

Test report

457414-1TRFEMC

Date of issue: August 17, 2022

Applicant:

Privoro, LLC

Product:

SafeCase for iPhone 12

Model:

Variant(s):

M0008

M0009

Specifications:

- FCC 47 CFR Part 15, Subpart B Verification
- ICES-003 Issue 7: 2020

www.nemko.com

FCC 47 CFR Part 15B & ICES-003 Issue 7.dotm, Version V1.2

Nemko USA Inc., a testing laboratory, is accredited by NVLAP. The tests included in this report are within the scope of this accreditation.





Lab and test locations

Company name	Nemko USA Inc.		
Address	2210 Faraday Ave, Suite 150		
City	Carlsbad		
State	California		
Postal code	92008		
Country	JSA		
Telephone	1 760 444 3500		
Website	www.nemko.com		
FCC Site Number	Test Firm Registration Number: 392943; Designation Number: US5058		
ISED Test Site	2040B-3		
Tested by	Lan Sayasane, EMC Test Engineer		
Reviewed by	James Cunningham, EMC/MIL/WL Supervisor		
Review date	August 17, 2022		
Reviewer signature	287		

Limits of responsibility

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025. All results contain in this report are within Nemko USA's ISO/IEC 17025 accreditation.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

Copyright notification

Nemko USA Inc. authorizes the applicant to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Nemko USA Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. © Nemko USA Inc.



Table of Contents

Table of C	Contents	. 3
Section 1	Report summary	. 4
1.1	Test specifications	.4
1.2	Exclusions	.4
1.3	Statement of compliance	.4
1.4	Test report revision history	.4
Section 2	Summary of test results	. 5
2.1	Sample information	.5
2.2	Testing period	.5
2.3	Emissions test results	.5
Section 3	Equipment under test (EUT) details	. 6
3.1	Disclaimer	.6
3.2	Applicant	.6
3.3	Manufacturer	.6
3.4	EUT information	.6
3.5	EUT exercise and monitoring details	.6
3.6	EUT setup details	.7
Section 4	Engineering considerations	. 8
4.1	Modifications incorporated in the EUT	.8
4.2	Technical judgement	.8
4.3	Deviations from laboratory test procedures	.8
Section 5	Test conditions	. 9
5.1	Atmospheric conditions	.9
5.2	Power supply range	.9
Section 6	Measurement uncertainty	10
6.1	Uncertainty of measurement	10
Section 7	Terms and definitions	11
7.1	Product classification definitions	11
7.2	General definitions	11
Section 8	Testing data	12
8.1	Radiated emissions	12
8.2	Conducted emissions from AC mains ports	19
Section 9	EUT photos	23
9.1	External photos	23
Section 1	0 Attestation Letter	25



Section 1 Report summary

1.1 Test specifications

FCC 47 CFR Part 15, Subpart B – Verification	Title 47: Telecommunication; Part 15—Radio Frequency Devices
ICES-003 Issue 7: 2020	Information Technology Equipment (including Digital Apparatus)

1.2 Exclusions

None.

1.3 Statement of compliance

Testing was performed against all relevant requirements of the test standard(s).

Results obtained indicate that the product under test complies in full with the tested requirements.

The test results relate only to the item(s) tested.

See "Section 2 Summary of test results" for full details.

1.4 Test report revision history

 Table 1.4-1: Test report revision history

Revision #	Issue Date	Details of changes made to test report
457414-1TRFEMC	17 August 2022	Original report issued



Section 2 Summary of test results

2.1 Sample information

Receipt date	28-Jun-22
Nemko sample ID number	457414

2.2 **Testing period**

Test start date	29-Jun-22
Test end date	13-Jul-22

2.3 Emissions test results

Standard	Clause	Test description	Verdict
FCC 47 CFR Part 15, Subpart B	§15.109	Radiated emissions limits ¹	Pass
FCC 47 CFR Part 15, Subpart B	§15.107	Conducted emissions limits (AC mains) ¹	Pass ²
ICES-003 Issue 7	6.1	AC power line conducted emissions limits ¹	Pass ²
ICES-003 Issue 7	6.2	Radiated emissions limits ¹	Pass

¹ Product classification B

² The EUT is AC powered



Section 3 Equipment under test (EUT) details

3.1 Disclaimer

This section contains information provided by the applicant and has been utilized to support the test plan. Inaccurate information provided by the applicant can affect the validity of the results within this test report. Nemko accepts no responsibility for the information contained within this section and the impact it may have on the test plan and resulting measurements.

