Appendix Test Data

Report No.:	18220WC20066903	Test Sample No.:	1-2-2
Start Test Date:	2022.4.1	Finish Test Date:	2022.4.7
Test Engineer:	Tony.He	Auditor:	Edward.Pan
Temperature:	24.3℃	Relative Humidity:	55.7 %
Pressure:	1012 hPa		

Appendix A1: Emission Bandwidth

Test Result

Test Mode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11N20SISO	Ant1	5180	20.960	5169.640	5190.600	---	PASS
		5200	21.360	5189.440	5210.800	---	PASS
		5240	21.040	5229.360	5250.400	---	PASS

Test Graphs

11N20SISO_Ant1_5180

11N20SISO_Ant1_5200

11N20SISO_Ant1_5240

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.240000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 100/100
ΔMkr3 21.04 MHz
0.282 dB
10 dB/div
Ref 20.00 dBm
Center 5.24000 GHz
#Res BW 220 kHz
#VBW 620 kHz
Span 40.00 MHz
Sweep 1.000 ms (1001 pts)
1 N 1 f 5.229 36 GHz -26.152 dBm
2 N 1 f 5.238 32 GHz 0.900 dBm
3 Δ1 1 f (Δ) 21.04 MHz (Δ) 0.282 dB
Frequency
Auto Tune
Center Freq
5.240000000 GHz
Start Freq
5.220000000 GHz
Stop Freq
5.260000000 GHz
CF Step
4.000000 MHz
Auto Man
Freq Offset
0 Hz

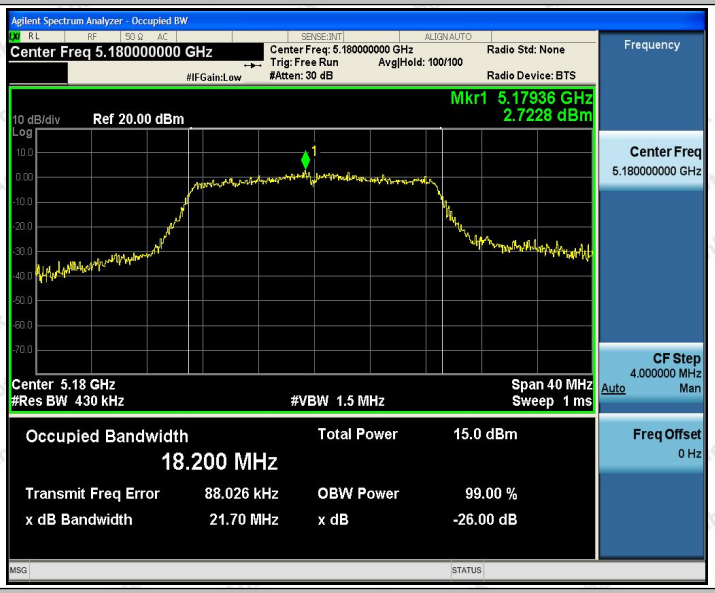
Appendix A2: Occupied channel bandwidth

Test Result

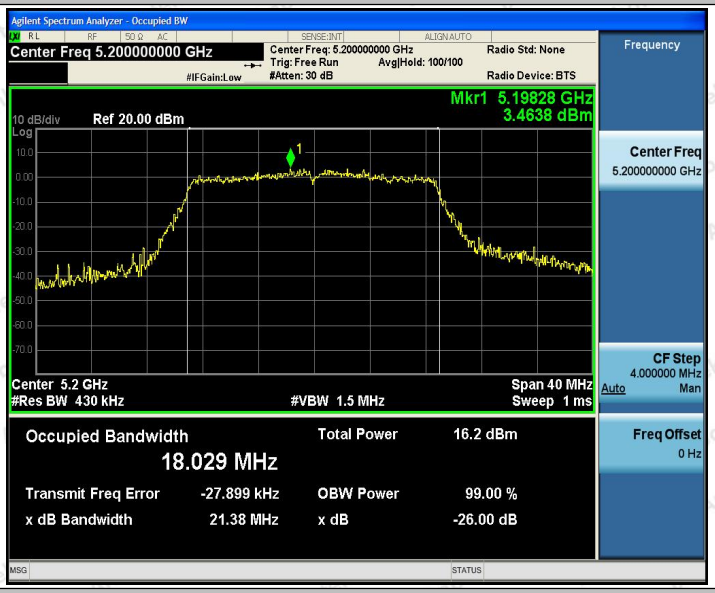
Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11N20SISO	Ant1	5180	18.200	5170.988	5189.188	---	PASS
		5200	18.029	5190.958	5208.987	---	PASS
		5240	18.070	5230.857	5248.927	---	PASS

