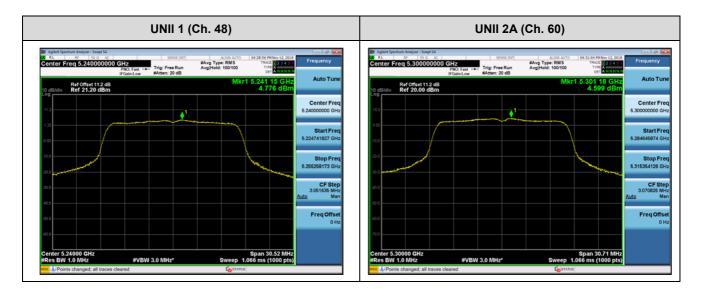


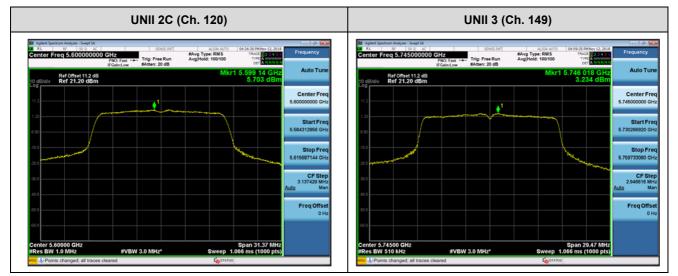
[Ant1]

■ Test Plots(802.11a)

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 6 6 / 277 **HCT CO.,LTD.**

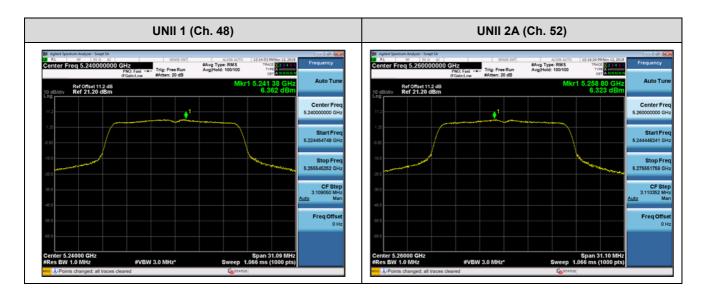


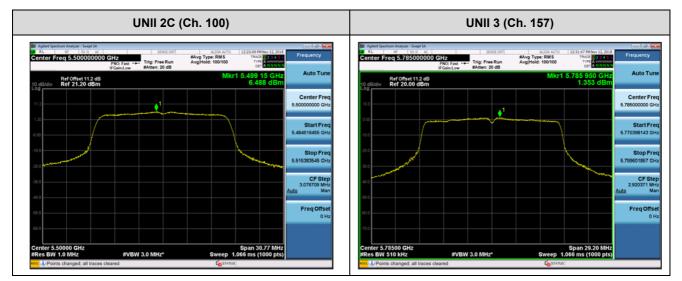
[Ant2]

■ Test Plots(802.11a)

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 6 7 / 277 **HCT CO.,LTD.**

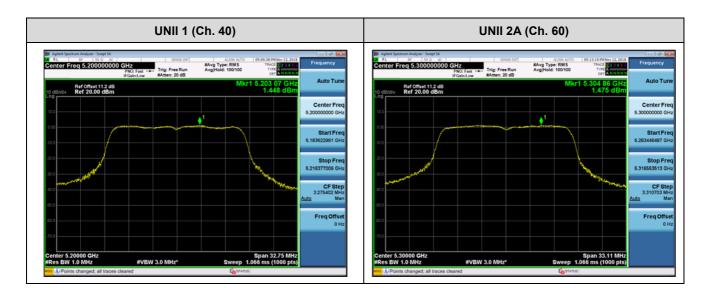


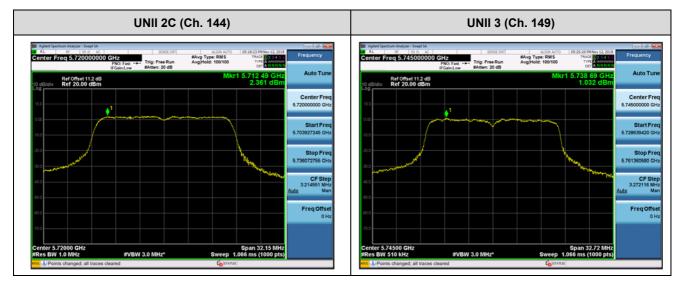
[Ant1]

■ Test Plots(802.11n(HT20))

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 6 8 / 277 **HCT CO.,LTD.**

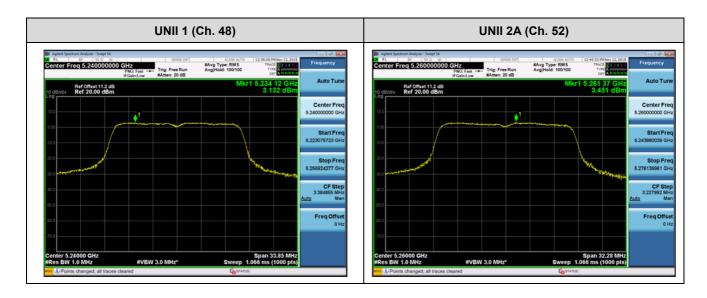


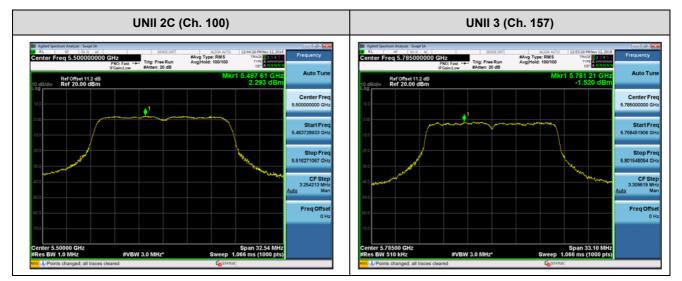
[Ant2]

■ Test Plots(802.11n(HT20))

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 6 9 / 277 **HCT CO.,LTD.**

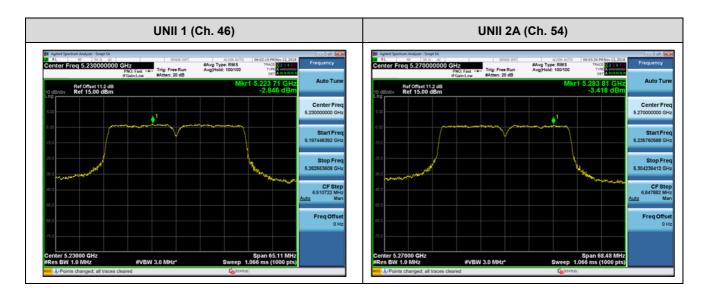


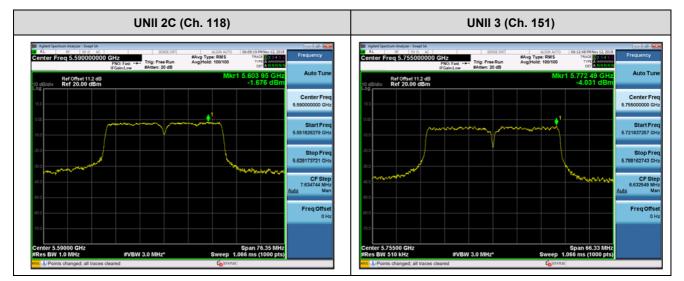
[Ant1]

■ Test Plots(802.11n(HT40))

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 7 0 / 277 **HCT CO.,LTD.**

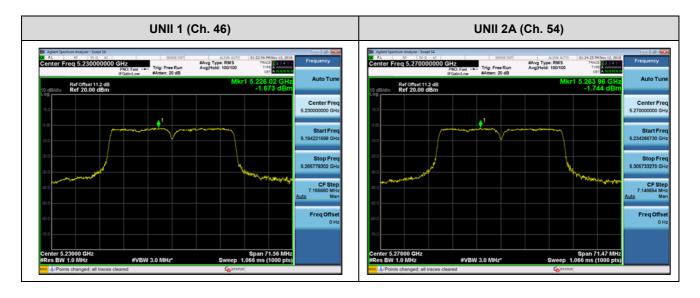


[Ant2]

■ Test Plots(802.11n(HT40))

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 7 1 / 277 **HCT CO.,LTD.**

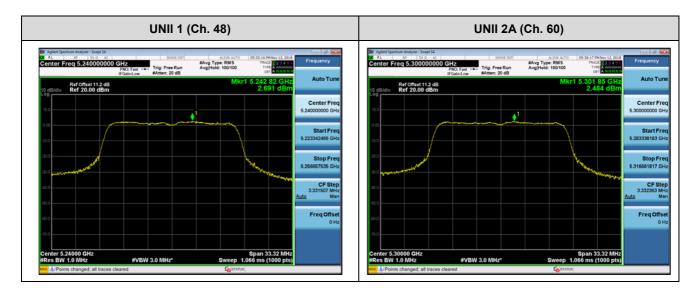


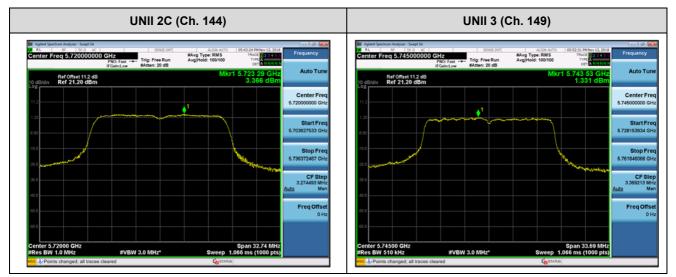
[Ant1]