3.2 Applicant

Company name	Privoro, LLC
Address	3100 W. Ray Road, Suite 201
City	Chandler
State	AZ
Postal/Zip code	85226
Country	USA

3.3 Manufacturer

Company name	Privoro, LLC
Address	3100 W. Ray Road, Suite 201
City	Chandler
State	AZ
Postal/Zip code	85226
Country	USA

3.4 EUT information

Product name	SafeCase for iPhone 12
Model	M0008
Variant(s)	M0009
Serial number	BBT1131
Part number	BB01/A
Power requirements	Battery Operated 3.7V 2000 mAh Lithium Ion
Description/theory of operation	SafeCase for iPhone12 is a modular platform comprising a smartphone housing, modules referred to as "Backpacks", a mobile app and a service hosting cloud. In addition to providing protection from unauthorized audio and video surveillance, SafeCase for iPhone12 has several sensing and communications functionalities for extensive security features.
Operational frequencies	2.4 - 2.495 GHz
Software details	Version 3.0.5.20

3.5 EUT exercise and monitoring details

EUT description of the methods used to exercise the EUT and all relevant ports:

During emissions testing, EUT was powered on and running the "Privoro QA" app exercising the EUT's functionalities.

EUT setup/configuration rationale:

- The EUT setup in a configuration that was expected to produce the highest amplitude emissions relative to the limit and that satisfy normal
 operation/installation practice by the end user.
- The type and construction of cables used in the measurement set-up were consistent with normal or typical use. Cables with mitigation features (for example, screening, tighter/more twists per length, ferrite beads) have been noted below:
 - The following deviations were made: None
- The EUT was setup in a manner that was consistent with its typical arrangement and use. The measurement arrangement of the EUT, local
 ancillary equipment and associated cabling was representative of normal practice. Any deviations from typical arrangements have been noted
 below:
 - The following deviations were: None



EUT setup details 3.6

Description	Brand name	Model/Part number	Serial number	Rev.
SafeCase for iPhone 12	Privoro, LLC M0008/BB01/A BBT1131		BBT1131	
	Table 3.6-2: EUT in	terface ports		
Description				Qty.
USB – Type C				1
	Table 3.6-3: Support	rt equipment		
Description	Brand name	Model/Part number	Serial number	Rev.
None	N/A	N/A	N/A	N/A
iPhone 12	Apple	NGF43LL/A	DNPDJ3YJ0DXP	
	Table 3.6-4: Inter-cor	nnection cables		
Cable description	From	То		Length (m)
USB cable	AC/DC Power A	dapter SafeCase	1	1

AC mains

antenna connector

Figure 3.6-1: Test setup diagram

EUT

Report reference ID: 457414-1TRFEMC



Section 4 Engineering considerations

4.1 Modifications incorporated in the EUT

None.

4.2 Technical judgement

None.

4.3 Deviations from laboratory test procedures

None.



Section 5 Test conditions

5.1 Atmospheric conditions

Temperature	15–30 °C
Relative humidity	20–75 %
Air pressure	86–106 kPa

When it is impracticable to carry out tests under these conditions, a note to this effect stating the ambient temperature and relative humidity during the tests shall be recorded and stated.

5.2 Power supply range

The normal test voltage for equipment to be connected to the mains shall be the nominal mains voltage. For the purpose of the present document, the nominal voltage shall be the declared voltage, or any of the declared voltages ±5 %, for which the equipment was designed.



Section 6 Measurement uncertainty

6.1 Uncertainty of measurement

Nemko USA Inc. has calculated measurement uncertainty and is documented in EMC/MUC/001 "Uncertainty in EMC measurements." Measurement uncertainty was calculated using the methods described in CISPR 16-4-2 Specification for radio disturbance and immunity measuring apparatus and methods – Part 4-2: Uncertainties, statistics, and limit modelling – Measurement instrumentation uncertainty. The expression of Uncertainty in EMC testing. Measurement uncertainty calculations assume a coverage factor of K=2 with 95% certainty.

