INNES

SMH300

Installation guide

INNES

ZAC Atalante champeaux

5A rue Pierre Joseph Colin

35000 RENNES

France

Technical support:

Email: support@innes.fr

Tel: +33 (0)2 23 20 01 62

Fax: +33 (0)2 23 20 22 59

SMH300-installation-guide-005A_en

Product information

The conception and specifications of the product may change without prior notice, and this applies to hardware, embedded software and this guide. Consumable items accessories may slightly differ than herein described as INNES is depending on the evolutions of its suppliers.

This document contains confidential information; it can't be disclosed to any third parties without prior written authorization of INNES.

Safety instructions

Please read carefully the following instructions before switching the product on:

- WARNING! Correct fitting and installation is of the utmost importance. Incorrect fitting and/or installation may result in personal injury or loss. INNES disclaims all liability, of whatever kind, if the product is assembled, fitted and/or installed in an incorrect manner.
- Do not use the product near a water supply.
- Do not pour anything on the product, like flammable liquids or material.
- Do not expose the product to direct sun, near a heating source or a dust nor vibrations.
- Do not obstruct holes, to be sure that air flows freely around the product.
- Switch off the product during a storm.
- Do not open the product in any circumstances.
- Keep this guide, preciously.

Safety instructions, guarantee terms

INNES products are eligible for a warranty to cover genuine manufacturing defect for 3 years.

Product failure occurring as the result of factors that do not constitute genuine manufacturing defect are not covered under the terms of the warranty and any repairs of this nature would be chargeable.

For example:

Inappropriate maintenance action, a non-authorized modification, a not specified environment utilization (see 'Safety instructions'), or if the product has been damaged after an impact, a fall, a bad manipulation or a storm consequence, an insufficient protection against heat, moisture or frost.

This warranty is non transferrable. In addition, any repairs carried out by non-authorized personnel will invalidate the warranty.

This symbol means that your end of life equipment must not be disposed of with household waste but must be deposited at a collection point for waste electrical and electronic equipment. This will benefit the environment. In this context, a system for collecting and recycling has been implemented by the European Union

1 Getting started

This installation guide explains how to install SMH300 on your computer network. The SMH300 configuration is done through its WebUI.

The guide related to the Screen Composer SignMeeting or SignDoor is available on the CD-ROM (delivered with the device) or on

http://www.innes.pro/fr/support/index.php?Screen_Composer_G3/Desktop.

