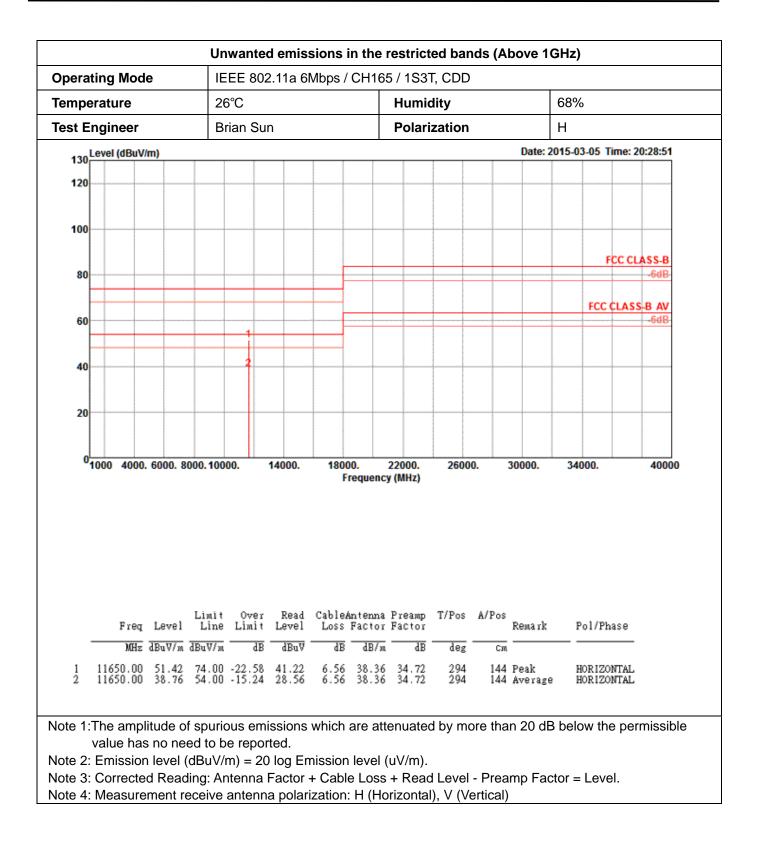
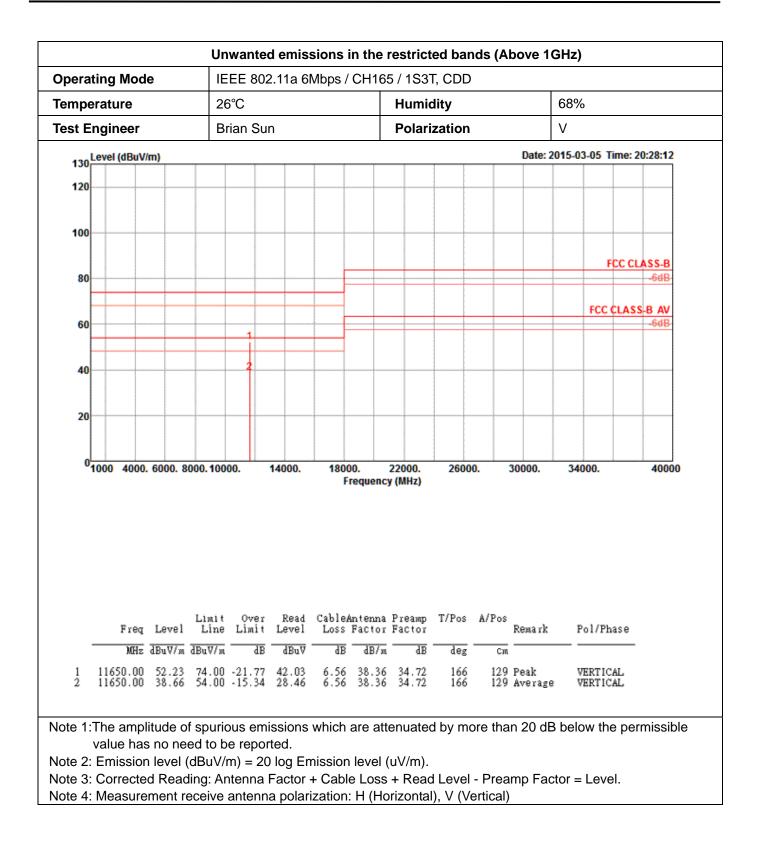
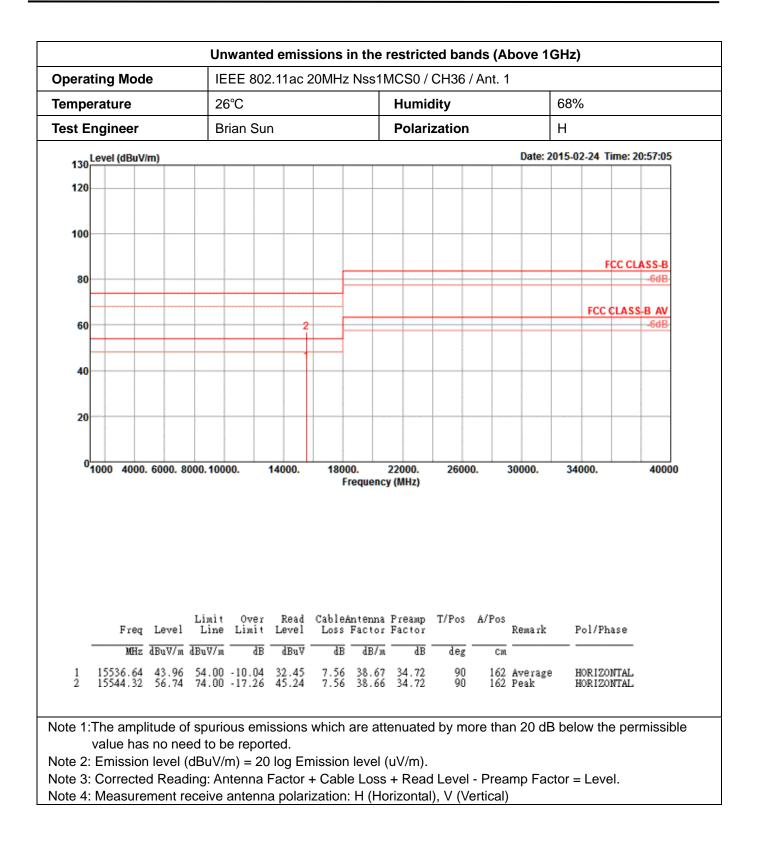


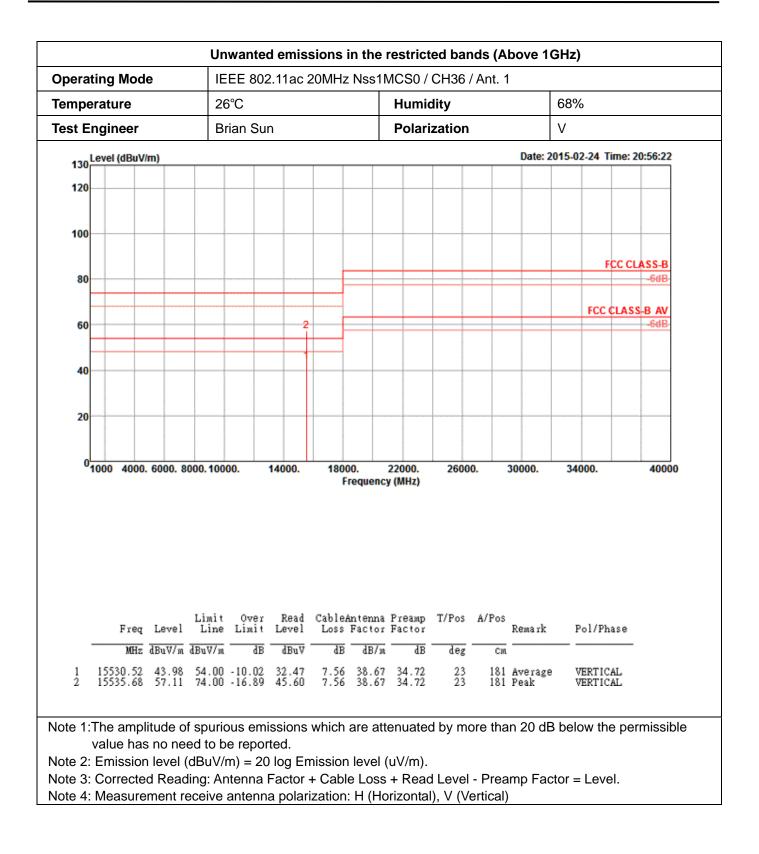
FCC TEST REPORT

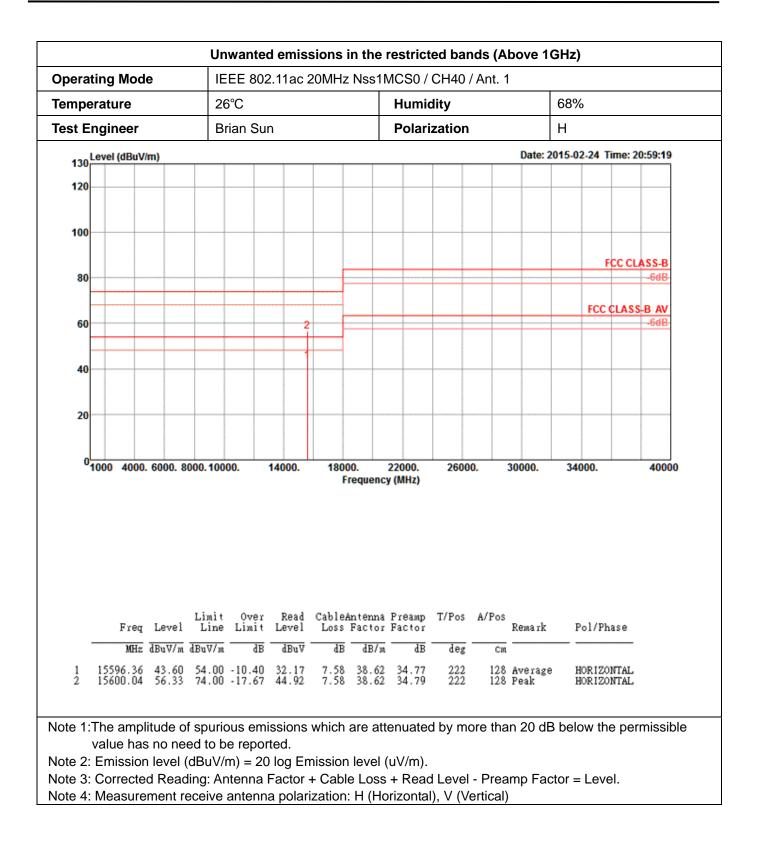
perating Mode		IEEE 802.11a 6Mbps / CH157 / 1S3T, CDD											
emperature	2	26°C			Hui	nidity	(68% V					
est Engineer	E	Brian Su	n		Pol	arizatio	Ņ						
Level (dBuV/m)								Date: 20	15-03-05	Time:	20:26:12		
20													
.0													
0													
										FCC C	LASS-B		
											-6dB		
									FC	C CLAS	S-B AV		
0											-6dB		
0	- 2												
0													
01000 4000. 6000. 8000.	. 10000.	14000.	1800 Fr	0. 2 requency	2000. (MH7)	26000	. 3	0000.	34000.		400		
Li Freq Level L	mit Over ine Limit	: Read	Fr CableA		(MH7)	26000 T/Pos	A/Pos	:0000. Remark		Phase	400		
Li	mit Over ine Limit	Read Level	Fr CableA	requency ntenna l	(MH7)		A/Pos			Phase	400		
Li Freq Level L	mit Over ine Limit V/m dE	Read Level	Fr CableA Loss dB	ntenna I Factor I	(MHz) Preamp actor dB -	T/Pos	A/Pos 			ICAL	400		
Li Freq Level L MHz dBuV/m dBu 11570.00 51.39 74 11570.00 38.51 54	mit Over ine Limit V/m dE 1.00 -22.61 1.00 -15.49	Read Level dBuV 41.20 28.32	CableA: Loss dB 6.55 6.55	ntenna I Factor I dB/m - 38.33 38.33	(MH7) Preamp Sactor dB 34.69 34.69	T/Pos deg 298 298	A/Pos Cm 171 171	Remark 	Pol/J VERT VERT	ICAL ICAL			
Li Freq Level L MHz dBuV/m dBu 11570.00 51.39 74 11570.00 38.51 54 ite 1:The amplitude of	mit Over ine Limit V/m dE .00 -22.61 .00 -15.49 spurious 0	Read Level dBuV 41.20 28.32 emission	CableA: Loss dB 6.55 6.55	ntenna I Factor I dB/m - 38.33 38.33	(MH7) Preamp Sactor dB 34.69 34.69	T/Pos deg 298 298	A/Pos Cm 171 171	Remark 	Pol/J VERT VERT	ICAL ICAL			
Li Freq Level L MHz dBuV/m dBu	mit Over ine Limit V/m dE 00 -22.61 00 -15.49 spurious o ed to be re	Read Level dBuV 41.20 28.32 emission ported.	CableA Loss 1 dB 6.55 6.55 s which	ntenna I Factor I dB/m - 38.33 38.33	(MH7) Preamp actor dB - 34.69 34.69 enuate	T/Pos deg 298 298	A/Pos Cm 171 171	Remark 	Pol/J VERT VERT	ICAL ICAL			