■ Test Plots(802.11ac(VHT20))

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 7 2 / 277 **HCT CO.,LTD.**

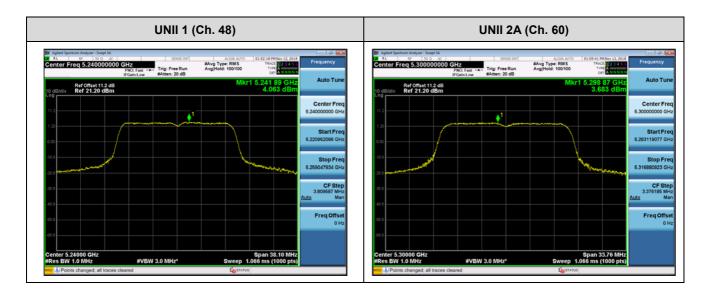


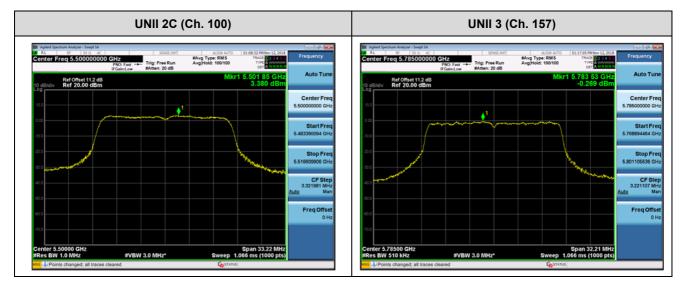
[Ant2]

■ Test Plots(802.11ac(VHT20))

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 7 3 / 277 **HCT CO.,LTD.**

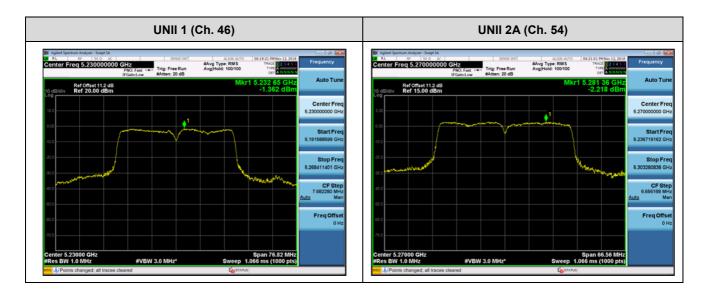


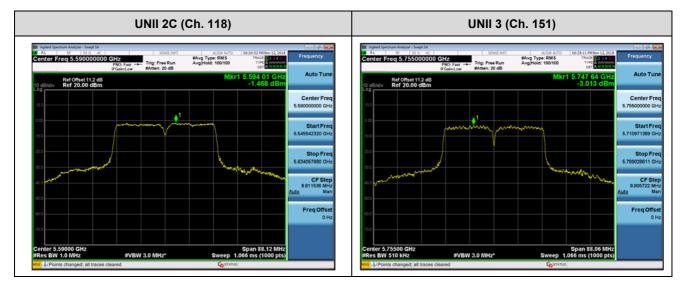
[Ant1]

■ Test Plots(802.11ac(VHT40))

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 7 4 / 277 **HCT CO.,LTD.**

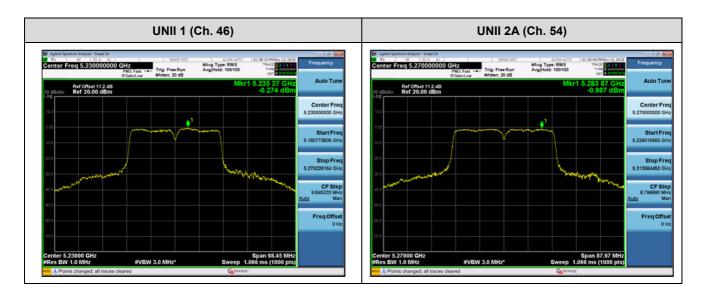


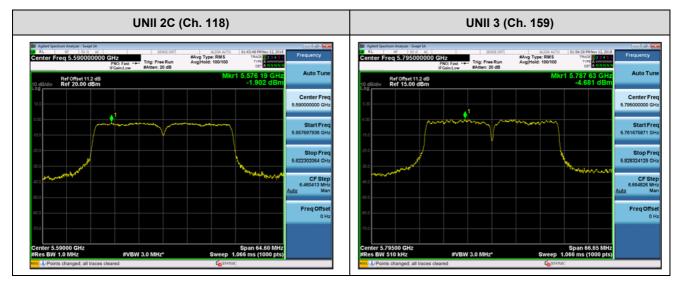
[Ant2]

■ Test Plots(802.11ac(VHT40))

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 7 5 / 277 **HCT CO.,LTD.**

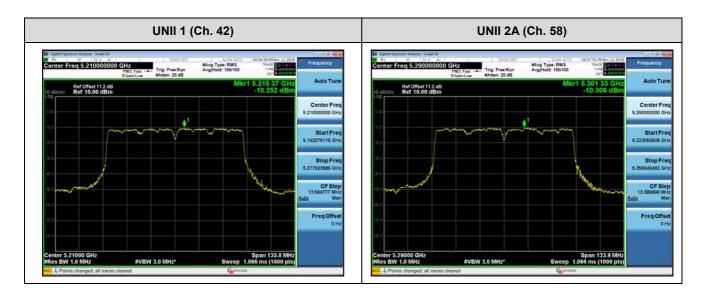


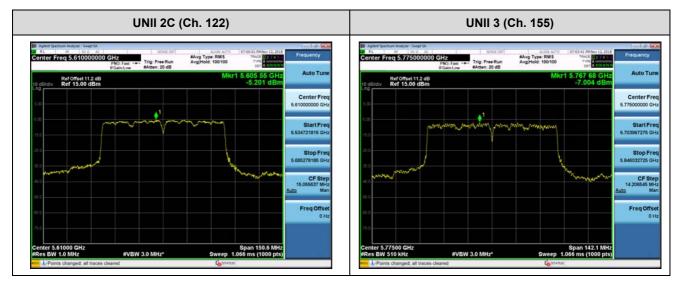
[Ant1]

■ Test Plots(802.11ac(VHT80))

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 7 6 / 277 **HCT CO.,LTD.**

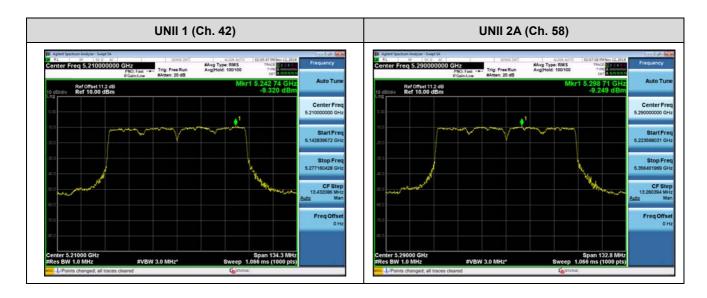


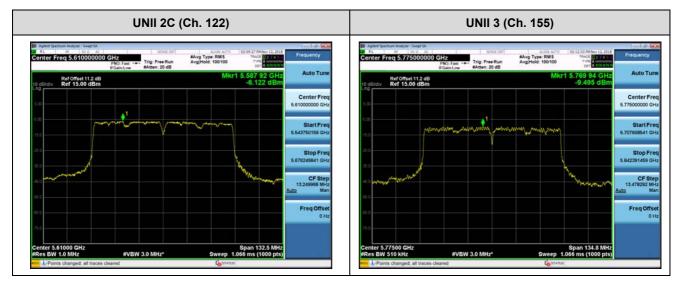
[Ant2]

■ Test Plots(802.11ac(VHT80))

Note:

In order to simplify the report, attached plots were only channel of highest power.





F-TP22-03 (Rev.00) 7 7 / 277 **HCT CO.,LTD.**



10.6 FREQUENCY STABILITY. 10.6.1 20MHz BW

[Ant1]

Startup after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,180,000,000 Hz

CHANNEL: 36

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5180007.74	7.74
100%		-30	5180004.48	4.48
100%		-20	5180013.33	13.33
100%		-10	5180034.62	34.62
100%	3.85	0	5180072.26	72.26
100%		+10	5180038.46	38.46
100%		+30	5180075.90	75.90
100%		+40	5180057.55	57.55
100%		+50	5180090.81	90.81
End. Point	3.50	+20	5180074.60	74.60

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 7 8 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,260,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5260004.43	4.43
100%		-30	5260043.76	43.76
100%		-20	5260007.25	7.25
100%		-10	5260095.19	95.19
100%	3.85	0	5260095.33	95.33
100%		+10	5260028.58	28.58
100%		+30	5260067.97	67.97
100%		+40	5260034.52	34.52
100%		+50	5260054.70	54.70
End. Point	3.50	+20	5260030.20	30.20

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 7 9 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,500,000,000 Hz

 CHANNEL:
 100

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5500014.44	14.44
100%		-30	5500030.95	30.95
100%		-20	5500014.15	14.15
100%		-10	5500002.81	2.81
100%	3.85	0	5500034.78	34.78
100%		+10	5500095.94	95.94
100%		+30	5500069.99	69.99
100%		+40	5500076.49	76.49
100%		+50	5500045.45	45.45
End. Point	3.50	+20	5500031.27	31.27

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 8 0 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: 149

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5745031.71	31.71
100%		-30	5745074.49	74.49
100%		-20	5745096.50	96.5
100%		-10	5745038.17	38.17
100%	3.85	0	5745069.42	69.42
100%		+10	5745064.97	64.97
100%		+30	5745030.43	30.43
100%		+40	5745074.36	74.36
100%		+50	5745012.02	12.02
End. Point	3.50	+20	5745048.13	48.13