Table 6.1-1: Measurement uncertainty calculations

Measurement		U _{cispr} dB	U _{lab} dB
Conducted disturbance at AC mains and other port power using a V-AMN	9 kHz to 150 kHz	3.8	2.9
	150 kHz to 30 MHz	3.4	2.3
Conducted disturbance at telecommunication port using AAN	150 kHz to 30 MHz	5.0	4.3
Conducted disturbance at telecommunication port using CVP	150 kHz to 30 MHz	3.9	2.9
Conducted disturbance at telecommunication port using CP	150 kHz to 30 MHz	2.9	1.4
Conducted disturbance at telecommunication port using CP and CVP	150 kHz to 30 MHz	4.0	3.1
Radiated disturbance (electric field strength in a SAC)	30 MHz to 1 GHz	6.3	5.5
Radiated disturbance (electric field strength in a FAR)	1 GHz to 6 GHz	5.2	4.7
Radiated disturbance (electric field strength in a FAR)	6 GHz to 18 GHz	5.5	5.0

Notes: Compliance assessment:

If U_{lab} is less than or equal to U_{cispr} then:

- compliance is deemed to occur is no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit

If U_{lab} is greater than U_{cispr} then:

- compliance is deemed to occur is no measured disturbance level, increased by (U_{lab} U_{clspr}), exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level, increased by (Ulab Ucispr), exceeds the disturbance limit

V-AMN: V type artificial mains network

- AAN: Asymmetric artificial network
- CP: Current probe
- CVP: Capacitive voltage probe
- SAC: Semi-anechoic chamber
- FAR: Fully anechoic room



Section 7 Terms and definitions

7.1 Product classification definitions

7.1.1 Title 47: Telecom	munication – Part 15 – Radio Frequency devices, Subpart A – General
Class A digital device	A digital device that is marketed for use in a commercial, industrial, or business environment, exclusive of a device which is marketed for use by the general public or is intended to be used in the home.
Class B digital device	A digital device that is marketed for use in a residential environment notwithstanding use in commercial, business, and industrial environments. Examples of such devices include, but are not limited to, personal computers, calculators, and similar electronic devices that are marketed for use by the general public.
	Note: The responsible party may also qualify a device intended to be marketed in a commercial, business, or industrial environment as a Class B device, and in fact is encouraged to do so, provided the device complies with the technical specifications for a Class B digital device. In the event that a particular type of device has been found to repeatedly cause harmful interference to radio communications, the Commission may classify such a digital device as a Class B digital device.

7.1.2 ICES-003 – Equipment classification

Class B ITE	Limits of radio noise for ITE for residential operation.
Class A ITE	Limits of radio noise for ITE for non-residential operation.
Conditions	Only ITE intended strictly for non-residential use in commercial, industrial, or business environments, and whose
	design or other characteristics strongly preclude the possibility of its use in a residential environment, shall be
	permitted to comply with the less stringent Class A limits.
	All ITE that cannot meet the conditions for Class A operation shall comply with the Class B limits.
	The ITE shall comply with both the power line – conducted and the radiated emissions limits within the same Class, with no intermixing.

7.2 General definitions

7.2.1 Title 47: Telecommunication – Part 15-Radio Frequency devices, Subpart A – General

Digital device (Previously defined as a computing device)	An unintentional radiator (device or system) that generates and uses timing signals or pulses at a rate in excess of 9,000 pulses (cycles) per second and uses digital techniques; inclusive of telephone equipment that uses digital techniques or any device or system that generates and uses radio frequency energy for the purpose of performing data processing functions, such as electronic computations, operations, transformations, recording, filing, sorting, storage, retrieval, or transfer. A radio frequency device that is specifically subject to an emanation requirement in any other FCC Rule part or an intentional radiator subject to subpart C of this part that contains a digital device is not subject to the standards for digital devices, provided the digital device is used only to enable operation of the radio frequency device and the digital device does not control additional functions or capabilities.
7.2.2 ICES-003	
Information technology equipment (including Digital	Information Technology Equipment (ITE) is defined as devices or systems that use digital techniques for purposes such as data processing and computation. ITE is any unintentional radiator (device or system) that generates and/or uses

computation, display, data processing and storage, and control.

timing signals or pulses having a rate of at least 9 kHz and employs digital techniques for purposes such as

Apparatus)