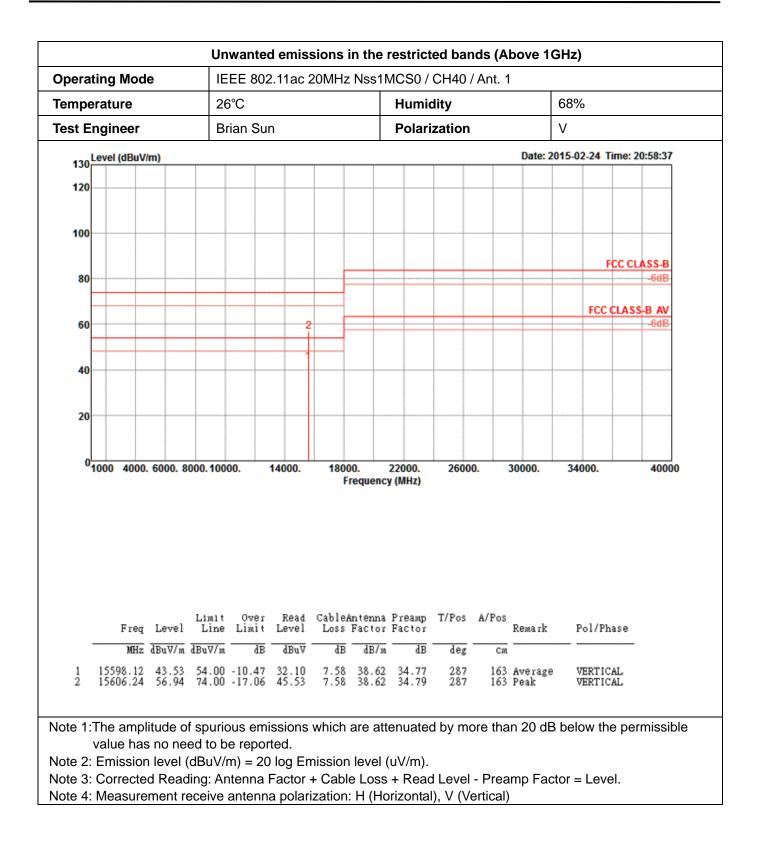


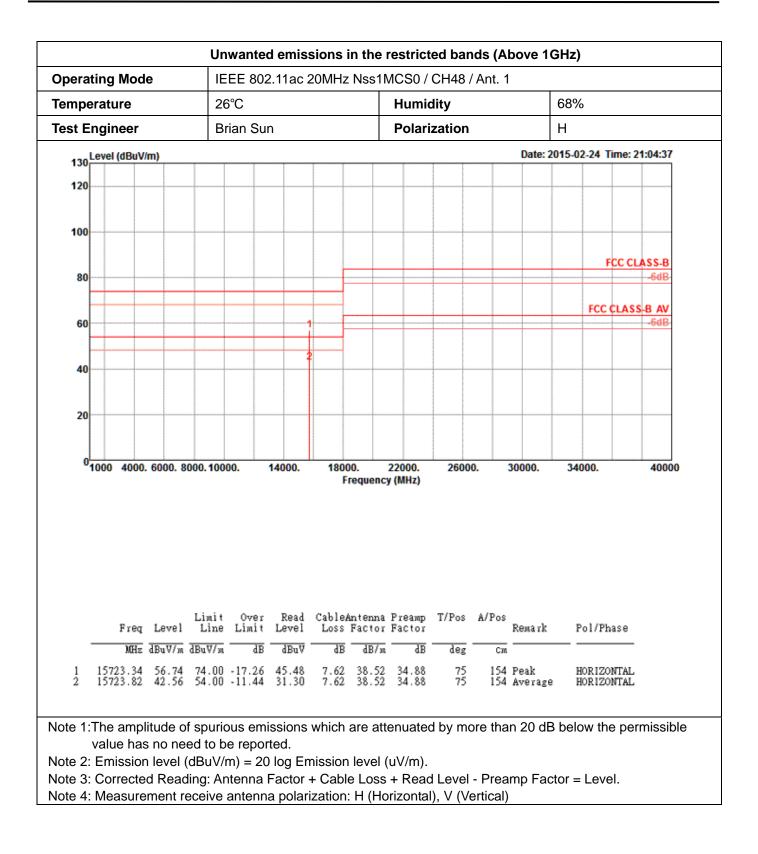


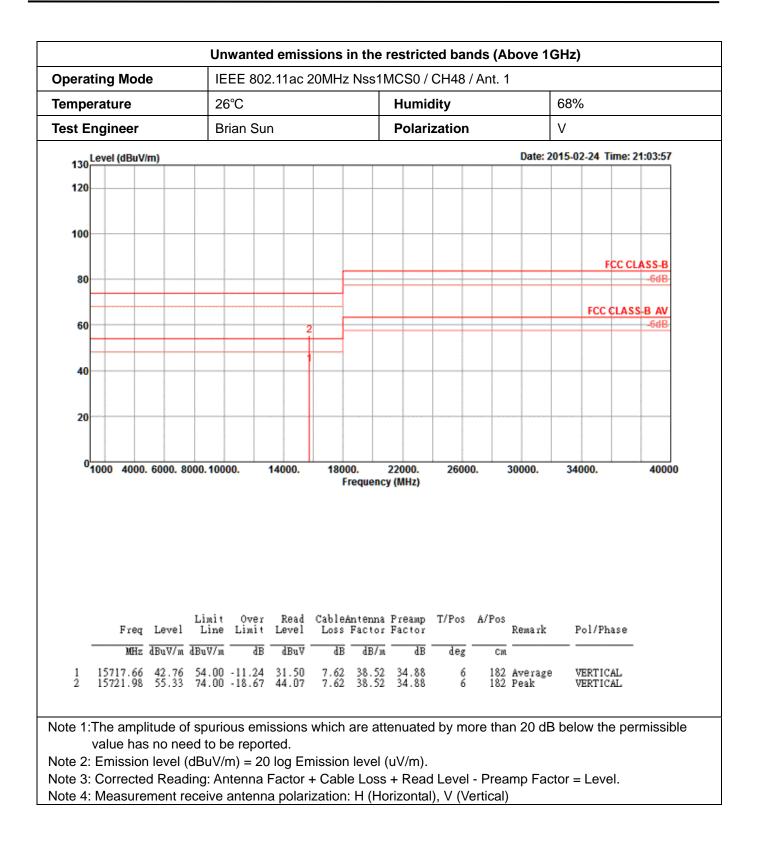


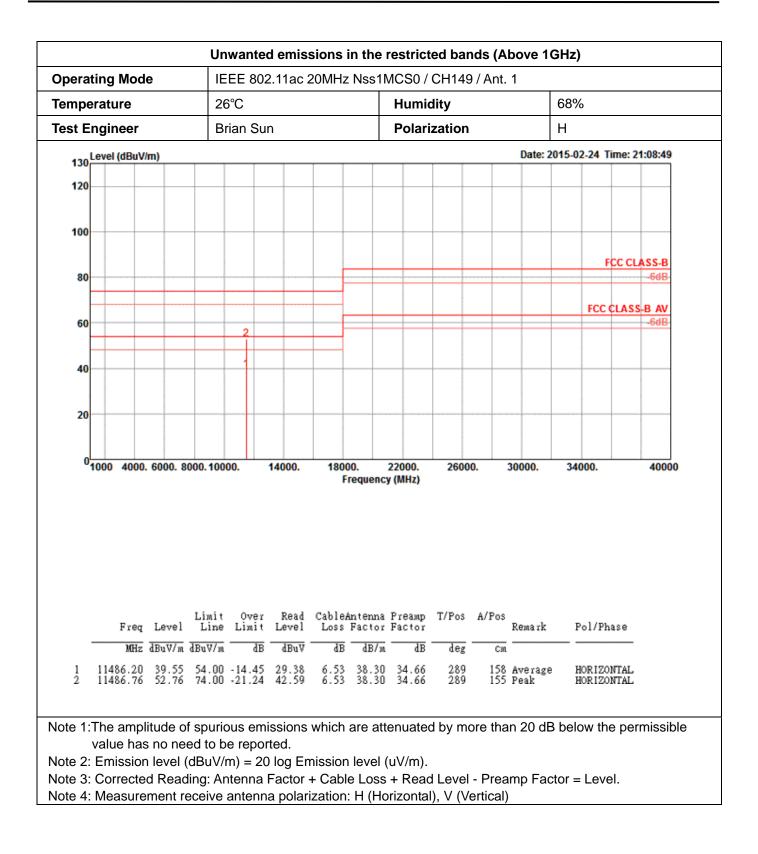


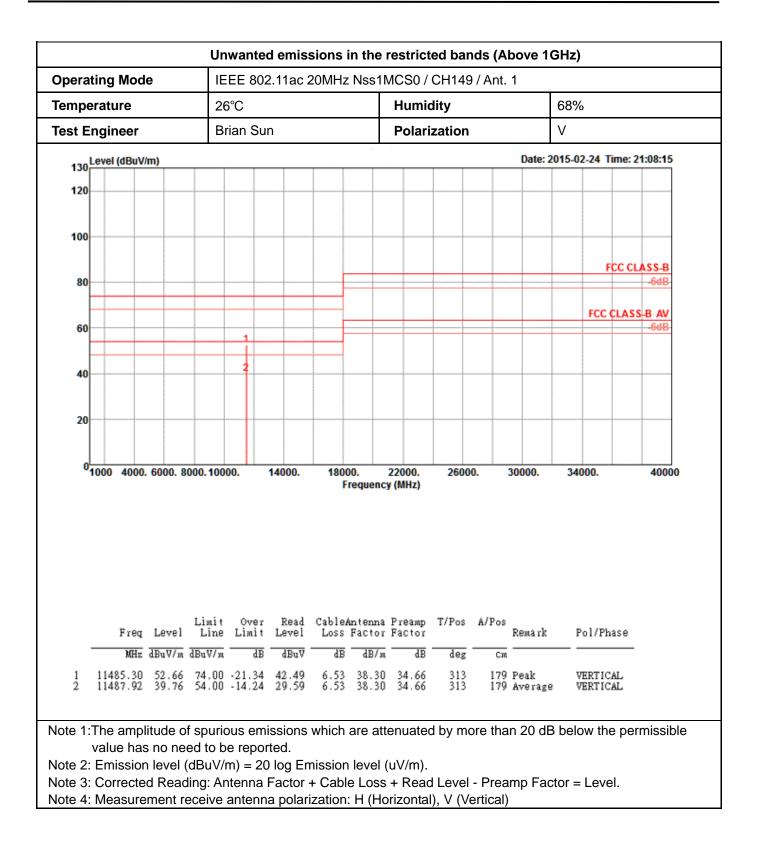




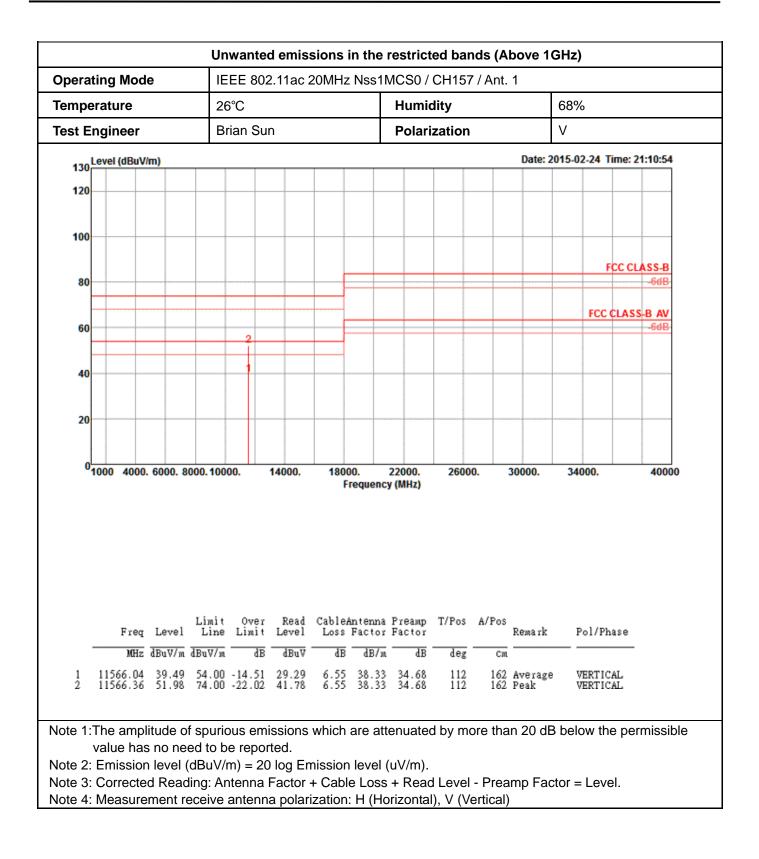


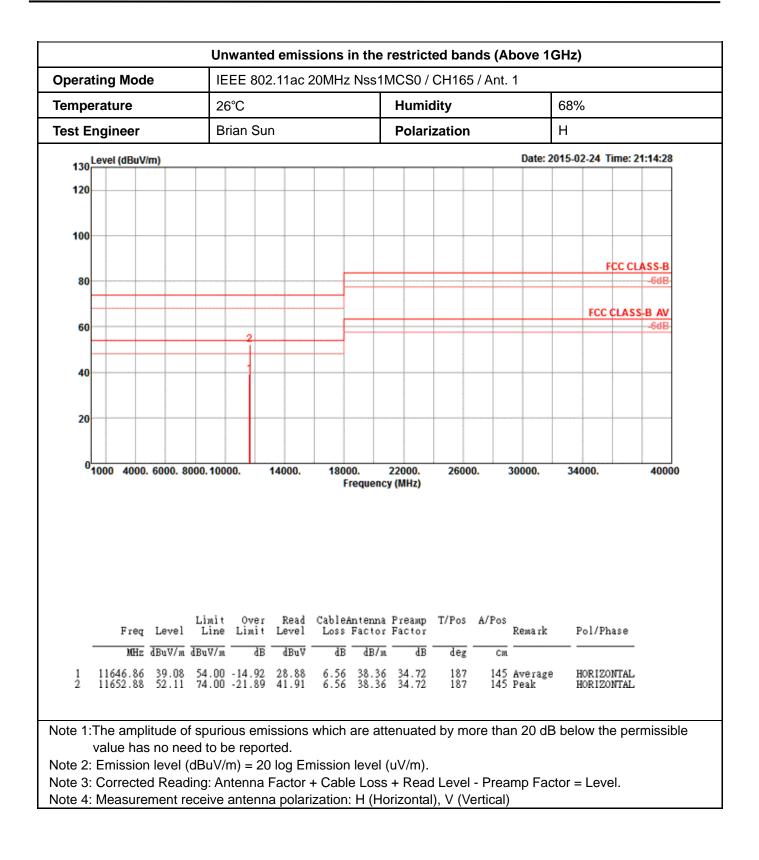




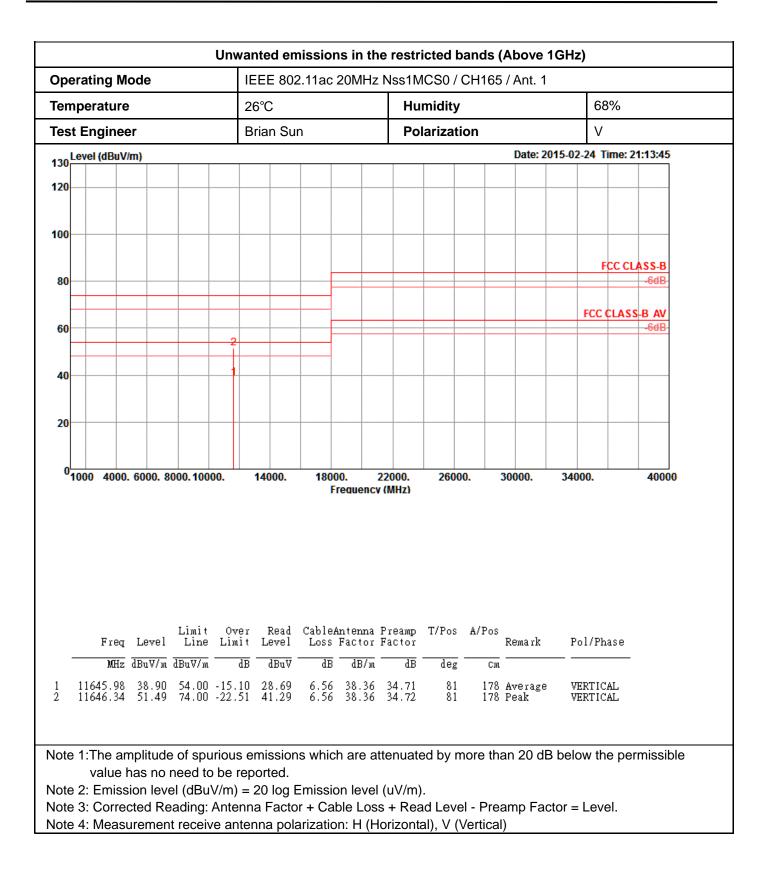


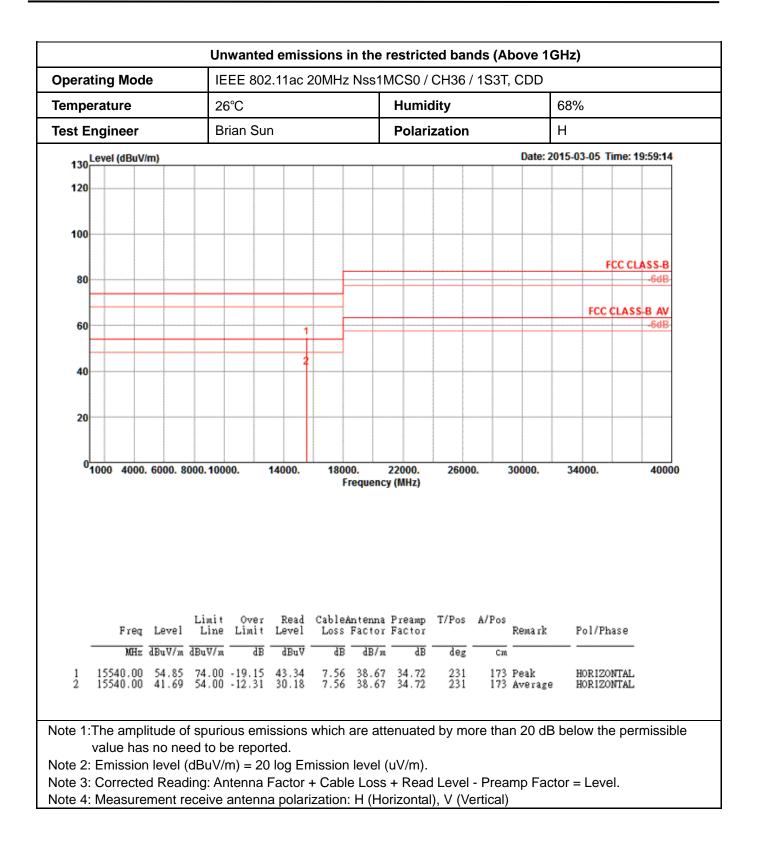
	ating Mod	e	IE	IEEE 802.11ac 20MHz Nss1MCS0 / CH157 / Ant. 1											
emp	erature		26	S°C				Humi	dity		689	%			
lest Engineer			B	rian Su	n			Polari	zation		Н				
130	Level (dBuV/	m)									Date: 20	15-02-24 Tim	ne: 21:11:30		
120															
100															
80												FCC	C CLASS-B -6dB-		
60		_										FCC CL	ASS-BAV -6dB		
				2											
40				-									-		
20		_													
0	1000 4000.	6000. 8	000.100	00.	14000.	180	00. requency	22000.	2600	0.	30000.	34000.	40000		
			Limit		Read				T/Pos	A/Pos					
	-			Limit							Rema rk	Pol/Phas 	:e		
	2477	dBuV/m 29 25			dBu∀ 29.15	dB 6 55	dB/m 38.33	dB 34 68	deg 173	Cm 142	Average	HORIZONT	TAT.		
1			74.00	-21.92	41.89	6.55	38.33 38.33	34.69	173 173	142	Peak	HORIZONI	TAL		
12	MHz 11566.70 11570.96	52.08													