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 8 1 / 277 **HCT CO.,LTD.**



FCC ID: A3LSMA920N

2 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,180,000,000 Hz

CHANNEL: 36

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5180001.90	1.90
100%		-30	5180035.65	35.65
100%		-20	5180076.84	76.84
100%		-10	5180090.33	90.33
100%	3.85	0	5180047.16	47.16
100%		+10	5180064.80	64.80
100%		+30	5180061.74	61.74
100%		+40	5180087.99	87.99
100%		+50	5180009.08	9.08
End. Point	3.50	+20	5180019.31	19.31

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 8 2 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,260,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5260075.42	75.42
100%		-30	5260031.99	31.99
100%		-20	5260018.40	18.4
100%		-10	5260060.39	60.39
100%	3.85	0	5260016.17	16.17
100%		+10	5260026.25	26.25
100%		+30	5260010.82	10.82
100%		+40	5260094.20	94.2
100%		+50	5260022.25	22.25
End. Point	3.50	+20	5260061.71	61.71

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 8 3 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,500,000,000 Hz

 CHANNEL:
 100

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5500062.92	62.92
100%		-30	5500048.44	48.44
100%		-20	5500015.12	15.12
100%		-10	5500073.95	73.95
100%	3.85	0	5500086.82	86.82
100%		+10	5500010.32	10.32
100%		+30	5500037.07	37.07
100%		+40	5500080.09	80.09
100%		+50	5500044.93	44.93
End. Point	3.50	+20	5500078.07	78.07

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 8 4 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: 149

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5745016.45	16.45
100%		-30	5745098.55	98.55
100%		-20	5745032.10	32.1
100%		-10	5745041.55	41.55
100%	3.85	0	5745042.06	42.06
100%		+10	5745066.41	66.41
100%		+30	5745018.07	18.07
100%		+40	5745078.19	78.19
100%		+50	5745017.20	17.20
End. Point	3.50	+20	5745011.86	11.86

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 8 5 / 277 **HCT CO.,LTD.**



FCC ID: A3LSMA920N

5 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,180,000,000 Hz

CHANNEL: 36

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5180048.91	48.91
100%		-30	5180031.34	31.34
100%		-20	5180044.88	44.88
100%		-10	5180092.57	92.57
100%	3.85	0	5180074.13	74.13
100%		+10	5180097.77	97.77
100%		+30	5180086.33	86.33
100%		+40	5180057.53	57.53
100%		+50	5180093.29	93.29
End. Point	3.50	+20	5180092.27	92.27

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 8 6 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,260,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5260093.98	93.98
100%		-30	5260067.45	67.45
100%		-20	5260034.22	34.22
100%	3.85	-10	5260012.33	12.33
100%		0	5260023.95	23.95
100%		+10	5260090.13	90.13
100%		+30	5260042.23	42.23
100%		+40	5260099.35	99.35
100%		+50	5260049.77	49.77
End. Point	3.50	+20	5260070.04	70.04

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 8 7 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,500,000,000 Hz

 CHANNEL:
 100

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5500027.83	27.83
100%		-30	5500048.63	48.63
100%		-20	5500078.52	78.52
100%		-10	5500023.94	23.94
100%	3.85	0	5500032.05	32.05
100%		+10	5500084.51	84.51
100%		+30	5500092.11	92.11
100%		+40	5500008.88	8.88
100%		+50	5500091.63	91.63
End. Point	3.50	+20	5500093.41	93.41

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 8 8 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: 149

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5745002.40	2.40
100%		-30	5745039.73	39.73
100%		-20	5745028.56	28.56
100%		-10	5745045.29	45.29
100%	3.85	0	5745061.42	61.42
100%		+10	5745002.30	2.30
100%		+30	5745074.05	74.05
100%		+40	5745001.16	1.16
100%		+50	5745017.98	17.98
End. Point	3.50	+20	5745055.82	55.82

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 8 9 / 277 **HCT CO.,LTD.**



10 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,180,000,000 Hz

CHANNEL: 36

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5180079.98	79.98
100%		-30	5180072.41	72.41
100%		-20	5180043.15	43.15
100%		-10	5180013.22	13.22
100%	3.85	0	5180002.96	2.96
100%		+10	5180035.19	35.19
100%		+30	5180028.18	28.18
100%		+40	5180063.32	63.32
100%		+50	5180044.46	44.46
End. Point	3.50	+20	5180054.18	54.18

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 9 0 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,260,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5260008.47	8.47
100%		-30	5260079.73	79.73
100%		-20	5260025.34	25.34
100%	3.85	-10	5260015.80	15.80
100%		0	5260057.35	57.35
100%		+10	5260035.63	35.63
100%		+30	5260015.94	15.94
100%		+40	5260070.57	70.57
100%		+50	5260046.57	46.57
End. Point	3.50	+20	5260066.14	66.14

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 9 1 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,500,000,000 Hz

 CHANNEL:
 100

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5500063.11	63.11
100%		-30	5500097.29	97.29
100%		-20	5500028.55	28.55
100%		-10	5500069.04	69.04
100%	3.85	0	5500037.98	37.98
100%		+10	5500033.94	33.94
100%		+30	5500094.14	94.14
100%		+40	5500091.84	91.84
100%		+50	5500098.25	98.25
End. Point	3.50	+20	5500058.50	58.50

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 9 2 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: 149

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5745045.84	45.84
100%		-30	5745031.61	31.61
100%		-20	5745097.13	97.13
100%		-10	5745005.37	5.37
100%	3.85	0	5745002.11	2.11
100%		+10	5745031.50	31.5
100%		+30	5745002.78	2.78
100%		+40	5745091.98	91.98
100%		+50	5745092.12	92.12
End. Point	3.50	+20	5745010.37	10.37

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 9 3 / 277 **HCT CO.,LTD.**



FCC ID: A3LSMA920N

[Ant2]

Startup after the EUT is energized

 OPERATING BAND:
 UNII Band 1

 OPERATING FREQUENCY:
 5,180,000,000 Hz

 CHANNEL:
 36

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5180070.33	70.33
100%		-30	5180056.30	56.30
100%		-20	5180083.17	83.17
100%		-10	5180088.94	88.94
100%	3.85	0	5180095.50	95.50
100%		+10	5180063.19	63.19
100%		+30	5180072.36	72.36
100%		+40	5180093.48	93.48
100%		+50	5180084.75	84.75
End. Point	3.50	+20	5180065.98	65.98

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 9 4 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,260,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5260011.76	11.76
100%		-30	5260001.07	1.07
100%		-20	5260085.34	85.34
100%		-10	5260058.11	58.11
100%	3.85	0	5260078.39	78.39
100%		+10	5260081.74	81.74
100%		+30	5260072.34	72.34
100%		+40	5260069.68	69.68
100%		+50	5260008.79	8.79
End. Point	3.50	+20	5260080.54	80.54

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 9 5 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,500,000,000 Hz

 CHANNEL:
 100

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5500008.36	8.36
100%		-30	5500023.89	23.89
100%		-20	5500052.39	52.39
100%		-10	5500004.99	4.99
100%	3.85	0	5500012.09	12.09
100%		+10	5500071.15	71.15
100%		+30	5500047.09	47.09
100%		+40	5500099.48	99.48
100%		+50	5500069.26	69.26
End. Point	3.50	+20	5500008.49	8.49

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 9 6 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: 149

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5745059.78	59.78
100%		-30	5745025.91	25.91
100%		-20	5745048.73	48.73
100%		-10	5745085.83	85.83
100%	3.85	0	5745046.66	46.66
100%		+10	5745090.03	90.03
100%		+30	5745073.57	73.57
100%		+40	5745026.58	26.58
100%		+50	5745033.82	33.82
End. Point	3.50	+20	5745097.88	97.88

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 9 7 / 277 **HCT CO.,LTD.**



FCC ID: A3LSMA920N

2 minutes after the EUT is energized

OPERATING BAND: UNII Band 1 **OPERATING FREQUENCY:** 5,180,000,000 Hz CHANNEL: 36 3.85 VDC REFERENCE VOLTAGE:

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5180015.97	15.97
100%		-30	5180031.10	31.10
100%		-20	5180058.97	58.97
100%		-10	5180073.22	73.22
100%	3.85	0	5180076.48	76.48
100%		+10	5180060.80	60.80
100%		+30	5180047.37	47.37
100%		+40	5180040.83	40.83
100%		+50	5180079.47	79.47
End. Point	3.50	+20	5180098.42	98.42

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

HCT CO.,LTD. F-TP22-03 (Rev.00) 9 8 / 277



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,260,000,000 Hz

CHANNEL: 52

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5260090.92	90.92
100%		-30	5260034.06	34.06
100%		-20	5260028.49	28.49
100%		-10	5260001.29	1.29
100%	3.85	0	5260051.95	51.95
100%		+10	5260061.74	61.74
100%		+30	5260029.52	29.52
100%		+40	5260098.46	98.46
100%		+50	5260042.51	42.51
End. Point	3.50	+20	5260009.23	9.23

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 9 9 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,500,000,000 Hz

CHANNEL: 100

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5500063.39	63.39
100%		-30	5500051.15	51.15
100%		-20	5500004.20	4.20
100%	3.85	-10	5500095.86	95.86
100%		0	5500079.11	79.11
100%		+10	5500026.36	26.36
100%		+30	5500010.91	10.91
100%		+40	5500016.62	16.62
100%		+50	5500048.72	48.72
End. Point	3.50	+20	5500026.11	26.11

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 0 0 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 3

