Amber Helm Development L.C.
92723 Michigan Hwy-152
Sister Lakes, Michigan 49047 USA
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ALGACA-WR2426USA
Issued: **August 15, 2024**

Specific Host Test Report

regarding

USA: CFR Title 47, Part 15.225 (Emissions)

for

Access Escutcheon

Category: Specific Host

Judgments:
Complies with FCC Part 15.225, and ISED RSS-210v10
Testing Completed: August 14, 2024

TESTING
NVLAP LAB CODE 200129-0

Prepared for:

Allegion, PLC

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Rpt. Prep./Rev. by: John Nantz

Date of Issue: August 15, 2024

Revision History

Rev. No.	Date	Details	Revised By
r0	August 15, 2024	Initial Release.	J. Brunett
r1	August 27, 2024	Add band edge plot.	J. Brunett

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1 Test Report Scope and Limitations

1.1 Laboratory Authorization

Test Facility description and attenuation characteristics are on file with the FCC Laboratory, Columbia, Maryland (FCC Reg. No: US5348 and US5356) and with ISED Canada, Ottawa, ON (File Ref. No: 3161A and 24249). Amber Helm Development L.C. holds accreditation under NVLAP Lab Code 200129-0.

1.2 Report Retention

For equipment verified to comply with the regulations herein, the manufacturer is obliged to retain this report with the product records for the life of the product, and no less than ten years. A copy of this Report will remain on file with this laboratory until September 2034.

1.3 Subcontracted Testing

This report does not contain data produced under subcontract.

1.4 Test Data

This test report contains data included within the laboratory's scope of accreditation. Any data in this report that is not covered under the laboratory's scope is clearly identified.

1.5 Limitation of Results

The test results contained in this report relate only to the item(s) tested. Any electrical or mechanical modification made to the test item subsequent to the test date shall invalidate the data presented in this report. Any electrical or mechanical modification made to the test item subsequent to this test date shall require reevaluation.

1.6 Copyright

1.7 Endorsements

This report shall not be used to claim product endorsement by any accrediting, regulatory, or governmental agency.

1.8 Test Location

The EUT was fully tested by **Amber Helm Development L.C.**, headquartered at 92723 Michigan Hwy-152, Sister Lakes, Michigan 49047 USA. Table 1.8.0 lists all sites employed herein. Specific test sites utilized are also listed in the test results sections of this report where needed.

Table 1.8.0 Test Site List.

Description	Location	Quality Num.
OATS (3 meter)	3615 E Grand River Rd., Williamston, Michigan 48895	OATSD

1.9 Traceability and Equipment Used

Pertinent test equipment used for measurements at this facility is listed in Table 1.9.0 . The quality system employed at Amber Helm Development L.C. has been established to ensure all equipment has a clearly identifiable classification, calibration expiry date, and that all calibrations are traceable to the SI through NIST, other recognized national laboratories, accepted fundamental or natural physical constants, ratio type of calibration, or by comparison to consensus standards. All equipment is evaluated on a cycle no greater than 12 months following laboratory validation procedures and is calibrated following manufacturer recommended intervals.

Table 1.9.0 Equipment List.

Description	Manufacturer/Model	SN	Quality Num.	Cal/Ver By / Date Due
Spectrum Analyzer	R & S / FSV30	101660	RSFSV3001	RS / Apr-2025
Spectrum Analyzer	R & S / FPC1500	101692	RSFPC15001	RS / Feb-2025
Shielded Loop Antenna	EMCO / 6502	9502-2926	EMCOLOOP1	Keysight / Jul-2026
Biconical	EMCO / 93110B	9802-3039	BICEMCO01	Keysight / Aug-2025
Log Periodic Antenna	EMCO / 3146	9305-3614	LOGEMCO01	Keysight / Aug-2025

2 Test Specifications and Procedures

2.1 Test Specification and General Procedures

The goal of Allegion, PLC is to demonstrate that the Equipment Under Test (EUT) complies with the Rules and/or Directives below. Detailed in this report are the results of testing the Allegion, PLC Access Escutcheon for compliance to:

Country/Region/Manu.	**Rules or Directive**	**Referenced Section(s)**
United States	Code of Federal Regulations	CFR Title 47, Part 15.225

It has been determined that the equipment under test is subject to the rules and directives above at the date of this testing. In conjunction with these rules and directives, the following specifications and procedures are followed herein to demonstrate compliance (in whole or in part) with these regulations.

