



VARISCITE LTD.

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DART-MX8M-MINI

EMC Radiation test

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# Document Revision History

| Revision | Date       | Notes   |
|----------|------------|---|
| 1.0      | 12/09/2019 | Initial   |
| 1.1      | 03/03/2022 | Added results for SOM revision v1.3 (ADIN1300 Ethernet PHY) – updated sections 2, 3.1,3.2 |

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# 1 Introduction

This Document presents the DART-MX8M-MINI EMC radiation test, held at the “THE STANDARDS INSTITUTION OF ISRAEL” EMC test labs ([http://www.sii.org.il/896-en/SII\\_EN.aspx](http://www.sii.org.il/896-en/SII_EN.aspx)).

## 2 Test Set up

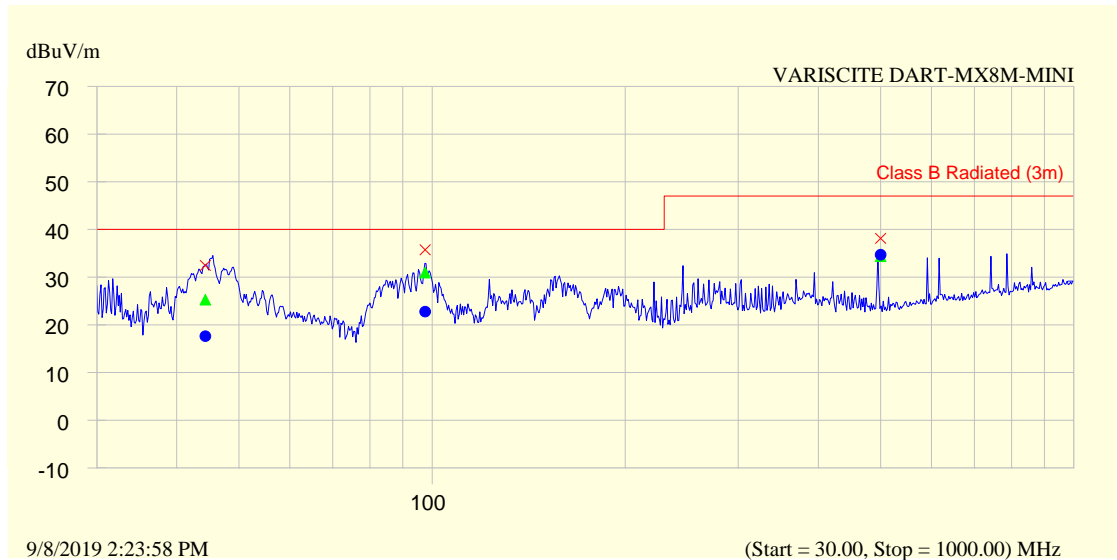
Test setup included a DART-MX8M-MINI module assembled on a VAR-DT8CustomBoard carrier board, powered by 5V linear power supply. All SOM features were enabled, Ethernet port of carrier board was connected to Ethernet switch. A script running continuous scan for WLAN access points and eMMC writes was executed.

## 3 Results

### 3.1 Radiation Spectrum (SOM Rev 1.1)

SOM: DART-MX8M-MINI Rev 1.1  
 Carrier board: VAR-DT8CustomBoard 1.4

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



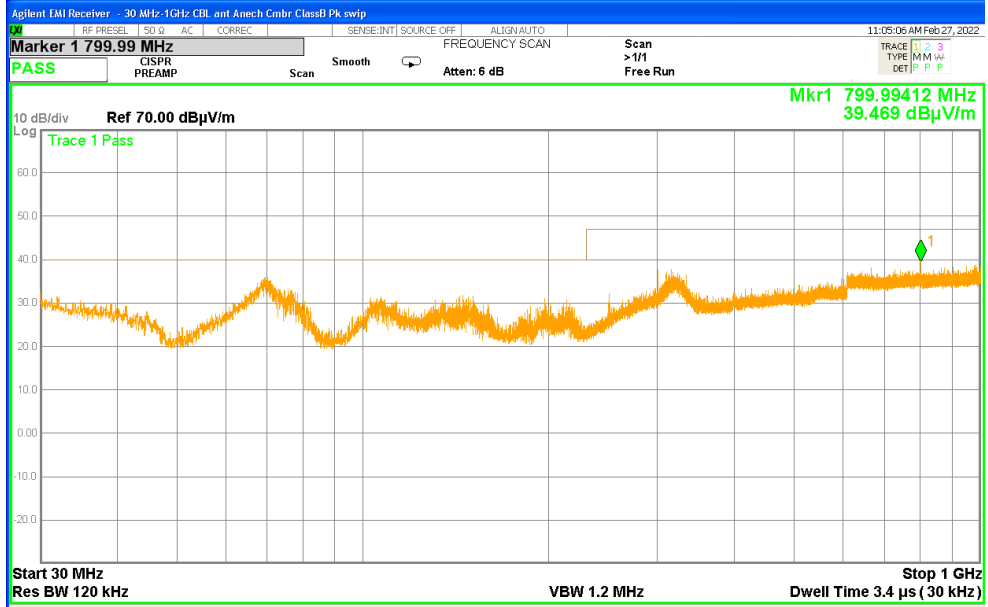
#### Peak Frequency Measurement

| Frequency, Mhz | Peak, dBμV/m | QP, dBμV/m | Avg dBuV/m | QP Limit, dBμV/m | Delta QP (dB) |
|----------------|--------------|------------|------------|------------------|---------------|
| 44.322         | 32.5         | 25.3       | 17.6       | 40.0             | -14.7         |
| 97.529         | 35.8         | 30.9       | 22.8       | 40.0             | -9.1          |
| 500.027        | 38.1         | 34.4       | 34.7       | 47.0             | -12.6         |

### 3.2 Radiation Spectrum (SOM Rev 1.3)

SOM: DART-MX8M-MINI Rev 1.3  
Carrier board: VAR-DT8CustomBoard 3.0

The yellow graph represents Vertical & Horizontal polarity radiation frequency measurements. The yellow horizontal line is the EN5022 Class B standard limits



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