Test Graphs

11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



11N20SISO_Ant1_5240

Agilent Spectrum Analyzer - Occupied BW
Center Freq 5.240000000 GHz
Center Freq: 5.240000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#IFGain:Low
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Mkr1 5.24124 GHz
3.2234 dBm
10 dB/div
Ref 20.00 dBm
Log
Center 5.24 GHz
#Res BW 430 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1 ms
Occupied Bandwidth
18.070 MHz
Total Power 16.1 dBm
Transmit Freq Error -108.12 kHz
OBW Power 99.00 %
x dB Bandwidth 21.66 MHz
x dB -26.00 dB
Frequency
Center Freq
5.240000000 GHz
CF Step
4.000000 MHz
Auto Man
Freq Offset
0 Hz
MSG
STATUS

Appendix B: Maximum conducted output power

Test Result

Test Mode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11N20SISO	Ant1	5180	11.29	≤23.50	PASS
		5200	12.52	≤23.50	PASS
		5240	12.34	≤23.50	PASS

Note:Limit[dBm]=23.98dBm-(6.48dBi-6dB)=23.50dBm

The Duty Cycle Factor is compensated in the graph.

Appendix C: Maximum power spectral density

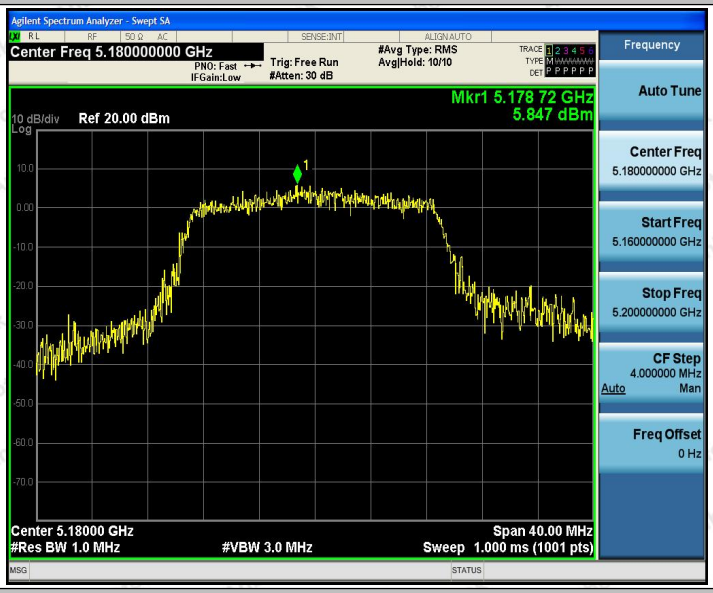
Test Result

Test Mode	Antenna	Channel	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11N20SISO	Ant1	5180	5.85	≤10.52	PASS
		5200	7.45	≤10.52	PASS
		5240	6.27	≤10.52	PASS

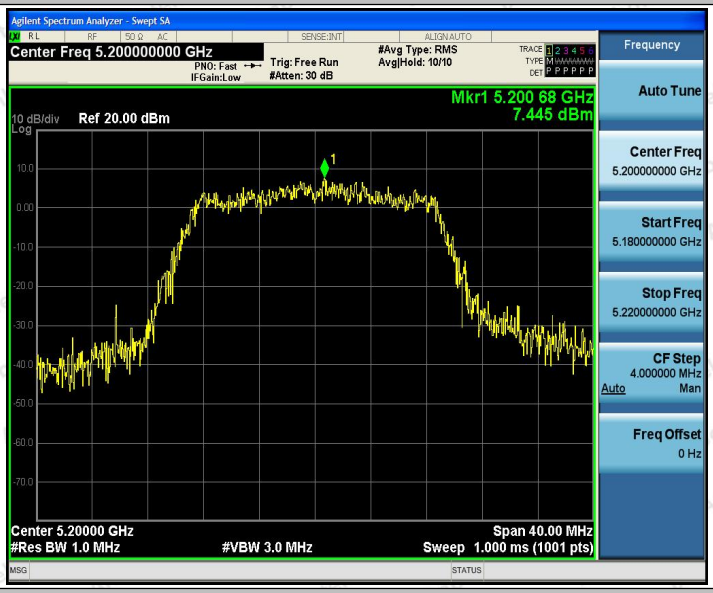
Note:Limit[dBm/MHz]=11[dBm/MHz]-(Gain6.48dBi-6dB)=11-0.48=10.52[dBm/MHz]