1.1 Recommendations and warnings

- **Power supply:**
  - The SMH300 is designed to work with a specific power plug delivered with the SMH300 pack. It has to be plugged on an electrical outlet compliant with NF C 15-100 standard.
  - In case the power cord is damaged, please order a new one to sales@innes.fr.
  - In case SMH300 is powered by PoE supply, the supply device need to be 'Limited Power Source (LPS)' (refer to EN60950-1: 2006).
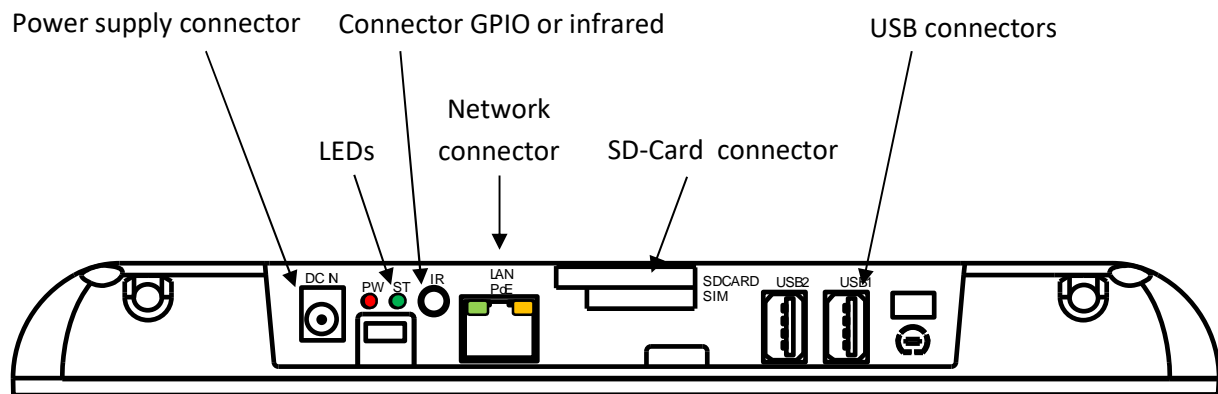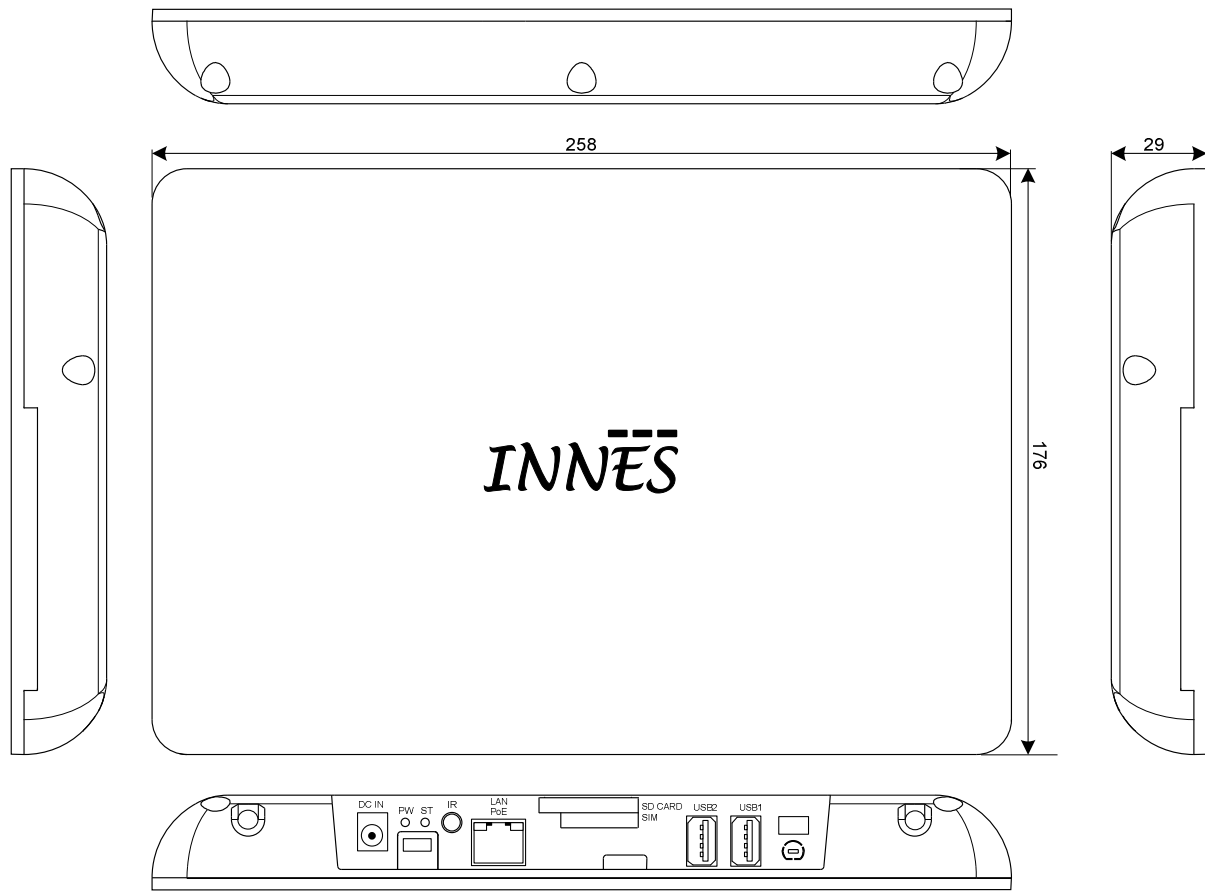
1.2 Packing list

Articles	Model – function
Device	SMH300 with Gekkota OS
Power supply	12V power supply (with 1.8m cable)
CD-R	Contains INNES Gekkota OS firmware for SMH300, INNES Screen Composer software with Apps and all the documentation
Drill pattern	Drilling design

1.3 Installation

SMH300 must be used indoor.