 OPERATING FREQUENCY:
 5,745,000,000 Hz

 CHANNEL:
 149

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5745020.11	20.11
100%		-30	5745080.19	80.19
100%		-20	5745087.57	87.57
100%	3.85	-10	5745072.15	72.15
100%		0	5745076.15	76.15
100%		+10	5745018.62	18.62
100%		+30	5745099.55	99.55
100%		+40	5745055.52	55.52
100%		+50	5745083.31	83.31
End. Point	3.50	+20	5745065.27	65.27

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 0 1 / 277 **HCT CO.,LTD.**



5 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,180,000,000 Hz

CHANNEL: 36

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5180040.87	40.87
100%		-30	5180076.66	76.66
100%		-20	5180047.24	47.24
100%		-10	5180081.53	81.53
100%	3.85	0	5180015.12	15.12
100%		+10	5180055.99	55.99
100%		+30	5180081.95	81.95
100%		+40	5180014.57	14.57
100%		+50	5180085.07	85.07
End. Point	3.50	+20	5180041.48	41.48

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 0 2 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2A

 OPERATING FREQUENCY:
 5,260,000,000 Hz

 CHANNEL:
 52

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5260048.56	48.56
100%		-30	5260049.40	49.40
100%		-20	5260017.99	17.99
100%		-10	5260012.99	12.99
100%	3.85	0	5260034.73	34.73
100%		+10	5260030.08	30.08
100%		+30	5260099.46	99.46
100%		+40	5260053.30	53.30
100%		+50	5260044.30	44.30
End. Point	3.50	+20	5260011.60	11.60

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 0 3 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,500,000,000 Hz

 CHANNEL:
 100

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5500016.11	16.11
100%		-30	5500080.02	80.02
100%		-20	5500096.52	96.52
100%		-10	5500060.93	60.93
100%	3.85	0	5500029.73	29.73
100%		+10	5500082.24	82.24
100%		+30	5500028.98	28.98
100%		+40	5500058.28	58.28
100%		+50	5500036.19	36.19
End. Point	3.50	+20	5500044.72	44.72

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 0 4 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: 149

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5745082.15	82.15
100%		-30	5745092.07	92.07
100%		-20	5745087.23	87.23
100%		-10	5745029.55	29.55
100%	3.85	0	5745096.09	96.09
100%		+10	5745021.07	21.07
100%		+30	5745095.28	95.28
100%		+40	5745003.06	3.06
100%		+50	5745018.38	18.38
End. Point	3.50	+20	5745086.44	86.44

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 0 5 / 277 **HCT CO.,LTD.**



FCC ID: A3LSMA920N

10 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,180,000,000 Hz

CHANNEL: 36

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5180036.73	36.73
100%		-30	5180069.43	69.43
100%		-20	5180050.10	50.10
100%		-10	5180005.93	5.93
100%	3.85	0	5180059.79	59.79
100%		+10	5180029.41	29.41
100%		+30	5180030.96	30.96
100%		+40	5180091.19	91.19
100%		+50	5180077.93	77.93
End. Point	3.50	+20	5180036.39	36.39

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 0 6 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2A

 OPERATING FREQUENCY:
 5,260,000,000 Hz

 CHANNEL:
 52

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5260064.06	64.06
100%		-30	5260034.29	34.29
100%		-20	5260005.93	5.93
100%		-10	5260004.43	4.43
100%	3.85	0	5260011.44	11.44
100%		+10	5260093.93	93.93
100%		+30	5260001.36	1.36
100%		+40	5260077.63	77.63
100%		+50	5260046.87	46.87
End. Point	3.50	+20	5260064.81	64.81

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 0 7 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,500,000,000 Hz

CHANNEL: 100

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5500057.91	57.91
100%		-30	5500029.90	29.90
100%		-20	5500098.45	98.45
100%	3.85	-10	5500028.60	28.60
100%		0	5500006.31	6.31
100%		+10	5500036.42	36.42
100%		+30	5500047.39	47.39
100%		+40	5500072.23	72.23
100%		+50	5500091.43	91.43
End. Point	3.50	+20	5500094.15	94.15

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 0 8 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,745,000,000 Hz

CHANNEL: 149

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5745087.08	87.08
100%		-30	5745023.60	23.60
100%		-20	5745072.82	72.82
100%		-10	5745049.07	49.07
100%	3.85	0	5745008.09	8.09
100%		+10	5745078.43	78.43
100%		+30	5745082.07	82.07
100%		+40	5745033.51	33.51
100%		+50	5745050.81	50.81
End. Point	3.50	+20	5745070.08	70.08

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 0 9 / 277 **HCT CO.,LTD.**



10.6.2 40MHz BW

[Ant1]

Startup after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,190,000,000 Hz

CHANNEL: 38

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5190010.89	10.89
100%		-30	5190043.28	43.28
100%		-20	5190087.08	87.08
100%		-10	5190097.93	97.93
100%	3.85	0	5190053.37	53.37
100%		+10	5190082.35	82.35
100%		+30	5190018.22	18.22
100%		+40	5190079.39	79.39
100%		+50	5190033.98	33.98
End. Point	3.50	+20	5190059.57	59.57

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 1 0 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,270,000,000 Hz

CHANNEL: 54

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5270021.62	21.62
100%		-30	5270098.79	98.79
100%		-20	5270055.93	55.93
100%		-10	5270052.98	52.98
100%	3.85	0	5270017.03	17.03
100%		+10	5270070.89	70.89
100%		+30	5270036.77	36.77
100%		+40	5270049.08	49.08
100%		+50	5270095.10	95.10
End. Point	3.50	+20	5270023.71	23.71

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 1 1 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,510,000,000 Hz

 CHANNEL:
 102

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5510059.13	59.13
100%		-30	5510048.64	48.64
100%		-20	5510057.06	57.06
100%		-10	5510011.58	11.58
100%	3.85	0	5510097.54	97.54
100%		+10	5510068.30	68.3
100%		+30	5510073.84	73.84
100%		+40	5510057.10	57.10
100%		+50	5510049.79	49.79
End. Point	3.50	+20	5510030.05	30.05

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 1 2 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,755,000,000 Hz

CHANNEL: 151

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5755011.29	11.29
100%		-30	5755034.61	34.61
100%		-20	5755024.64	24.64
100%		-10	5755072.52	72.52
100%	3.85	0	5755084.62	84.62
100%		+10	5755007.86	7.86
100%		+30	5755097.79	97.79
100%		+40	5755012.98	12.98
100%		+50	5755027.07	27.07
End. Point	3.50	+20	5755062.24	62.24

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 1 3 / 277 **HCT CO.,LTD.**



2 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,190,000,000 Hz

CHANNEL: 38

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5190006.69	6.69
100%		-30	5190092.98	92.98
100%		-20	5190010.95	10.95
100%		-10	5190078.42	78.42
100%	3.85	0	5190003.62	3.62
100%		+10	5190069.27	69.27
100%		+30	5190014.74	14.74
100%		+40	5190016.52	16.52
100%		+50	5190071.27	71.27
End. Point	3.50	+20	5190086.83	86.83

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 1 4 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,270,000,000 Hz

CHANNEL: 54

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5270059.07	59.07
100%		-30	5270059.73	59.73
100%		-20	5270095.08	95.08
100%		-10	5270047.38	47.38
100%	3.85	0	5270045.69	45.69
100%		+10	5270031.03	31.03
100%		+30	5270056.50	56.50
100%		+40	5270060.75	60.75
100%		+50	5270038.98	38.98
End. Point	3.50	+20	5270062.56	62.56

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 1 5 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,510,000,000 Hz

 CHANNEL:
 102

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5510062.37	62.37
100%		-30	5510090.99	90.99
100%		-20	5510006.61	6.61
100%	3.85	-10	5510077.88	77.88
100%		0	5510068.43	68.43
100%		+10	5510091.04	91.04
100%		+30	5510066.07	66.07
100%		+40	5510072.45	72.45
100%		+50	5510065.05	65.05
End. Point	3.50	+20	5510098.29	98.29

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 1 6 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,755,000,000 Hz

CHANNEL: 151

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5755065.79	65.79
100%		-30	5755013.98	13.98
100%		-20	5755011.34	11.34
100%		-10	5755002.18	2.18
100%	3.85	0	5755008.58	8.58
100%		+10	5755026.47	26.47
100%		+30	5755084.29	84.29
100%		+40	5755002.69	2.69
100%		+50	5755013.19	13.19
End. Point	3.50	+20	5755003.03	3.03

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 1 7 / 277 **HCT CO.,LTD.**



FCC ID: A3LSMA920N

5 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,190,000,000 Hz

CHANNEL: 38

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5190054.22	54.22
100%		-30	5190099.41	99.41
100%		-20	5190039.23	39.23
100%		-10	5190089.21	89.21
100%	3.85	0	5190038.90	38.90
100%		+10	5190031.40	31.40
100%		+30	5190094.19	94.19
100%		+40	5190015.93	15.93
100%		+50	5190092.24	92.24
End. Point	3.50	+20	5190054.72	54.72

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 1 8 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,270,000,000 Hz

CHANNEL: 54

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5270017.38	17.38
100%		-30	5270034.90	34.90
100%		-20	5270069.50	69.50
100%		-10	5270048.98	48.98
100%	3.85	0	5270041.66	41.66
100%		+10	5270006.53	6.53
100%		+30	5270094.34	94.34
100%		+40	5270077.77	77.77
100%		+50	5270007.92	7.92
End. Point	3.50	+20	5270075.61	75.61

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 1 9 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,510,000,000 Hz

