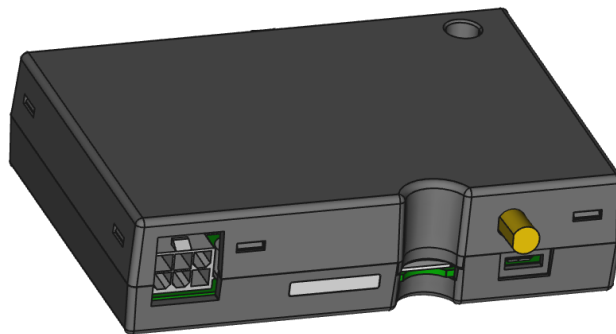


SDATAWAY Momento LTE Modem

User Manual- M4GM

Revision: 0.1.1



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Versions

Version	Date	Editor	Modifications
1.0.0	TBD	MGr	Initial release

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1 Introduction

The SDATAWAY Momento 4G modem is a proprietary telecommunication equipment developed for Nestlé Nespresso SA by Switzerland-based SDATAWAY SA to the specific M2M connectivity requirements of Nestlé Nespresso SA.

This document covers the four variants of the SDATAWAY Momento 4G Modem product family.

Variant	Region
M4GM-EU-01	Europe
M4GM-CA-01	China
M4GM-NA-01	North America
M4GM-GL-01	Other

PMN: M4GM

Variants

The modem has four variants. All of the variants include the following functionality:

	EU	China	NA	Global
USB (USB-B)	✓	✓	✓	✓
Main Antenna Connector	✓	✓	✓	✓
Diversity Rx Antenna			✓	✓
Power & Communication Connector	✓	✓	✓	✓
Status LEDs	✓	✓	✓	✓
SIM Card	✓	✓	✓	✓

Intended Use

The modem is intended solely for the communication of proprietary machine information to Nestlé proprietary cloud services.

Compatibility

Machine

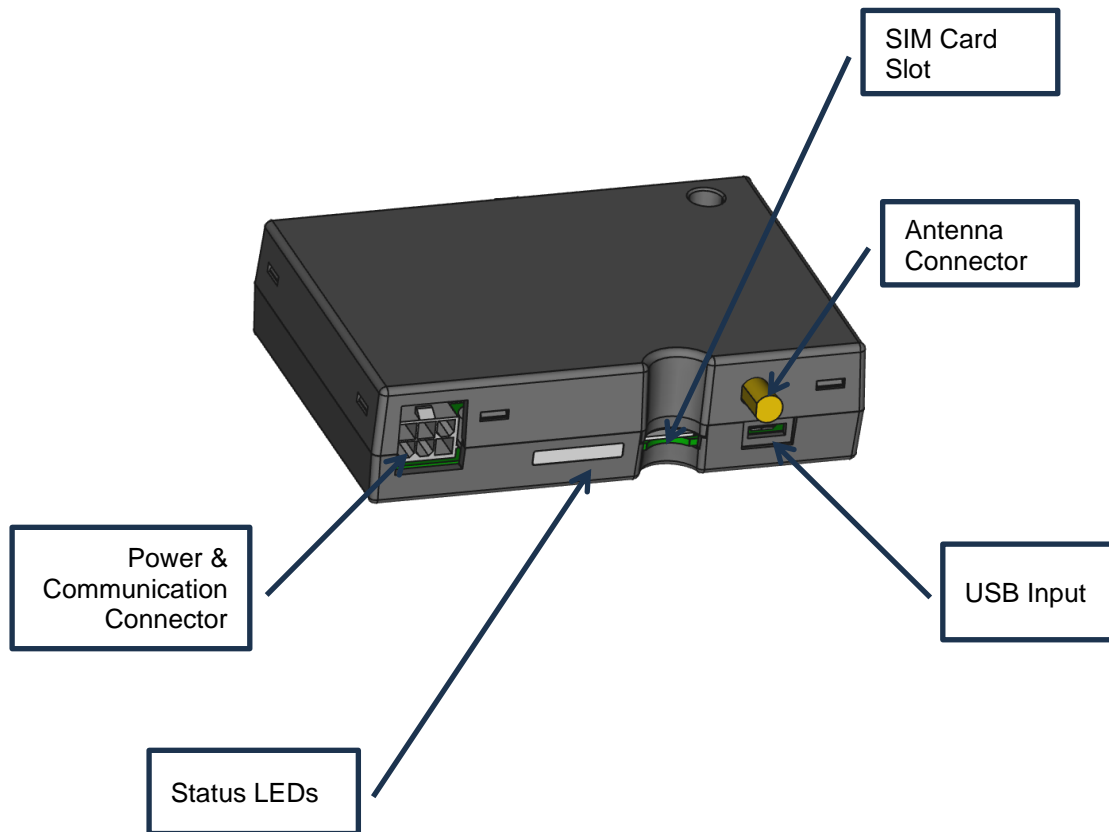
The modem is only compatible with the Nestlé Nespresso's Momento series professional coffee machines. It will not work any other machine.

