



EMI TEST REPORT

FOR RIVERDI EVE4 IPS 10.1" LCD SERIES

Rev.1.0
2021-08-02

The EMI test report applies to below Riverdi EVE4 IPS 10.1" series:

| PRODUCT NAME | DESCRIPTION |
|------------------|---|
| RVT101HVBNWC00-B | EVE4, IPS, 10.1", 850cd/m ² , SPI/QSPI, uxTouch, Optical bonding |
| RVT101HVBNWC00 | EVE4, IPS, 10.1", 800cd/m ² , SPI/QSPI, uxTouch, Air bonding |
| RVT101HVBNWCA0 | EVE4, IPS, 10.1", 800cd/m ² , SPI/QSPI, aTouch, Air bonding |
| RVT101HVBFWCA0 | EVE4, IPS, 10.1", 800cd/m ² , SPI/QSPI, aTouch, Air bonding, Metal frame |



1. REVISION RECORD

| REV NO. | REV DATE | CONTENTS | REMARKS |
|---------|------------|-----------------|---------|
| 1.0 | 2021-08-02 | Initial Release | |



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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: 24/05/2021

EMC Lab: RADMOR S.A., Gdynia.

4. GENERAL INFORMATION

4.1 Description of EUT

| | |
|---------------------|------------------|
| PRODUCT NAME | RVTI01HVBNWC00-B |
| TEST VOLTAGE | Battery 12V |

Note. All test was performed on RVTI01HVBNWC00-B. But result applied for every module within this line: RVTI01HVBNWC00, RVTI01HVBNWCA0, RVTI01HVBFWCA0, RVTI01HVBNWC00-B.

4.2 Description of EUT peripheral

The revelation board designed by Riverdi was used to drive the RVTI01HVBTNC00-B during the EMI test.

The following EUT operation modes were tested:

Mode A:

The revelation board was connected with RVTI01HVBNWC00-B via RiBUS.

During the test, the revelation board, as a host device, keeps transferring data to RVTI01HVBNWC00-B 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 RVTI01HVBNWC00-B 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: 221100000,000000 Hz |
| Attenuation: 0,000000 dB | Auto Range: On | Auto Preamp: On | Preamp: On |
| Preselector: On | Filter Split: Off | Notch Filter 1: Off | Notch Filter 2: Off |
| Input: 1 DC | | | |