ANSI C63.4:2014	"Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz"
ANSI C63.10:2013	"American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices"
WR-ITP0102RA	"AHD Internal Document - Radiated Emissions Test Method"
WR-ITP0101LC	"AHD Internal Document - Conducted Emissions Test Method"

3 Configuration and Identification of the Equipment Under Test

3.1 Description and Declarations

The EUT is an access card reader host containing a pre-certified radio module. The EUT is approximately (see photos) in dimension, and is depicted in Figure 3.1.0 . It is powered by 6 VDC 4 x AA Alkaline Battery Pack. This product is used as an access reader host to enable key free access to a doorway. Table 3.1.0 outlines provider declared EUT specifications.

Figure 3.1.0 Photos of EUT.

Table 3.1.0 EUT Declarations.

General Declarations	
Equipment Type:	Specific Host
Country of Origin:	Not Declared
Nominal Supply:	6 VDC
Oper. Temp Range:	Not Declared
Frequency Range:	13.56 MHz
Antenna Dimension:	Integral
Antenna Type:	Integral
Antenna Gain:	Integral
Number of Channels:	1
Channel Spacing:	None
Alignment Range:	Not Declared
Type of Modulation:	ASK
United States	
FCC ID Number:	Contains FCC ID: XPB-47446672
Classification:	DXX

3.1.1 EUT Configuration

The EUT is configured for testing as depicted in Figure 3.1.1 .

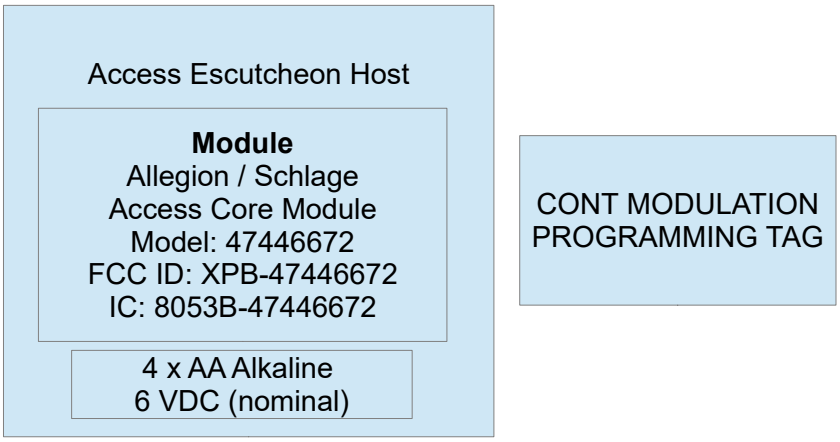

Figure 3.1.1 EUT Test Configuration Diagram.

3.1.2 Modes of Operation

The EUT is capable of two modes of operation, POLLING continuously to detect a 13.56 MHz tag and TAG READ interrogation if detected. Both modes are tested herein. This product is also populated with 125 kHz LF proximity tag reader circuitry with test data reported in AHD Report No. ALGACA-WR2426USB.

3.1.3 Variants

There are three variants of the EUT, including a Long, Medium, and Short variant, all of which are tested herein.

3.1.4 Test Samples

Three variant samples of the EUT were provided for testing. Each sample is populated with the pre-certified XPB-47446672 module capable of both normal or forced transmission for testing via a custom programming tag. Test data is provided demonstrating compliance for all three samples following the XPB-47446672 module's Specific Host Test Plan included here in Annex A.

3.1.5 Functional Exerciser

Normal functionality was confirmed by measurement of transmitted signals.

3.1.6 Modifications Made

There were no modifications made to the EUT by this laboratory.

3.1.7 Production Intent

The EUT appears to be a production ready sample.

3.1.8 Declared Exemptions and Additional Product Notes

The EUT is populated with a limited module which is evaluated herein following the test plan as instructed in the module FCC certification documents. The EUT is also subject to digital spurious emissions evaluation completed separately via SDoC evaluation.

