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 AU915 and AS923-1 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 here 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

Australian Government | acma Australian Communications and Media Authority

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)

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

RCM supplier code number **E6104**

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)
1	915.2	23	919.6	45	924
2	915.4	24	919.8	46	924.2
3	915.6	25	920	47	924.4
4	915.8	26	920.2	48	924.6
5	916	27	920.4	49	924.8
6	916.2	28	920.6	50	925
7	916.4	29	920.8	51	925.2
8	916.6	30	921	52	925.4
9	916.8	31	921.2	53	925.6
10	917	32	921.4	54	925.8
11	917.2	33	921.6	55	926
12	917.4	34	921.8	56	926.2
13	917.6	35	922	57	926.4
14	917.8	36	922.2	58	926.6
15	918	37	922.4	59	926.8
16	918.2	38	922.6	60	927
17	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	-	-
22	919.4	44	923.8	-	-

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 manufacturer.
For LoRa mode, Detailed Frequency as below:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	915.9	9	923.3
2	917.5	10	924.5
3	919.1	11	925.1
4	920.7	12	925.7
5	922.3	13	926.3
6	923.9	14	926.9
7	925.5	15	927.5
8	927.1	/	/

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	Frequency (MHz)
1	915.2	23	919.6	45	924
2	915.4	24	919.8	46	924.2
3	915.6	25	920	47	924.4
4	915.8	26	920.2	48	924.6
5	916	27	920.4	49	924.8
6	916.2	28	920.6	50	925
7	916.4	29	920.8	51	925.2
8	916.6	30	921	52	925.4
9	916.8	31	921.2	53	925.6
10	917	32	921.4	54	925.8
11	917.2	33	921.6	55	926
12	917.4	34	921.8	56	926.2
13	917.6	35	922	57	926.4
14	917.8	36	922.2	58	926.6
15	918	37	922.4	59	926.8
16	918.2	38	922.6	60	927
17	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	-	-
22	919.4	44	923.8	-	-