Antenna

See below for further information about the antenna compatibility.

2 Functionality

Overview



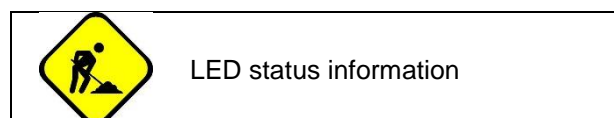
Universal Serial Bus

The modem has a USB connector used for maintenance purpose. It is not intended to be used in the final application.

Main Antenna

The modem is doted with a panel mounted SMA-connector on which to connect an external antenna.

Status LEDs



SIM Card

A standard SIM card (1FF) is factory installed in the modem. The SIM card enables connection to the mobile operators in your region. The SIM card is accessible and can be changed if needed.

Diversity Antenna

The modem includes an internal diversity antenna in the NA and CN variants. When installed, reception is handled by this antenna and transmission by the main antenna.

3 Specifications

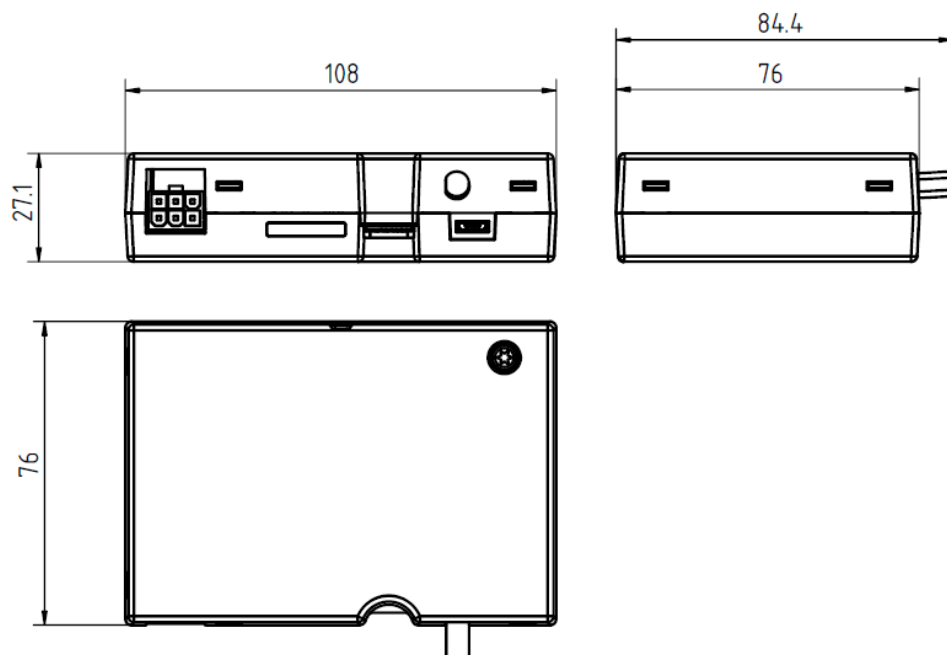
Operating Specifications

Parameter	Value	Notes
Operating Voltage	24VDC	
Current Consumption	1A	Maximum
Ingress Rating	IP44?	Cleaning should never be necessary
Operating Humidity	95%RH	
Operating Temperature	0 - 60°C	
Storage Temperature	0 – 70°C	

Mechanical Specification

The modem has the following characteristics:

Length*Width*Height	Material Type	Mass	Color
108*84.4*27.1mm	ABS	TBDg	Black



Material

The following materials are used in the housing (to be confirmed):

- Non-halogenated, flame retardant V0 PC/ABS Alloy- JH960-6965 C3B-G0386, 65% post-consumer recycled content
- No flame retardant PC/ABS Alloy- MAC-601 (L50), 50% Post-Consumer recycled content.

Electrical Specification

Machine Connection

The electrical connection to the machine is made through the power and connection connector. Below is a pin out of the connector :

Pin	Description	Notes
1	+24V	8-30V
2	GND	-
3	TX	3.3V
4	RX	3.3V
5	+3V3	3.3V
6	NC	NC

Below are the characteristics of the mating cable connector:

Connectors	Molex 39-01-2060
Crimping contacts	Molex 39-00-0038

RF Specifications

Transmission Power

The modem transmission power is limited to <23dBm.