4 Emissions

4.1 General Test Procedures

4.1.1 Radiated Test Setup and Procedures

Radiated electromagnetic emissions from the EUT are first pre-scanned in our screen room. Spectrum and modulation characteristics of all emissions are recorded. Instrumentation, including spectrum analyzers and other test equipment as detailed in Section 1.8 are employed. After pre-scan, emission measurements are made on the test site of record. If the EUT connects to auxiliary equipment and is table or floor standing, the configurations prescribed in relevant test standards are followed. Alternatively, a layout closest to normal use (as declared by the provider) is employed if the resulting emissions appear to be worst-case in such a configuration. See Figure 4.1.1 . All intentionally radiating elements that are not fixed-mounted in use are placed on the test table lying flat, on their side, and on their end (3-axes) and the resulting worst case emissions are recorded. If the EUT is fixed-mounted in use, measurements are made with the device oriented in the manner consistent with installation and then emissions are recorded. If the EUT exhibits spurious emissions due to internal receiver circuitry, such emissions are measured with an appropriate carrier signal applied.

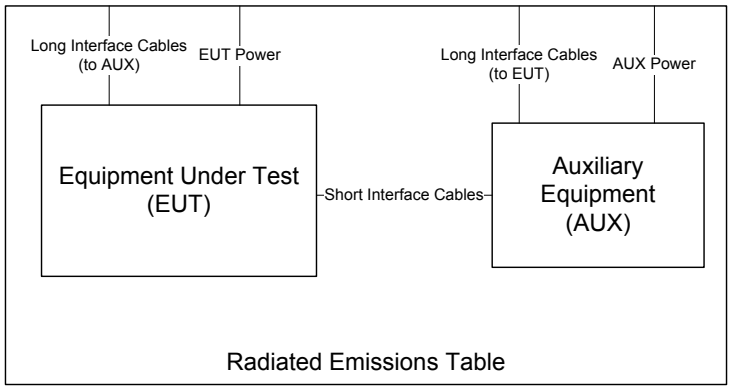

Figure 4.1.1 Radiated Emissions Diagram of the EUT.

For devices with intentional emissions below 30 MHz, a shielded loop antenna and/or E-field and H-Field broadband probes are used depending on the regulation. Shielded loops are placed at a 1 meter receive height at the desired measurement distance. For exposure in this band, 10cm diameter single-axis broadband probes meeting the requirements of ISED SPR-002 section 5.2 are employed. Measurements are repeated and summed over three axes, and the entire frequency range is measured with and without the EUT transmitting.

Emissions between 30 MHz and 1 GHz are measured using calibrated broadband antennas. For both horizontal and vertical polarizations, the test antenna is raised and lowered from 1 to 4 m in height until a maximum emission level is detected. The EUT is then rotated through 360^o in azimuth until the highest emission is detected. The test antenna is then raised and lowered one last time from 1 to 4 m and the worst case value is recorded. Emissions above 1 GHz are characterized using standard gain or broadband ridge-horn antennas on our OATS with a 4×5 m rectangle of ECCOSORB absorber covering the OATS ground screen and a 1.5m table height. Care is taken to ensure that test receiver resolution and video bandwidths meet the regulatory requirements, and that the emission bandwidth of the EUT is not reduced. Photographs of the test setup employed are depicted in Figure 4.1.1 .

Where regulations allow for direct measurement of field strength, power values (dBm) measured on the test receiver / analyzer are converted to dBμV/m at the regulatory distance, using

$$E_{dist} = 107 + P_R + K_A - K_G + K_E - C_F$$

where P_R is the power recorded on spectrum analyzer, in dBm, K_A is the test antenna factor in dB/m, K_G is the combined pre-amplifier gain and cable loss in dB, K_E is duty correction factor (when applicable) in dB, and C_F is a distance conversion (employed only if limits are specified at alternate distance) in dB. This field strength value is then compared with the regulatory limit. If effective isotropic radiated power (EIRP) is computed, it is computed as

$$EIRP(dBm) = E_{3m}(dB\mu V/m) - 95.2.$$

When presenting data at each frequency, the highest measured emission under all possible EUT orientations (3-axes) is reported.

Figure 4.1.1 (i) Radiated Emissions Test Setup Photograph(s).

