



EMI TEST REPORT

FOR RIVERDI EVE4 IPS 5.0" LCD SERIES

Rev.1.1
2021-10-20

The EMI test report applies to below Riverdi EVE4 IPS 5.0" series:

PRODUCT NAME	DESCRIPTION
RVT50HQBNWC00-B	EVE4, IPS, 5.0", 850cd/m ² , SPI/QSPI, uxTouch, Optical bonding
RVT50HQBNWC00	EVE4, IPS, 5.0", 800cd/m ² , SPI/QSPI, uxTouch, Air bonding
RVT50HQBNWCA0	EVE4, IPS, 5.0", 800cd/m ² , SPI/QSPI, aTouch, Air bonding
RVT50HQBFWCA0	EVE4, IPS, 5.0", 800cd/m ² , SPI/QSPI, aTouch, Air bonding, Metal frame



1. REVISION RECORD

REV NO.	REV DATE	CONTENTS	REMARKS
1.0	2021-08-03	Initial Release	
1.1	2021-10-20	Update the test results after the second round EMI test in a laboratory	



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3. SUMMARY OF TEST RESULT

TEST ITEM	NORM APPLIED	Result
RADIATED EMISSION 30-1000 MHz	EN 55032 (CISPR32). Radiated emission 30-1000 MHz (EMI)	Pass

Date of Test: 18/10/2021

EMC Lab: RADMOR S.A., Gdynia.

4. GENERAL INFORMATION

4.1 Description of EUT

PRODUCT NAME	RVT50HQBNWC00
TEST VOLTAGE	Battery 6V

Note. All test was performed on RVT50HQBNWC00. But results applied for every module within this line: RVT50HQBNWC00-B, RVT50HQBNWCA0, RVT50HQBFWCA0.

4.2 Description of EUT peripheral

The revelation board designed by Riverdi was used to drive the RVT50HQBNWC00 during the EMI test.

The following EUT operation modes were tested:

Mode A:

The revelation board was connected with RVT50HQBNWC00 via RiBUS.

During the test, the revelation board, as a host device, keeps transferring data to RVT50HQBNWC00 via RiBUS with full SPI speed at 6 MHz.

Animated pictures were presented on the screen.

Mode B:

The images were generated by the revelation board.

During the test, the revelation board was disconnected to eliminate the radiated emission from it.

The RVT50HQBNWC00 was powered via RiBUS, and a non-animated picture was presented from the internal BT817Q memory.

4.3 Measuring device and test settings

EQUIPMENT	MODEL	VERSION
EMI test receiver	Rohde & Schwarz ESW-44	1.72 SP1
Meas BW: 120000,000000 Hz	Filter Type: Quasipeak	Meas Time: 1,000000 s
Center Freq: 1000000000,000000 Hz	Auto Range: On	Auto Preamp: On
Attenuation: 0,000000 dB	Filter Split: Off	Notch Filter 1: Off
Preselector: On		Notch Filter 2: Off
Input: 1 DC		