Test Graphs

11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



11N20SISO_Ant1_5240

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.240000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 10/10
Mkr1 5.239 96 GHz
6.269 dBm
10 dB/div
Log
Ref 20.00 dBm
Center 5.24000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 40.00 MHz
Sweep 1.000 ms (1001 pts)
Frequency
Auto Tune
Center Freq
5.240000000 GHz
Start Freq
5.220000000 GHz
Stop Freq
5.260000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

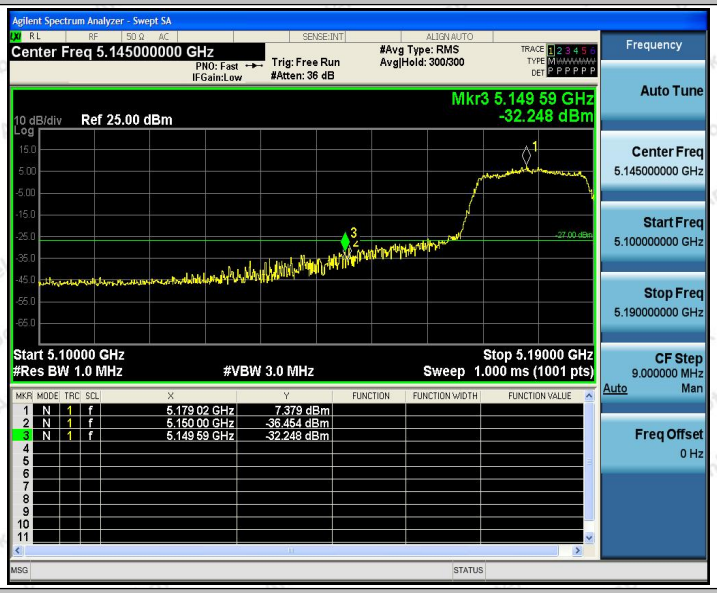
Appendix D: Band edge measurements

Test Result

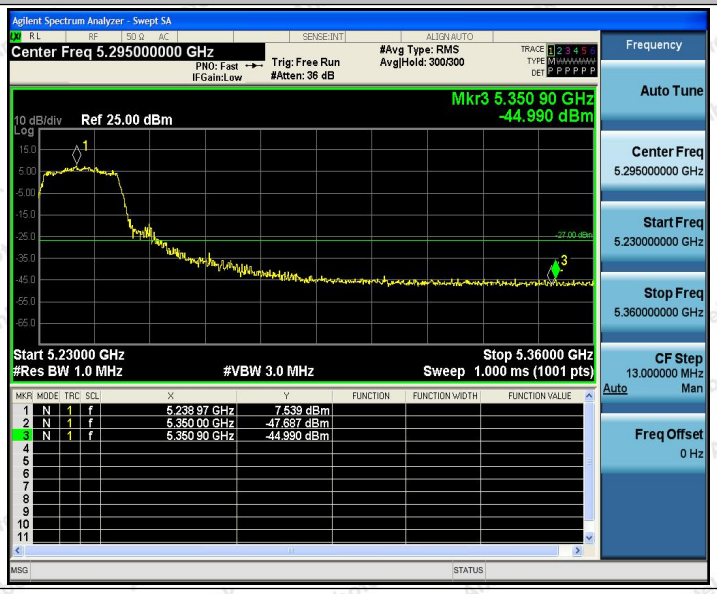
Test Mode	Antenna	Ch Name	Channel	Result[dBm]	Limit[dBm]	Verdict
11N20SISO	Ant1	Low	5180	-32.25	≤-27	PASS
		High	5240	-44.99	≤-27	PASS