1.4 Block diagram

258   176   29

DC IN   PW ST   IR   LAN PoE   SD CARD SIM   USB2   USB1

Power supply connector

Connector GPIO or infrared

USB connectors

Network connector

LEDs

SD-Card connector

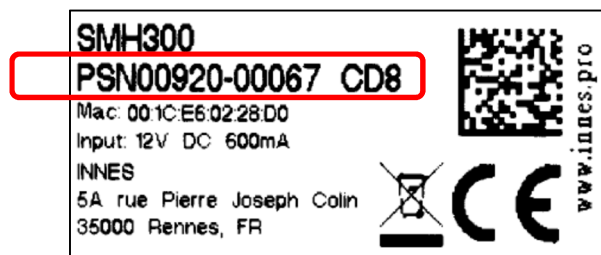DC IN   PW ST   IR   LAN PoE   SDCARD SIM   USB2   USB1
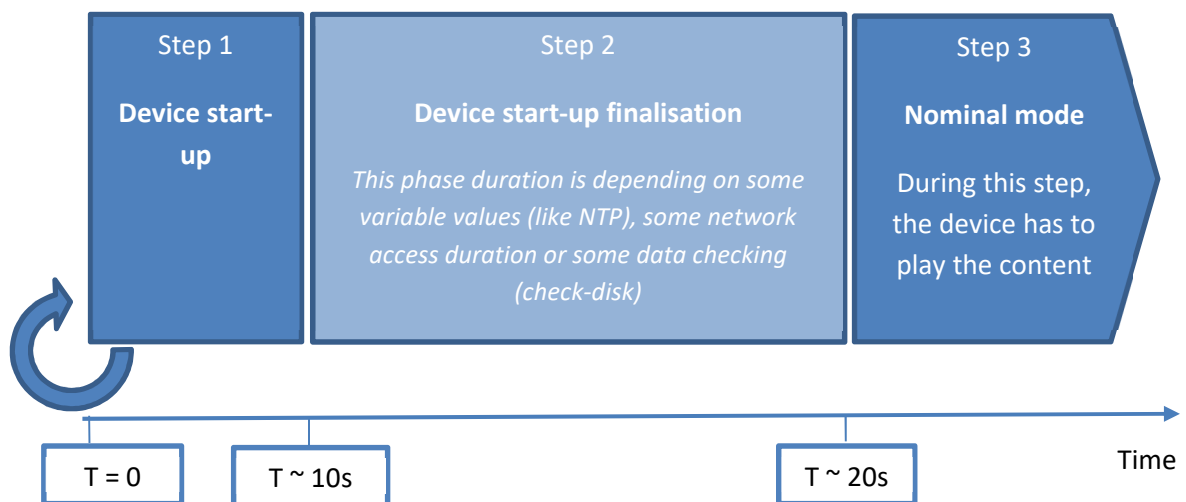
2 Identification with serial number

The SMH300 device embeds Gekkota OS.

A stamp permits to identify the device.

Note: In case technical support is requested, the serial number (starting with 'PSN') could be required to go ahead on technical analysis:

3 Different device phases at start-up

4 LED behavior

- LED POWER ('PW') behavior (power on device) :

LED 'PW'	State/behavior	Information
Power	Red	OK : power supplied
	Off	Error : power supply issue (*1)

- Green LED on Network connector behavior:

LED 'LAN'	State/behavior	Information
LAN Activity	Off	There is no network traffic on the Ethernet connector
	Green blinking	The blinking frequency is indicating the data rate on Ethernet connector

- LED STATUS ('ST') behavior depending on device start-up steps:
  - Step 1 : Device start-up
  - Step 2 : Device start-up finalization
  - Step 3 : Nominal mode

LED 'ST'	State/behavior	Information
Step 1 **Device** **start-up**	Green : continuous	OK
	Always Off	Error : power supply issue (*1)

LED 'ST'	State/behavior	Information
Step 2 **Start-up** **finalization**	Off	OK : this step duration can be from several seconds to several minutes
	Green blinking - 1 second duration flash - Periodicity: every 2 seconds	Error: boot issue. Does not go into nominal state (*1)
	Green blinking - 0,5 second duration flash - Periodicity: every seconds	Warning : Check-Disk - The device has detected memory corruption on content storage (SD card). The media storage is being repaired. This repair step is called Check-Disk and its duration can be several minutes.