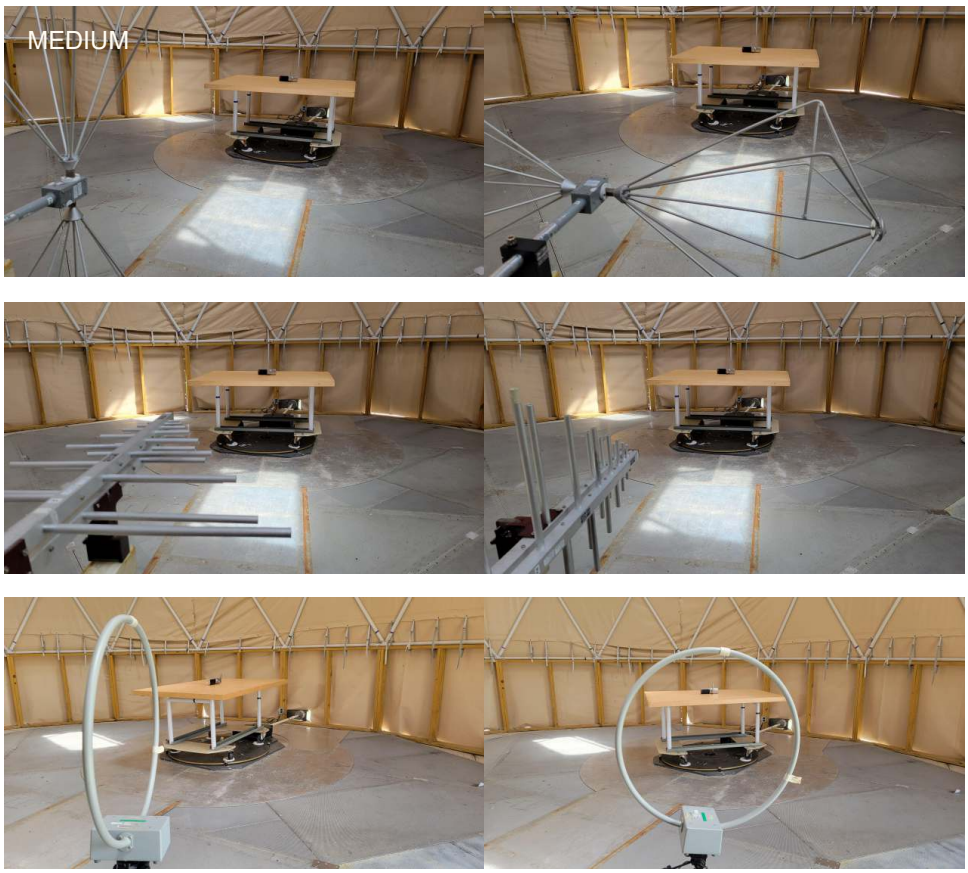

Figure 4.1.1 (ii) Radiated Emissions Test Setup Photograph(s).

