



<b>Prüfbericht-Nr.:</b> Test Report No.:		60406665-001	<b>Auftrags-Nr.:</b> Order No.:		23870337	Seite 1 von 10 Page 1 of 10	
<b>Kunden Referenz-Nr.:</b> Client Reference No.:		N/A	<b>Auftragsdatum:</b> Order date:				09-06-2020
<b>Auftraggeber:</b> Client:		Sensitive AB Mobilvägen 1 223 62 Lund Sweden	Lars Jonsson Lars.jonsson@sensitive.com +46 70 302 3767				
<b>Prüfgegenstand:</b> Test item:		Strips Multisensor MS-P					
<b>Bezeichnung / Typ-Nr.:</b> Identification / Type No.:		N/A					
<b>Auftrags-Inhalt:</b> Order content:		Certification by Similiarity according LoRaWAN™ Specification V1.0.2 for EU 863-870 Band					
<b>Prüfgrundlage:</b> Test specification:		End Device Certification Requirements for EU863-870 MHz ISM Band Devices Version 1.6 Certification Process for LoRaWAN Devices Case 3 - Device					
<b>Wareneingangsdatum:</b> Date of receipt:		09-06-2020					
<b>Prüfmuster-Nr.:</b> Test sample No.:		N/A					
<b>Prüfzeitraum:</b> Testing period:		09-06-2020 - 09-06-2020 *Document review					
<b>Ort der Prüfung:</b> Place of testing:		Lund, Sweden					
<b>Prüflaboratorium:</b> Testing laboratory:		TÜV Rheinland Sweden AB					
<b>Prüfgebnis:</b> Test results:		PASS					
<b>Geprüft von:</b> Tested by:		Joel Efraimsson Test Engineer		<b>Kontrolliert von:</b> Reviewed by:		Test Engineer	
07-08-2020				XX-XX-XXXX			
<b>Datum:</b> Date	<b>Name / Stellung:</b> Name / Position	<b>Unterschrift:</b> Signature	<b>Datum:</b> Date	<b>Name / Stellung:</b> Name / Position	<b>Unterschrift:</b> Signature		



**Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.**

*This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark*

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Revisions  
Revisions

Revision Revision	Datum Date	Anmerkung Remark	Verfasser Author
0	06-08-2020	Original Report	JE
	12-08-2020	Reviewed by	KT

Note: Latest revision report will replace all previous reports

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## 1 PRODUCT INFORMATION

General information	
Product name:	Strips Multisensor MS-P
Description:	Active IR LED sensor for presence detection
Manufacturer SKU	Sensitive
Hardware version:	P1.6
Software version:	1.2
Contact person:	Lars Jonsson
Phone number:	+46 70 302 3767

LoRaWAN information	
Type of DUT	End Device
LoRa Device Class	A
Geographical area of operation	Europe 868 MHz
Operating frequency	EU 863 - 870 MHz
Adaptive Data Rate (ADR) supported?	True
Optional data rates supported?	DR6 (SF7BW250)
Activation possibilities	Over the air
Test According LoRaWAN™ Spec	V1.0.2 (with regional parameters V1.0.2 ref.B)
Output Power	+12 dBm
Number / Type of Antenna(s)	1
Antenna Gain	+2.3dBi
Test sample information	N/A

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<b>For OTA activation:</b>	
Serial No of Device with OTAA	N/A
End-device identifier (DevEUI)	N/A
Application identifier (AppEUI)	N/A
Application key (AppKey)	N/A
Default RX2 Window Frequency	869.525MHz
Default RX2 Window Data Rate	DR0 (SF12, 125kHz)
RECEIVE_DELAY1	1 s
RECEIVE_DELAY2	2 s (must be RECEIVE_DELAY1 + 1s)
JOIN_ACCEPT_DELAY1	5 s
JOIN_ACCEPT_DELAY2	6 s
MAX_FCNT_GAP	16384
ADR_ACK_LIMIT	64
ADR_ACK_DELAY	32
ACK_TIMEOUT	2 +/- 1 s (random delay between 1 and 3 seconds)

### Submitted Documents:

CertificationBySimilarityDeclaration\_1684\_1\_MS-P.pdf

LoRaCertificationQuestionnaire\_Strips\_MS-P.pdf

Strips MS-H & MS-P.standing.jpg

Strips Sensor family for LoRa.pdf

TRLund\_LoRaWAN EU868 1.0.2 Sensative Strips Multisensor MS-H.pdf

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## 2 GENERAL DEVICE DESCRIPTION

Strips MS-P Model number: 13 03 001 Active IR LED sensor for presence detection Presence is excellent for monitoring desk vacancies for office space optimization. Ultra-thin design virtually disappears into the architecture of any room. Built in battery with up to 10 years lifetime, dependent on configuration.

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### 3 SIMILIARITY OVERVIEW

Strips Multisensor MS-H is a certified LoRaWan device according to LoRaWAN™ Specification V1.0.2 for EU 863-870 Band

Strips Multisensor MS-P uses the same PCB as certified device Strips Multisensor MS-H but with a IR sensor and lacks the humidity sensor.

- LoRa transceiver same as Strips MS-H
- LoRa protocol SW version same as Strips MS-H
- MCU Core same as Strips MS-H
- Clock design and implementation same as Strips MS-H
- The implemented software won't affect the certificated product Strips MS-H LoRaWAN behaviour.

### 4 SIMILIARITY CASE

Pre-requisite	
A similar device (from same manufacturer or module from different manufacturer) has already been certified.	Document review executed
	Device listed: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Comment: Strips Multisensor MS-H from Sensative

Change descriptions – general overview			
Case 1	Module Integration: the Variant device to be certified embeds a LoRa certified module.	Applicable: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comment:
Case 2	Module Family: the Variant device to be certified is a Module from the same family of a LoRa certified module.	Applicable: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Comment:
Case 3	Device Certification by similarity: the Variant device to be certified uses the same Module of an already LoRa certified device.	Applicable: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comment: This variant has an IR sensor and lacks the humidity sensor.



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## 5 PHOTO DOCUMENTATION



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**END OF REPORT**