CHANNEL: 102

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5510006.51	6.51
100%		-30	5510065.19	65.19
100%		-20	5510046.94	46.94
100%	3.85	-10	5510021.54	21.54
100%		0	5510082.96	82.96
100%		+10	5510020.08	20.08
100%		+30	5510034.54	34.54
100%		+40	5510051.39	51.39
100%		+50	5510070.19	70.19
End. Point	3.50	+20	5510014.73	14.73

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 2 0 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,755,000,000 Hz

CHANNEL: 151

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5755001.67	1.67
100%		-30	5755049.38	49.38
100%		-20	5755041.07	41.07
100%		-10	5755063.21	63.21
100%	3.85	0	5755047.79	47.79
100%		+10	5755097.65	97.65
100%		+30	5755017.70	17.70
100%		+40	5755089.90	89.90
100%		+50	5755039.51	39.51
End. Point	3.50	+20	5755072.93	72.93

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 2 1 / 277 **HCT CO.,LTD.**



FCC ID: A3LSMA920N

10 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,190,000,000 Hz

CHANNEL: 38

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5190010.09	10.09
100%		-30	5190083.25	83.25
100%		-20	5190039.08	39.08
100%		-10	5190025.94	25.94
100%	3.85	0	5190014.49	14.49
100%		+10	5190050.23	50.23
100%		+30	5190007.63	7.63
100%		+40	5190049.47	49.47
100%		+50	5190008.23	8.23
End. Point	3.50	+20	5190032.29	32.29

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 2 2 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,270,000,000 Hz

CHANNEL: 54

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5270053.21	53.21
100%		-30	5270035.60	35.60
100%		-20	5270035.14	35.14
100%		-10	5270058.11	58.11
100%	3.85	0	5270030.29	30.29
100%		+10	5270037.53	37.53
100%		+30	5270046.53	46.53
100%		+40	5270008.82	8.82
100%		+50	5270009.43	9.43
End. Point	3.50	+20	5270017.90	17.9

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 2 3 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,510,000,000 Hz

 CHANNEL:
 102

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5510074.91	74.91
100%		-30	5510063.29	63.29
100%		-20	5510070.35	70.35
100%		-10	5510068.16	68.16
100%	3.85	0	5510042.18	42.18
100%		+10	5510046.15	46.15
100%		+30	5510090.18	90.18
100%		+40	5510066.67	66.67
100%		+50	5510056.09	56.09
End. Point	3.50	+20	5510045.73	45.73

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 2 4 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 3

 OPERATING FREQUENCY:
 5,755,000,000 Hz

 CHANNEL:
 151

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5755076.18	76.18
100%		-30	5755021.44	21.44
100%		-20	5755087.37	87.37
100%		-10	5755003.94	3.94
100%	3.85	0	5755035.98	35.98
100%		+10	5755013.06	13.06
100%		+30	5755015.69	15.69
100%		+40	5755049.24	49.24
100%		+50	5755025.14	25.14
End. Point	3.50	+20	5755025.25	25.25

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 2 5 / 277 **HCT CO.,LTD.**



[Ant2]

Startup after the EUT is energized

 OPERATING BAND:
 UNII Band 1

 OPERATING FREQUENCY:
 5,190,000,000 Hz

 CHANNEL:
 38

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5190089.21	89.21
100%		-30	5190017.91	17.91
100%		-20	5190070.51	70.51
100%	3.85	-10	5190029.36	29.36
100%		0	5190080.55	80.55
100%		+10	5190088.24	88.24
100%		+30	5190001.11	1.11
100%		+40	5190018.17	18.17
100%		+50	5190027.49	27.49
End. Point	3.50	+20	5190074.05	74.05

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 2 6 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,270,000,000 Hz

CHANNEL: 54

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5270024.63	24.63
100%		-30	5270042.62	42.62
100%		-20	5270059.73	59.73
100%	3.85	-10	5270026.51	26.51
100%		0	5270016.25	16.25
100%		+10	5270063.53	63.53
100%		+30	5270083.15	83.15
100%		+40	5270008.47	8.47
100%		+50	5270073.55	73.55
End. Point	3.50	+20	5270093.42	93.42

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 2 7 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,510,000,000 Hz

 CHANNEL:
 102

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5510079.70	79.70
100%		-30	5510030.98	30.98
100%		-20	5510034.18	34.18
100%	3.85	-10	5510082.85	82.85
100%		0	5510064.30	64.3
100%		+10	5510065.34	65.34
100%		+30	5510092.29	92.29
100%		+40	5510071.71	71.71
100%		+50	5510050.23	50.23
End. Point	3.50	+20	5510032.21	32.21

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 2 8 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 3

 OPERATING FREQUENCY:
 5,755,000,000 Hz

 CHANNEL:
 151

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5755059.87	59.87
100%		-30	5755071.65	71.65
100%		-20	5755087.20	87.2
100%	3.85	-10	5755049.13	49.13
100%		0	5755062.86	62.86
100%		+10	5755002.77	2.77
100%		+30	5755067.92	67.92
100%		+40	5755077.69	77.69
100%		+50	5755001.61	1.61
End. Point	3.50	+20	5755025.22	25.22

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 2 9 / 277 **HCT CO.,LTD.**



2 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,190,000,000 Hz

CHANNEL: 38

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5190087.05	87.05
100%		-30	5190054.32	54.32
100%		-20	5190051.27	51.27
100%		-10	5190085.25	85.25
100%	3.85	0	5190093.12	93.12
100%		+10	5190043.68	43.68
100%		+30	5190030.44	30.44
100%		+40	5190080.34	80.34
100%		+50	5190088.41	88.41
End. Point	3.50	+20	5190021.13	21.13

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 3 0 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2A

 OPERATING FREQUENCY:
 5,270,000,000 Hz

 CHANNEL:
 54

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5270044.61	44.61
100%		-30	5270023.93	23.93
100%		-20	5270053.83	53.83
100%		-10	5270055.49	55.49
100%	3.85	0	5270031.57	31.57
100%		+10	5270022.80	22.80
100%		+30	5270082.69	82.69
100%		+40	5270050.62	50.62
100%		+50	5270026.48	26.48
End. Point	3.50	+20	5270069.69	69.69

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 3 1 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,510,000,000 Hz

CHANNEL: 102

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5510069.89	69.89
100%		-30	5510014.71	14.71
100%		-20	5510040.64	40.64
100%		-10	5510012.08	12.08
100%	3.85	0	5510077.48	77.48
100%		+10	5510046.88	46.88
100%		+30	5510036.30	36.3
100%		+40	5510039.92	39.92
100%		+50	5510064.05	64.05
End. Point	3.50	+20	5510059.46	59.46

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 3 2 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 3

 OPERATING FREQUENCY:
 5,755,000,000 Hz

 CHANNEL:
 151

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5755091.94	91.94
100%		-30	5755021.28	21.28
100%		-20	5755014.39	14.39
100%	3.85	-10	5755077.97	77.97
100%		0	5755052.03	52.03
100%		+10	5755013.10	13.1
100%		+30	5755037.61	37.61
100%		+40	5755090.85	90.85
100%		+50	5755030.11	30.11
End. Point	3.50	+20	5755071.78	71.78

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 3 3 / 277 **HCT CO.,LTD.**



5 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,190,000,000 Hz

CHANNEL: 38

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5190034.87	34.87
100%		-30	5190035.95	35.95
100%		-20	5190032.84	32.84
100%	3.85	-10	5190085.18	85.18
100%		0	5190051.29	51.29
100%		+10	5190016.40	16.40
100%		+30	5190069.82	69.82
100%		+40	5190022.62	22.62
100%		+50	5190003.94	3.94
End. Point	3.50	+20	5190062.79	62.79

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 3 4 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,270,000,000 Hz

CHANNEL: 54

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5270016.76	16.76
100%		-30	5270002.48	2.48
100%		-20	5270025.47	25.47
100%	3.85	-10	5270043.43	43.43
100%		0	5270054.51	54.51
100%		+10	5270036.77	36.77
100%		+30	5270032.73	32.73
100%		+40	5270089.66	89.66
100%		+50	5270059.96	59.96
End. Point	3.50	+20	5270092.37	92.37

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 3 5 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,510,000,000 Hz

 CHANNEL:
 102

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5510090.14	90.14
100%		-30	5510023.27	23.27
100%		-20	5510098.65	98.65
100%		-10	5510042.83	42.83
100%	3.85	0	5510070.24	70.24
100%		+10	5510014.90	14.90
100%		+30	5510018.21	18.21
100%		+40	5510066.43	66.43
100%		+50	5510077.59	77.59
End. Point	3.50	+20	5510055.97	55.97

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 3 6 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 3

 OPERATING FREQUENCY:
 5,755,000,000 Hz

 CHANNEL:
 151

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5755061.21	61.21
100%		-30	5755089.60	89.60
100%		-20	5755095.32	95.32
100%	3.85	-10	5755093.47	93.47
100%		0	5755013.19	13.19
100%		+10	5755075.82	75.82
100%		+30	5755063.50	63.50
100%		+40	5755061.80	61.80
100%		+50	5755051.60	51.60
End. Point	3.50	+20	5755049.59	49.59

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 3 7 / 277 **HCT CO.,LTD.**



10 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,190,000,000 Hz

CHANNEL: 38

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5190051.39	51.39
100%		-30	5190004.70	4.70
100%		-20	5190088.90	88.90
100%		-10	5190028.94	28.94
100%	3.85	0	5190078.84	78.84
100%		+10	5190080.90	80.90
100%		+30	5190047.55	47.55
100%		+40	5190070.41	70.41
100%		+50	5190055.04	55.04
End. Point	3.50	+20	5190027.64	27.64

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 3 8 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,270,000,000 Hz