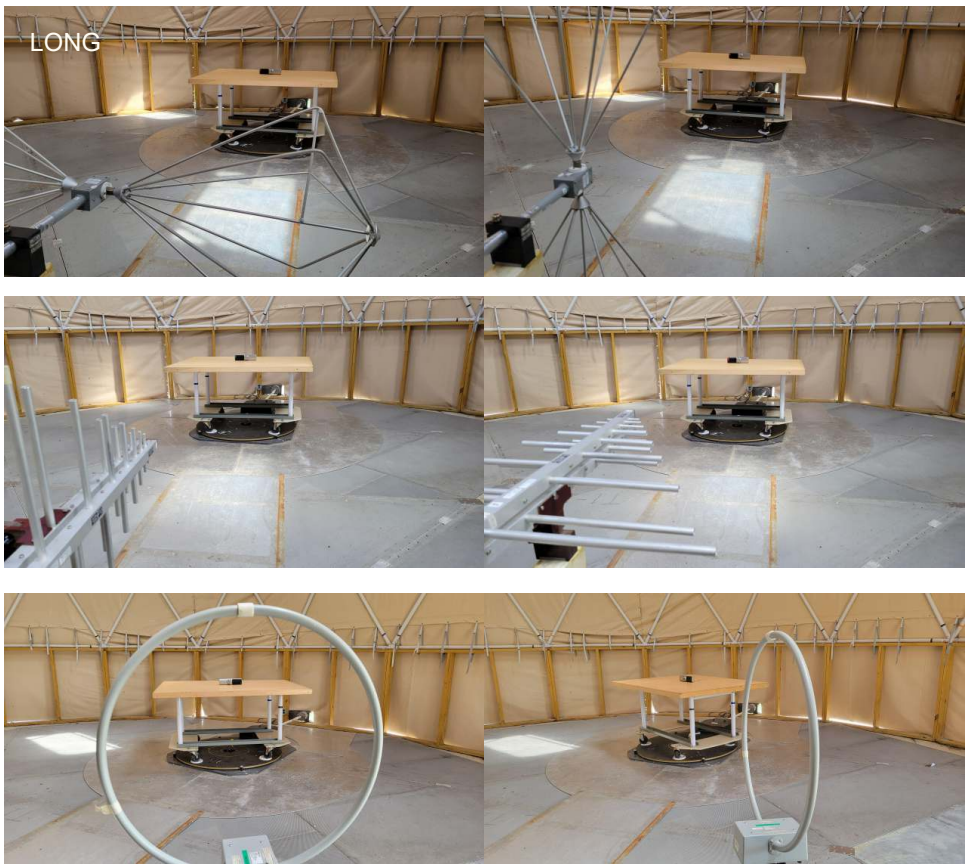

Figure 4.1.1 (iii) Radiated Emissions Test Setup Photograph(s).

4.1.2 Power Supply Variation

Tests at extreme supply voltages are made if required by the procedures specified in the test standard, and results of this testing are detailed in this report.

In the case the EUT is designed for operation from a battery power source, the extreme test voltages are evaluated over the range specified in the test standard; no less than ±10% of the nominal battery voltage declared by the manufacturer. For all battery operated equipment, worst case intentional and spurious emissions are re-checked employing a new (fully charged) battery.

4.2 Intentional Emissions

4.2.1 Fundamental Emission Pulsed Operation (PREVIOUSLY TESTED)

This device was previously tested as detailed in the report(s) to which this document in an addendum (AHD, LC Test Report No. ALGACA-WR2240USAr1).

4.2.2 Fundamental Emission Occupied Bandwidth (PREVIOUSLY TESTED)

This device was previously tested as detailed in the report(s) to which this document in an addendum (AHD, LC Test Report No. ALGACA-WR2240USAr1).

4.2.3 Fundamental Emission

Following the test procedures listed in Section 2.1, field emissions measurements are made on the EUT for both Horizontal and Vertically polarized coupling fields. The EUT's loop antenna(s) are measured along all three axes, including when the EUT loop axes are aligned in the same axis as the test loop and aligned coplanar (in the same plane) with the test loop antenna. Table 4.2.3 details the results of these measurements.

Table 4.2.3 Fundamental Radiated Emissions.

Frequency Range	Det	IF Bandwidth	Video Bandwidth		
9 kHz ≤ f ≤ 150 kHz	Pk/QPk	200 Hz	300 Hz	**Test Date:**	14-Aug-24
150 kHz ≤ f ≤ 30 MHz	Pk/QPk	9 kHz	30 kHz	**Test Engineer:**	J. Brunett
30 MHz ≤ f ≤ 1 000 MHz	Pk/QPk	120 kHz	300 kHz	**Meas. Distance:**	3 meters
				EUT Tested:	See Table
				EUT Mode:	CM

Fundamental Emissions Measurements

R0	Mode / Host	EUT Orientation	Freq. MHz	Ant. Used	Ant Ht.	Table Angle	Meas. Dist. m	Ka dB/m	Kg dB	NF/FF boundary m	Cf 3 m / 30 m dB	E3m Pk dBuV/m	E30m Pk dBuV/m	E30m QPk/Avg dBuV/m	E30m Limit dBuV/m	Pass By
R1	CM / Long Host	Flat	13.56	EMCOLOOP1	1.0	all	3.0	16.9	0.8	3.5	20.0	48.9	28.9		84.0	55.1
R2		Side	13.56	EMCOLOOP1	1.0	all	3.0	16.9	0.8	3.5	20.0	54.2	34.2		84.0	**49.8**
R3		End	13.56	EMCOLOOP1	1.0	all	3.0	16.9	0.8	3.5	20.0	51.4	31.4		84.0	52.6
R4	CM / Medium Host	Flat	13.56	EMCOLOOP1	1.0	all	3.0	16.9	0.8	3.5	20.0	47.1	27.1		84.0	56.9
R5		Side	13.56	EMCOLOOP1	1.0	all	3.0	16.9	0.8	3.5	20.0	53.5	33.5		84.0	**50.5**
R6		End	13.56	EMCOLOOP1	1.0	all	3.0	16.9	0.8	3.5	20.0	49.2	29.2		84.0	54.8
R7	CM / Small Host	Flat	13.56	EMCOLOOP1	1.0	all	3.0	16.9	0.8	3.5	20.0	48.0	28.0		84.0	56.0
R8		Side	13.56	EMCOLOOP1	1.0	all	3.0	16.9	0.8	3.5	20.0	52.6	32.6		84.0	**51.4**
R9		End	13.56	EMCOLOOP1	1.0	all	3.0	16.9	0.8	3.5	20.0	49.9	29.9		84.0	54.1

