Appendix Test Data

Report No:	18220WC301711	Test Sample NO:	1-2-2
Start Test Date:	2023.08.10	Finish Test Date:	2023.10.30
Test Engineer:	Hayman Chen	Auditor:	Rick Luo
Temperature:	25.6℃	Relative Humidity:	48%
Pressure:	1012 hPa		

Appendix A1: Emission Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
5.8G	Ant1	5732	13.360	5726.680	5740.040	---	---
		5790	12.920	5784.640	5797.560	---	---
		5840	13.320	5841.720	5855.040	---	---

Test Graphs

5.8G_Ant1_5732

5.8G_Ant1_5790

5.8G_Ant1_5840

Keysight Spectrum Analyzer - Swept SA
Center Freq 5.840000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 100/100
06:03:03 PM Aug 21, 2023
Ref Offset 10 dB
10 dB/div
Ref 30.00 dBm
Log
ΔMkr3 13.32 MHz
-2.008 dB
3Δ1
-1.13 dBm
Center 5.8400 GHz
#Res BW 220 kHz
#VBW 680 kHz
Span 40.00 MHz
Sweep 1.000 ms (1001 pts)
1 N 1 f 5.836 72 GHz -1.923 dBm
2 N 1 f 5.840 60 GHz 24.874 dBm
3 Δ1 1 f (Δ) 13.32 MHz (Δ) -2.008 dB
Frequency
Auto Tune
Center Freq
5.840000000 GHz
Start Freq
5.820000000 GHz
Stop Freq
5.860000000 GHz
CF Step
4.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

Appendix A2: Occupied channel bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
5.8G	Ant1	5732	10.717	5727.4481	5738.1651	---	---
		5790	10.157	5785.9995	5796.1565	---	---
		5840	11.269	5842.4414	5853.7104	---	---

Test Graphs

5.8G_Ant1_5732

5.8G_Ant1_5790

5.8G_Ant1_5840

Keysight Spectrum Analyzer - Occupied BW
Center Freq 5.840000000 GHz
Center Freq: 5.847000000 GHz
Trig: Free Run
Avg|Hold: 500/500
#Atten: 40 dB
Radio Std: None
Radio Device: BTS
06:03:45 PM Aug 21, 2023
Frequency
Ref Offset 10 dB
10 dB/div
Ref 30.00 dBm
Mkr1 5.84088 GHz
24.871 dBm
Center Freq
5.840000000 GHz
Center 5.84 GHz
#Res BW 430 kHz
#VBW 1.3 MHz
Span 40 MHz
Sweep 1 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
11.269 MHz
Total Power 34.5 dBm
Transmit Freq Error 1.0759 MHz
OBW Power 99.00 %
x dB Bandwidth 14.89 MHz
x dB -26.00 dB
Freq Offset
0 Hz
MSG
STATUS

Appendix A3: Min emission bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
5.8G	Ant1	5732	4.560	5728.840	5733.400	0.5	PASS
		5790	4.320	5786.880	5791.200	0.5	PASS
		5840	4.240	5843.960	5848.200	0.5	PASS

Test Graphs

5.8G_Ant1_5732

5.8G_Ant1_5790

5.8G_Ant1_5840

Keysight Spectrum Analyzer - Swept SA
Center Freq 5.840000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 100/100
06:03:21 PM Aug 21, 2023
Ref Offset 10 dB
10 dB/div
Ref 30.00 dBm
Log
ΔMkr3 4.24 MHz
0.304 dB
Center 5.8400 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40.00 MHz
Sweep 3.867 ms (1001 pts)
1 N 1 f 5.836 96 GHz 18.989 dBm
2 N 1 f 5.840 92 GHz 24.578 dBm
3 Δ1 1 f (Δ) 4.24 MHz (Δ) 0.304 dB
Frequency
Auto Tune
Center Freq
5.840000000 GHz
Start Freq
5.820000000 GHz
Stop Freq
5.860000000 GHz
CF Step
4.000000 MHz
Auto Man
Freq Offset
0 Hz