Section 8 Testing data

8.1 Radiated emissions

8.1.1 References and limits

- FCC 47 CFR Part 15, Subpart B: §15.109

- ICES-003: §3.2.2
- Test method: ANSI C63.4-2014

Table 8.1-1: Requirements as per for radiated emissions for Class A

Encility	Frequency range [MH-1		Measurement	limits
Facility	Frequency range [MHz]	Distance [m]	Detector type/ bandwidth	[dBµV/m]
CC Part 15 Subpart	В			
	30–88			49.5
SAC	88–216	3		54.0
SAC	216–960	5	Quasi peak/120 kHz	56.9
	960–1000			60.0
FAR	>1000	3	Linear average/1 MHz	60.0
FAK	>1000	3	Peak/1 MHz	80.0
	30–88			39.0
SAC	88–216	10	Quasi peak/120 kHz	43.5
SAC	216–960	10		46.4
	960–1000			49.5
CES-003				
	30–88		Quasi peak/120 kHz	50.0
	88–216			54.0
SAC	216–230	3		56.9
	230–960			57.0
	960–1000			60.0
FAR	>1000	3	Linear average/1 MHz	60.0
FAR	>1000	3	Peak/1 MHz	80.0
	30–88			40.0
	88–216			43.5
SAC	216–230	10	Quasi peak/120 kHz	46.4
	230–960			47.0
	960–1000			49.5

Table 8.1-2: Requirements as per for radiated emissions for Class B

F	F		Measurement	
Facility	Frequency range [MHz]	Distance [m]	Detector type/ bandwidth	[dBµV/m]
FCC Part 15 Subpart B				
	30–88			40.0
SAC	88–216	3		43.5
SAC	216–960	5	Quasi peak/120 kHz	46.0
	960–1000			54.0
FAR	>1000	3	Linear average/1 MHz	54.0
FAN	>1000	5	Peak/1 MHz	74.0
	30–88		Quasi peak/120 kHz	29.5
SAC	88–216	10		33.1
JAC	216–960	10		35.6
	960–1000			43.5
ICES-003				
	30–88		Quasi peak/120 kHz	40.0
	88–216			43.5
SAC	216–230	3		46.0
	230–960			47.0
	960–1000			54.0
FAR	>1000	3	Linear average/1 MHz	54.0
		S	Peak/1 MHz	74.0
	30–88			30.0
	88–216			33.1
SAC	216–230	10	Quasi peak/120 kHz	35.6
	230–960			37.0
	960–1000			43.5



Where there is a step in the applicable limit, the lower value was applied at the transition frequency.



8.1.2 Test summary

Pass		
June 28, 2022	Temperature	21 °C
Lan Sayasane, EMC Test Engineer	Air pressure	1005.0 mbar
🖾 10m semi anechoic chamber		64 %
🛛 3m semi anechoic chamber	Relative humidity	
Other:		
	June 28, 2022 Lan Sayasane, EMC Test Engineer ⊠ 10m semi anechoic chamber ⊠ 3m semi anechoic chamber	June 28, 2022TemperatureLan Sayasane, EMC Test EngineerAir pressureI 10m semi anechoic chamberRelative humidity

8.1.3 Notes

The spectral plots within this section have been corrected with all relevant transducer factors.

8.1.4 Setup details

Port under test	Enclosure port
EUT power input during test	120Vac/60 Hz
EUT setup configuration	⊠ Table-top
	Floor standing
	Other:
Measuring distance	10m
	🖂 🖾 3m
	□ Other:
Antenna height variation	1 – 4 m
Turn table position	0 – 360°
Measurement details	Preview measurements were performed with the receiver in continuous scan or sweep mode. Emissions detected within 6 dB or above limit (minimum of 6 frequencies) were maximized by rotating the EUT and adjusting the antenna height and polarization. At the position of maximum emission, the signal was measured with the appropriate detector against the corresponding limit and recorded as the final measurement.

Receiver/spectrum analyzer settings for frequencies below 1 GHz:

Resolution bandwidth	120 kHz
Detector mode	– Peak (Preview measurement)
	– Quasi-peak (Final measurement)
Trace mode	Max Hold
Measurement time	 100 ms (Peak preview measurement)
	 5000 ms (Quasi-peak final measurement)

Receiver/spectrum analyzer settings for frequencies above 1 GHz:

Resolution bandwidth	1 MHz
Detector mode	Peak (Preview measurement)
	Peak and Average (Final measurement)
Trace mode	Max Hold
Measurement time	 100 ms (Peak preview measurement)
	 5000 ms (Peak and Average final measurement)



Table 8.1-3: Radiated emissions equipment list

Equipment	Manufacturer	Model no.	Asset no.	Cal cycle	Next cal.
EMI Test Receiver	Rohde & Schwarz	ESU 40	E1121	1 year	31-May-2023
System Controller	Sunol Sciences	SC104V	E1191	NCR	NCR
Antenna, Bilog	Schaffner-Chase	CBL 6111D	1763	2 years	01-Apr-2024
Antenna, DRG Horn	ETS-Lindgren	3117-PA	E1139	2 years	19-Apr-2023
Notes: N/A – not applicable NCR – no calibration required					

