# **Clarification of the Australia certification**

SenseCAP M1 hotspot has the RCM certification on several devices model: **M1-2923**, **M1-4923**, **M1-8923**. In the test report, the frequency covered all LoRaWAN Frequency Plan <u>AU915 and AS923-1</u> uplink and downlink channels of Helium Network.

After the hotspot asserting the location in Australia area in Helium App or SenseCAP Hotspot App, the hotspot will transmit and receive the LoRa packets following Helium's packet forward setting, check <u>here</u> to find the frequency plan.

	AU915	AS923-1
Uplink	916.8, 917.0, 917.2, 917.4, 917.6, 917.8, 918.0, 918.2	923.2, 923.4, 923.6, 923.8, 924.0, 924.2, 924.4, 924.6
Downlink	923.3, 923.9, 924.5, 925.1, 925.7, 926.3, 926.5, 927,5	923.2, 923.4, 923.6, 923.8, 924.0, 924.2, 924.4, 924.6

# Supplier's declaration of conformity



As required by the following Notices:

- > Radiocommunications (Compliance Labelling Devices) Notice 2014 made under section 182 of the Radiocommunications Act 1992;
- > Radiocommunications Labelling (Electromagnetic Compatibility) Notice 2008 made under section 182 of the Radiocommunications Act 1992
- Radiocommunications (Compliance Labelling Electromagnetic Radiation) Notice 2014 made under section 182 of the Radiocommunications Act 1992 and
- > Telecommunications (Labelling Notice for Customer Equipment and Customer Cabling) Instrument 2015 made under section 407 of the Telecommunications Act 1997.

### Instructions for completion

> **Do not return this form to the ACMA**. This completed form must be retained by the supplier as part of the documentation required for the compliance records and must be made available for inspection by the ACMA when requested.

#### Supplier's details

ERD AUSTRALIA PTY LTD (AGENT)

RCM supplier code number E6104

of 19 Chelmer Way, Willetton, West Australia 6155, Australia

ACN: 620 214 735

### Product details and date of manufacture

Product description – brand name, type, current model, lot, batch or serial number (if available), software/firmware version (if applicable)

Product Name	SenseCAP M1 LoRaWAN Indoor Gateway	
Model Number	M1-2923, M1-4923, M1-8923	
Trade Mark	Seeed Studio	

### Compliance – applicable standards and other supporting documents

## AS923-1 uplink and downlink are using the same channel

{frequency_data, #{'US915' => [903.9, 904.1, 904.3, 904.5, 904.7, 904.9, 905.1, 905.3],
'EU868' => [867.1, 867.3, 867.5, 867.7, 867.9, 868.1, 868.3, 868.5],
'EU433' => [433.175, 433.375, 433.575],
'CN470' => [486.3, 486.5, 486.7, 486.9, 487.1, 487.3, 487.5, 487.7 ],
'CN779' => [779.5, 779.7, 779.9],
'AU915' => [916.8, 917.0, 917.2, 917.4, 917.6, 917.8, 918.0, 918.2],
'AS923_1' => [923.2, 923.4, 923.6, 923.8, 924.0, 924.2, 924.4, 924.6],
'AS923_2' => [921.4, 921.6, 921.8, 922.0, 922.2, 922.4, 922.6, 922.8],
'AS923_3' => [916.6, 916.8, 917.0, 917.2, 917.4, 917.6, 917.8, 918.0],
'AS923_4' => [917.3, 917.5, 917.7, 917.9, 918.1, 918.3, 918.5, 918.7],
'KR920' => [922.1, 922.3, 922.5, 922.7, 922.9, 923.1, 923.3],
'IN865' => [865.0625, 865.4025, 865.985],
'RU864' => [864.1, 864.3, 864.5, 864.7, 864.9, 868.9, 869.1]}

## HFSS Mode Test Report

### 1.4. Description of Test Modes

The system was configured for testing in testing mode, which was provided by manufacturer. For LoRa mode, Detailed Frequency as below:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
poter 1 Amb	915.2	23	919.6	45	924
Ambolie 2 Ame	915.4	24	919.8	46	924.2
Antos 3	915.6	25	920	47 And	924.4
4	915.8	26	920.2	48	924.6
5 <sup>100100</sup>	916	anbola 27 Anos	920.4	49	924.8
otek 6 Anbola	916.2	28	920.6	50	925
nbotek 7 Anbol	916.4	29	920.8	51 mbo	925.2
8 000	916.6	30	921	noorest 52 problem	925.4
9	916.8	otek 31 Anbote	921.2	53	925.6
10	917	abore 32 Anbor	921.4	54	925.8
tek 11 unbotek	917.2	33	921.6	55	926
onet 12 phone	917.4	34	921.8	56	926.2
13	917.6	35	922	Solet 57 Mabore	926.4
14	917.8	36	922.2	58	926.6
15	918	37 37	922.4	59	926.8
16	918.2	38	922.6	60	927
17 bote	918.4	39	922.8	61	927.2
18	918.6	40	923	62	927.4
19	918.8	41	923.2	63	927.6
20	919	42	923.4	64	927.8
21	919.2	43	923.6	Aupon tek	anbotek - P
22	919.4	Anton 44	923.8	Anbo	-botek