5. TEST RESULTS

5.1 The test result of Mode A:

Test condition

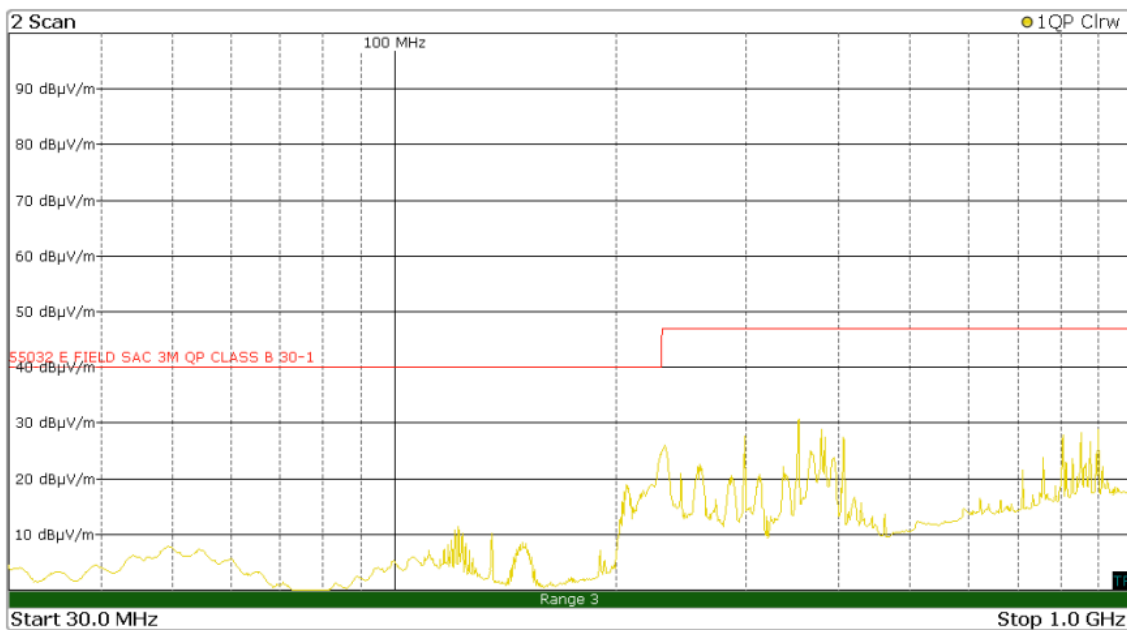
Power supply: Battery 6 V

External oscillator: 12.00 MHz

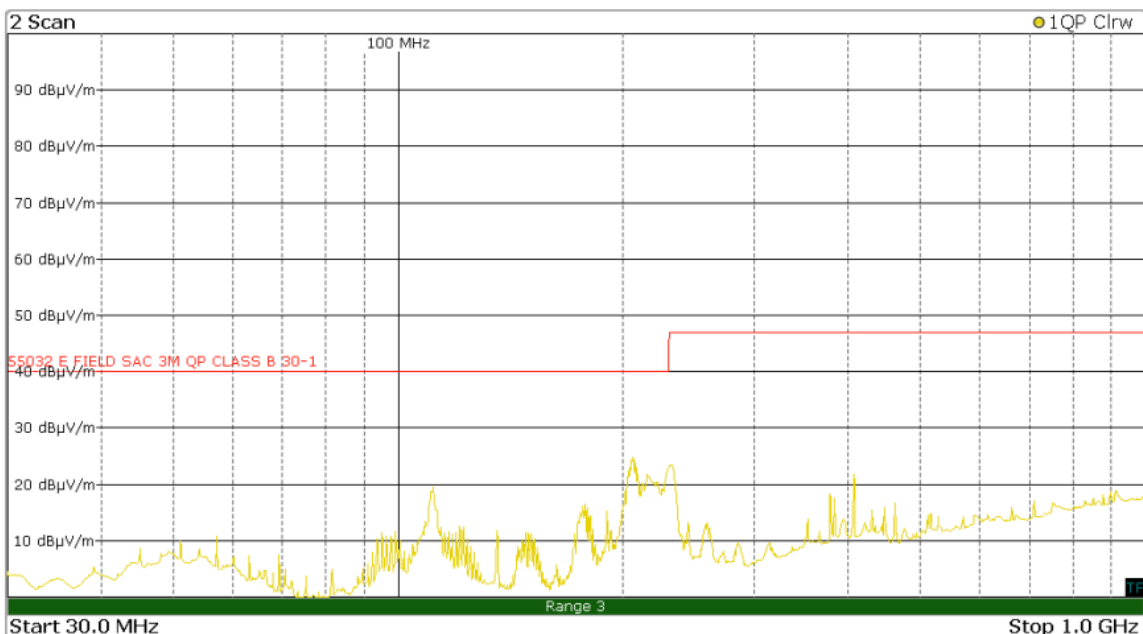
PCLK: 25.0 MHz

Device and test settings: Same settings as subchapter 4.3 presented.