VOU – verify on use

Table 8.1-4: Radiated emissions test software details

Manuf	acturer of Software	Details
Rohde	& Schwarz	EMC 32 V10.60.15
Notes:	None	



8.1.5 Test data

Full Spectrum

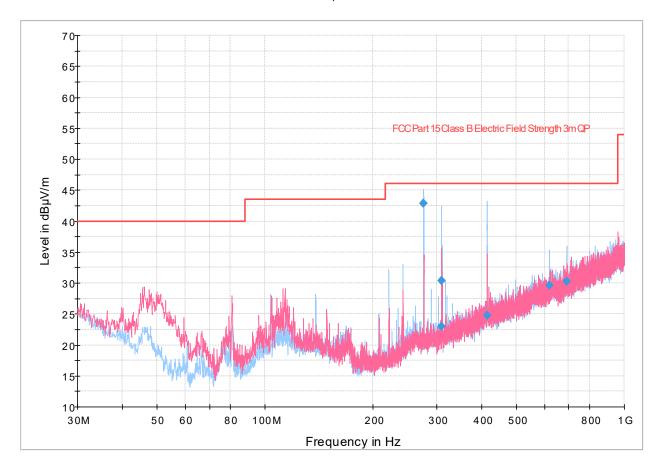


Figure 8.1-1: Radiated emissions spectral plot (30 MHz - 1 GHz)

Table 8.1-5: Radiated emissions results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
276.363000	42.81	46.00	3.19	5000.0	120.000	107.0	Н	57.0	21.6
309.668000	30.43	46.00	15.57	5000.0	120.000	107.0	н	60.0	22.3
309.809000	22.93	46.00	23.07	5000.0	120.000	111.0	н	46.0	22.3
414.588000	24.84	46.00	21.16	5000.0	120.000	295.0	Н	70.0	26.1
618.960000	29.57	46.00	16.43	5000.0	120.000	273.0	Н	102.0	29.6
690.798000	30.20	46.00	15.80	5000.0	120.000	261.0	Н	304.0	30.5

Notes:

¹ Field strength (dB V/m) = receiver/spectrum analyzer value (dB V) + correction factor (dB) ² Correction factors of the ACE (dD) + apple loss (dD)

² Correction factors = antenna factor ACF (dB) + cable loss (dB)

³ Emissions that were continuously present for a minimum of 1 second and occurred more than once for every 15 seconds observation period were considered valid emissions. The maximum value of valid emissions has been recorded.



Full Spectrum

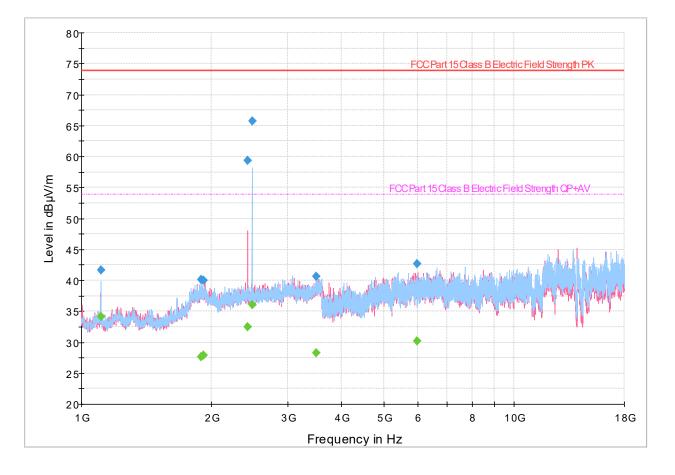


Figure 8.1-2: Radiated emissions spectral plot (1 GHz - 18 GHz)
Table 8.1-6: Radiated emissions results

:	RMS	Limit	Margin	Meas.	Bandwidth	Height	Pol
)	(dBµV/m)	(dBµV/m)	(dB)	Time	(kHz)	(cm)	
				(ms)			
	24.10	F2 00	10.00	F000 0	1000 000	125.0	11