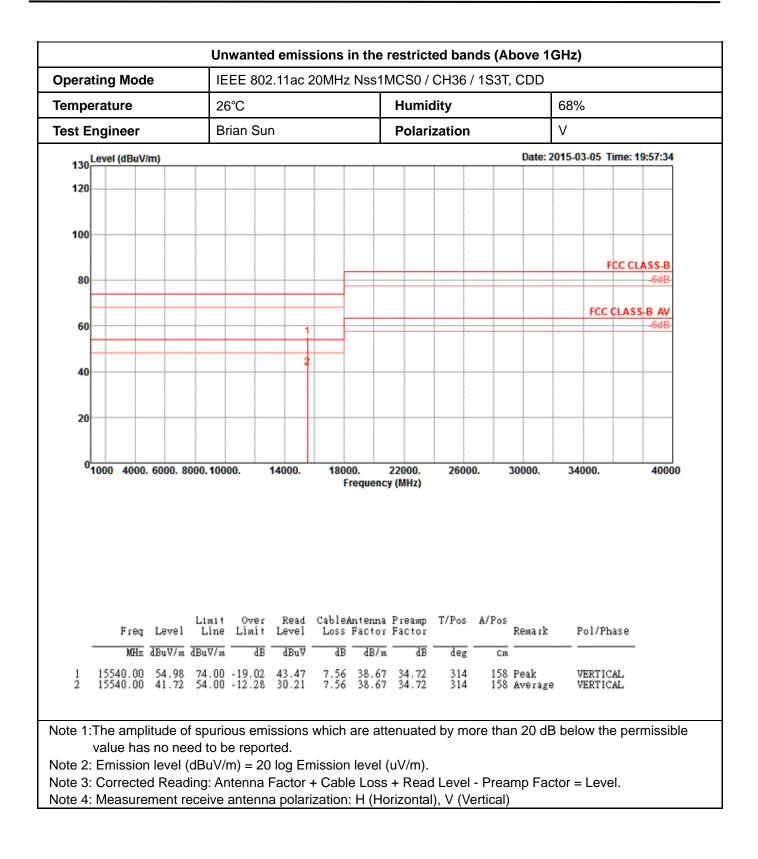


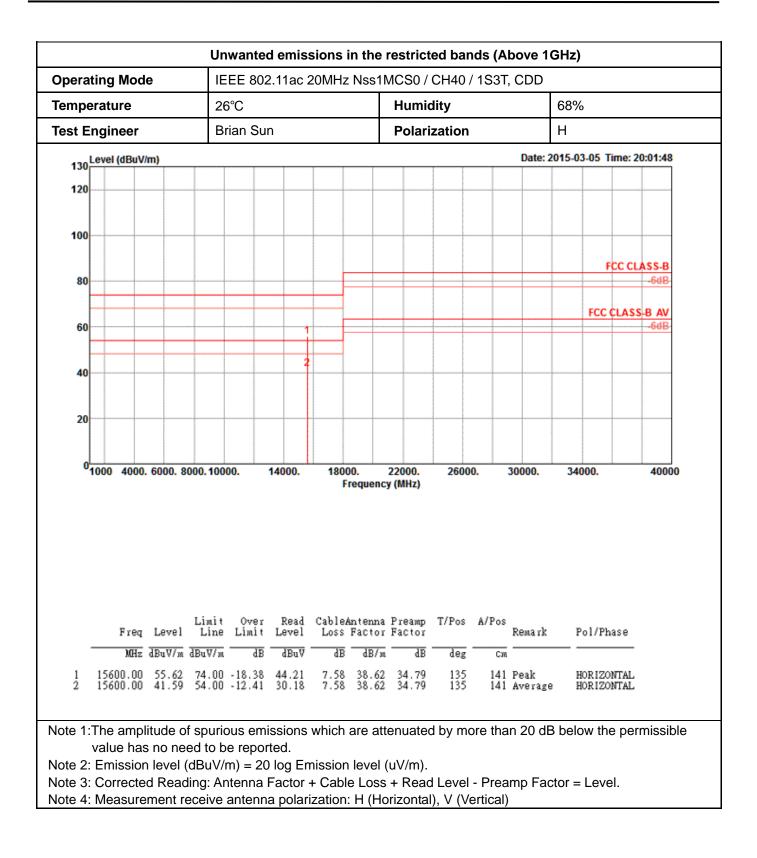


FCC TEST REPORT

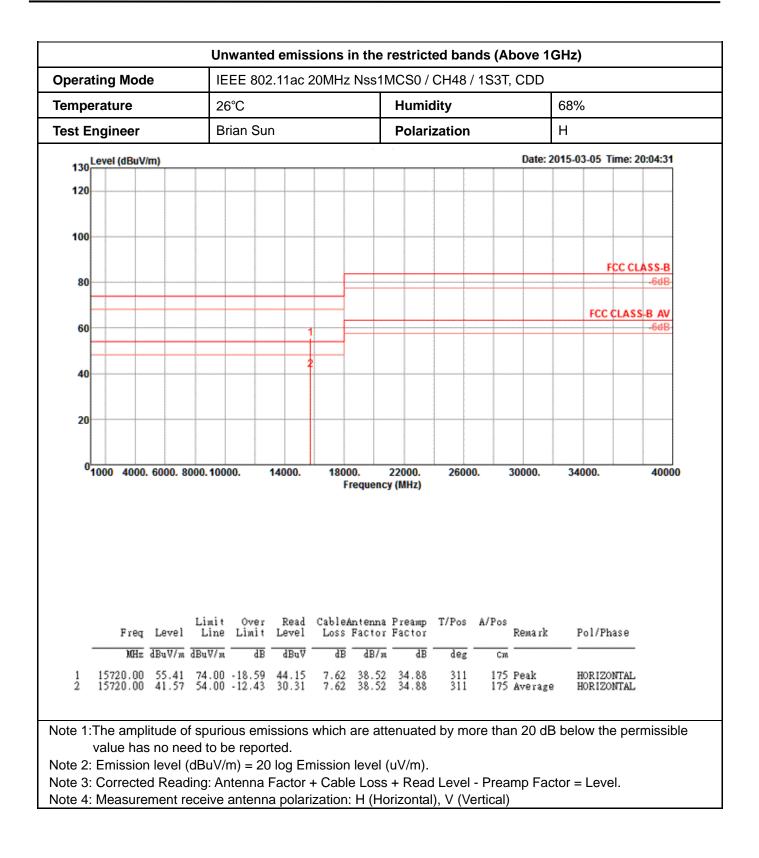


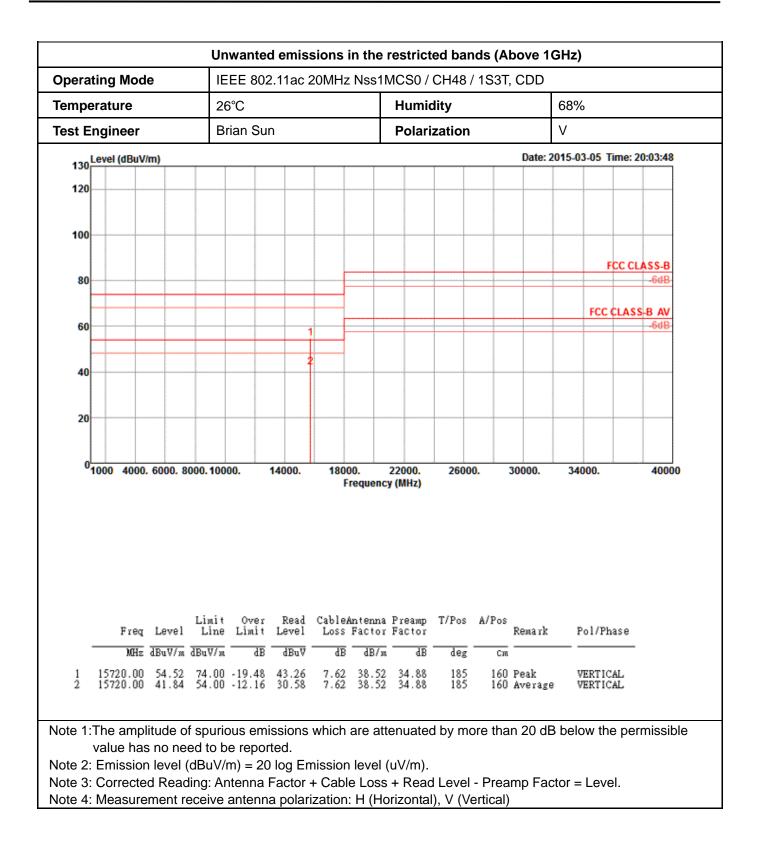


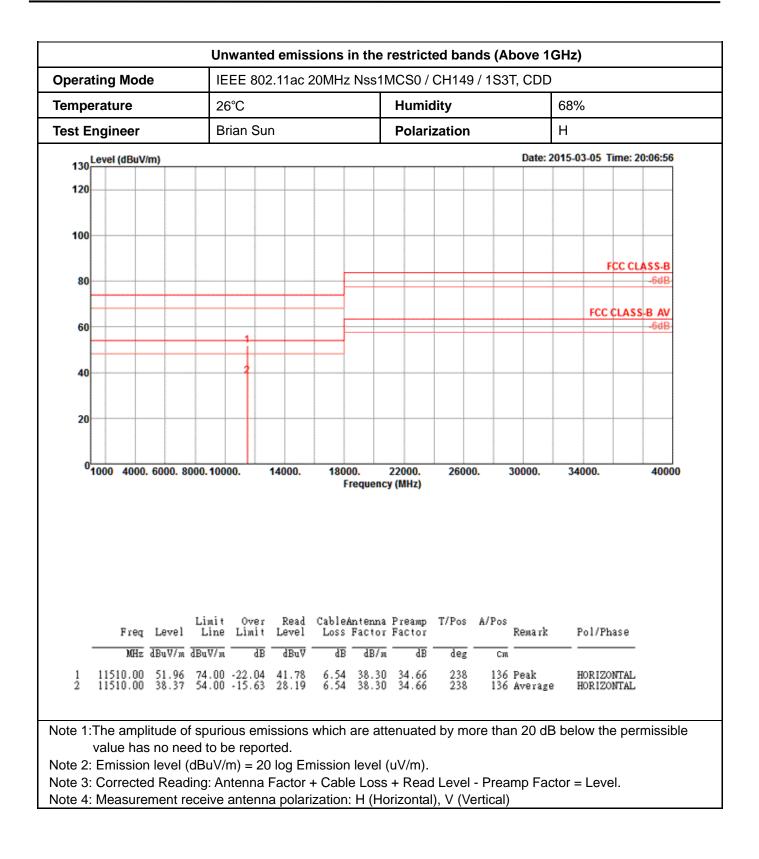


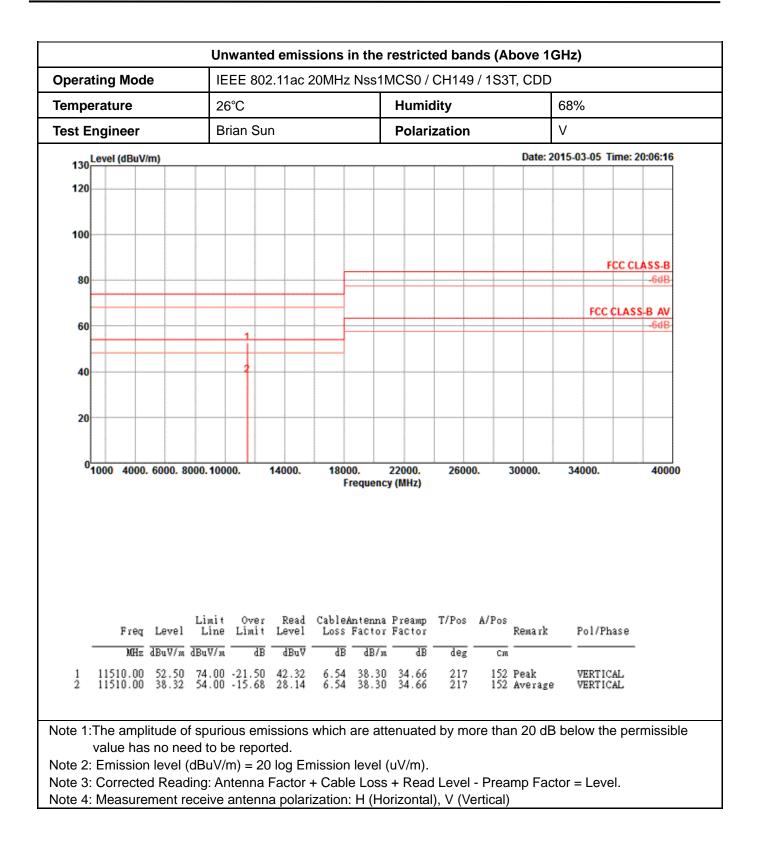


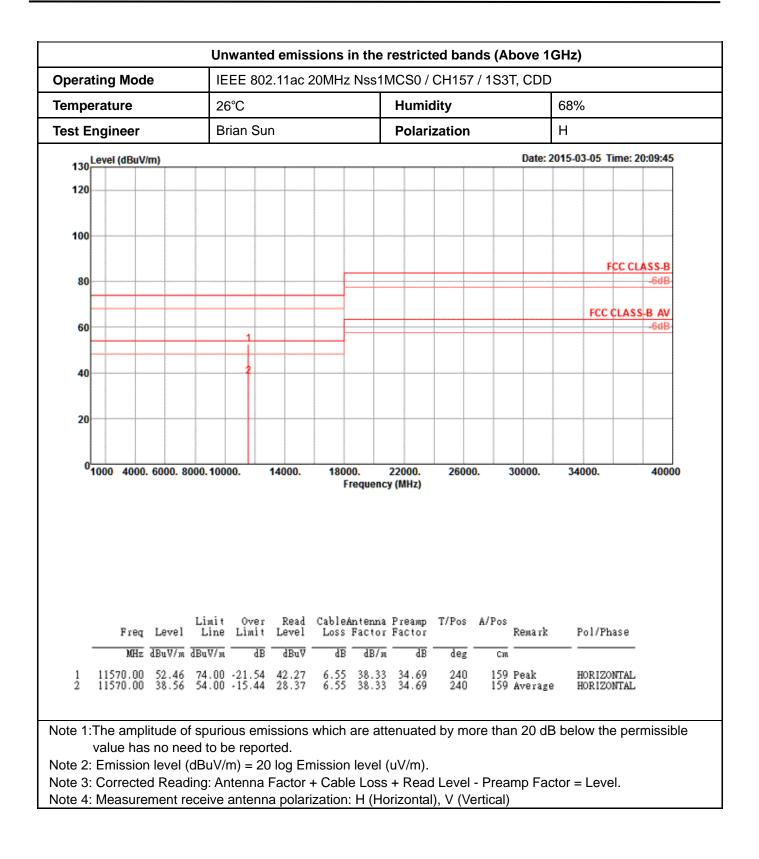
pere	ating Mode	9	IE	IEEE 802.11ac 20MHz Nss1MCS0 / CH40 / 1S3T, CDD											
emp	erature		26	S°C				Humi	dity			68%			
est E	Engineer		Br	rian Su	n			Polari	zation			V			
130	Level (dBuV/	m)									Date: 2	015-03	-05 Time:	20:01:12	
120															
100)														
													FCC C	LASS-B	
80														-008	
60	,												FCC CLAS	SS-BAV -6dB	
40)				2										
20)														
C	1000 4000.	6000. 80	000 400	00	14000.	180		22000.	2600		30000.	340	00	40000	
			Linit	Over Limit	Read Level	Cable. Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Po	l/Phase		
	Freq	Level	Line		10.11	dB			deg	Cm				-	
	MHz	dBuV/m	dBuV/m	dB	dBu∛			2.4 20	179	155	Peak	VE	RTICAL		
1 2	-	dBuV/m	dBuV/m			7.58 7.58	38.62 38.62	34.79 34.79	179	155	Average	VE	RTICAL		



