion factor (coverage factor) $k = 1,96$ or $k = 2$ (which provide confidence levels of respectively 95 % and 95,45 % in case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

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4. TEST MODE

NO.	TEST MODE DESCRIPTION
1	RX(Operating Channel)
2	Standby

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5. IDENTIFICATION OF THE RESPONSIBLE TESTING LOCATION

Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	2/F., Building 2, No.1-No.4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China
Location	B112-B113, Building 12, Baoan Building Materials Center, No.1 of Xixiang Inner Ring Road, Baoan District, Shenzhen, Guangdong, P.R.China

LIST OF EQUIPMENTS USED

Description	Manufacturer	Model No.	S/N	Calibration Date	Calibration Due.
EMI TEST RECEIVER	R&S	ESCI	100694	July 02,2016	July 01,2017
WIDEBAND REQUENCY ANTENNA	SCHWARZBECK	VULB9168	VULB9168-494	Mar.12,2016	Mar.11,2017
AMPLIFIER	EM	EM30180	060552	Feb.29,2016	Feb.28,2017
HORN ANTENNA	EM	EM-AH-10180	67	Mar.01,2016	Feb.28,2017
Climate Chamber	ESPEC	EL-10KA	/	July 02,2016	July 01,2017
Horn Antenna	A.H. Systems Inc.	SAS-574	/	June 1,2016	May.31,2017

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6. REQUIREMENT TO RECEIVER

6.1 ETSI EN 300 440-1 SUB. 8.1: ADJACENT CHANNEL SELECTIVITY

N/A

Conclusion:

This clause is applicable if the equipment receiver category 1 has been selected.

6.2 ETSI EN 300 440-1 SUB. 8.2: BLOCKING OR DESENSITIZATION

N/A

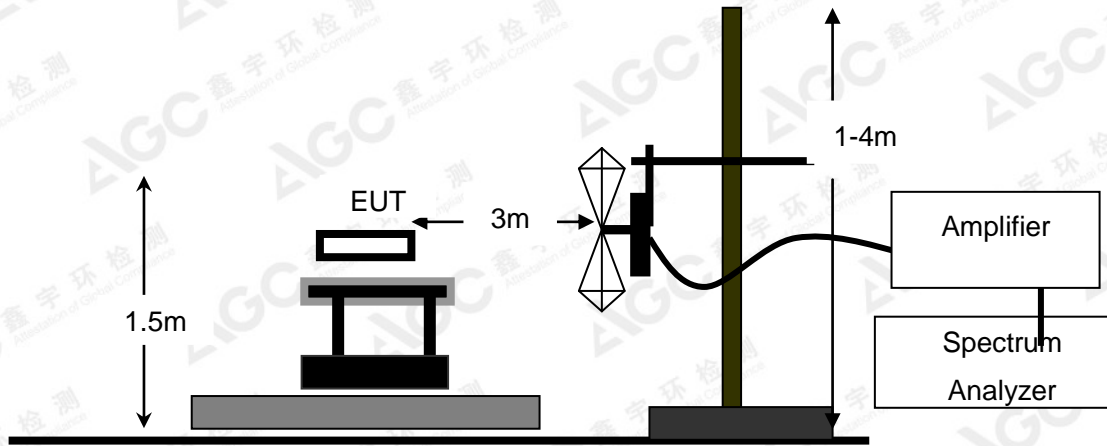
Conclusion:

This clause is applicable if the equipment receiver category 1 or category 2 has been selected.

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6.3 ETSI EN 300 440-1 SUB. 8.3: SPURIOUS EMISSIONS

TEST SETUP:



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TEST LIMITS:

The power of any spurious emission shall not exceed 2 nW in the range 25 MHz to 1 GHz and shall not exceed 20 nW on frequencies above 1 GHz.

THE PROCEDURE:

EUT was placed on a 1.5m outdoor wooden table. The search antenna is placed at 3m distances from the EUT and search antenna height is from 1-4m. With the transmitter operating at continuously mode, the turntable was slowly rotated to locate the direction of maximum emission. Once maximum direction is determined, the search antenna was raised and lowered in both vertical and horizontal polarizations.