(MHz)	(dBµV/m)	(dBµV/m)	(dBµV/m)	(dB)	Time (ms)	(kHz)	(cm)		(deg)	(dB/m)
1108.650000		34.10	53.90	19.80	5000.0	1000.000	125.0	Н	308.0	-13.9
1108.650000	41.62		73.90	32.28	5000.0	1000.000	125.0	Н	308.0	-13.9
1895.650000		27.63	53.90	26.27	5000.0	1000.000	285.0	V	320.0	-7.5
1895.650000	40.12		73.90	33.78	5000.0	1000.000	285.0	V	320.0	-7.5
1913.900000	39.96		73.90	33.94	5000.0	1000.000	180.0	V	86.0	-7.5
1913.900000		27.87	53.90	26.03	5000.0	1000.000	180.0	V	86.0	-7.5
2426.000000	59.38		73.90	14.52	5000.0	1000.000	113.0	V	282.0	-6.5
2426.000000		32.45	53.90	21.45	5000.0	1000.000	113.0	V	282.0	-6.5
2480.500000		36.00	53.90	17.90	5000.0	1000.000	183.0	н	180.0	-6.4
2480.500000	65.72		73.90	8.18	5000.0	1000.000	183.0	Н	180.0	-6.4
3486.050000	40.62		73.90	33.28	5000.0	1000.000	344.0	V	0.0	-3.6
3486.050000		28.28	53.90	25.62	5000.0	1000.000	344.0	V	0.0	-3.6
5970.700000	42.73		73.90	31.17	5000.0	1000.000	308.0	Н	357.0	2.2
5970.700000		30.20	53.90	23.70	5000.0	1000.000	308.0	Н	357.0	2.2

¹ Field strength (dB V/m) = receiver/spectrum analyzer value (dB V) + correction factor (dB) Notes:

² Correction factors = antenna factor ACF (dB) + cable loss (dB)

MaxPeak

³ Emissions that were continuously present for a minimum of 1 second and occurred more than once for every 15 seconds observation period were considered valid emissions. The maximum value of valid emissions has been recorded.

Frequency

Azimuth

Corr.