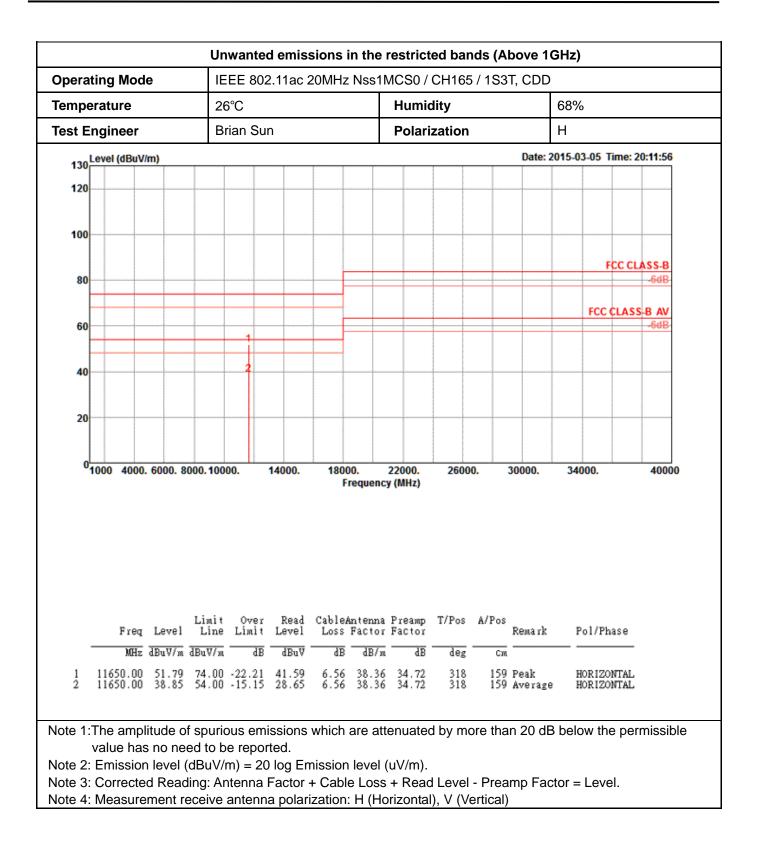


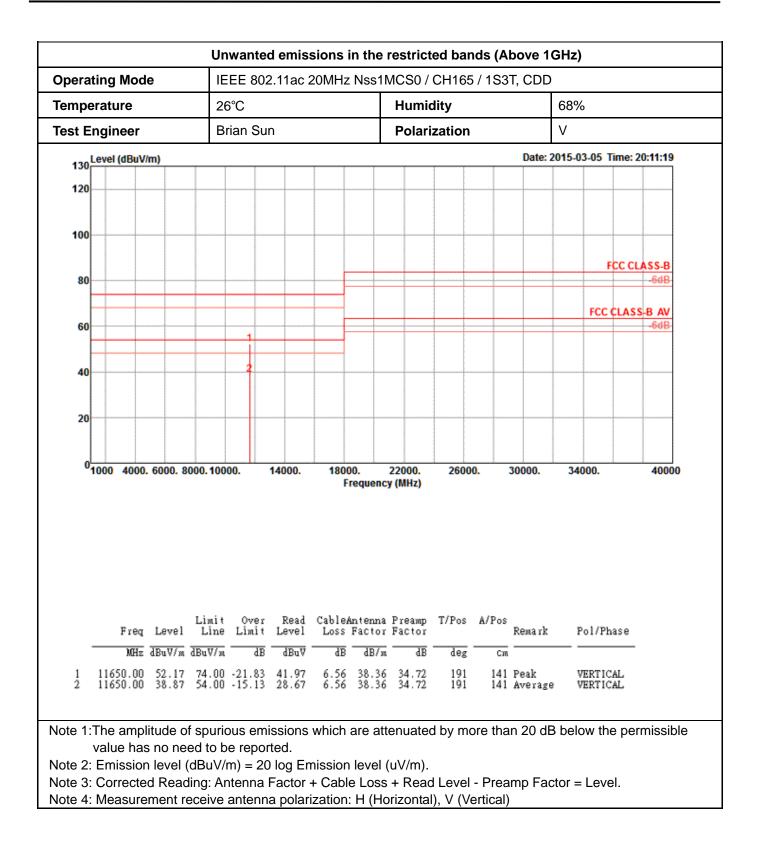




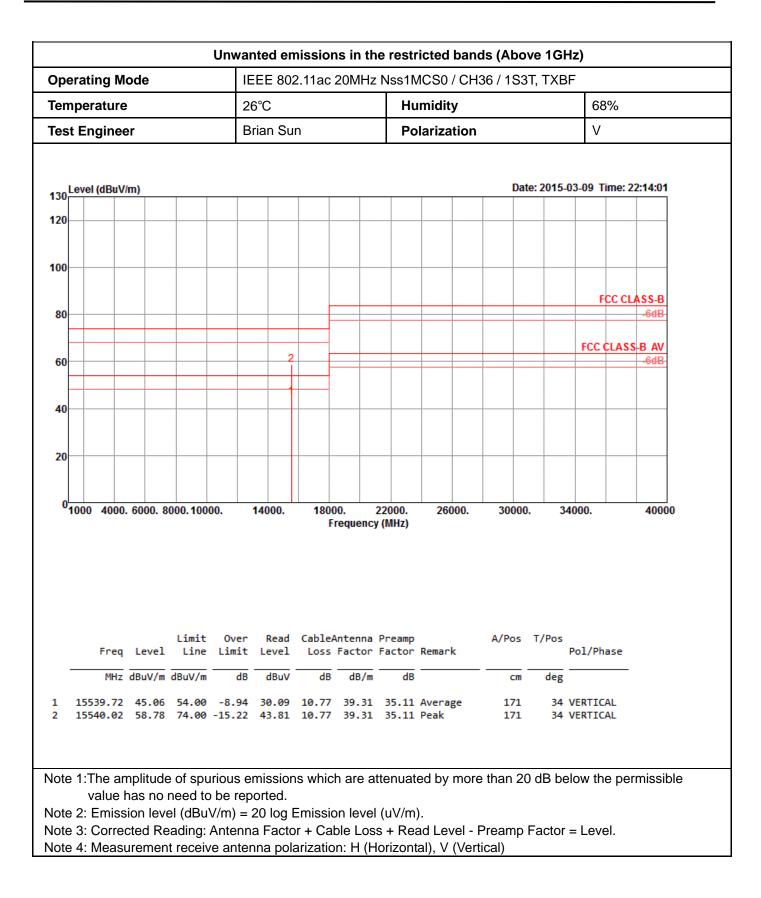


mne	ting Mode			S°C				Humio			T, CDD	68%		
-	ngineer			rian Sui	n			zation			V			
	-	(ma)					i oluli	Zation		Date: 2		05 Time: 3	20:00:10	
	Level (dBuV/	<u>m)</u>									Date. 2	010-03	-05 Time. 1	20.03.10
120														
400														
100														
80													FCC C	-6dB
													100 01 10	C D 414
60													FCC CLAS	-6dB
40														
20			-											
-	1000 4000.	6000. 80	00.100	00.	14000.	180 F	00. Trequenci	22000. y (MHz)	2600	0.	30000.	3400	00.	40000
	Freq	Level	Limit Line	Over Limit	Read Level		Antenna Factor		T/Pos	A/Pos	Rema rk	Po	l/Phase	
		dBuV/m		dB	dBuV	₫B		dB	deg	Cm				
1 2	11570.00 11570.00	51.72 38.61	74.00 54.00	-22.28 -15.39	41.53 28.42	6.55 6.55	38.33 38.33	34.69 34.69	204 204	140 140	Peak Average		RTICAL RTICAL	
to 1.	The ampl	itude of	spurio	ous emi	ssions	which	are att	enuated	d by mo	ore tha	n 20 dB	belov	w the pe	rmissible
ιe ι.	•		•	e repor					-				•	

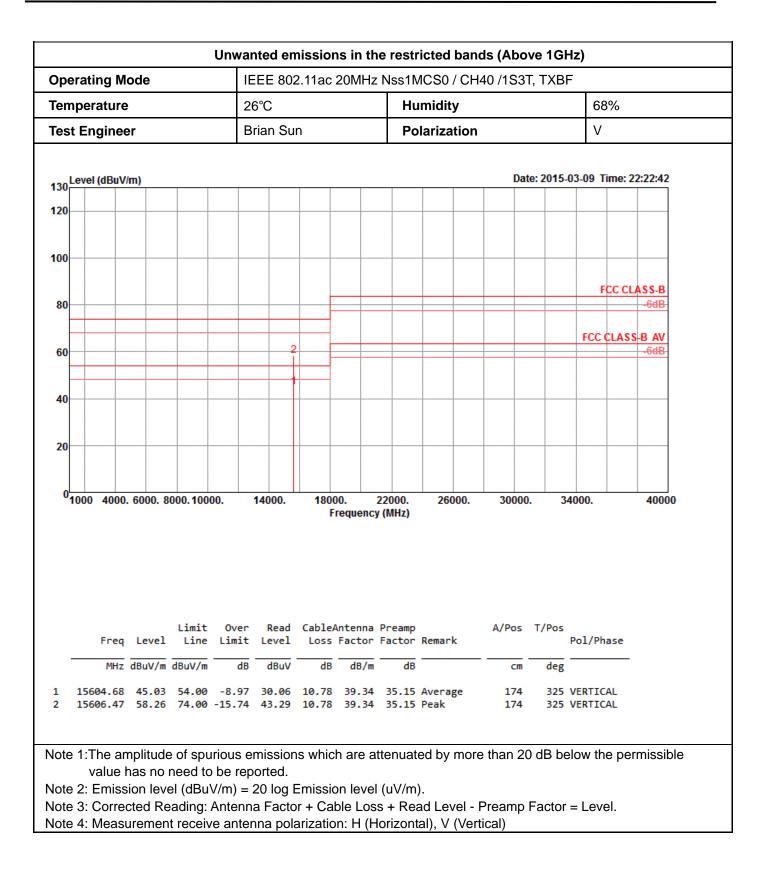




pera	ting Mod	е	IE	EE 802	2.11ac 2	20MHz	z Nss1N	ACS0/	CH36 / 18	ЗЗТ, ТХВ	F		
empe	erature		26	S°C				Humi	dity		68	%	
est E	ngineer		В	rian Sui	n			Polar	ization		Н		
	l aval (dBu)//									Date	a: 2015.	03-09 Time: 2	2-12-42
	Level (dBuV/	,											
120													
100													
												FCC CL	ASS-B
80													-6dB
												FCC CLASS	
60					2								-6dB
					1								
40													
20													
0	1000 4000.	6000. 8	000 100	0	14000.	180	00	22000.	26000.	30000.	3	4000.	40000
						F	requenc	y (MHz)					
	Freq	Level	Limit Line	Over Limit			Antenna Factor		Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg		
1 2	15538.10 15541.46									166 166		HORIZONTAL HORIZONTAL	
	The ampl value has Emissior	s no ne	ed to b	e repor	ted.					than 20	dB be	low the per	missible

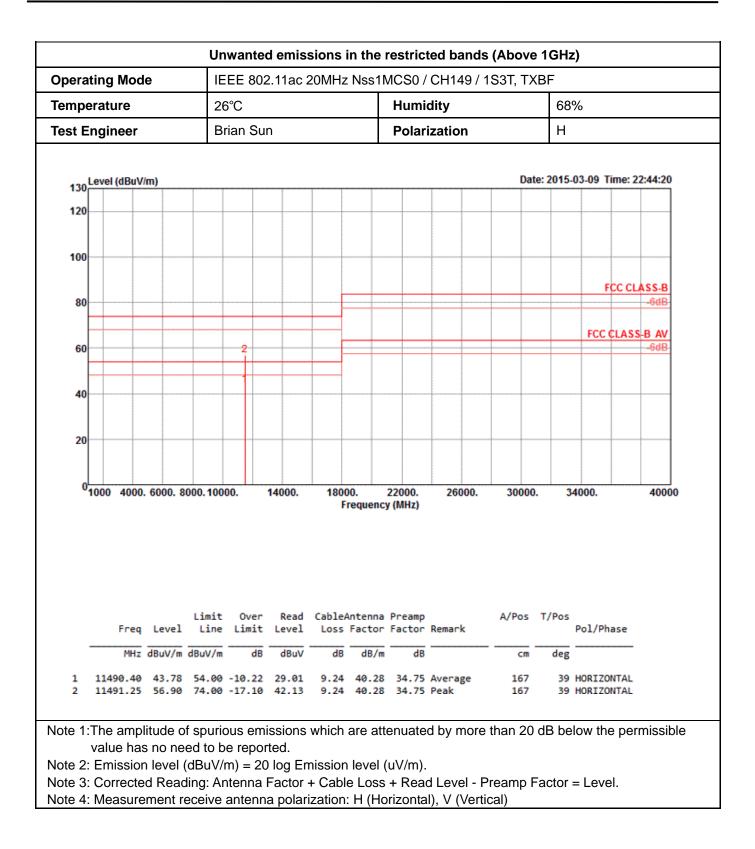


pera	ting Mod	е	IE	EE 802	2.11ac 2	20MHz	Nss1N	/ICS0/	CH40 / 18	S3T, TXE	3F		
empe	erature		26	S°C				Humi	dity		68	%	
est E	ngineer		Ві	ian Su	n			Polar	ization		Н		
	Level (dBuV	m)								Dat	e: 2015-	-03-09 Time: 2	2:23:16
						-							
120						-							
100													
												FCC CL	ASS-B
80													-008
					1						_	FCC CLASS	-6dB
60	_		_										-outs
40					1								
40						-							
20													
20													
Ŭ	1000 4000.	6000. 8	000.100	00.	14000.	180 F	00. requency	22000. / (MHz)	26000.	30000	. 3	4000.	40000
	Free	Level	Limit	Over Limit	-		Antenna			A/Pos	T/Pos	Pol/Phase	
		dBuV/m					Factor						
				dB	dBuV	dB	dB/m	dB	Deals	cm	deg		
	15600.99 15609.62									186 186		HORIZONTAL HORIZONTAL	
1 2						which	oro ott	anuata	d by more	than 20	dB be	low the per	missible