CHANNEL: 54

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5270031.07	31.07
100%		-30	5270039.33	39.33
100%		-20	5270062.79	62.79
100%		-10	5270018.17	18.17
100%	3.85	0	5270047.90	47.90
100%		+10	5270049.88	49.88
100%		+30	5270070.38	70.38
100%		+40	5270055.02	55.02
100%		+50	5270080.68	80.68
End. Point	3.50	+20	5270005.52	5.52

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 3 9 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,510,000,000 Hz

CHANNEL: 102

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5510094.12	94.12
100%		-30	5510071.67	71.67
100%		-20	5510054.06	54.06
100%	3.85	-10	5510061.91	61.91
100%		0	5510012.27	12.27
100%		+10	5510087.86	87.86
100%		+30	5510032.17	32.17
100%		+40	5510072.31	72.31
100%		+50	5510006.53	6.53
End. Point	3.50	+20	5510022.06	22.06

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 4 0 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 3

 OPERATING FREQUENCY:
 5,755,000,000 Hz

 CHANNEL:
 151

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5755096.08	96.08
100%		-30	5755074.67	74.67
100%		-20	5755091.15	91.15
100%		-10	5755094.94	94.94
100%	3.85	0	5755060.76	60.76
100%		+10	5755014.39	14.39
100%		+30	5755060.28	60.28
100%		+40	5755091.90	91.90
100%		+50	5755024.30	24.30
End. Point	3.50	+20	5755027.69	27.69

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 4 1 / 277 **HCT CO.,LTD.**



10.6.3 80MHz BW

[Ant1]

Startup after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,210,000,000 Hz

CHANNEL: 42

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5210020.56	20.56
100%		-30	5210058.10	58.10
100%		-20	5210090.94	90.94
100%		-10	5210040.77	40.77
100%	3.85	0	5210032.04	32.04
100%		+10	5210065.98	65.98
100%		+30	5210040.70	40.70
100%		+40	5210065.38	65.38
100%		+50	5210074.42	74.42
End. Point	3.50	+20	5210023.26	23.26

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 4 2 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,290,000,000 Hz

CHANNEL: 58

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5290073.62	73.62
100%		-30	5290076.65	76.65
100%		-20	5290045.94	45.94
100%	3.85	-10	5290052.96	52.96
100%		0	5290074.72	74.72
100%		+10	5290098.61	98.61
100%		+30	5290018.18	18.18
100%		+40	5290086.62	86.62
100%		+50	5290016.11	16.11
End. Point	3.50	+20	5290081.99	81.99

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 4 3 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,530,000,000 Hz

 CHANNEL:
 106

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5530096.79	96.79
100%		-30	5530010.13	10.13
100%		-20	5530081.16	81.16
100%		-10	5530018.30	18.30
100%	3.85	0	5530052.35	52.35
100%		+10	5530018.59	18.59
100%		+30	5530067.51	67.51
100%		+40	5530080.44	80.44
100%		+50	5530013.80	13.80
End. Point	3.50	+20	5530006.86	6.86

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 4 4 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: 155

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5775048.74	48.74
100%		-30	5775050.79	50.79
100%		-20	5775027.32	27.32
100%		-10	5775014.99	14.99
100%	3.85	0	5775094.96	94.96
100%		+10	5775067.37	67.37
100%		+30	5775050.34	50.34
100%		+40	5775077.38	77.38
100%		+50	5775057.71	57.71
End. Point	3.50	+20	5775090.98	90.98

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 4 5 / 277 **HCT CO.,LTD.**



FCC ID: A3LSMA920N

2 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,210,000,000 Hz

CHANNEL: 42

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5210060.94	60.94
100%		-30	5210001.66	1.66
100%		-20	5210016.82	16.82
100%		-10	5210037.56	37.56
100%	3.85	0	5210054.79	54.79
100%		+10	5210073.87	73.87
100%		+30	5210092.36	92.36
100%		+40	5210095.74	95.74
100%		+50	5210051.02	51.02
End. Point	3.50	+20	5210047.27	47.27

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 4 6 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2A

 OPERATING FREQUENCY:
 5,290,000,000 Hz

 CHANNEL:
 58

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5290052.20	52.20
100%		-30	5290075.08	75.08
100%		-20	5290084.47	84.47
100%		-10	5290010.86	10.86
100%	3.85	0	5290073.37	73.37
100%		+10	5290018.97	18.97
100%		+30	5290038.66	38.66
100%		+40	5290007.58	7.58
100%		+50	5290052.15	52.15
End. Point	3.50	+20	5290083.91	83.91

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 4 7 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,530,000,000 Hz

CHANNEL: 106

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5530067.58	67.58
100%		-30	5530081.34	81.34
100%		-20	5530037.69	37.69
100%		-10	5530068.15	68.15
100%	3.85	0	5530063.11	63.11
100%		+10	5530082.87	82.87
100%		+30	5530038.89	38.89
100%		+40	5530094.66	94.66
100%		+50	5530023.90	23.90
End. Point	3.50	+20	5530032.39	32.39

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 4 8 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: 155

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5775028.56	28.56
100%		-30	5775016.72	16.72
100%		-20	5775098.50	98.5
100%		-10	5775062.19	62.19
100%	3.85	0	5775031.06	31.06
100%		+10	5775002.60	2.60
100%		+30	5775043.15	43.15
100%		+40	5775032.23	32.23
100%		+50	5775062.51	62.51
End. Point	3.50	+20	5775003.29	3.29

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 4 9 / 277 **HCT CO.,LTD.**



5 minutes after the EUT is energized

OPERATING BAND: UNII Band 1
OPERATING FREQUENCY: 5,210,000,000 Hz

CHANNEL: 42

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5210085.86	85.86
100%		-30	5210059.26	59.26
100%		-20	5210085.69	85.69
100%		-10	5210008.80	8.80
100%	3.85	0	5210024.20	24.20
100%		+10	5210042.67	42.67
100%		+30	5210096.47	96.47
100%		+40	5210007.41	7.41
100%		+50	5210023.34	23.34
End. Point	3.50	+20	5210040.05	40.05

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 5 0 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,290,000,000 Hz

CHANNEL: 58

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5290088.67	88.67
100%		-30	5290099.18	99.18
100%		-20	5290053.33	53.33
100%	3.85	-10	5290051.04	51.04
100%		0	5290086.48	86.48
100%		+10	5290041.14	41.14
100%		+30	5290001.85	1.85
100%		+40	5290053.34	53.34
100%		+50	5290079.02	79.02
End. Point	3.50	+20	5290061.02	61.02

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 5 1 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,530,000,000 Hz

 CHANNEL:
 106

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5530026.68	26.68
100%		-30	5530092.91	92.91
100%		-20	5530007.20	7.20
100%		-10	5530002.74	2.74
100%	3.85	0	5530074.77	74.77
100%		+10	5530093.85	93.85
100%		+30	5530045.08	45.08
100%		+40	5530093.39	93.39
100%		+50	5530012.54	12.54
End. Point	3.50	+20	5530006.09	6.09

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 5 2 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: 155

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5775053.80	53.80
100%		-30	5775079.12	79.12
100%		-20	5775058.67	58.67
100%		-10	5775013.22	13.22
100%	3.85	0	5775023.35	23.35
100%		+10	5775012.89	12.89
100%		+30	5775085.13	85.13
100%		+40	5775073.93	73.93
100%		+50	5775027.95	27.95
End. Point	3.50	+20	5775054.93	54.93

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 5 3 / 277 **HCT CO.,LTD.**



10 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,210,000,000 Hz

CHANNEL: 42

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5210096.05	96.05
100%		-30	5210089.57	89.57
100%		-20	5210053.11	53.11
100%		-10	5210019.85	19.85
100%	3.85	0	5210029.41	29.41
100%		+10	5210039.17	39.17
100%		+30	5210055.91	55.91
100%		+40	5210079.13	79.13
100%		+50	5210067.21	67.21
End. Point	3.50	+20	5210081.11	81.11

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 5 4 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,290,000,000 Hz

CHANNEL: 58

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5290095.46	95.46
100%		-30	5290073.05	73.05
100%		-20	5290025.16	25.16
100%	3.85	-10	5290031.88	31.88
100%		0	5290010.55	10.55
100%		+10	5290083.60	83.60
100%		+30	5290064.13	64.13
100%		+40	5290029.31	29.31
100%		+50	5290026.10	26.10
End. Point	3.50	+20	5290060.66	60.66

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 5 5 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,530,000,000 Hz

 CHANNEL:
 106

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5530075.53	75.53
100%		-30	5530059.82	59.82
100%		-20	5530089.80	89.80
100%		-10	5530039.97	39.97
100%	3.85	0	5530009.96	9.96
100%		+10	5530025.24	25.24
100%		+30	5530060.12	60.12
100%		+40	5530080.87	80.87
100%		+50	5530043.91	43.91
End. Point	3.50	+20	5530045.34	45.34

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 5 6 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 3

 OPERATING FREQUENCY:
 5,775,000,000 Hz

 CHANNEL:
 155

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5775055.59	55.59
100%		-30	5775023.92	23.92
100%		-20	5775023.86	23.86
100%	3.85	-10	5775054.08	54.08
100%		0	5775007.43	7.43
100%		+10	5775016.31	16.31
100%		+30	5775072.79	72.79
100%		+40	5775005.18	5.18
100%		+50	5775019.68	19.68
End. Point	3.50	+20	5775051.74	51.74

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 5 7 / 277 **HCT CO.,LTD.**



FCC ID: A3LSMA920N

[Ant2]

