

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Venkata Kondepudi	Temperature:	18.6~21.4	°C
Test Date:	2023/04/21~2023/05/12	Relative Humidity:	41.7~54.6	%

<LoRa 125kHz FHSS Data Rate: SF7>

TEST RESULTS DATA								
20dB and 99% Occupied Bandwidth and Hopping Channel Separation								
Mod.	NTX	CH.	Freq. (MHz)	20db BW (MHz)	99% Bandwidth (MHz)	Hopping Channel Separation Measurement (MHz)	Hopping Channel Separation Measurement Limit (MHz)	Pass/Fail
Lora	1	2	902.4	0.155	0.131	0.201	0.1549	Pass
Lora	1	65	915	0.156	0.131	0.201	0.1557	Pass
Lora	1	128	927.6	0.156	0.131	0.201	0.1556	Pass

TEST RESULTS DATA						
Dwell Time						
Mod.	Hopping Channel Number Rate	Hops Over Occupancy Time(hops)	Package Transfer Time (msec)	Dwell Time (sec)	Limits (sec)	Pass/Fail
Lora	127	1	252.20	0.25	0.4	Pass

TEST RESULTS DATA		
Number of Hopping Frequency		
Number of Hopping (Channel)	Limits (Channel)	Pass/Fail
127	> 50	Pass

<LoRa 125kHz FHSS Data Rate: SF11>

TEST RESULTS DATA								
20dB and 99% Occupied Bandwidth and Hopping Channel Separation								
Mod.	NTX	CH.	Freq. (MHz)	20db BW (MHz)	99% Bandwidth (MHz)	Hopping Channel Separation Measurement (MHz)	Hopping Channel Separation Measurement Limit (MHz)	Pass/Fail
Lora	1	2	902.4	0.141	0.127	0.201	0.1411	Pass
Lora	1	65	915	0.141	0.127	0.201	0.1411	Pass
Lora	1	128	927.6	0.141	0.127	0.200	0.1411	Pass

TEST RESULTS DATA						
Dwell Time						
Mod.	Hopping Channel Number Rate	Hops Over Occupancy Time(hops)	Package Transfer Time (msec)	Dwell Time (sec)	Limits (sec)	Pass/Fail
Lora	127	1	252.20	0.25	0.4	Pass

TEST RESULTS DATA		
Number of Hopping Frequency		
Number of Hopping (Channel)	Limits (Channel)	Pass/Fail
127	> 50	Pass

<FSK 50Kbps>

TEST RESULTS DATA**20dB and 99% Occupied Bandwidth and Hopping Channel Separation**

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	20db BW (MHz)	99% Bandwidth (MHz)	Hopping Channel Separation Measurement (MHz)	Hopping Channel Separation Measurement Limit (MHz)	Pass/Fail
FSK	50Kbps	1	1	902.2	0.092	0.085	0.200	0.0923	Pass
FSK	50Kbps	1	65	915	0.092	0.085	0.200	0.0923	Pass
FSK	50Kbps	1	129	927.8	0.092	0.085	0.200	0.0923	Pass

TEST RESULTS DATA**Dwell Time**

Mod.	Hopping Channel Number Rate	Hops Over Occupancy Time(hops)	Package Transfer Time (msec)	Dwell Time (sec)	Limits (sec)	Pass/Fail
FSK	129	1.00	251.70	0.2517	0.4	Pass

TEST RESULTS DATA**Number of Hopping Frequency**

Number of Hopping (Channel)	Limits (Channel)	Pass/Fail
129	> 50	Pass

<FSK 150Kbps>

TEST RESULTS DATA									
20dB and 99% Occupied Bandwidth and Hopping Channel Separation									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	20db BW (MHz)	99% Bandwidth (MHz)	Hopping Channel Separation Measurement (MHz)	Hopping Channel Separation Measurement Limit (MHz)	Pass/Fail
FSK	150Kbps	1	1	902.4	0.179	0.155	0.400	0.179	Pass
FSK	150Kbps	1	33	914.8	0.182	0.156	0.401	0.182	Pass
FSK	150Kbps	1	64	927.6	0.179	0.156	0.401	0.179	Pass

TEST RESULTS DATA						
Dwell Time						
Mod.	Hopping Channel Number Rate	Hops Over Occupancy Time(hops)	Package Transfer Time (msec)	Dwell Time (sec)	Limits (sec)	Pass/Fail
FSK	64	2.00	193.90	0.39	0.4	Pass

TEST RESULTS DATA		
Number of Hopping Frequency		
Number of Hopping (Channel)	Limits (Channel)	Pass/Fail
64	> 50	Pass

<FSK 250Kbps>

TEST RESULTS DATA**20dB and 99% Occupied Bandwidth and Hopping Channel Separation**

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	20db BW (MHz)	99% Bandwidth (MHz)	Hopping Channel Separation Measurement (MHz)	Hopping Channel Separation Measurement Limit (MHz)	Pass/Fail
FSK	250Kbps	1	1	902.5	0.296	0.259	0.499	0.2960	Pass
FSK	250Kbps	1	26	915	0.297	0.258	0.499	0.2967	Pass
FSK	250Kbps	1	57	927.5	0.296	0.259	0.499	0.2960	Pass

TEST RESULTS DATA**Dwell Time**

Mod.	Hopping Channel Number Rate	Hops Over Occupancy Time(hops)	Package Transfer Time (msec)	Dwell Time (sec)	Limits (sec)	Pass/Fail
FSK	57	1.00	159.00	0.16	0.4	Pass

TEST RESULTS DATA**Number of Hopping Frequency**

Number of Hopping (Channel)	Limits (Channel)	Pass/Fail
57	≥ 25	Pass

THE END