R10	Mode / Host	EUT Orientation	DC Supply Voltage	E-field @ 3m dBuV/m	Mode / Host	EUT Orientation	DC Supply Voltage	E-field @ 3m dBuV/m	Mode / Host	EUT Orientation	DC Supply Voltage	E-field @ 3m dBuV/m
R11	CM / Long Host	Side	8.0	54.2	CM / Medium Host	Side	8.0	53.5	CM / Small Host	Side	8.0	52.6
R11			7.0	54.2			7.0	53.5			7.0	52.6
R12			6.0	54.2			6.0	53.5			6.0	52.6
R13			5.0	54.2			5.0	53.5			5.0	52.6
R14			4.0	54.2			4.0	53.5			4.0	52.6
R15			3.0	53.2			3.0	52.5			3.0	51.6
R16			2.0	OFF			2.0	OFF			2.0	OFF

#	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C19

(ROW)	(COLUMN)	NOTE:
R0	C1	EUT was tested in CM mode. No averaging applied, Peak data reported to demonstrate compliance.
R0	C11	NF/FF Boundary at lambda/2pi distance for small radiator.
R0	C12	40 dB/dec near field conversion factor, 20 dB/dec far-field conversion factors are permitted. 20dB is chosen to show compliance under worst case conversion.

4.3 Unintentional Emissions

4.3.1 Transmit Chain Spurious Emissions

The results for the measurement of transmit chain spurious emissions at the nominal voltage and temperature are provided in Table 4.3.1 . Following the test procedures listed in Section 2.1, field emissions measurements are made on the EUT for both Horizontal and Vertically polarized coupling fields. The EUT's loop antenna(s) are measured when the EUT loop axes placed in all three axes, including when they are aligned along the same axis as the test loop antenna and are aligned coplanar with the test loop antenna. For all arrangements, test loop is rotated for maximum field. The results for the measurement of transmit chain spurious emissions at the nominal voltage and temperature are provided in Table 4.3.1 . Measurements are performed to 10 times the highest fundamental operating frequency.

Table 4.3.1 (i) Transmit Chain Spurious Emissions.

Frequency Range	**Det**	**IF Bandwidth**	**Video Bandwidth**	**Test Date:**	14-Aug-24
9 kHz ≤ f ≤ 150 kHz	Pk/QPk	200 Hz	300 Hz	**Test Engineer:**	J. Brunett
150 kHz ≤ f ≤ 30 MHz	Pk/QPk	9 kHz	30 kHz	**Meas. Distance:**	3 meters
25 MHz ≤ f ≤ 1 000 MHz	Pk/QPk	120 kHz	300 kHz	**EUT Tested:**	See Table