Test Graphs

11N20SISO_Ant1_Low_5180



11N20SISO_Ant1_High_5240



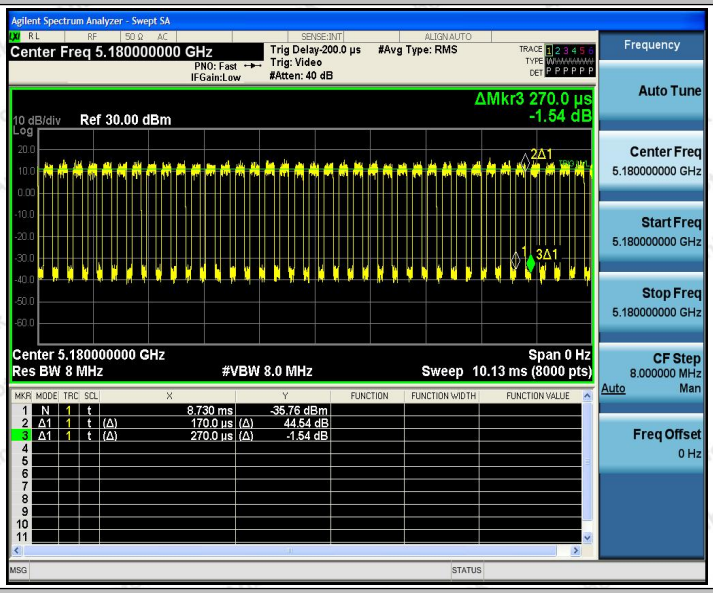
Appendix H: Duty Cycle

Test Result

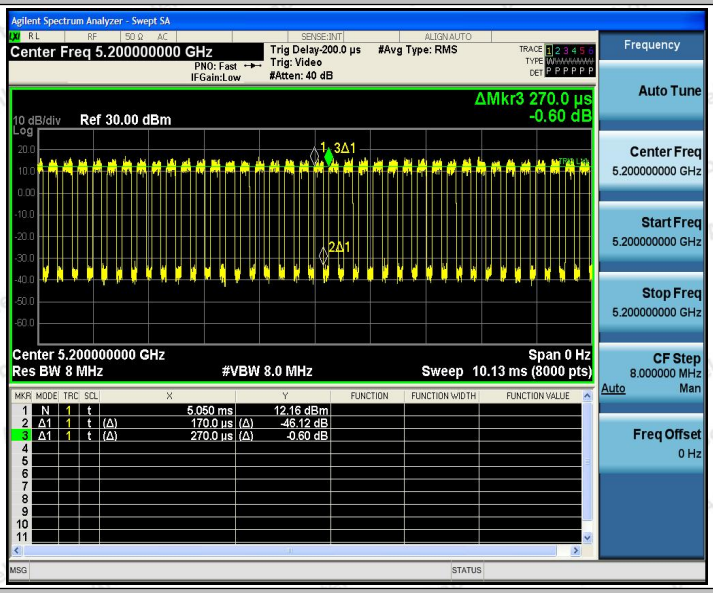
Test Mode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11N20SISO	Ant1	5180	0.17	0.27	62.96	---	PASS
		5200	0.17	0.27	62.96	---	PASS
		5240	0.17	0.27	62.96	---	PASS

Test Graphs

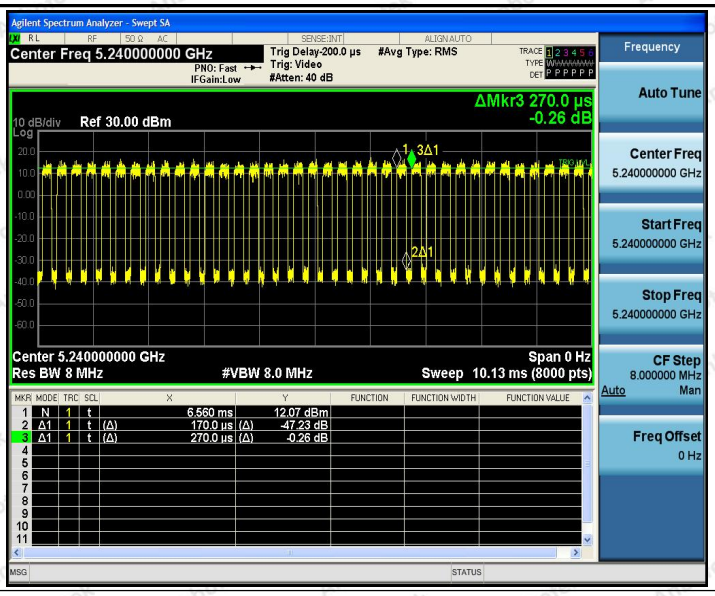
11N20SISO_Ant1_5180



11N20SISO_Ant1_5200



11N20SISO_Ant1_5240


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.240000000 GHz
PNO: Fast
IFGain:Low
Trig Delay-200.0 µs
Trig: Video
#Atten: 40 dB
#Avg Type: RMS
ΔMkr3 270.0 µs
-0.26 dB
10 dB/div
Ref 30.00 dBm
Log
Center 5.240000000 GHz
Res BW 8 MHz
#VBW 8.0 MHz
Span 0 Hz
Sweep 10.13 ms (8000 pts)
1 N 1 t 6.560 ms 12.07 dBm
2 Δ1 1 t (Δ) 170.0 µs (Δ) -47.23 dB
3 Δ1 1 t (Δ) 270.0 µs (Δ) -0.26 dB
Frequency
Auto Tune
Center Freq
5.240000000 GHz
Start Freq
5.240000000 GHz
Stop Freq
5.240000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz

---End---