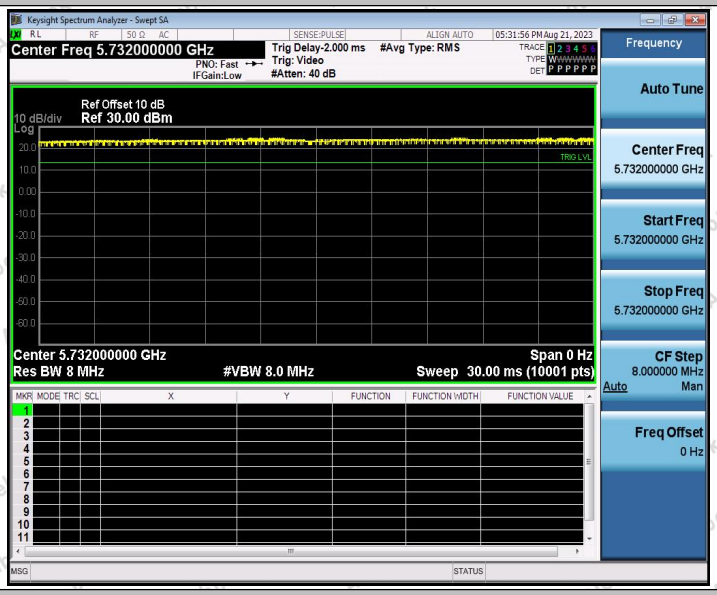
Appendix B: Duty Cycle

Test Result

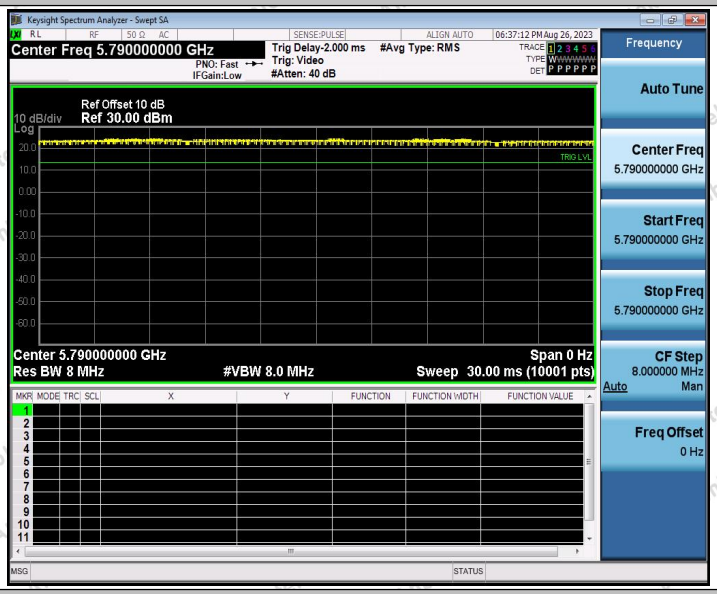
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
5.8G	Ant1	5732	30.00	30.00	100.00
		5790	30.00	30.00	100.00
		5840	30.00	30.00	100.00