Transmit Chain Spurious Emissions

#	Mode / Antenna	Test Antenna Polarization	Freq. Start MHz	Freq. Stop MHz	Ant. Used	Ant Ht. m	Table Angle deg	Meas. Dist. m	Ka dB/m	Kg dB	NF/FF boundary m	Cf (3 to 30m) dB	E3m (Pk) Pk dBuV/m	E-field (Pk) dBuV/m	E-field (Qpk/Avg) dBuV/m	E-field Limit (30m / 3m) dBuV/m	Pass By	Comments
R1	CM / Long Host	Coaxial - Horz	27.1	27.1	EMCOLOOP1	1.0	max all	3.0	8.7	1.0	1.8	20.0	40.0	40.0		49.5	9.5	Max all
R2		H/V (worst case)	40.7	40.7	BICEMCO01	all	max all	3.0	11.5	-.4		.0	28.7	28.7		40.0	11.3	background
R3		H/V (worst case)	54.2	54.2	BICEMCO01	all	max all	3.0	10.1	-.4		.0	23.8	23.8		40.0	16.2	background
R4		H/V (worst case)	67.8	67.8	BICEMCO01	all	max all	3.0	9.7	-.4		.0	27.7	27.7		40.0	12.3	background
R5		H/V (worst case)	81.4	81.4	BICEMCO01	all	max all	3.0	9.5	-.5		.0	18.1	18.1		40.0	21.9	background
R6		H/V (worst case)	94.9	94.9	BICEMCO01	all	max all	3.0	9.7	-.5		.0	37.3	37.3		43.5	**6.2**	background
R7		H/V (worst case)	108.5	108.5	BICEMCO01	all	max all	3.0	10.6	-.6		.0	24.7	24.7		43.5	18.8	background
R8		H/V (worst case)	122.0	122.0	BICEMCO01	all	max all	3.0	11.7	-.6		.0	24.0	24.0		43.5	19.5	background
R9		H/V (worst case)	135.6	135.6	BICEMCO01	all	max all	3.0	12.3	-.6		.0	21.9	21.9		43.5	21.6	background
R10	CM / Medium Host	Coaxial - Horz	27.1	27.1	EMCOLOOP1	1.0	max all	3.0	8.7	1.0	1.8	20.0	35.4	35.4		49.5	14.1	Max all
R11		H/V (worst case)	40.7	40.7	BICEMCO01	all	max all	3.0	11.5	-.4		.0	29.9	29.9		40.0	10.1	background
R12		H/V (worst case)	54.2	54.2	BICEMCO01	all	max all	3.0	10.1	-.4		.0	23.8	23.8		40.0	16.2	background
R13		H/V (worst case)	67.8	67.8	BICEMCO01	all	max all	3.0	9.7	-.4		.0	27.7	27.7		40.0	12.3	background
R14		H/V (worst case)	81.4	81.4	BICEMCO01	all	max all	3.0	9.5	-.5		.0	18.1	18.1		40.0	21.9	background
R15		H/V (worst case)	94.9	94.9	BICEMCO01	all	max all	3.0	9.7	-.5		.0	37.3	37.3		43.5	**6.2**	background
R16		H/V (worst case)	108.5	108.5	BICEMCO01	all	max all	3.0	10.6	-.6		.0	24.7	24.7		43.5	18.8	background
R17		H/V (worst case)	122.0	122.0	BICEMCO01	all	max all	3.0	11.7	-.6		.0	24.0	24.0		43.5	19.5	background
R18		H/V (worst case)	135.6	135.6	BICEMCO01	all	max all	3.0	12.3	-.6		.0	21.9	21.9		43.5	21.6	background
R19	CM / Small Host	Coaxial - Horz	27.1	27.1	EMCOLOOP1	1.0	max all	3.0	8.7	1.0	1.8	20.0	29.6	29.6		49.5	19.9	Max all
R20		H/V (worst case)	40.7	40.7	BICEMCO01	all	max all	3.0	11.5	-.4		.0	27.1	27.1		40.0	12.9	background
R21		H/V (worst case)	54.2	54.2	BICEMCO01	all	max all	3.0	10.1	-.4		.0	23.0	23.0		40.0	17.0	background
R22		H/V (worst case)	67.8	67.8	BICEMCO01	all	max all	3.0	9.7	-.4		.0	25.2	25.2		40.0	14.8	background
R23		H/V (worst case)	81.4	81.4	BICEMCO01	all	max all	3.0	9.5	-.5		.0	19.0	19.0		40.0	21.0	background
R24		H/V (worst case)	94.9	94.9	BICEMCO01	all	max all	3.0	9.7	-.5		.0	35.8	35.8		43.5	**7.7**	background
R25		H/V (worst case)	108.5	108.5	BICEMCO01	all	max all	3.0	10.6	-.6		.0	23.4	23.4		43.5	20.1	background
R26		H/V (worst case)	122.0	122.0	BICEMCO01	all	max all	3.0	11.7	-.6		.0	21.4	21.4		43.5	22.1	background
R27		H/V (worst case)	135.6	135.6	BICEMCO01	all	max all	3.0	12.3	-.6		.0	22.5	22.5		43.5	21.0	background
#	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18

(ROW)	(COLUMN)	NOTE:
R0	C1	EUT was tested in CM (Continously Modulating) mode. No averaging applied, Peak data reported to demonstrate compliance.
R0	C11	NF/FF Boundary at lambda/2pi distance for small radiator.
R1	C12	40 dB/dec near field conversion factor, 20 dB/dec far-field conversion factors are permitted. 20dB is chosen to show compliance under worst case conversion.