5. TEST RESULTS

5.1 The test result of Mode A:

Test condition

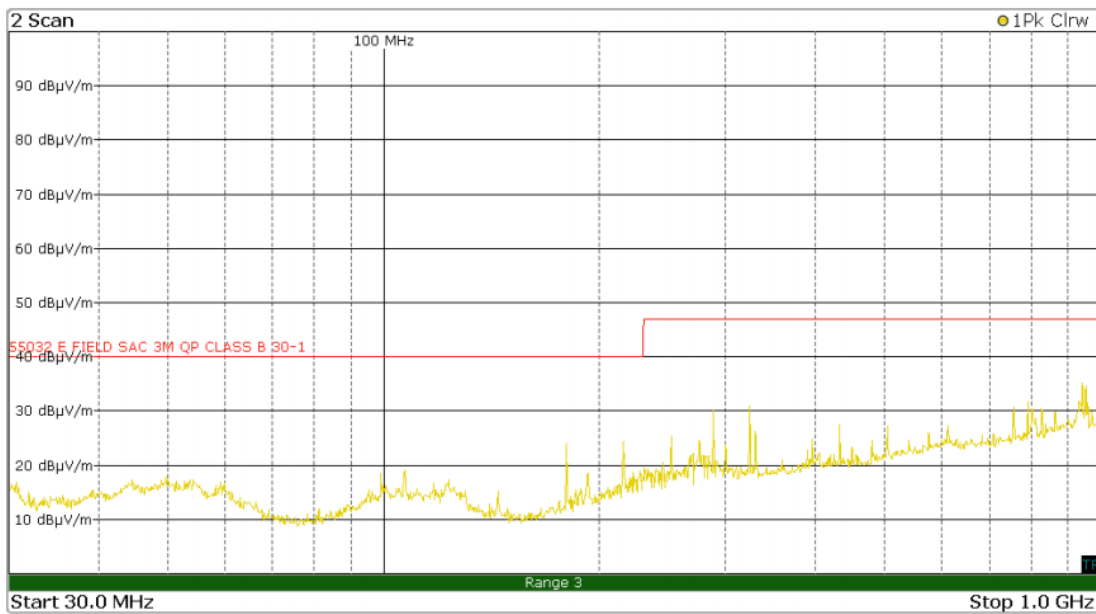
Power supply: Battery 12 V

External oscillator: 12.00MHz

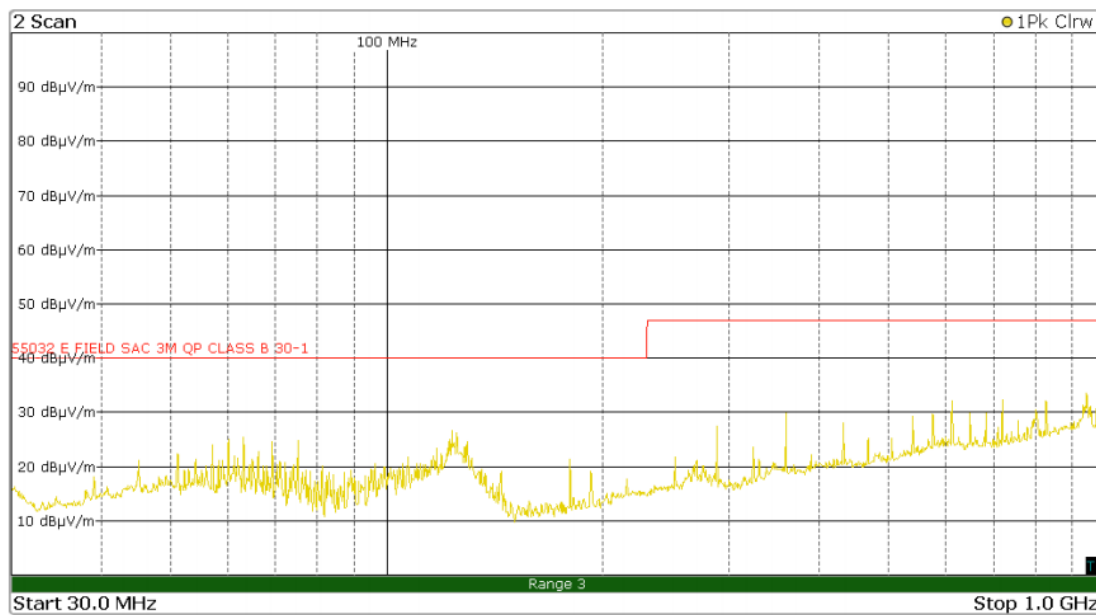
PCLK: 72.0MHz

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

Horizontal:



Vertical:





5.2 The test result of Mode B:

Test condition

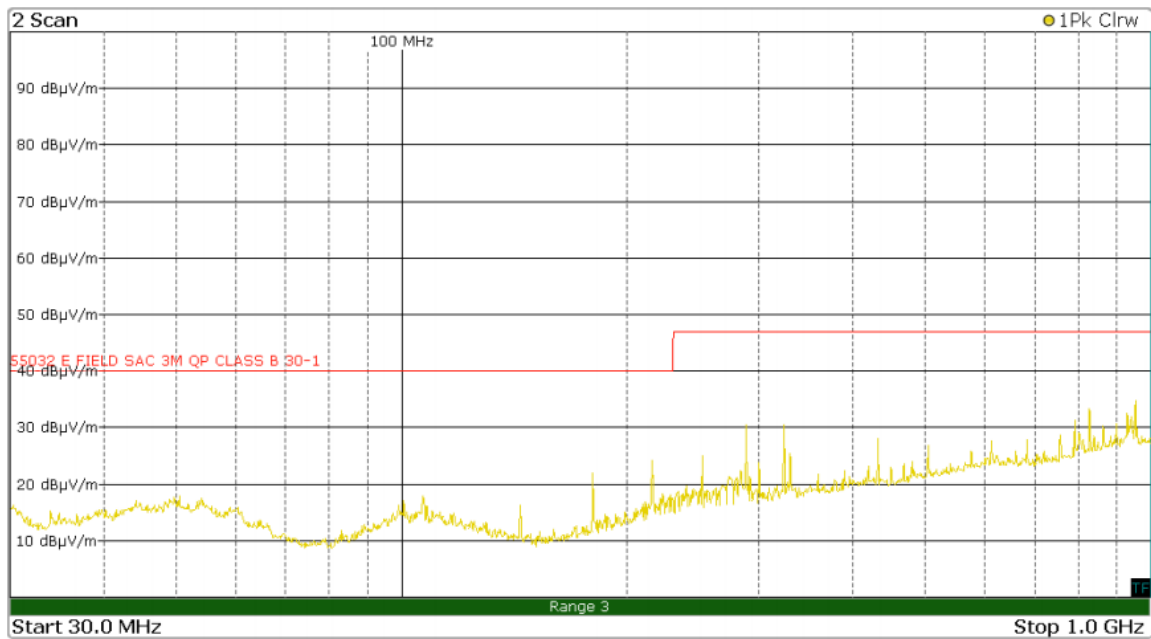
Power supply: Battery 12 V

External oscillator: 12.00MHz

PCLK: 72.0MHz

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

Horizontal:



Vertical:



6. Photos

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

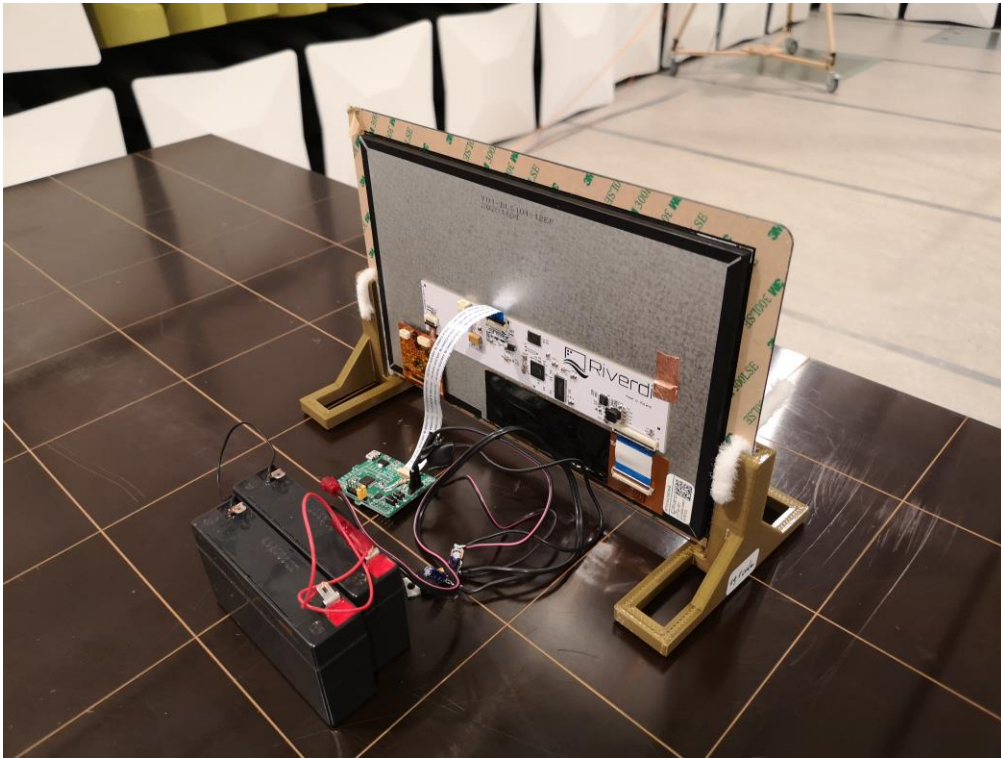


Figure 2. Radiation Emission 30-1000MHz Test Front View





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

