3 ETSI safety guidelines

This chapter provides information about the mandatory regulations that govern the installation and operation of the FastMile 5G Gateway 6/7 for ETSI (specifically in the European and Oceania markets).

3.1 Safety instructions

This section describes the safety instructions that are provided in the customer documentation and on the FastMile 5G Gateway 6/7.

3.1.1 Safety instruction boxes

The safety instruction boxes are provided in the FastMile 5G Gateway 6/7 customer documentation. Observe the instructions to meet safety requirements.

The following is an example of the Danger box.

Danger — Possibility of personal injury.

The Danger box indicates that the described activity or situation may pose a threat to personal safety. It calls attention to a situation or procedure which, if not correctly performed or adhered to, may result in death or serious physical harm.

Do not proceed beyond a Danger box until the indicated conditions are fully understood and met.

The following is an example of the Warning box.

Warning 1 — Possibility of equipment damage.

Warning 2 — Possibility of data loss.

The Warning box indicates that the described activity or situation may, or will, cause equipment damage, loss of data, or serious performance problems. It identifies a possible equipment-damaging situation or provides essential information to avoid the degradation of system operations or data.

Do not proceed beyond a warning until the indicated conditions are fully understood and met.

The following is an example of the Caution box.

Caution 1 — Possibility of service interruption.

Caution 2 — Service interruption.

The Caution box indicates that the described activity or situation may, or will, cause service interruption.

Do not proceed beyond a caution until the indicated conditions are fully understood and met.

The following is an example of the Note box.

Note — Information of special interest.

The Note box provides information that assists the personnel working with the FastMile 5G Gateway 6/7. It does not provide safety-related instructions.

3.1.2 Labels

The FastMile 5G Gateway 6/7 product labels have specific safety and other instructions and compliance information that is related to a product, model, or variant, of the equipment.

Observe the instructions on the labels.

Table 1 lists the safety and other instructions and compliance information on the FastMile 5G Gateway 6/7 product labels in the European and Oceania markets, and indicates figures that show examples of the compliance symbol or marking.

Table 1 **Safety and other instructions and compliance information on the FastMile 5G Gateway 6/7 product labels in the European and Oceania markets**

Description	Label text	Example of the compliance symbol or marking
RCM compliance	symbol	Figure 4
WEEE marking	-	Figure 5
CE marking	CE	Figure 6

Figure 4 **RCM compliance**

Figure 5 **WEEE marking**

Figure 6 **CE marking**

Figure 7 shows an example of the product label for the FastMile 5G Gateway 6 in the European and Oceania markets.

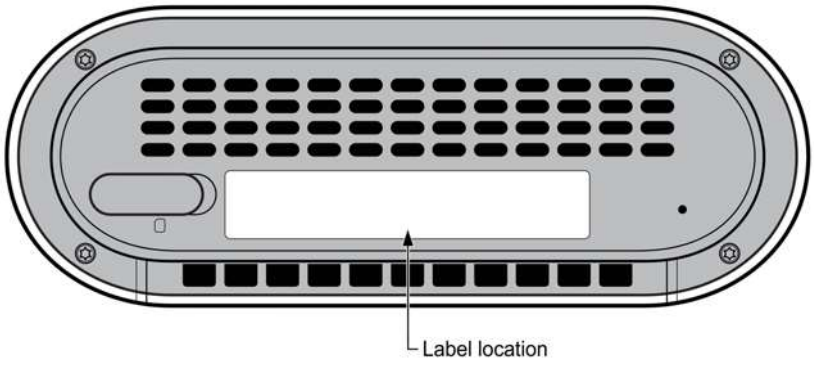
Figure 7 **Example of the product label for the FastMile 5G Gateway 6 in the European and Oceania markets**

Figure 8 shows an example of the product label for the FastMile 5G Gateway 7 in the European and Oceania markets.

Figure 8 **Example of the product label for the FastMile 5G Gateway 7 in the European and Oceania markets**

The product labels for the FastMile 5G Gateway 6 and FastMile 5G Gateway 7 are located on the bottom of the unit. Figure 9 shows the location of the product label.