Test Graphs

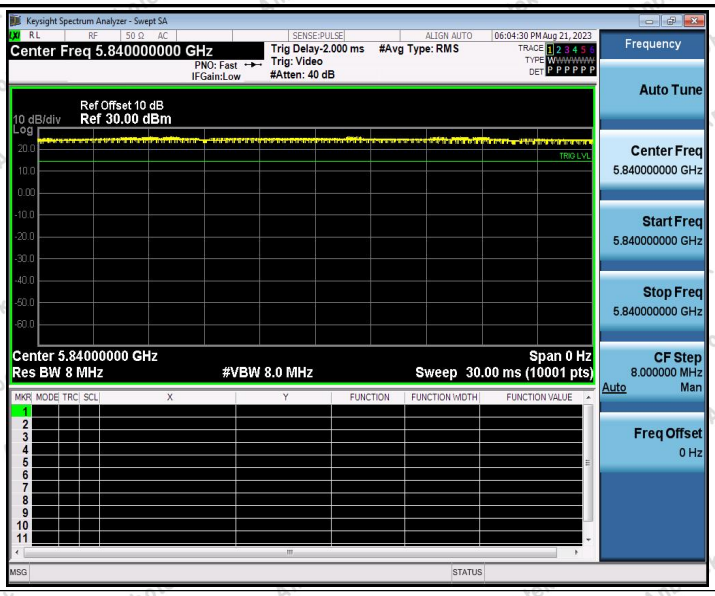
5.8G_Ant1_5732



5.8G_Ant1_5790



5.8G_Ant1_5840


Keysight Spectrum Analyzer - Swept SA
Center Freq 5.840000000 GHz
PNO: Fast
IFGain:Low
Trig Delay-2.000 ms
Trig: Video
#Atten: 40 dB
#Avg Type: RMS
06:04:30 PM Aug 21, 2023
Ref Offset 10 dB
10 dB/div
Ref 30.00 dBm
Log
Center 5.84000000 GHz
Res BW 8 MHz
#VBW 8.0 MHz
Span 0 Hz
Sweep 30.00 ms (10001 pts)
Frequency
Auto Tune
Center Freq
5.840000000 GHz
Start Freq
5.840000000 GHz
Stop Freq
5.840000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz

Appendix C: Maximum conducted output power

Test Result Channel Power

Test Mode	Antenna	Frequency [MHz]	Set Power	Channel Power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]	Limit [dBm]
5.8G	Ant1	5732	---	25.90	100.00	0.00	25.90	≤30.00
	Ant1	5790	---	24.89	100.00	0.00	24.89	≤30.00
	Ant1	5840	---	25.96	100.00	0.00	25.96	≤30.00

Note：The Duty Cycle Factor is compensated in the graph.

Test Graphs

5.8G_Ant1_5732

5.8G_Ant1_5790

5.8G_Ant1_5840

Keysight Spectrum Analyzer - Swept SA
Center Freq 5.840000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
05:52:55 PM Aug 21, 2023
Ref Offset 10 dB
10 dB/div Ref 40.00 dBm
Log
Mkr1 5.845 10 GHz
25.962 dBm
Center 5.8400 GHz
#Res BW 8 MHz
#VBW 8.0 MHz
Span 30.00 MHz
Sweep 1.000 ms (1001 pts)
Frequency
Auto Tune
Center Freq
5.840000000 GHz
Start Freq
5.825000000 GHz
Stop Freq
5.855000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result [dBm/500KHz]	Limit[dBm/500KHz]	Verdict
5.8G	Ant1	5732	4.59	≤8.00	PASS
		5790	4.30	≤8.00	PASS
		5840	4.62	≤8.00	PASS

Note：1.The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

5.8G_Ant1_5732

5.8G_Ant1_5790

5.8G_Ant1_5840

Keysight Spectrum Analyzer - Swept SA
Center Freq 5.840000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 10/10
04:09:09 PM Oct 30, 2023
Ref Offset 10 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 5.838 53 GHz
4.622 dBm
Center 5.8400 GHz
#Res BW 510 kHz
#VBW 2.0 MHz
Span 30.00 MHz
Sweep 3.163 s (1001 pts)
Frequency
Auto Tune
Center Freq
5.840000000 GHz
Start Freq
5.825000000 GHz
Stop Freq
5.855000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency [MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
5.8G	Ant1	Low	5732	24.27	-41.90	≤4.27	PASS
		High	5840	25.18	-41.19	≤5.18	PASS

Test Graphs

5.8G_Ant1_Low_5732

5.8G_Ant1_High_5840

---End---