LED 'ST'	State/behavior	Information
3 – Nominal mode	Green blinking - 1 very short flash (150 ms) - Periodicity: every 4 seconds	OK
	Green blinking - 2 very short and consecutive flashes (150 ms) - Periodicity : every 4 seconds	Warning : Fail Soft Mode Level 1 - Frequent device reboot detected (for example, 4 times in less than ½ hour) - Content is purged The instability has been caused probably: - By a content not supported yet by system Consequently, to prevent any further reboot, the content has been purged. A new publication is needed to go ahead (*2)
	Green blinking - 3 very short and consecutive flashes (150 ms) - Periodicity: every 4 seconds	Warning : Fail Soft Mode Level 2 - Frequent device reboot detected (for example 4 times in less than ½ hour) - Content is purged The instability has been caused probably by: - a content not supported yet by system - a user preference which has been modified Consequently, to prevent any further reboot, the content has been purged, the user preferences and the slates configuration (saved before unexpected reboot) have been restored (*2)
	Off	Error (*1)

(*1) If the problem persists despite of appropriate power-supply, contact INNES technical support
(*2) If the problem persists, it is advised to find out the content not supported yet by the system and remove it.

5 Connectors pin-out and electrical features

5.1 Pin-out

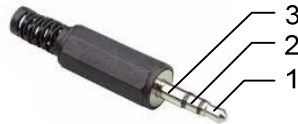| |
|---|
| **Power supply connector:** 12VDC, 600mA.

Pin-out

 |
| **Network connector:** Ethernet RJ-45 10/100 BaseT. Compatible with PoE technology (Power over Ethernet). It is recommended to use shielded cables. |
| **GPIO/IR connector:**
Jack 3.5mm stereo cable, for the GPIO1/IR connector:

Connector pin-out: |

Pin N#	Function	Type
1	3.3V	PWROUT
2	**GPIO1/IR**	INOUT
3	GND	

5.2 GPIO electrical features

	Vin min	Vin max	VOH min (at -20µA)	VOH max	IOH max	VOL max (at 2mA)	IOL max	VIH min	VIL max
GPIO1	-0,5V	3.8V	3.1V	3.3V	-100µA	0,6V	5mA	2.35V	0.8V

- Pin 3.3V must not be used as a power supply, but rather for voltage reference.
- A fuse (350mA @ 20°C) permits to cut the power in case current is more than 350mA. Then the fuse can be re-armed automatically when the overcurrent condition is stopped.
- GPIO1 has a 4.7 KOhms pull-up to 3.3V.
- During board (re)starting, the default level for GPIO1 will be 3.3V.

6 How to use GPIO

6.1 GPIO Flow diagram (input or output)

GPIO flow diagram (as input and as output mode):