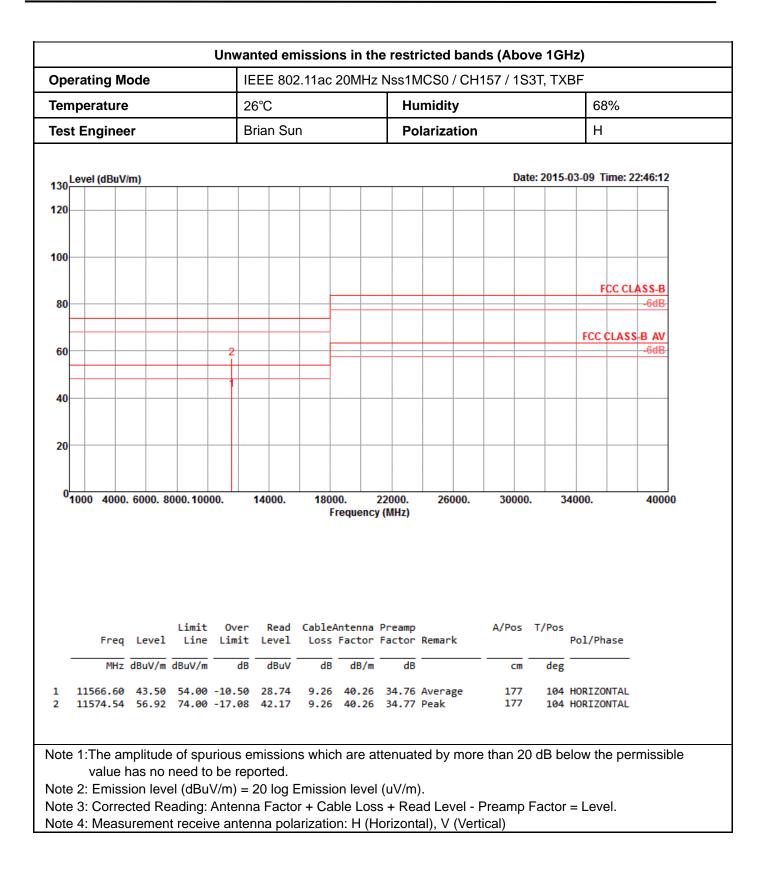


	ting Mod	е	IE	EE 802	2.11ac 2	20MHz	z Nss1N	ACS0/	/ CH48 /1S	3T, TXB	F		
empe	erature		26	S°C				Humi	dity		68	%	
est E	ngineer		В	rian Sui	n			Polar	ization		Н		
	Level (dBuV/	/m)								Dat	e: 2015-	03-09 Time: 2	2:29:04
120													
400													
100													
80												FCC CL	ASS-B
													-000
60						2 [FCC CLASS	-B AV -6dB
40													
20													
0	1000 4000.	6000. 8	000.100	00.	14000.	180	00.	22000.	26000.	30000	. 3	4000.	40000
						F	requency	y (MHz)					
				Over			Antenna Factor			A/Pos	T/Pos	Pol/Phase	
	Freq	Level	Limit Line	Limit	rever						deg		
		Level	Line		dBuV	dB	dB/m	dB		Cm			
1	MHz 15711.51	dBuV/m 45.10	Line dBuV/m 54.00	Limit 	dBuV 30.12	10.79	39.38	35.19	Average	164	360	HORIZONTAL	
1 2	MHz	dBuV/m 45.10	Line dBuV/m 54.00	Limit 	dBuV 30.12	10.79	39.38	35.19	Average		360	HORIZONTAL HORIZONTAL	
2	MHz 15711.51 15725.45	dBuV/m 45.10 58.16	Line dBuV/m 54.00 74.00	Limit 	dBuV 30.12 43.17	10.79 10.79	39.38 39.39	35.19 35.19	Average Peak	164 164	360 360	HORIZONTAL	missible
2	MHz 15711.51 15725.45	dBuV/m 45.10 58.16	Line dBuV/m 54.00 74.00	Limit 	dBuV 30.12 43.17	10.79 10.79	39.38 39.39	35.19 35.19	Average Peak	164 164	360 360		missible

pera	ting Mod	е	IE	EE 802	2.11ac 2	20MHz	z Nss1M	ACS0/	′ CH48 /1S	3Т, ТХВ	F		
empe	erature		26	S°C				Humi	dity		68	%	
est E	ingineer		Ві	rian Sui	n			Polar	ization		V		
	Level (dBuV/	m)								Dat	e: 2015-	03-09 Time:	22:27:07
		,											
120													
100													
												FCC C	ASS-B
80													-6dB
												FCC CLAS	
60						ļ							-6dB
					-								
40													
20													
20													
0	1000 4000.	6000 0	000.100		14000.	180	00	22000.	26000.	30000		4000.	40000
							requenc						
	Freq	Level	Limit Line	Over Limit			Antenna Factor		Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	d8uV/m	dB	dBuV	dB	dB/m	dB		cm	deg		
1 2	15711.67 15720.67									163 164		VERTICAL VERTICAL	
	The ampl value has Emission	s no ne	ed to b	e repor	ted.					than 20	dB be	low the pe	rmissible

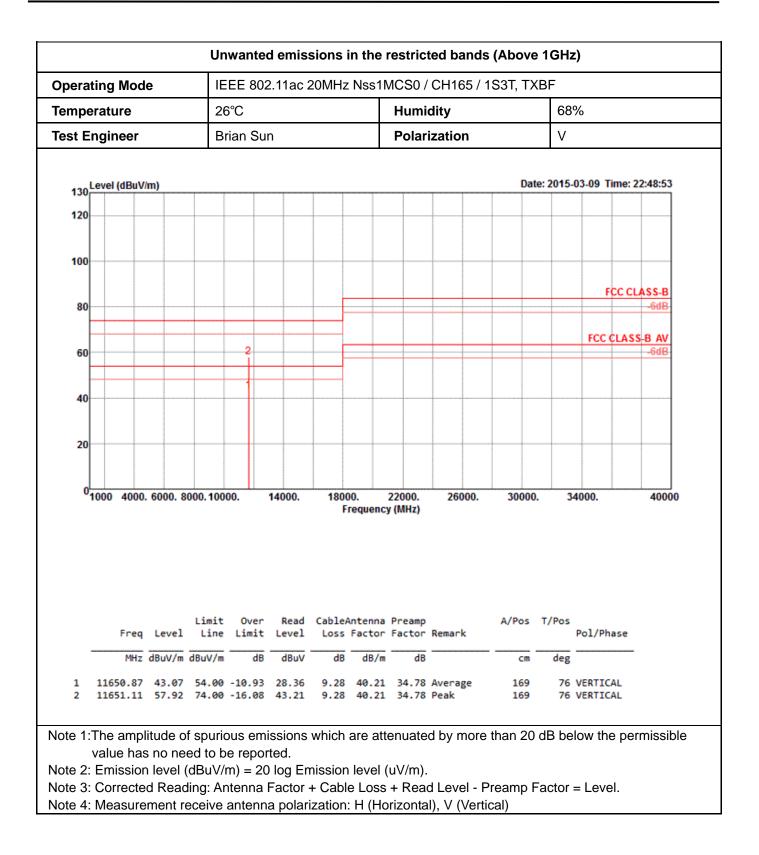


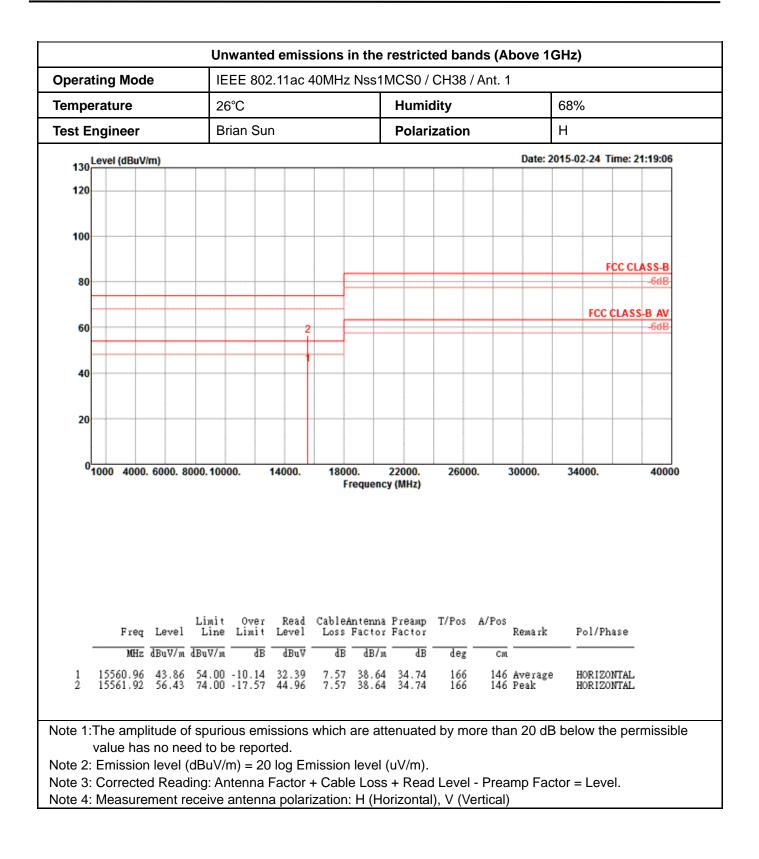
pera	ting Mod	е	IE	EE 802	2.11ac 2	20MHz	z Nss1N	ACS0/	CH149 / 1	IS3T, TX	BF		
empe	erature		26	S°C				Humi	dity		68	%	
st E	ngineer		В	rian Sur	า			Polar	ization		V		
		1								Date	2015	03-09 Time: 2	00-42-40
130	Level (dBuV/	m)				-					5. 2015	03-03 mile. 2	2.43.12
120													
100													
80												FCC CI	ASS-B
60				1								FCC CLAS	S-B AV -6dB-
40				2									
20											_		
0	1000 4000.	6000. 8	000.100	00.	14000.	180	00.	22000.	26000.	30000.	3	4000.	40000
						F	requenc	y (MHz)					
	Freq	Level	Limit Line	Over Limit			Antenna Factor			A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg		
1 2	11492.21 11494.65						40.28 40.28		Peak Average	150 150		VERTICAL VERTICAL	
	The ampl value has Emissior	s no ne	ed to b	e repor	ted.				-	than 20	dB be	low the pe	rmissible