Horizontal:



Vertical:





5.2 The test result of Mode B:

Test condition

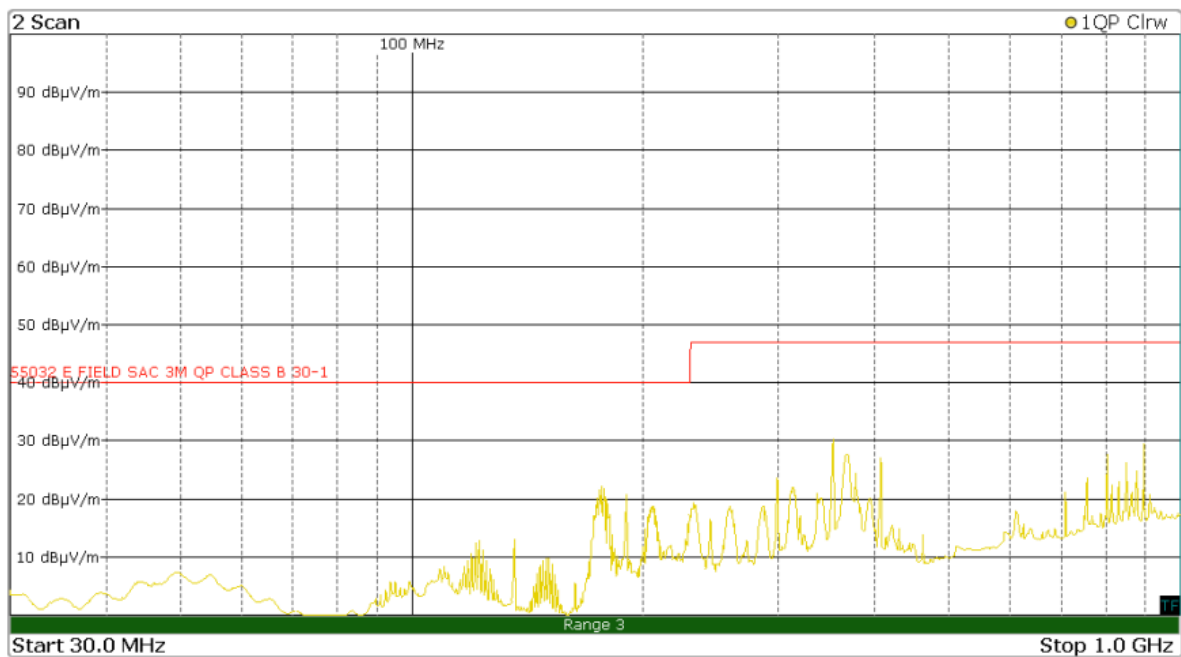
Power supply: Battery 6 V

External oscillator: 12.00 MHz

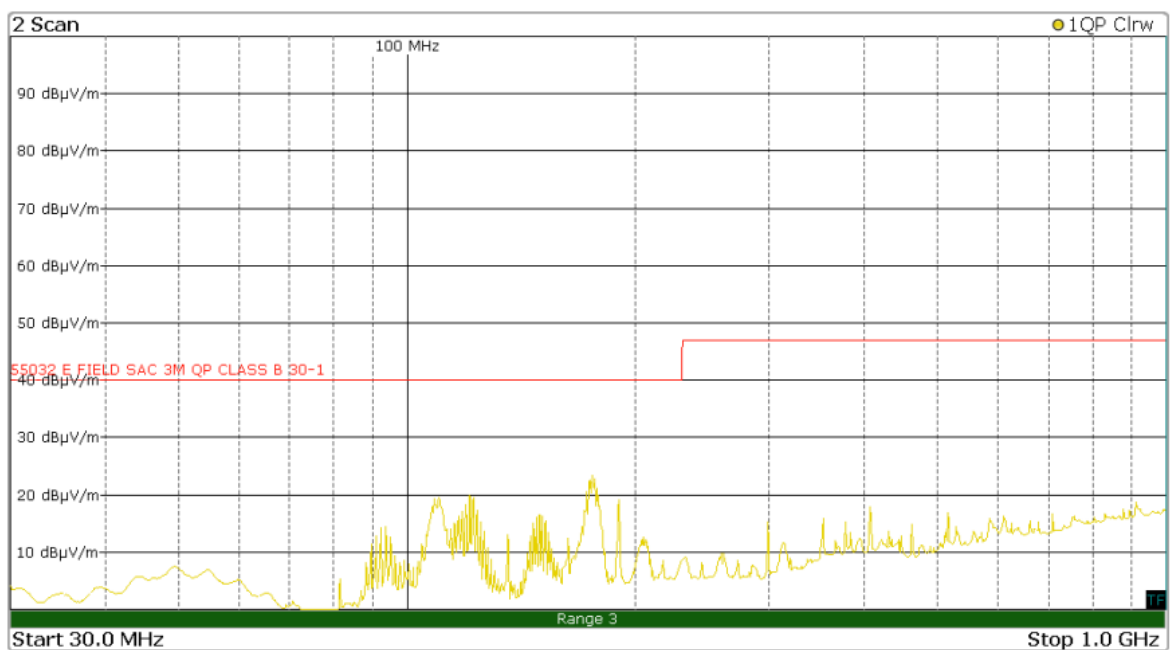
PCLK: 25.0 MHz

Device and test settings: Same settings as subchapter 4.3 presented.

Horizontal:



Vertical:



6. Photos

Figure 1. Radiation Emission 30-1000MHz Test Back View

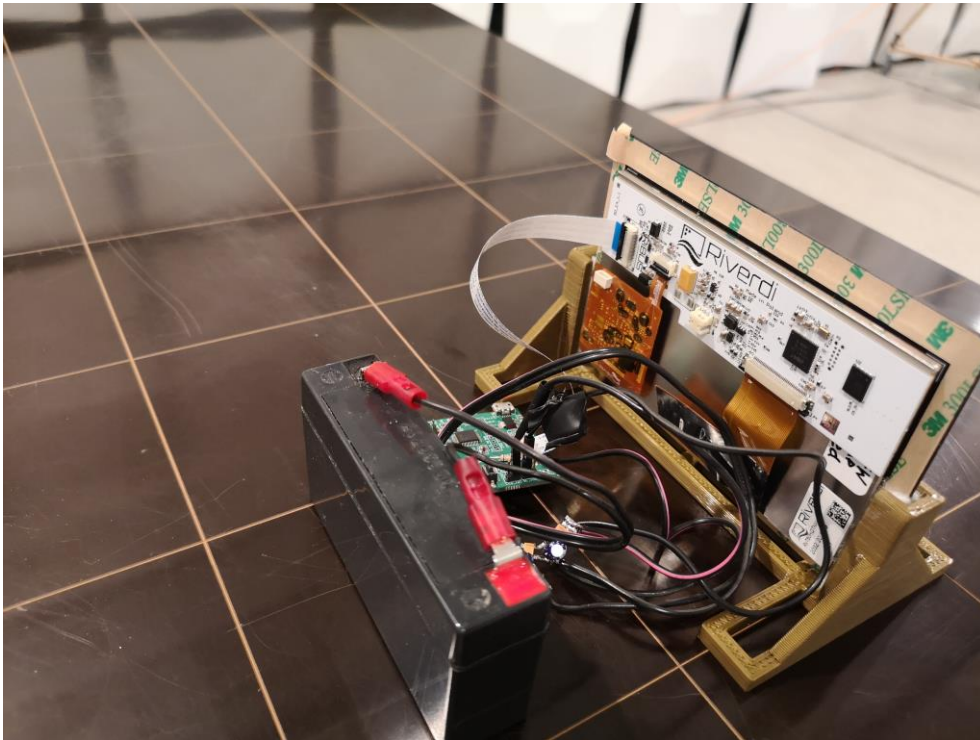


Figure 2. Radiation Emission 30-1000MHz Test Front View





7. Summary

The test results confirmed the low electromagnetic emissions of Riverdi EVE4 modules, even when displaying dynamic pictures.

Riverdi EVE4 modules produce low electromagnetic interference (EMI) to the surrounding space. In consequence, external electronic devices or circuits do not need special electromagnetic screening.

Hi, I am here to help you!
If you have any additional
questions, please contact
our support via email:
contact@riverdi.com