GSM/WCDMA/LTE Frequencies

M4GM-EU-01	M4GM-NA-01	M4GM-CA-01	M4GM-GL-01
LTE: <ul style="list-style-type: none"> • B1 TX: 1920-1980MHz • B3 TX: 1710-1785MHz • B5 TX: 824-849MHz • B7 TX: 2500-2570MHz • B8 TX: 880-915MHz • B20 TX: 832-862MHz • B28 TX: 703-748MHz • B38 TX: 2570-2620MHz • B40 TX: 2300-2400MHz • B41 TX: 2496-2690MHz 	LTE: <ul style="list-style-type: none"> • B2 TX:1850-1910MHz • B4 TX: 1710-1755MHz • B12 TX: 699-716MHz WCDMA: <ul style="list-style-type: none"> • B2 TX:1850-1910MHz • B4 TX: 1710-1755MHz • B5 TX: 824-849MHz 	LTE: <ul style="list-style-type: none"> • B1 TX: 1920-1980MHz • B3 TX: 1710-1785MHz • B5 TX: 824-849MHz • B8 TX: 880-915MHz • B34 TX: 2010-2025MHz • B38 TX: 2570-2620MHz • B39 TX: 1880-1920MHz • B40 TX: 2300-2400MHz • B41 TX: 2496-2690MHz 	LTE: <ul style="list-style-type: none"> • B2 TX:1850-1910MHz • B4 TX: 1710-1755MHz • B5 TX: 824-849MHz • B12 TX: 699-716MHz • B13 TX:777-787MHz • B25 TX: 1850-1915MHz • B26 TX: 814-849MHz • B41 TX: 2496-2690MHz • B66 TX: 1710-1780MHz WCDMA: <ul style="list-style-type: none"> • B2 TX:1850-1910MHz • B4 TX: 1710-1755MHz • B5 TX: 824-849MHz GPRS/EGPRS: GSM 850: 824-849MHz PCS 1900: 1850-1910MHz

4 Usage Guide

Startup

To start the modem:

1. Connect the antenna cable connector to the modem antenna connector.
2. Connect the power & communication cable from the Momento machine to the power & communication connector of the modem.

The status LEDs will indicate TBD once the modem has communicated with the Momento machine host controller.

LEDs behavior

SDW to provide the LEDs behavior description

Configuration

The modem comes preconfigured. As such, there is no configuration to set for the modem to work; it should work out of the box.

5 Approvals

The modem has the following approvals:

Region	Certification Body	Certificates
EU	CE	RED, REACH, RoHS
US	FCC	FCC ID
Canada	IC	IC ID
China	SRRC	
	CCC	
	NAL	

Please contact SDATAWAY to receive specific certificates.

6 Geographies

Each modem is designed to operate in and certified for a specific geography. Below are the intended geographies for each modem type:

EC21-A	EU200U-EU	EU200U-CN	EG21-GL
<ul style="list-style-type: none"> • Canada • United States 	<ul style="list-style-type: none"> • EU • Australia • Korea • New Caledonia • Saint Barthelemy • Saint Martin • Switzerland • Thailand • United Kingdom 	<ul style="list-style-type: none"> • China 	<ul style="list-style-type: none"> • Japan • Hong Kong • Korea • Malaysia • New Zealand • Philippines • Singapore • South Africa • Taiwan • Vietnam

7 Regulatory Statements

FCC Statement

IMPORTANT INFORMATION REQUIRED BY THE FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment 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:

- Reorient 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

MODIFICATION: Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the device.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

IC Statements

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(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.

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur

l'exposition et la conformité de rf.

L' émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d' 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' appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d' en compromettre le fonctionne.

Cet équipement est conforme aux limites d'exposition au rayonnement du CI établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps.

CAN ICES-003(B) / NMB-003(B)

NOTE: This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe* est conforme à la norme NMB-003 du Canada.

TLE Statement

55-XXXXXXX

מספר אישור התאמה מטעם משרד התקשורת:
(יא)

מספר זיהוי היבואן XXXXXXXXXX

חל איסור לבצע פעולות במכשיר שיש בהן כדי לשנות את תכונותיו האלחוטיות של המכשיר, ובכלל זה שינויי תוכנה, החלפת אנטנה מקורית או הוספת אפשרות לחיבור לאנטנה חיצונית, בלא קבלת אישור משרד התקשורת, בשל החשש להפרעות אלחוטיות.

EU Declaration of Conformity

Xiamen Intretech Inc. declares that the radio equipment is in compliance with the RED Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <http://xxxx.com/downloads>.



UK Conformity

Hereby, Xiamen Intretech Inc. declares that the radio equipment is in compliance with Radio Equipment Regulations 2017.



8 Warranty Information

The manufacturer provides the warranty of 1 year, starting from the date on which the appliance is sold to the end user.

The warranty only covers defects in material or workmanship.

The repairs under warranty may only be carried out by an authorized service center. When making a claim under the warranty, the original bill of purchase (with purchase date) must be submitted.

The warranty will not apply in cases of:

- Normal wear and tear
- Incorrect use, e.g. overloading of the appliance, or use of non-approved accessories
- Use of force, damage caused by external influences
- Damage caused by non-observance of the user manual, e.g. connection to an unsuitable mains supply or non-compliance with the installation instructions
- Partially or completely dismantled appliances

Device will periodically receive software updating in terms of bugs, issues or features change. Device software updates will be available for the service life of the device.

During the lifespan/warranty of the device, the software maintenance service is provided.

9 Manufacturer Information

Name of EU Manufacturer& Importer:

SDATAWAY SA

Name of EU Manufacturer& Importer:

Route de Montreux, 149
1618 Montreux
Switzerland

Contact Information

<http://www.sdataway.com>

+41 (0) 21 948 47 00