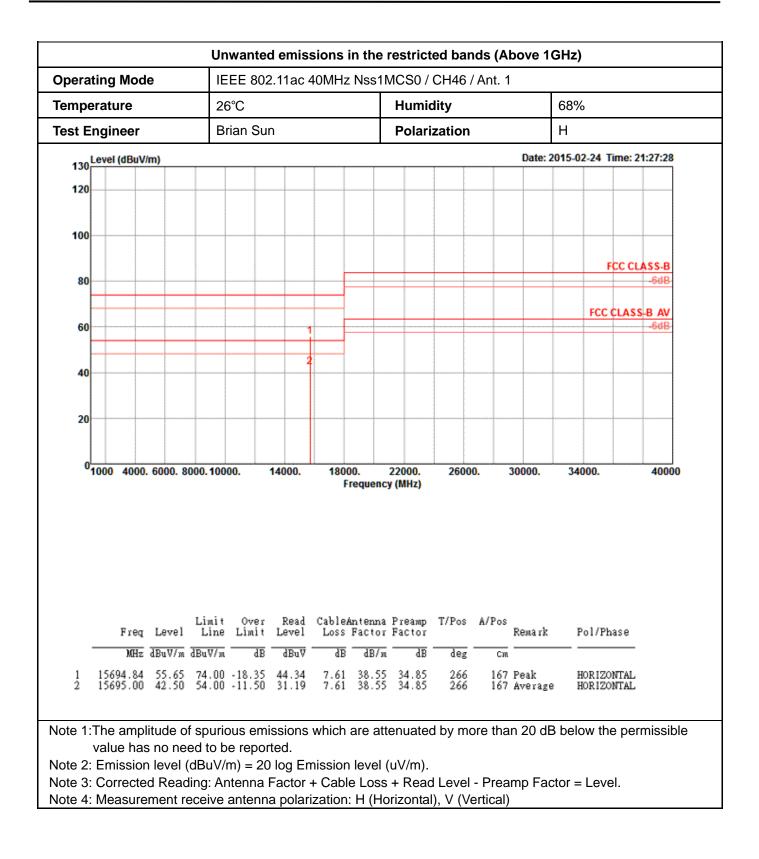
pera	ting Mod	е	IE	EE 802	2.11ac 2	20MHz	Nss1N	ACS0/	CH157 / ⁻	1S3T, TX	BF		
empe	erature		26	S°C				Humi	dity		68	%	
est E	ngineer		В	rian Sui	n			Polar	ization		V		
120	evel (dBuV	/m)								Dat	e: 2015	03-09 Time: 2	22:45:26
120													
120													
100													
												FCC CI	ASS-B
80													-000
60				2								FCC CLAS	S-B AV -6dB-
00				<u> </u>									-000
40													
70													
20													
0	1000 4000	. 6000. 8			14000.	400		22000.	26000.	20000		4000	
1	1000 4000	. 0000. 8	000.100	00.	14000.	180 F	requency		26000.	30000		4000.	40000
			Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos		
	Freq	Level	Line	Limit	-		Factor					Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg		
1	11566.44								Average	186		VERTICAL	
2	11566.49	56.90	74.00	-17.10	42.14	9.26	40.26	34.76	Реак	186	82	VERTICAL	
	The amp	litude o	fsourie	ous emi	issions	which	are att	enuate	d by more	than 20	dB he	low the pe	rmissihle
te 1				e repor		Willow	are all	ondato					
	value nas												

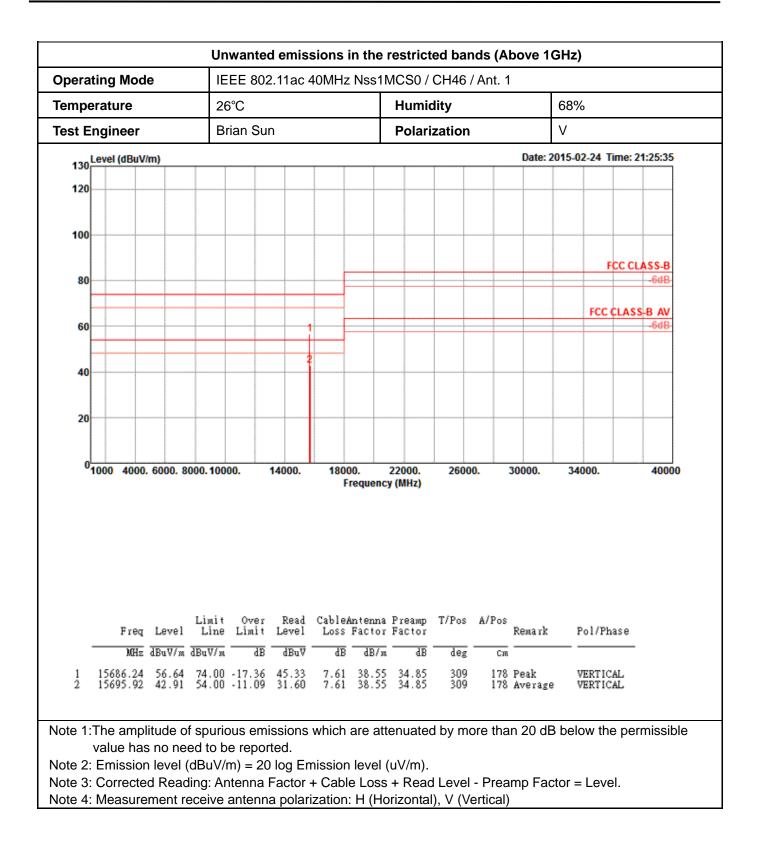
26°C Brian Sun		Imidity	Date: 2015	-03-09 Time: 2	2:50:23
Brian Sun	Pc		Date: 2015		2:50:23
			Date: 2015	-03-09 Time: 2	2:50:23
				FCC CL	ASS-B -6dB
				FCC CLASS	-B AV
					-6dB
		26000. 3	0000. 3	34000.	4000
			Pos T/Pos	Pol/Phase	
dB dBuV dB	dB/m dB		cm deg		
	F Read Cable/ t Level Loss B dBuV dB 4 41.74 9.28 4 28.45 9.28 emissions whic eported.	Frequency (MHz) r Read CableAntenna Preamp t Level Loss Factor Factor B $dBuV$ dB dB/m dB 4 41.74 9.28 40.22 34.78 4 28.45 9.28 40.21 34.78 emissions which are attenuat	Frequency (MHz) Tr. Read CableAntenna Preamp A/ t Level Loss Factor Factor Remark $B \overline{dBuV} \overline{dB} \overline{dB/m} \overline{dB} \overline{dB}$ 4 41.74 9.28 40.22 34.78 Peak 4 28.45 9.28 40.21 34.78 Average Temissions which are attenuated by more that eported.	Frequency (MHz)Frequency (MHz)T Read CableAntenna Preamp Loss Factor Factor Remark $A/Pos T/Pos$ The second deget $dB \sqrt{dB} $	Frequency (MHz) Int Read CableAntenna Preamp A/Pos T/Pos t Level Loss Factor Factor Remark Pol/Phase B dBuV dB dB/m dB cm deg 4 41.74 9.28 40.22 34.78 Peak 164 133 HORIZONTAL 4 28.45 9.28 40.21 34.78 Average 164 133 HORIZONTAL emissions which are attenuated by more than 20 dB below the perceported.

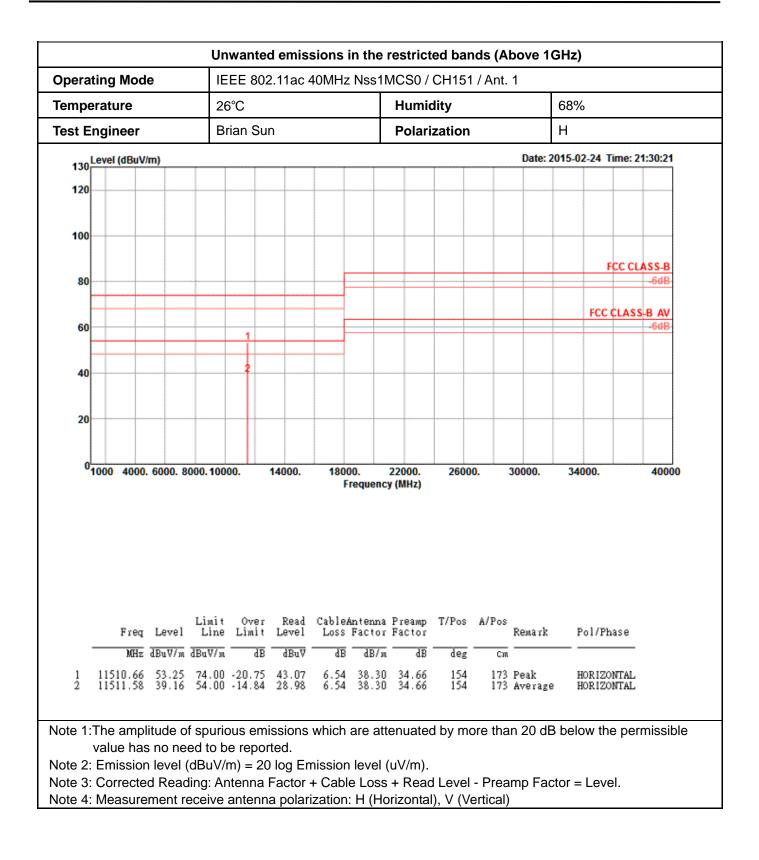


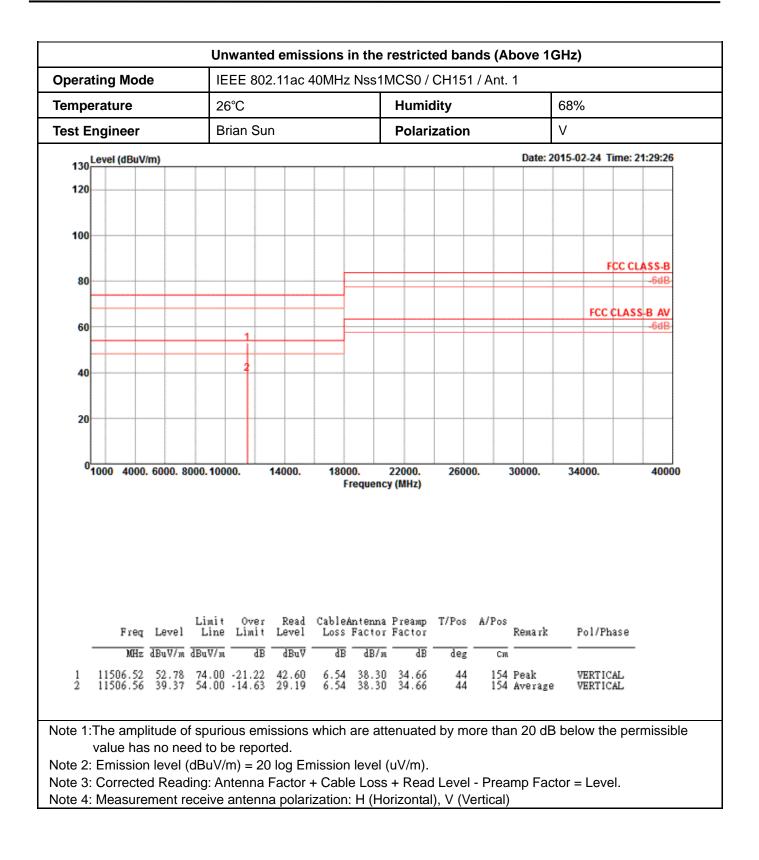


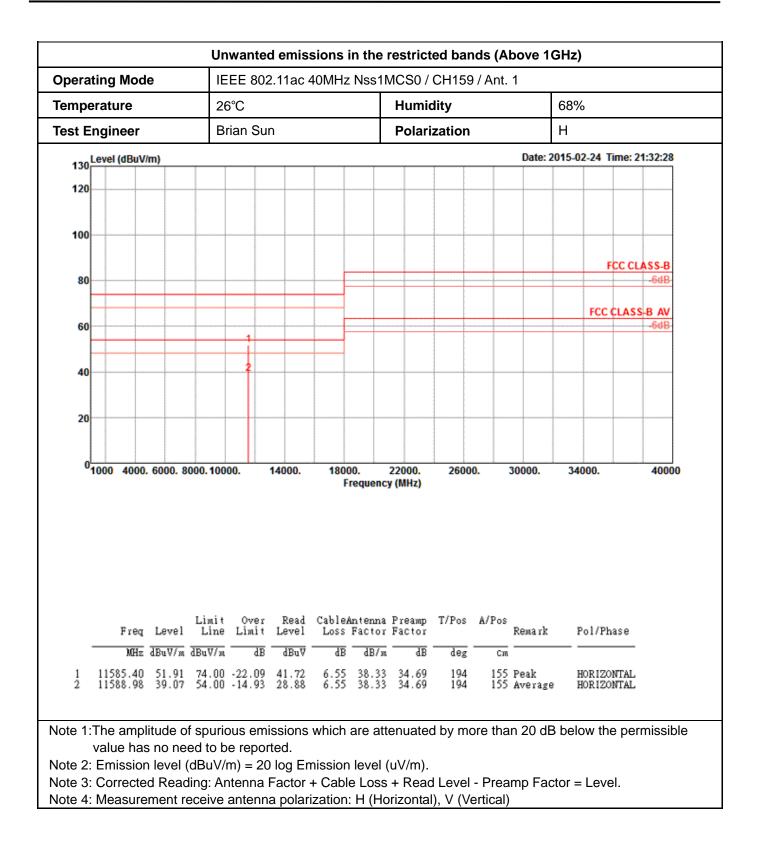
	ating Mod	е	IE	EE 802	2.11ac 4	40MHz	Nss1N	ACS0 /	CH38	/ Ant. 1				
emp	erature		26	S°C				Humi	dity			68%		
est E	Engineer		Bi	ian Su	n			Polari	ization			V		
130	Level (dBuV	/m)									Date: 20	015-02-24	Time: 2	1:18:13
120														
100														
80)					[FCC CL	-6dB
												FCC	CLAS	S-B AV
60					2									-6dB
40														
40														
20)													
0	1000 4000	6000. 8	000.100	00.	14000.	180	00. requency	22000.	2600	0.	30000.	34000.		40000
	Frea	Level	Limit Line	Over Limit	Read Level	Cable	An ten na Factor	Preamp	T/Pos	A/Pos	Remark	Pol/P	hase	
	-	dBuV/m		dB	dBuV	dB		dB	deg	Cm				
	15568.40 15571.04	44.01 56.57	54.00 74.00	-9.99 -17.43	32.54 45.10	7.57 7.57	38.64 38.64	34.74 34.74	347 347	128 128	Average Peak	VERTI VERTI	CAL	
1 2				ous emi	issions	which	are att	enuate	d by m	ore tha	ın 20 dB	below th	ne pe	rmissible