SMH300

3.3V

GPIO_out

Power supply

Logic gate, transistor or opto-coupler

Output

SMH300

3.3V

3.3V

GPIO_in

Switch or relay
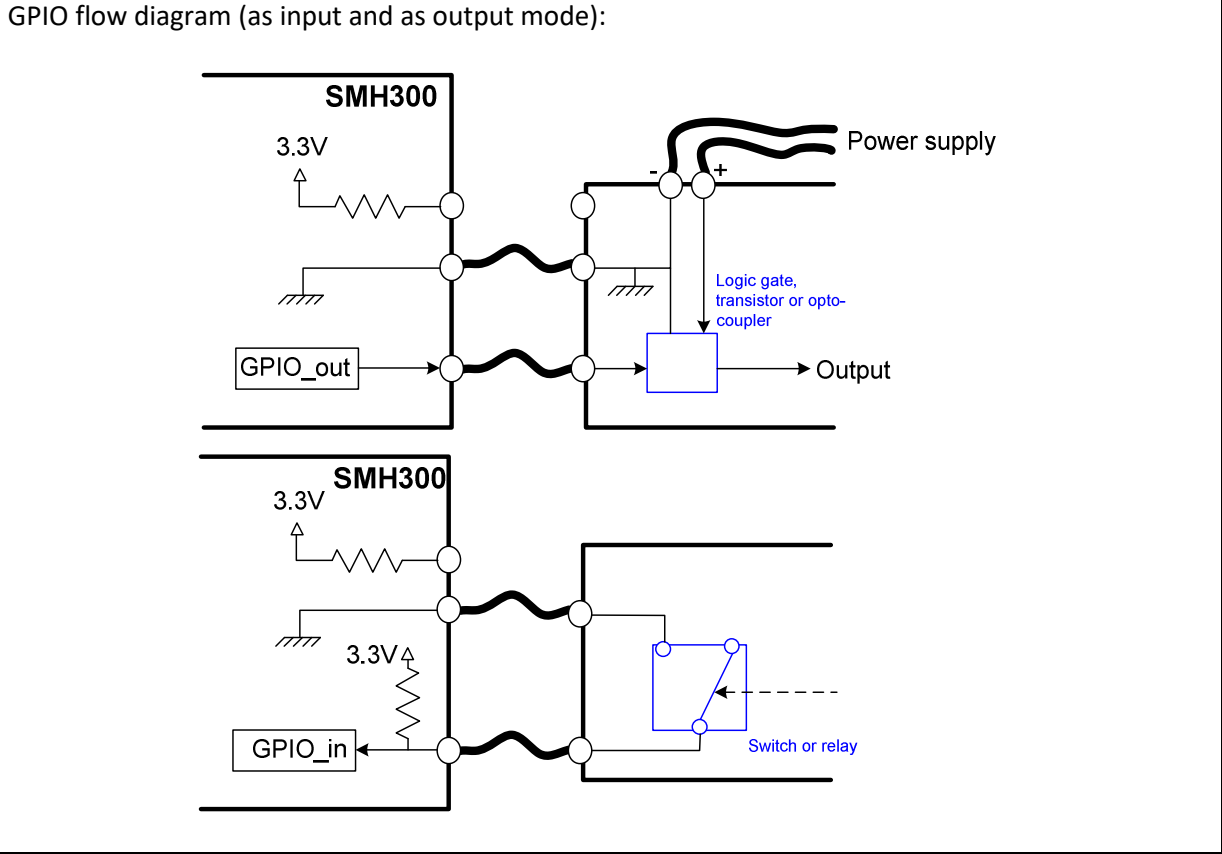
7 Technical specifications

Type	Specifications
Supported formats	The list of supported formats is detailed on the Website: http://www.innes.pro/fr/support/index.php?Gekkota_G3_for_device/Gekkota_OS_for_SMH300
Processor	CPU : Freescale iMX6
Peripherals	2x USB2.0 host 1x Jack 3.5 for GPIO or infrared 2x side LED RGB
Storage	Internal Flash Memory : 2GB SD-card : 4GB
Operating System	Linux 2.6 – Innes distribution, Gekkota OS
Software compatibility	Screen Composer, SignMeeting, SignDoor
Constructor	Innes
Display	Until 20 Slate106
Network	Ethernet 10/100 BaseT
WLAN in option	802.11b/g (with internal antenna)
WPAN	Bluetooth Low Energy version 4.1 Frequency band: 2.402 to 2.480 GHz RF TX Power: +7.5 dBm
Power supply	DC power, 12V, 600mA or PoE (Power Over Ethernet), IEEE802.3af (Class 0, compatible Alternative A and B)
Environment	Working temperature: 0°C to +40°C Operating air moisture: Below 80°C Storage temperature : -20°C to +60°C Storage air moisture: Below 85%
Dimensions (W x H x D)	258 x 176 x 29 mm
Weight	613g
Enclosure flame rating	Front part enclosure: V0 Rear part enclosure: HB
Conformity	Conformity with the following European directives: - RED 2014/53/EU - LVD 2014/35/EU - EMC 2014/30/EU
Warranty	3 years