The EUT was removed from the turntable and replaced with a linearly polarized antenna connected to a calibrated RF signal generator. The RF generator was set to a measured emission frequency and the search antenna was raised and lowered to produce a maximum received reading. The generator output was increased to match the radiated emission reading measured previously, and the result expressed in dB EIRP or ERP, correcting for substitution antenna gain at each frequency.

TEST RESULTS:

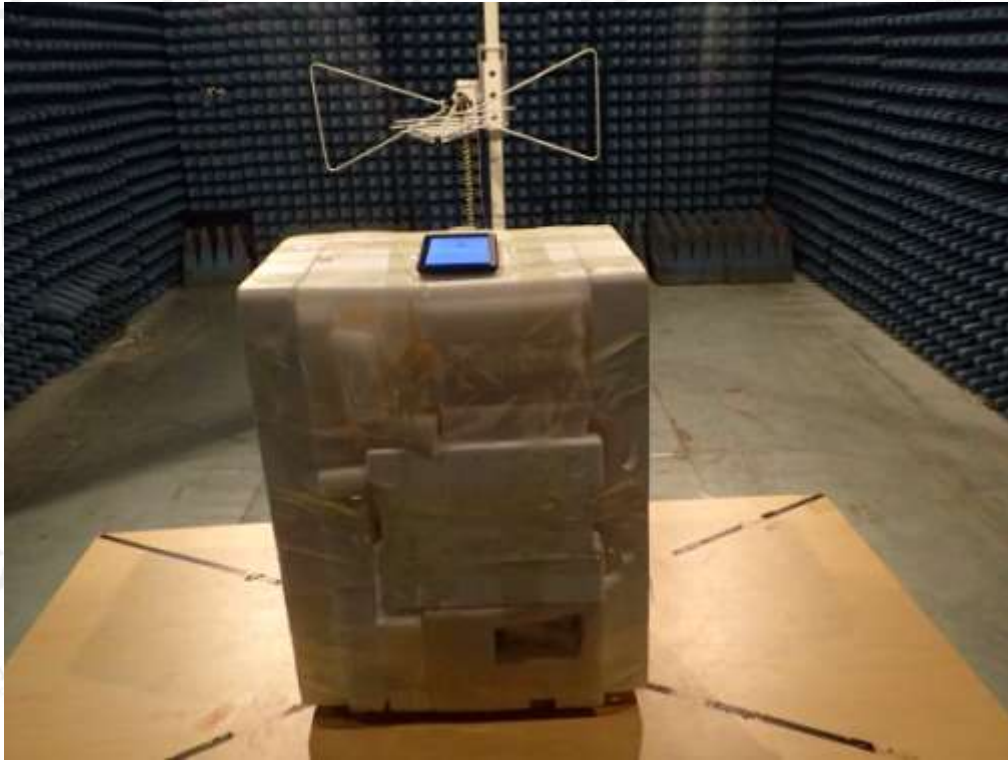
Frequency (MHz)	Antenna Polarity	Reading (dBm)	Total Factor (dB)	Corrected Power (dBm)	Limit (dBm)
236.564	H	-71.27	12.49	-58.78	-57
1458.816	H	-73.29	12.11	-61.18	-47
3864.550	H	-75.22	11.49	-63.73	-47
359.741	V	-83.19	12.31	-70.88	-57
1815.411	V	-72.57	11.83	-60.74	-47
3152.421	V	-71.63	11.76	-59.87	-47
Other (25-1000)	~	~	~	~	-57
Other (1G-26G)	~	~	~	~	-47

Note:

“~” in the table above means that the emissions are too small to be measured and are at least 20 dB below the limit. The frequency range below 1GHz is 30MHz to 1GHz and the frequency range above 1GHz is 1GHz to 26GHz.

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APPENDIX A: PHOTOGRAPHS OF TEST SETUP
RADIATED SPURIOUS EMISSION TEST SETUP



----END OF REPORT----

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