Startup after the EUT is energized

 OPERATING BAND:
 UNII Band 1

 OPERATING FREQUENCY:
 5,210,000,000 Hz

 CHANNEL:
 42

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5210021.73	21.73
100%		-30	5210083.38	83.38
100%		-20	5210073.21	73.21
100%		-10	5210048.31	48.31
100%	3.85	0	5210003.17	3.17
100%		+10	5210047.68	47.68
100%		+30	5210031.67	31.67
100%		+40	5210039.18	39.18
100%		+50	5210028.20	28.20
End. Point	3.50	+20	5210024.07	24.07

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 5 8 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,290,000,000 Hz

CHANNEL: 58

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5290082.42	82.42
100%		-30	5290051.89	51.89
100%		-20	5290049.35	49.35
100%		-10	5290016.22	16.22
100%	3.85	0	5290084.61	84.61
100%		+10	5290093.63	93.63
100%		+30	5290087.76	87.76
100%		+40	5290027.76	27.76
100%		+50	5290074.76	74.76
End. Point	3.50	+20	5290083.69	83.69

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 5 9 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2C

OPERATING FREQUENCY: 5,530,000,000 Hz

CHANNEL: 106

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5530077.23	77.23
100%		-30	5530017.43	17.43
100%		-20	5530033.08	33.08
100%		-10	5530064.05	64.05
100%	3.85	0	5530024.78	24.78
100%		+10	5530044.82	44.82
100%		+30	5530029.81	29.81
100%		+40	5530051.93	51.93
100%		+50	5530029.75	29.75
End. Point	3.50	+20	5530040.26	40.26

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 6 0 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: 155

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5775079.83	79.83
100%		-30	5775039.20	39.20
100%		-20	5775031.80	31.80
100%		-10	5775067.50	67.50
100%	3.85	0	5775009.82	9.82
100%		+10	5775083.82	83.82
100%		+30	5775053.92	53.92
100%		+40	5775065.26	65.26
100%		+50	5775076.32	76.32
End. Point	3.50	+20	5775088.97	88.97

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 6 1 / 277 **HCT CO.,LTD.**



2 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,210,000,000 Hz

CHANNEL: 42

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5210088.23	88.23
100%		-30	5210022.13	22.13
100%		-20	5210088.11	88.11
100%		-10	5210098.92	98.92
100%	3.85	0	5210083.53	83.53
100%		+10	5210013.18	13.18
100%		+30	5210072.57	72.57
100%		+40	5210066.10	66.10
100%		+50	5210053.55	53.55
End. Point	3.50	+20	5210062.79	62.79

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 6 2 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,290,000,000 Hz

CHANNEL: 58

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5290050.95	50.95
100%		-30	5290074.19	74.19
100%		-20	5290044.17	44.17
100%		-10	5290063.56	63.56
100%	3.85	0	5290081.27	81.27
100%		+10	5290043.72	43.72
100%		+30	5290023.12	23.12
100%		+40	5290060.90	60.90
100%		+50	5290042.65	42.65
End. Point	3.50	+20	5290007.03	7.03

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 6 3 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,530,000,000 Hz

 CHANNEL:
 106

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5530091.48	91.48
100%		-30	5530023.27	23.27
100%		-20	5530005.75	5.75
100%	3.85	-10	5530033.78	33.78
100%		0	5530010.82	10.82
100%		+10	5530002.56	2.56
100%		+30	5530058.23	58.23
100%		+40	5530081.71	81.71
100%		+50	5530084.58	84.58
End. Point	3.50	+20	5530082.38	82.38

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 6 4 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: <u>155</u>

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5775062.74	62.74
100%		-30	5775043.57	43.57
100%		-20	5775015.85	15.85
100%		-10	5775071.95	71.95
100%	3.85	0	5775038.92	38.92
100%		+10	5775024.58	24.58
100%		+30	5775081.36	81.36
100%		+40	5775035.38	35.38
100%		+50	5775019.90	19.90
End. Point	3.50	+20	5775056.17	56.17

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 6 5 / 277 **HCT CO.,LTD.**



5 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,210,000,000 Hz

CHANNEL: 42

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5210099.75	99.75
100%		-30	5210015.77	15.77
100%		-20	5210033.24	33.24
100%		-10	5210068.68	68.68
100%	3.85	0	5210078.62	78.62
100%		+10	5210034.65	34.65
100%		+30	5210091.79	91.79
100%		+40	5210025.76	25.76
100%		+50	5210073.67	73.67
End. Point	3.50	+20	5210035.80	35.80

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 6 6 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A

OPERATING FREQUENCY: 5,290,000,000 Hz

CHANNEL: 58

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5290091.09	91.09
100%		-30	5290087.75	87.75
100%		-20	5290070.33	70.33
100%	3.85	-10	5290061.21	61.21
100%		0	5290045.29	45.29
100%		+10	5290007.55	7.55
100%		+30	5290075.55	75.55
100%		+40	5290004.50	4.50
100%		+50	5290030.76	30.76
End. Point	3.50	+20	5290027.66	27.66

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 6 7 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,530,000,000 Hz

 CHANNEL:
 106

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5530094.92	94.92
100%		-30	5530029.94	29.94
100%		-20	5530044.28	44.28
100%		-10	5530059.59	59.59
100%	3.85	0	5530032.39	32.39
100%		+10	5530078.68	78.68
100%		+30	5530002.35	2.35
100%		+40	5530087.63	87.63
100%		+50	5530054.48	54.48
End. Point	3.50	+20	5530044.70	44.70

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 6 8 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: 155

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5775014.25	14.25
100%		-30	5775092.87	92.87
100%		-20	5775065.43	65.43
100%	3.85	-10	5775062.14	62.14
100%		0	5775004.39	4.39
100%		+10	5775067.22	67.22
100%		+30	5775046.22	46.22
100%		+40	5775085.08	85.08
100%		+50	5775029.36	29.36
End. Point	3.50	+20	5775075.38	75.38

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 6 9 / 277 **HCT CO.,LTD.**



10 minutes after the EUT is energized

OPERATING BAND: UNII Band 1

OPERATING FREQUENCY: 5,210,000,000 Hz

CHANNEL: 42

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5210053.93	53.93
100%		-30	5210020.51	20.51
100%		-20	5210086.68	86.68
100%		-10	5210012.70	12.70
100%	3.85	0	5210099.73	99.73
100%		+10	5210053.47	53.47
100%		+30	5210007.76	7.76
100%		+40	5210092.29	92.29
100%		+50	5210004.31	4.31
End. Point	3.50	+20	5210086.17	86.17

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 7 0 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 2A
OPERATING FREQUENCY: 5,290,000,000 Hz

CHANNEL: 58

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5290023.40	23.40
100%		-30	5290064.79	64.79
100%		-20	5290031.02	31.02
100%	3.85	-10	5290009.77	9.77
100%		0	5290009.35	9.35
100%		+10	5290069.20	69.20
100%		+30	5290070.78	70.78
100%		+40	5290094.76	94.76
100%		+50	5290055.43	55.43
End. Point	3.50	+20	5290024.75	24.75

FCC ID: A3LSMA920N

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 7 1 / 277 **HCT CO.,LTD.**



 OPERATING BAND:
 UNII Band 2C

 OPERATING FREQUENCY:
 5,530,000,000 Hz

 CHANNEL:
 106

 REFERENCE VOLTAGE:
 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5530067.48	67.48
100%		-30	5530032.72	32.72
100%		-20	5530067.62	67.62
100%	3.85	-10	5530031.72	31.72
100%		0	5530050.76	50.76
100%		+10	5530089.67	89.67
100%		+30	5530038.20	38.20
100%		+40	5530058.19	58.19
100%		+50	5530073.48	73.48
End. Point	3.50	+20	5530088.28	88.28

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 7 2 / 277 **HCT CO.,LTD.**



OPERATING BAND: UNII Band 3

OPERATING FREQUENCY: 5,775,000,000 Hz

CHANNEL: 155

REFERENCE VOLTAGE: 3.85 VDC

Voltage	Power	Temp.	Frequency	Frequency
(%)	(VDC)	(℃)	(kHz)	Error (kHz)
100%		+20(Ref)	5775088.43	88.43
100%		-30	5775038.29	38.29
100%		-20	5775063.35	63.35
100%		-10	5775037.47	37.47
100%	3.85	0	5775040.42	40.42
100%		+10	5775040.04	40.04
100%		+30	5775030.78	30.78
100%		+40	5775014.19	14.19
100%		+50	5775001.91	1.91
End. Point	3.50	+20	5775037.62	37.62

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

F-TP22-03 (Rev.00) 1 7 3 / 277 **HCT CO.,LTD.**

10.7 STRADDLE CHANNEL 10.7.1 26dB Bandwidth

[Ant1]

Mode	Frequency [MHz]	Channel No.	26dB Bandwidth [MHz]
802.11a	5720 (UNII 2C Band)		14.64
802.11n(HT20)		144	15.76
802.11ac(VHT20)			15.60
802.11a	5720 (UNII 3 Band)		4.48
802.11n(HT20)		144	5.36
802.11ac(VHT20)			5.72