Figure 9 **Location of the FastMile 5G Gateway 6/7 product label**



3.2 Safety standards compliance

This section describes FastMile 5G Gateway 6/7 compliance with ETSI safety standards.

3.2.1 EMC compliance

The FastMile 5G Gateway 6/7 complies with the following EMC requirements:

- Electromagnetic compatibility of multimedia equipment - Emission requirements AS/NZS CISPR 32, EN 55032
- Electromagnetic compatibility of multimedia equipment - Immunity requirements AS/NZS CISPR 35, EN55035

- Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonized Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU and the essential requirements of article 6 of Directive 2014/30/EU EN 301489-1
- Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems; Harmonized Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU EN 301489-17
- Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 19: Specific conditions for Receive Only Mobile Earth Stations (ROMES) operating in the 1.5 GHz band providing data communications and GNSS receivers operating in the RNSS band providing positioning, navigation, and timing data; Harmonized Standard for ElectroMagnetic Compatibility; Harmonized Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU EN 301489-19
- Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 52: Specific conditions for Cellular Communication Mobile and portable (UE) radio and ancillary equipment; Harmonized Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU EN301489-52

3.2.2 Equipment safety standard compliance

The FastMile 5G Gateway 6/7 complies with the requirements of the following:

- IEC 62368-1, Audio/video, information and communication technology equipment - Part 1: Safety requirements

3.2.3 Environmental standard compliance

The FastMile 5G Gateway 6/7 complies with the EN 300 019 European environmental standards.

3.2.4 Laser product standard compliance

The FastMile 5G Gateway 6/7 is not a laser product.

3.3 Electrical safety guidelines

This section provides the electrical safety guidelines for the FastMile 5G Gateway 6/7.

The FastMile 5G Gateway 6/7 with its supplied power adapter complies with class II of BS EN 61140.

3.3.1 Power supplies

The use of any non-Nokia approved power supplies or power adapters is not supported or endorsed by Nokia. Such use will void any warranty or support contract with Nokia. Such use greatly increases the danger of damage to equipment or property.

3.3.2 Cabling

The following are the guidelines regarding cables used for the FastMile 5G Gateway 6/7:

- All cables must be approved by the relevant national electrical code.

3.3.3 Protective earth

Earthing and bonding of the FastMile 5G Gateway 6/7 must comply with the requirements of local electrical codes.

3.4 ESD safety guidelines

The FastMile 5G Gateway 6/7 is sensitive to ESD if opened. Operations personnel are not allowed to open the FastMile 5G Gateway 6/7.

Caution — This equipment is ESD sensitive if opened. Proper ESD protections should be used if you open the FastMile 5G Gateway 6/7.

Service personnel are not required to wear wrist straps when performing normal installation or maintenance activities.

3.5 Environmental requirements

This section describes storage, transportation, and stationary use requirements for the FastMile 5G Gateway 6/7.

3.5.1 Environment

The FastMile 5G Gateway 6/7 has the following environmental requirements:

- operating temperature (ambient): -5°C to 40°C (23°F to 104°F)
- operating relative humidity: 5% to 93% relative humidity, non-condensing
- storage and transport temperature (ambient): -40°C to 70°C (-40°F to 158°F)
- storage and transport relative humidity: 95% relative humidity; no rain for transport

Storage:

In accordance with ETS 300-019-1-1 - Class 1.1, storage of the FastMile 5G Gateway 6/7/12 must be in Class 1.1, weather-protected, temperature-controlled locations.

Transportation:

In compliance with EN 300-019-1-2 - Class 2.3, the FastMile 5G Gateway 6/7/12 is packed for public transportation, except during rain.

Stationary use:

In accordance with EN 300-019-1-3 - Class 3.1/3.2/3.E, stationary use of the FastMile 5G Gateway 6/7/12 must be in a temperature-controlled location with no condensation allowed.

The operating temperature (ambient, without sun load) must be from 0°C to 40°C with an operating relative humidity from 5% to 93%,non-condensing.