Table 4.3.1 (ii) Transmit Chain Spurious Emissions.

5 Measurement Uncertainty and Accreditation Documents

The maximum values of measurement uncertainty for the laboratory test equipment and facilities associated with each test are given in the table below. This uncertainty is computed for a 95.45% confidence level based on a coverage factor of $k = 2$.

Table 5.0.0 Measurement Uncertainty.

Measured Parameter	Measurement Uncertainty†
Radio Frequency	$\pm(f_{Mkr}/10^7 + RBW/10 + (SPN/(PTS-1))/2 + 1\,\text{Hz})$
Conducted Emm. Amplitude	$\pm 1.9\,\text{dB}$
Radiated Emm. Amplitude ($f < 30\,\text{MHz}$)	$\pm 3.1\,\text{dB}$
Radiated Emm. Amplitude ($30 - 200\,\text{MHz}$)	$\pm 4.0\,\text{dB}$
Radiated Emm. Amplitude ($200 - 1000\,\text{MHz}$)	$\pm 5.2\,\text{dB}$
Radiated Emm. Amplitude ($f > 1000\,\text{MHz}$)	$\pm 3.7\,\text{dB}$

†Ref: CISPR 16-4-2:2011+A1:2014


United States Department of Commerce
National Institute of Standards and Technology

NVLAP® ilac-MRA

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200129-0

AHD (Amber Helm Development, L.C.)
Sister Lakes, MI

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2023-06-20 through 2024-06-30
Effective Dates

For the National Voluntary Laboratory Accreditation Program

Figure 5.0.0 Accreditation Documents

6 ANNEX A - Test Plan

Allegion Limited Module Host Integration Test Plan

Objective:

The objective of this integration test plan is to confirm that each host in which this module is employed remains compliant with all applicable FCC regulations.

Scope:

This module does not employ (1) an integral EMC shield or (2) internal voltage regulation, and thus its use is limited for use by this manufacturer. In addition, this integration test plan must be followed by this manufacturer for each Specific Host (SH) in which this module is used.

A Specific Host is classified as a series or set of similar models having the same form factor, physical size, component layout and construction. A Permissive Change (PC) authorization is required for every unique SH.

Test Plan:

For each product (SH w/ module), Allegion must ensure the product is tested and test data retained for demonstrating ongoing emissions compliance. The following table of module configurations must be tested, and data retained. These configurations have been selected as worst-case scenarios based on the module's stand-alone test report and general testing required for a host product per 996369 D04 Module Integration Guide v02.

REGULATION	TEST CHANNELS	TEST MODULATION	TEST PROCEDURE (C63.10)	EMISSION TYPE	MODULE REPORT REFERENCE
15.209 / 15.225	-	NFC	BAND EDGE SPURIOUS	RADIATED	PAGE 16 (NFC Rpt)
15.209 / 15.225	-	NFC	OUTPUT PWR VS. HOST SUPPLY VOLTAGE	RADIATED	PAGE 17 (NFC Rpt)
15.209 / 15.225	-	LF	BAND EDGE SPURIOUS	RADIATED	PAGE 15 (LF Rpt)
15.209 / 15.225	-	LF	OUTPUT PWR VS. HOST SUPPLY VOLTAGE	RADIATED	PAGE 16 (LF Rpt)
15.109/209	-	NFC + LF	SPURIOUS EMISSIONS (9 kHz - 1 GHz)	RADIATED	(See module SDoC Rpt)

* NOTE: HOST DIGITAL ELECTRONICS MUST BE FULLY ACTIVE DURING THIS TESTING IN LINE WITH SDOC EMISSIONS COMPLIANCE TESTING REQUIREMENTS.

Furthermore, if this product incorporates any other radio module, the manufacturer must ensure that all additional equipment authorization and testing for technical requirements not covered by the current module's grant be met. This module may only be co-located with other modules listed on it's authorization grant. The incorporation of any other radio module will require further testing and regulatory approval.

Following FCC authorized laboratory guidance, a C2PC will be required for each SH dissimilar from those already approved, including any additional equipment authorization and testing for technical requirements not covered by the module grant. The module manufacturer is reminded that this product is not authorized for use in portable products without further addressing RF exposure requirements.