



VARISCITE LTD.

VAR-SOM-MX8X

EMC Radiation test

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Document Revision History

Revision	Date	Notes
1.0	17/12/2020	Initial
1.1	17/07/2022	Added results for SOM revision v1.3 (ADIN1300 Ethernet PHY) - updated sections 2, 3.1; added section,3.2

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1 Introduction

This Document presents the VAR-SOM-MX8X EMC radiation test, held at the “THE STANDARDS INSTITUTION OF ISRAEL” EMC test labs (http://www.sii.org.il/896-en/SII_EN.aspx).

2 Test Set up

Test setup included a stock VAR-SOM-MX8X module assembled on a Symphony-Board carrier board, powered by 12V linear power supply. All SOM features were enabled, Ethernet ports of the carrier board were connected to an Ethernet switch. A script running continuous scan for WLAN access points and eMMC writes was executed.

3 Results

3.1 Radiation Spectrum (SOM Rev 1.2)

SOM: VAR-SOM-MX8X Rev 1.2

Carrier board: Symphony-Board Rev 1.4A

Notes:

Isolation resistors RN1,RN2,RN3,R151,R136 were not assembled on the Symphony-Board.

The blue graph represents Vertical & Horizontal polarity radiation frequency measurements. The red horizontal line is the EN55022 Class B standard limits



Peak Frequency Measurement

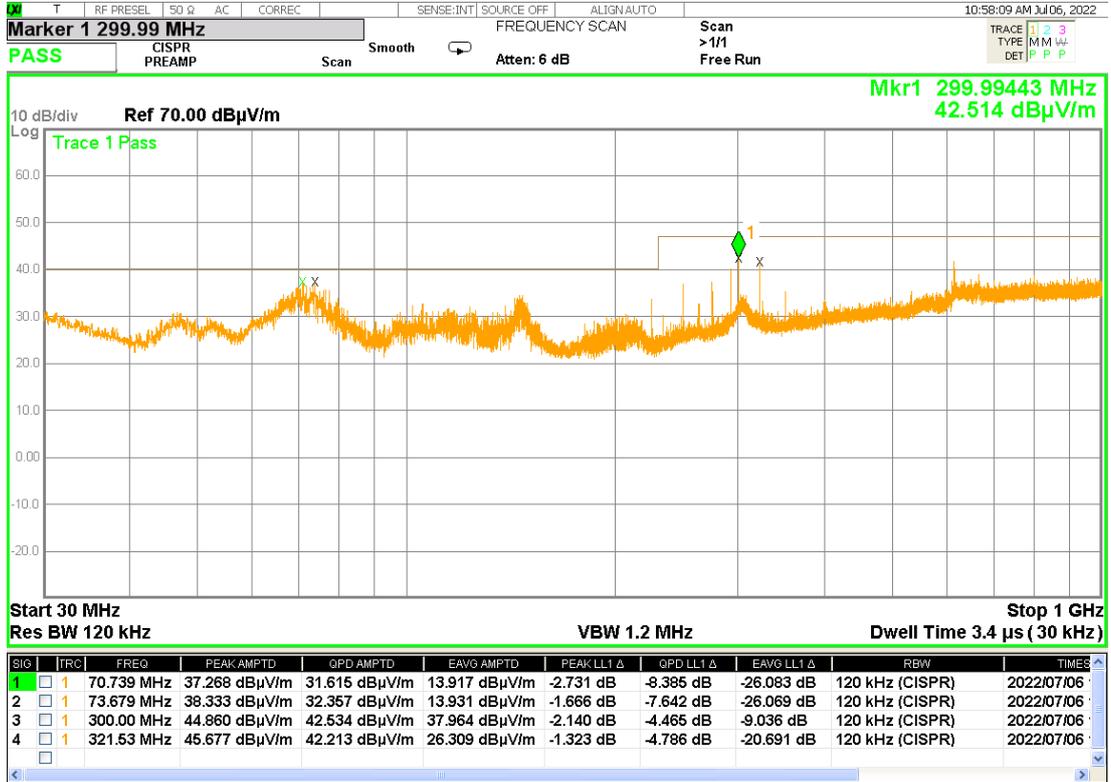
Frequency, Mhz	Peak, dBµV/m	QP, dBµV/m	QP Limit, dBµV/m	Delta QP (dB)
299.998	43.2	42.9	47.0	-4.1

3.2 Radiation Spectrum (SOM Rev 1.3)

SOM: VAR-SOM-MX8X Rev 1.3

Carrier board: Symphony-Board Rev 1.6

The yellow graph represents Vertical & Horizontal polarity radiation frequency measurements. The yellow horizontal line is the EN55022 Class B standard limits



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