### AU915 uplink

{frequency_data, #{'US915' => [903.9, 904.1, 904.3, 904.5, 904.7, 904.9, 905.1, 905.3],
'EU868' => [867.1, 867.3, 867.5, 867.7, 867.9, 868.1, 868.3, 868.5],
'EU433' => [433.175, 433.375, 433.575],
'CN470' ⇒> [486.3, 486.5, 486.7, 486.9, 487.1, 487.3, 487.5, 487.7 ],
'CN779' => [779.5, 779.7, 779.9],
'AU915' => [916.8, 917.0, 917.2, 917.4, 917.6, 917.8, 918.0, 918.2],
'AS923_1' => [923.2, 923.4, 923.6, 923.8, 924.0, 924.2, 924.4, 924.6],
'AS923_2' => [921.4, 921.6, 921.8, 922.0, 922.2, 922.4, 922.6, 922.8],
'AS923_3' ⇒ [916.6, 916.8, 917.0, 917.2, 917.4, 917.6, 917.8, 918.0],
'AS923_4' ⇒ [917.3, 917.5, 917.7, 917.9, 918.1, 918.3, 918.5, 918.7],
'KR920' => [922.1, 922.3, 922.5, 922.7, 922.9, 923.1, 923.3],
'IN865' => [865.0625, 865.4025, 865.985],
'RU864' => [864.1, 864.3, 864.5, 864.7, 864.9, 868.9, 869.1]}

## AU915 downlink

## DTS Mode Test Report

#### 1.4. Description of Test Configuration

The system was configured for testing in testing mode, which was provided by munufacturer. For LoRa mode. Detailed Frequency as below:

Frequency (MHz)	Channel	Frequency (MHz)	t
915.9	And Lotek 9 Anbotek	923.3	otel
917.5	10 Antonio	924.5	nbr
919.1	the billet Anbo	925.1	D
920.7	12	925.7	
922.3	13 13	926.3	-
923.9	Anborek 14 Anborek	926.9	Nek
925.5 March 925.5	And Lotel Anbolek	927.5	abo
927.1	Ant bolek Anbot	ek Anbo tek	15
	(MHz) 915.9 917.5 919.1 920.7 922.3 923.9 925.5	(MHz) Channel   915.9 9   917.5 10   919.1 11   920.7 12   922.3 13   923.9 14   925.5 15	(MHz) Channel (MHz)   915.9 9 923.3   917.5 10 924.5   919.1 11 925.1   920.7 12 925.7   922.3 13 926.3   923.9 14 926.9   925.5 15 927.5

#### AU915

#### Uplink

Frequency (MHZ)	Spreading Factor
916.8	SF7BW125 to SF12BW125
917.0	SF7BW125 to SF12BW125
917.2	SF7BW125 to SF12BW125
917.4	SF7BW125 to SF12BW125
917.6	SF7BW125 to SF12BW125
917.8	SF7BW125 to SF12BW125
918.0	SF7BW125 to SF12BW125
918.2	SF7BW125 to SF12BW125
917.5	SF8BW500

#### Downlink

Frequency (MHZ)	Spreading Factor
923.3	SF7BW500 to SF12BW500 (RX1)
923.9	SF7BW500 to SF12BW500 (RX1)
924.5	SF7BW500 to SF12BW500 (RX1)
925.1	SF7BW500 to SF12BW500 (RX1)
925.7	SF7BW500 to SF12BW500 (RX1)
926.3	SF7BW500 to SF12BW500 (RX1)
926.9	SF7BW500 to SF12BW500 (RX1)
927.5	SF7BW500 to SF12BW500 (RX1)
923.3	SF12BW500 (RX2)

### HFSS Mode Test Report

#### 1.4. Description of Test Modes

The system was configured for testing in testing mode, which was provided by manufacturer. For LoRa mode, Detailed Frequency as below:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequenc (MHz)
ooter 1 And	915.2	23	919.6	45	924
Anbore 2 Anbo	915.4	24	919.8	46	924.2
Anbois A	915.6	25	920	47 An	924.4
4	915.8	26	920.2	48 A	924.6
5 500	916	27 Miles	920.4	49	924.8
otek 6 Anbore	916.2	28	920.6	50	925
inbotek 7 Anbo	916.4	29	920.8	51 mbon	925.2
8 000	916.6	30	921	nootek 52 Anbor	925.4
9	916.8	over 31 problem	921.2	And 53 And	925.6
10	917	32 100	921.4	54	925.8
otek 11 Anbotek	917.2	33	921.6	55	926
Lotek 12 Anbot	917.4	34	921.8	6 <sup>4</sup> 56,00 <sup>464</sup>	926.2
13	917.6	35	922	hotek 57 Anbore	926.4
14	917.8	36	922.2	bote 58 Anb	926.6
15	918	and 37 Model	922.4	59	926.8
16 bote	918.2	38	922.6	60	927
17 17	918.4	39	922.8	61 of	927.2
18	918.6	40	923	62 botek	927.4
19	918.8	41	923.2	63	927.6
20	919	42	923.4	64	927.8
21	919.2	43	923.6	Anboi otek	anbotek -
22	919.4	Anbou 44	923.8	Ano	botek