8.1.6 Setup photos

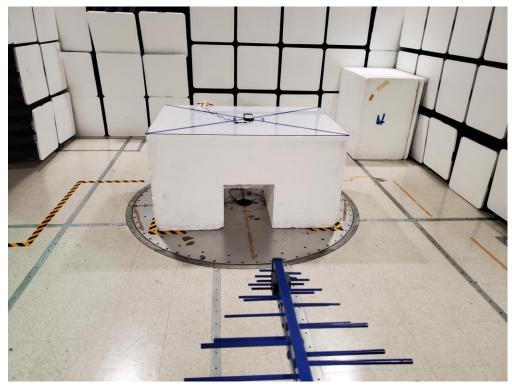


Figure 8.1-3: Radiated emissions setup photo – below 1 GHz

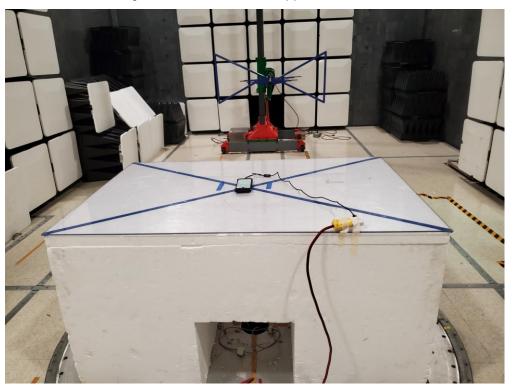


Figure 8.1-4: Radiated emissions setup photo – below 1 GHz



Testing data Radiated emissions FCC Part 15 Subpart B and ICES-003 Issue 7



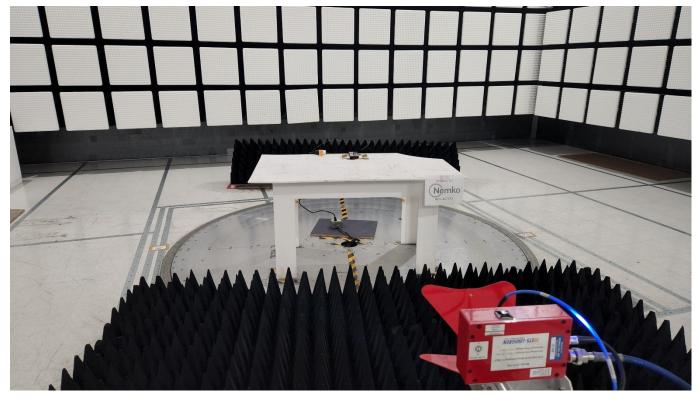


Figure 8.1-5: Radiated emissions setup photo – above 1 GHz

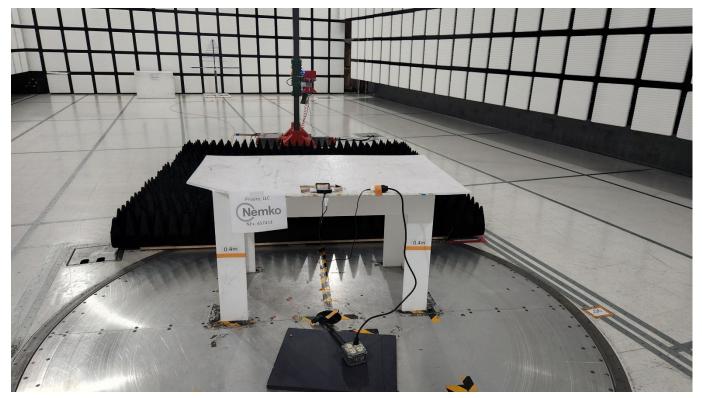


Figure 8.1-6: Radiated emissions setup photo – above 1 GHz



8.2 Conducted emissions from AC mains ports

8.2.1 References and limits

- FCC 47 CFR Part 15, Subpart B: §15.107

- ICES-003: §3.2.1

- Test method: ANSI C63.4-2014

Table 8.2-1: Requirements for conducted emissions from the AC mains power ports for Class A

	м	Measurement		
Frequency range [MHz]	Coupling device	Detector type/ bandwidth	[dBµV]	
0.15-0.5		Quasi peak/9 kHz	79.0	
0.5–30	AMN	Quasi peak/9 kHz	73.0	
0.15-0.5	AMN	Average/9 kHz	66.0	
0.5–30	AIVIN	Average/9 KHZ	60.0	

Table 8.2-2: Requirements for conducted emissions from the AC mains power ports for Class B

Frequency range [MHz]	M	Measurement		
	Coupling device	Detector type/ bandwidth	[dBµV]	
0.15-0.5			66.0–56.0	
0.5–5	AMN	Quasi peak/9 kHz	56.0	
5–30			60.0	
0.15-0.5			56.0-46.0	
0.5–5	AMN	Average/9 kHz	46.0	
5–30			50.0	

Notes: The lower limit shall apply at the transition frequency.

8.2.2 Test summary

Verdict	Pass		
Test date	June 28, 2022	Temperature	24 °C
Test engineer	Lan Sayasane, EMC Test Engineer	Air pressure	1005 mbar
Test location	☑ Ground plane□ Other:	Relative humidity	56 %

8.2.3 Notes

The spectral plots within this section have been corrected with all relevant transducer factors.

Equipment with a DC power port powered by a dedicated AC/DC power converter is considered to be AC mains powered equipment and tested with a power converter. Where the manufacturer provided the power converter, the supplied converter was used.



8.2.4 Setup details

Port under test – Coupling device	AC Mains – Artificial Mains Network (AMN)
EUT power input during test	120Vac/60 Hz
EUT setup configuration	🖾 Table-top
	Floor standing
	Other:
Measurement details	A preview measurement was generated with the receiver in continuous scan mode. Selected emissions were re-
	measured with the appropriate detector(s) against the correlating limit(s) and recorded as the final measurement.
Receiver settings:	
Resolution bandwidth	9 kHz
Detector mode	 Peak and Average (Preview measurement)
	 Quasi-peak and Average (Final measurement)
Trace mode	Max Hold
Measurement time	 100 ms (Peak and Average preview measurement)

5000 ms (Quasi-peak and Average final measurement)

Table 8.2-3: Conducted emissions from AC mains port equipment list

Equipment	Manufacturer	Model no.	Asset no.	Cal cycle	Next cal.
EMI Test Receiver	Rohde & Schwarz	ESCI 7	E1026	1 year	22-Mar-2023
Transient Limiter	Hewlett Packard	11947A	E1159	1 year	18-Feb-2023
Two Line V-Network	Rohde & Schwarz	ENV216	E1019	1 year	20-Sep-2022

Notes: N/A – not applicable

NCR – no calibration required

VOU - verify on use

Table 8.2-4: Conducted emissions from AC mains port test software details

Manufa	acturer of Software	Details
Rohde &	& Schwarz	EMC 32 V10.60.15
Notes:	None	