3.6 Restriction and warning for European regulation compliance

Note — Observe the following restriction regarding use of the FastMile 5G Gateway 6/7 when operating in the specified frequency range in the indicated countries.

Restriction: The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range, see Table 2 for applicable country codes.

Table 2 **Restriction table regarding indoor use in the 5150 to 5350 MHz frequency range**

Applicable country codes				
AT	BE	BG	HR	NO
CY	CZ	DK	EE	IS
FI	FR	DE	EL	LI
HU	IE	IT	LV	CH
LT	LU	MT	NL	TR
PL	PT	RO	SK	
SI	ES	SE	UK(NI)	

Warning — The power adapter shall be installed near the equipment and shall be easily accessible.

3.7 Conformité Européanne - European health and safety product label (CE)

The FastMile 5G Gateway 6/7 is in compliance with the highest safety, health, and environmental protection requirements.

3.8 Waste from Electrical and Electronic Equipment (WEEE) safety guidelines

The product at end of life is subject to separate collection and treatment in the EU Member States, Norway, and Switzerland and therefore marked with the WEEE label.

Treatment applied at end of life of the product in these countries shall comply with the applicable national laws on wastes from electrical and electronic equipment and more particularly those implementing the European directive 2002/96/EC (WEEE).

In countries outside Europe and if not otherwise provided by any mandatory law in those countries where the product is sold, any take back by Nokia of waste electrical and electronic equipment shall be subject to terms and conditions to be agreed upon in writing. Any obligation of Nokia to take back such equipment shall apply only to complete not amended or modified equipment delivered by Nokia, i.e. containing all its components and sub-assemblies.

When Nokia takes back electrical and electronic equipment, Nokia will ensure ecological safe and appropriate treatment in accordance with local regulations.

3.9 RF exposure information

This section provides RF exposure information for products purchased in the European market and products purchased in the Oceania market.

3.9.1 Products purchased in the European market

In order to avoid the possibility of exceeding the radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (7.8 inches) during normal operation. The device compliance distance is according to SAR evaluation based on EN50385.

3.9.2 Products purchased in the Oceania market

The FastMile 5G Gateway 6/7 meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Regulatory Compliance Mark (RCM) by the electrical regulator (Regulatory Authorities (RAs)) and the Australian Communications Media Authority.

The Australian Standard AS/NZS 4417.1 and AS/NZS 4417.2 marking of electrical products indicates compliance with regulations. The RCM symbol represents compliance with the following:

- EEES: Electrical Equipment Safety System
- ACMA: Australian Communications Media Authority

In order to avoid the possibility of exceeding the RCM radio frequency exposure limits, human proximity to the antenna shall not be less than 30 cm (11.8 inches) during normal operation.

Table 3 **FastMile 5G Gateway 6/7 RF exposure safety guidelines**

Model	Kit part number	RF safety distance
FastMile 5G Gateway 6 5G30-03W-A	3TG-03034-AA 3TG-03034-BA	20 cm (7.8 in.) - EU 30 cm (11.8 in.) - AU
FastMile 5G Gateway 6 5G30-13W-A	3TG-03034-CA	20 cm (7.8 in.) - EU

(1 of 2)

Model	Kit part number	RF safety distance
FastMile 5G Gateway 7 5G30-03W-B	3TG-03035-AA	20 cm (7.8 in.) - EU

(2 of 2)

4 ANSI safety guidelines

This chapter provides information about the mandatory regulations that govern the installation and operation of the FastMile 5G Gateway 12 in the North American or ANSI market.

4.1 Safety instructions

This section describes the safety instructions that are provided in the customer documentation and on the FastMile 5G Gateway 12.

4.1.1 Safety instruction boxes in customer documentation

The safety instruction boxes are provided in the FastMile 5G Gateway 12 customer documentation. Observe the instructions to meet safety requirements.

The following is an example of the Danger box.

Danger — Possibility of personal injury.