FCC ID: A3LSMA920N

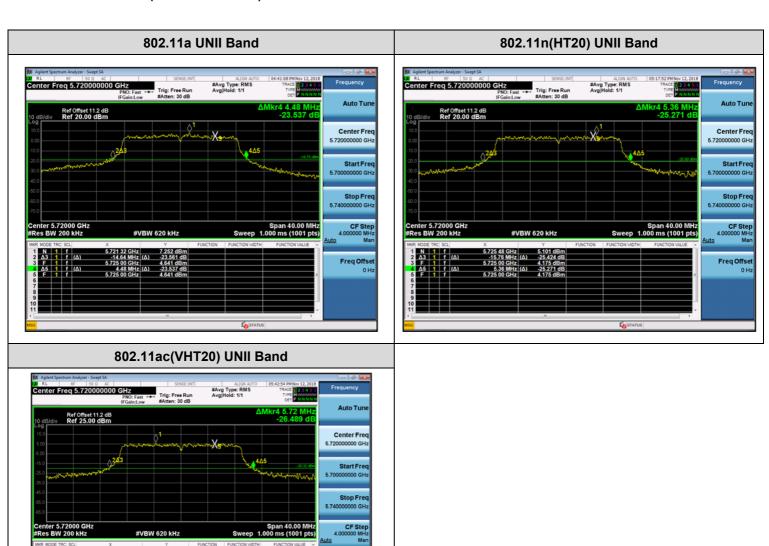
Mode	Frequency [MHz]	Channel No.	26dB Bandwidth [MHz]
802.11n(HT40)	5710	140	36.36
802.11ac(VHT40)	(UNII 2C Band)	142	36.52
802.11n(HT40)	5710	440	6.60
802.11ac(VHT40)	(UNII 3 Band)	142	6.44

Mode	Frequency [MHz]	Channel No.	26dB Bandwidth [MHz]
000 44 (4/1700)	5690 (UNII 2C Band)	138	77.12
802.11ac(VHT80)	5690 (UNII 3 Band)	138	8.92

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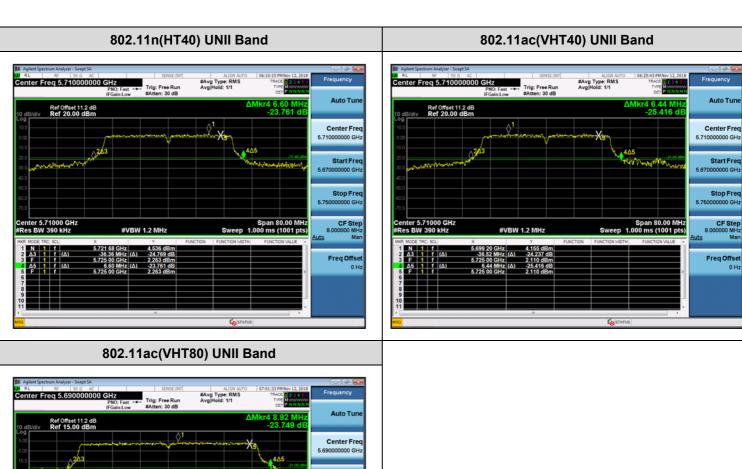
■ Test Plots (26dB Bandwidth)



F-TP22-03 (Rev.00) 1 7 5 / 277 **HCT CO.,LTD.**



■ Test Plots (26dB Bandwidth)



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[Ant2]

Mode	Frequency [MHz]	Channel No.	26dB Bandwidth [MHz]
802.11a	5720 (UNII 2C Band)		14.56
802.11n(HT20)		144	15.32
802.11ac(VHT20)			15.84
802.11a	5720 (UNII 3 Band)		4.84
802.11n(HT20)		144	5.20
802.11ac(VHT20)			5.12

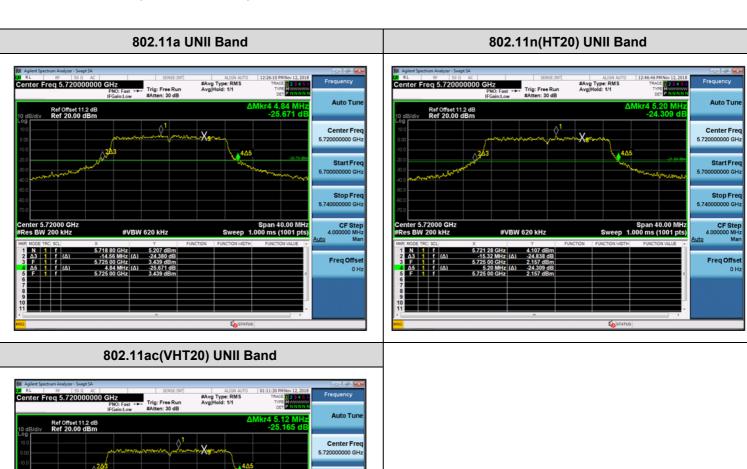
Mode	Frequency [MHz]	Channel No.	26dB Bandwidth [MHz]
802.11n(HT40)	5710	142	36.44
802.11ac(VHT40)	(UNII 2C Band)	142	36.44
802.11n(HT40)	5710	140	6.52
802.11ac(VHT40)	(UNII 3 Band)	142	6.12

Mode	Frequency [MHz]	Channel No.	26dB Bandwidth [MHz]
000 44 (441700)	5690 (UNII 2C Band)	138	77.60
802.11ac(VHT80)	5690 (UNII 3 Band)	138	9.28

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■ Test Plots (26dB Bandwidth)

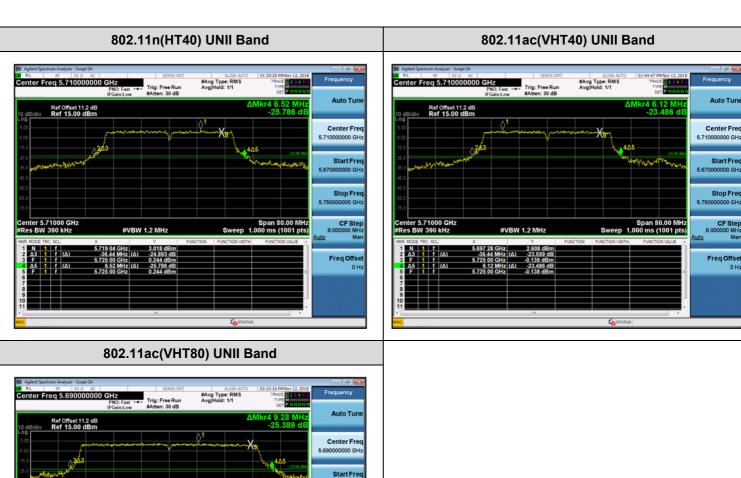




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■ Test Plots (26dB Bandwidth)



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10.7.2 6dB Bandwidth

[Ant1]

Mode	Frequency [MHz]	Channel No.	6dB Bandwidth [MHz]
802.11a	5720 (UNII 3 Band)		3.160
802.11n(HT20)		144	3.800
802.11ac(VHT20)			3.784

FCC ID: A3LSMA920N

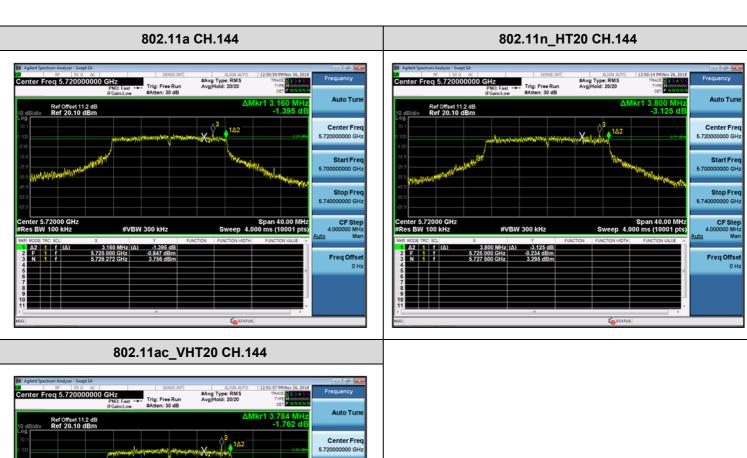
Mode	Frequency [MHz]	Channel No.	6dB Bandwidth [MHz]
802.11n(HT40)	5710	142	3.17
802.11ac(VHT40)	(UNII 3 Band)	142	3.17

Mode	Frequency [MHz]	Channel No.	6dB Bandwidth [MHz]
802.11ac(VHT80)	5690 (UNII 3 Band)	138	2.82

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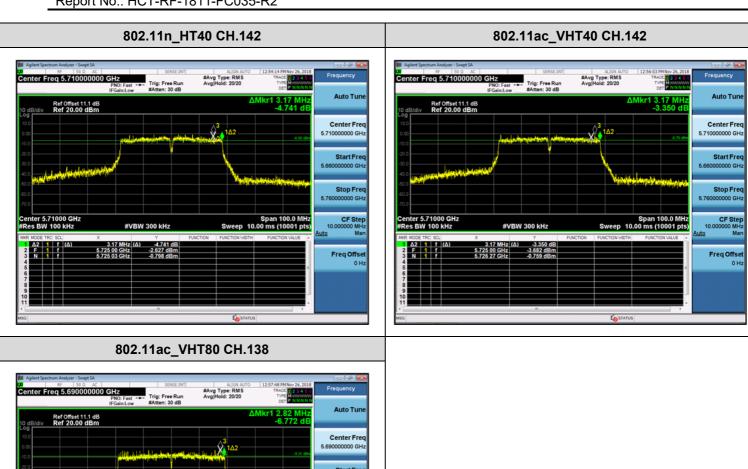


■ Test Plots(UNII 3 Band 6dB Bandwidth)



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[Ant2]

Mode	Frequency [MHz]	Channel No.	6dB Bandwidth [MHz]
802.11a	5720 (UNII 3 Band)		3.164
802.11n(HT20)		144	3.800
802.11ac(VHT20)			3.784

Mode	Frequency [MHz]	Channel No.	6dB Bandwidth [MHz]
802.11n(HT40)	5710	142	3.16
802.11ac(VHT40)	(UNII 3 Band)	142	3.16

Mode	Frequency [MHz]	Channel No.	6dB Bandwidth [MHz]
802.11ac(VHT80)	5690 (UNII 3 Band)	138	3.12

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