8.2.5 Test data

Full Spectrum

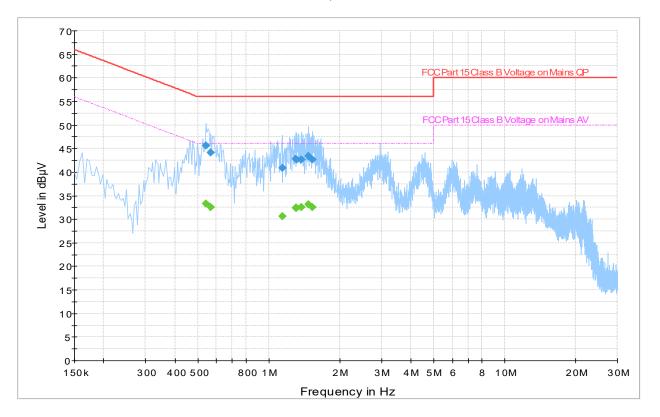


Figure 8.2-1: Conducted emissions at mains port spectral plot (150 kHz - 30 MHz)

Table 8.2-5: Conducted	emissions at mains	nort results
Tuble 0.2-J. Conducted	chilissions at mains	portresuits

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.542000		33.36	46.00	12.64	5000.0	9.000	L1	ON	19.4
0.542000	45.64		56.00	10.36	5000.0	9.000	L1	ON	19.4
0.566000		32.57	46.00	13.43	5000.0	9.000	L1	ON	19.4
0.566000	44.21		56.00	11.79	5000.0	9.000	L1	ON	19.4
1.138000		30.66	46.00	15.34	5000.0	9.000	L1	ON	19.4
1.138000	40.93		56.00	15.07	5000.0	9.000	L1	ON	19.4
1.298000		32.33	46.00	13.67	5000.0	9.000	L1	ON	19.4
1.298000	42.87		56.00	13.13	5000.0	9.000	L1	ON	19.4
1.310000		32.34	46.00	13.66	5000.0	9.000	L1	ON	19.4
1.310000	42.66		56.00	13.34	5000.0	9.000	L1	ON	19.4
1.370000		32.56	46.00	13.44	5000.0	9.000	L1	ON	19.4
1.370000	42.63		56.00	13.37	5000.0	9.000	L1	ON	19.4
1.470000		33.11	46.00	12.89	5000.0	9.000	L1	ON	19.4
1.470000	43.33		56.00	12.67	5000.0	9.000	L1	ON	19.4
1.526000		32.58	46.00	13.42	5000.0	9.000	L1	ON	19.4
1.526000	42.68		56.00	13.32	5000.0	9.000	L1	ON	19.4

Notes: 1 Result (dBµV) = receiver analyzer value (dBµV) + correction factor (dB).

² Correction factors = LISN factor IL (dB) + cable loss (dB) + transient limiter (dB)

³ Emissions that were continuously present for a minimum of 1 second and occurred more than once for every 15 seconds observation period were considered valid emissions. The maximum value of valid emissions has been recorded.



8.2.6 Setup photos



Figure 8.2-2: Conducted emissions from AC mains power ports setup photo

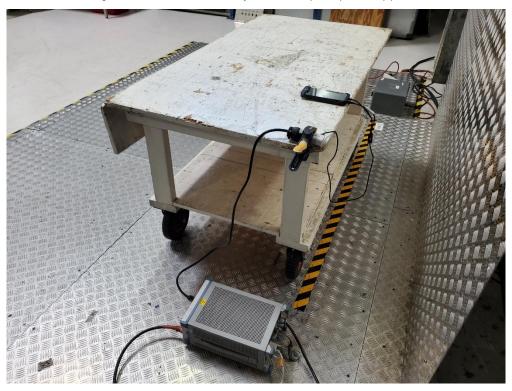


Figure 8.2-3: Conducted emissions – from AC mains power ports setup photo



Section 9 EUT photos

9.1 External photos



Figure 9.1-1: Front and Side view photo



Figure 9.1-2: Rear view photo





Figure 9.1-3: Front and Side view photo



Figure 9.1-4: Top view photo



Section 10 Attestation Letter



Nemko USA 2210 Faraday Ave, Ste 150 Carlsbad, CA 92008

To Whom It May Concern:

This letter is to define to similarities and differences between the Privoro SafeCase for iPhone 12, Model M0003 and Model M0009.

The two cases are electically identical. The difference between the two cases is the mechanical front metal shutter on the device. On Model M0008, the mechanical front shutter covers the Face ID sensors and the front facing camera on the iPhone 12. On Model M0009, the mechanical front shutter covers the phone's front facing camera only and does not cover the phone's Face ID sensors.

Sincerely

Leslie Kelly

Program Manager Leslie.Kely@privoro.com

@2021 Privoro LLC or its affiliates. All rights reserved. Proprietary and Confidential.

End of test report