The Danger box indicates that the described activity or situation may pose a threat to personal safety. It calls attention to a situation or procedure which, if not correctly performed or adhered to, may result in death or serious physical harm.

Do not proceed beyond a Danger box until the indicated conditions are fully understood and met.

The following is an example of the Warning box.

Warning 1 — Possibility of equipment damage.

Warning 2 — Possibility of data loss.

The Warning box indicates that the described activity or situation may, or will, cause equipment damage, loss of data, or serious performance problems. It identifies a possible equipment-damaging situation or provides essential information to avoid the degradation of system operations or data.

Do not proceed beyond a warning until the indicated conditions are fully understood and met.

The following is an example of the Caution box.

Caution 1 — Possibility of service interruption.

Caution 2 — Service interruption.

The Caution box indicates that the described activity or situation may, or will, cause service interruption.

Do not proceed beyond a caution until the indicated conditions are fully understood and met.

The following is an example of the Note box.

Note — Information of special interest.

The Note box provides information that assists the personnel working with the FastMile 5G Gateway 12. It does not provide safety-related instructions.

4.1.2 Labels

The FastMile 5G Gateway 12 is labeled with specific safety and other compliance information and instructions that are related to a product, or product variant, of the equipment. Observe the instructions on the safety labels.

Table 4 provides examples of the various FastMile 5G Gateway 12 labels.

Table 4 **Labels**

Description	Label text
ETL compliance	ETL/cETL
FCC compliance	FCC
ISED compliance	ISED
WEEE compliance	-

Figure 10 shows a sample of the ETL safety label.

Figure 11 shows a sample of the FCC label.

Figure 12 shows a sample of the WEEE label.

Figure 10 **ETL safety label**

Figure 11 **FCC label**

Figure 12 **WEEE label**

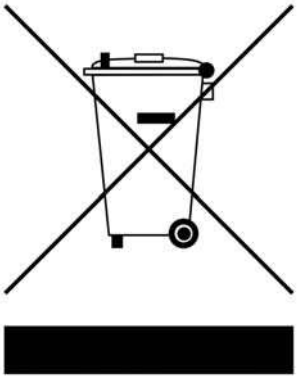
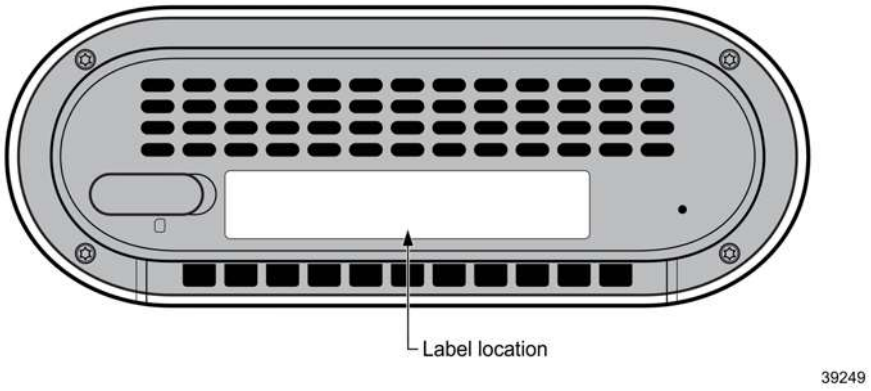


Figure 13 shows an example of the product label for the FastMile 5G Gateway 12.

Figure 13 **Example of the product label for the FastMile 5G Gateway 12**

The product label for the FastMile 5G Gateway 12 is located on the bottom of the unit. Figure 14 shows the location of the product label.

Figure 14 **Location of the FastMile 5G Gateway 12 product label**



4.2 Safety standards compliance

This section describes the FastMile 5G Gateway 12 compliance with North American safety standards.

Warning — Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

4.2.1 Electrical Testing Labs (ETL)

This product has been tested by Intertek and is in compliance with national standards across the US and Canada.

4.2.2 FCC Regulations

Table 5 provides the United States Federal Communications Commission ID, and the Industry Canada ID for the FastMile 5G Gateway 12.

Table 5 **FCC identification**

Model	FCC ID	IC ID
5G31-03W-B	2ADZR5G3103WB	21694-5G3103WB

4.2.2.1 EMC compliance

The FastMile 5G Gateway 12 complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1 This device may not cause harmful interference.

2 This device must accept any interference received, including interference that may cause undesired operation.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- re-orient or relocate the receiving antenna
- increase the separation between the equipment and receiver
- connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- consult the dealer or an experienced radio/TV technician for help

Caution — Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

4.2.3 ISED notice

The FastMile 5G Gateway 12 complies with the Canadian ICES-003 Class B specifications. CAN ICES-003(B)/ NMB-003 (B) IC: 21694-5G1612WA.

The FastMile 5G Gateway 12 complies with Innovation, Science and Economic Development Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1 This device may not cause interference.

2 This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1 L'appareil ne doit pas produire de brouillage.

2 L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en.

The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

4.2.3.1 RF exposure information

To satisfy IC RF exposure requirements, a separation distance of 30 cm (11.8 in.) or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.

Cet appareil est conforme aux limites d'exposition aux rayonnements de la CNR-102 définies pour un environnement non contrôlé. Afin d'éviter la possibilité de dépasser les limites d'exposition aux fréquences radio de la CNR-102, la proximité humaine à l'antenne ne doit pas être inférieure à 30 cm (11.8 pouces) pendant le fonctionnement normal.

The FastMile 5G Gateway 12 meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. To satisfy FCC RF exposure requirements, a separation distance of 29 cm (11.5 in.) or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 29 cm (11.8 in.) during normal operation.

Danger — The FastMile 5G Gateway 12 must be installed and operated in compliance with the following distances between the device and your body. See Table 6 for the RF exposure safety guidelines.

Table 6 **FastMile 5G Gateway 12 RF exposure safety guidelines**

Model	Kit part number	RF safety distance
5G31-03W-B	3TG-03354-AA	29 cm (11.5 in) - US 30 cm (11.8 in) - CA

4.2.4 Equipment safety standard compliance

The FastMile 5G Gateway 12 complies with the requirements of:

- UL 62368-1, Audio/Video, Information And Communication Technology Equipment - Part 1: Safety Requirements
- CSA C22.2#62368-1, Audio/Video, Information And Communication Technology Equipment - Part 1: Safety Requirements

4.3 Electrical safety guidelines

This section provides the electrical safety guidelines for the FastMile 5G Gateway 12.

Note — The FastMile 5G Gateway 12 complies with the U.S. National Electrical Code. However, local electrical authorities have jurisdiction when there are differences between the local and U.S. standards.

4.3.1 Power supplies

The use of any non-Nokia approved power supplies or power adapters is not supported or endorsed by Nokia. Such use will void any warranty or support contract with Nokia. Such use greatly increases the danger of damage to equipment or property.

4.3.2 Cabling

The following are the guidelines regarding cables used for the FastMile 5G Gateway 12:

- All cables must be approved by the relevant national electrical code.
- If cabling is supplied with the FastMile 5G Gateway 12, the supplied cabling must be used with the equipment.

4.3.3 Protective earth

Earthing and bonding of the FastMile 5G Gateway 12 must comply with the requirements of NEC article 250 or local electrical codes.

4.4 ESD safety guidelines

The FastMile 5G Gateway 12 is sensitive to ESD if opened. Operations personnel are not allowed to open the FastMile 5G Gateway 12.

Caution — This equipment is ESD sensitive if opened. Proper ESD protections should be used if you open the FastMile 5G Gateway 12.

Service personnel are not required to wear wrist straps when performing normal installation or maintenance activities.

4.5 Environmental requirements

The thermal limitations for the FastMile 5G Gateway 12 are:

- operating temperature (ambient): -5˚C to 40˚C (23˚F to 104˚F)
- storage temperature (ambient): -40°C to 70°C (-40°F to 158°F)
- operating relative humidity: 5% to 85%, non-condensing
- short-term relative humidity: 5% to 93%, non-condensing