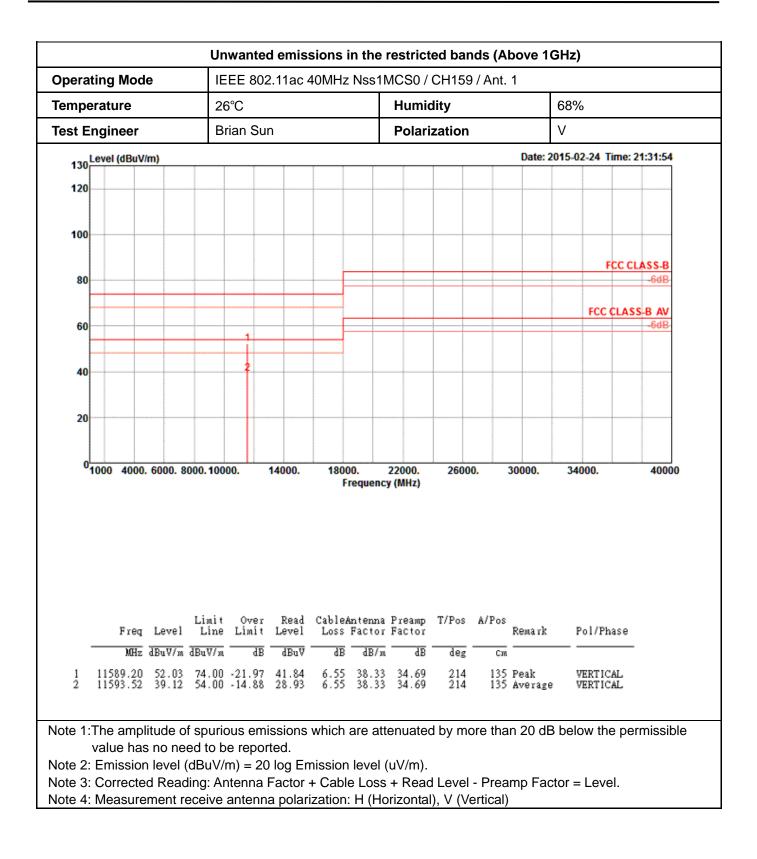


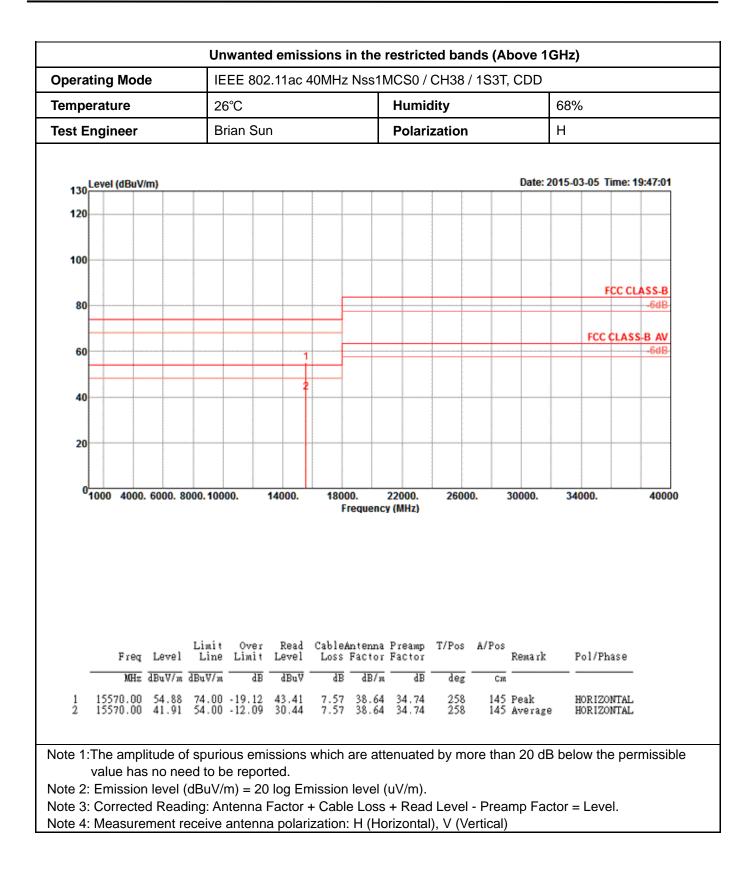


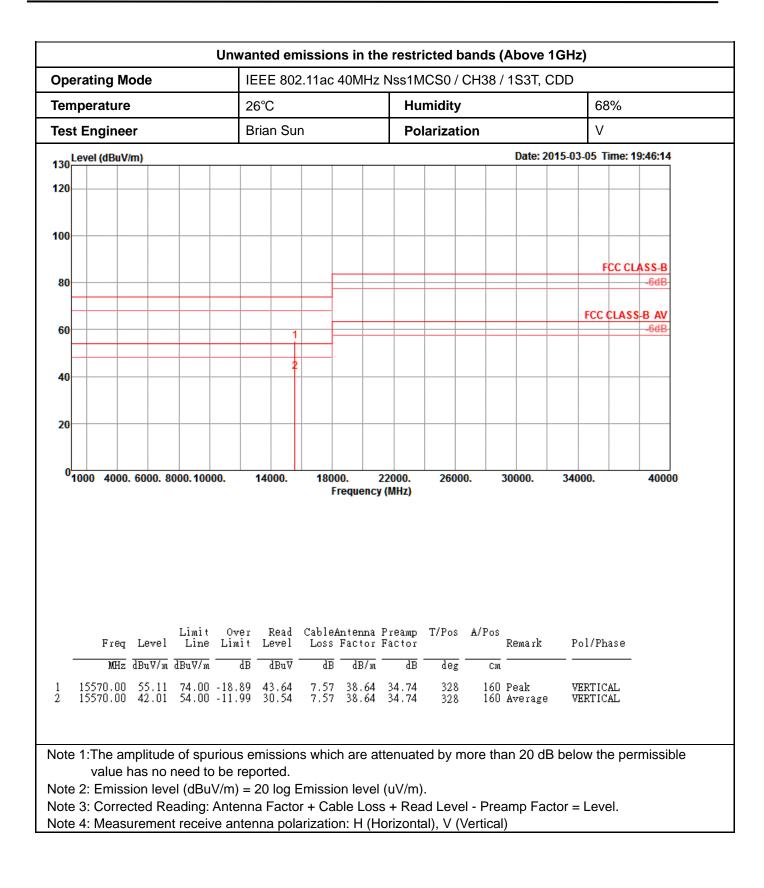


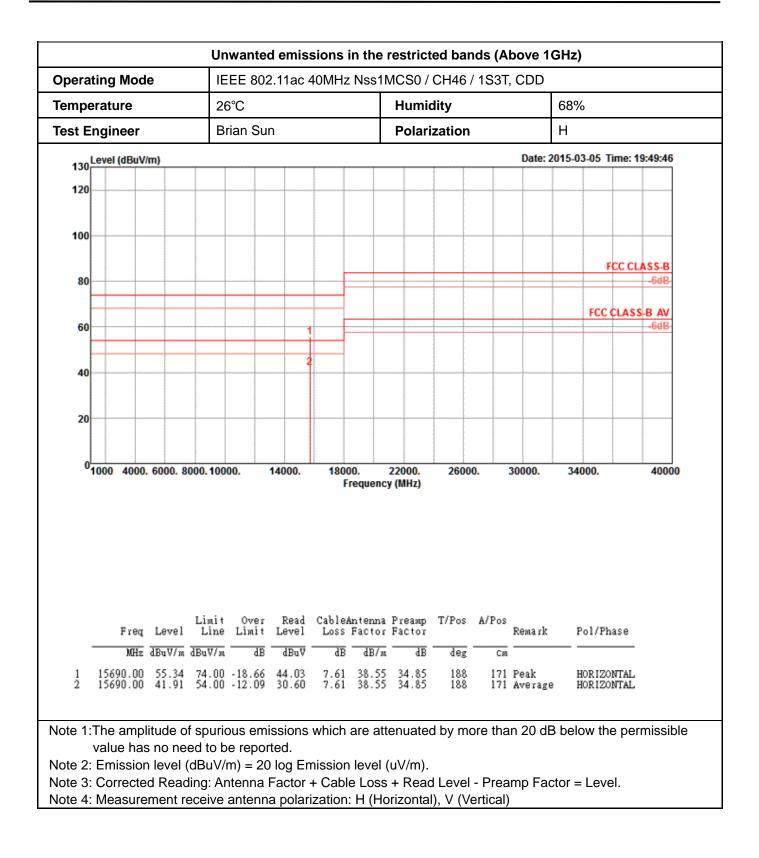


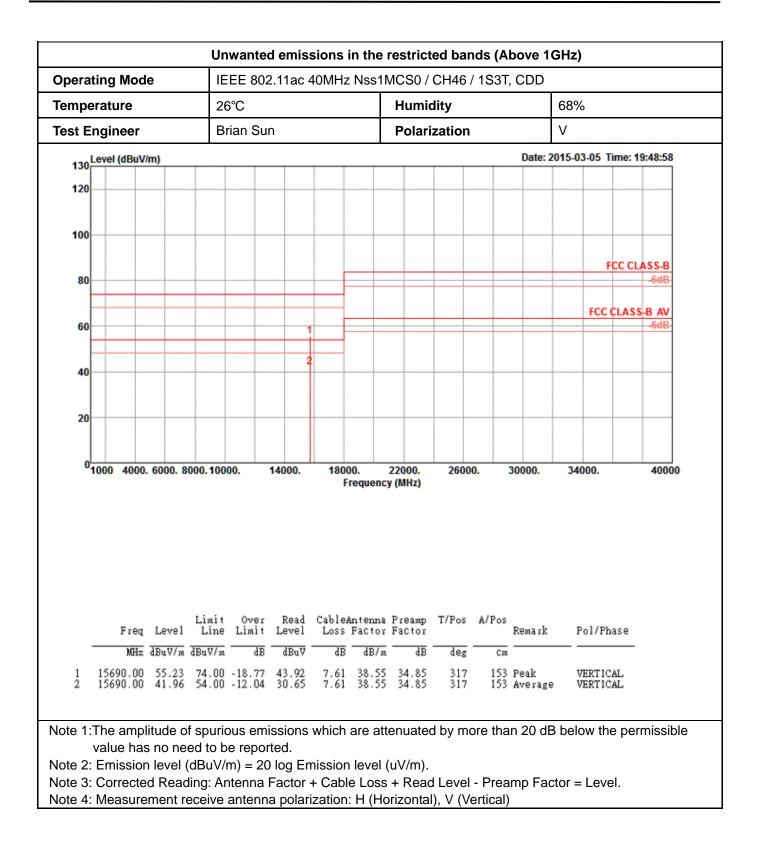




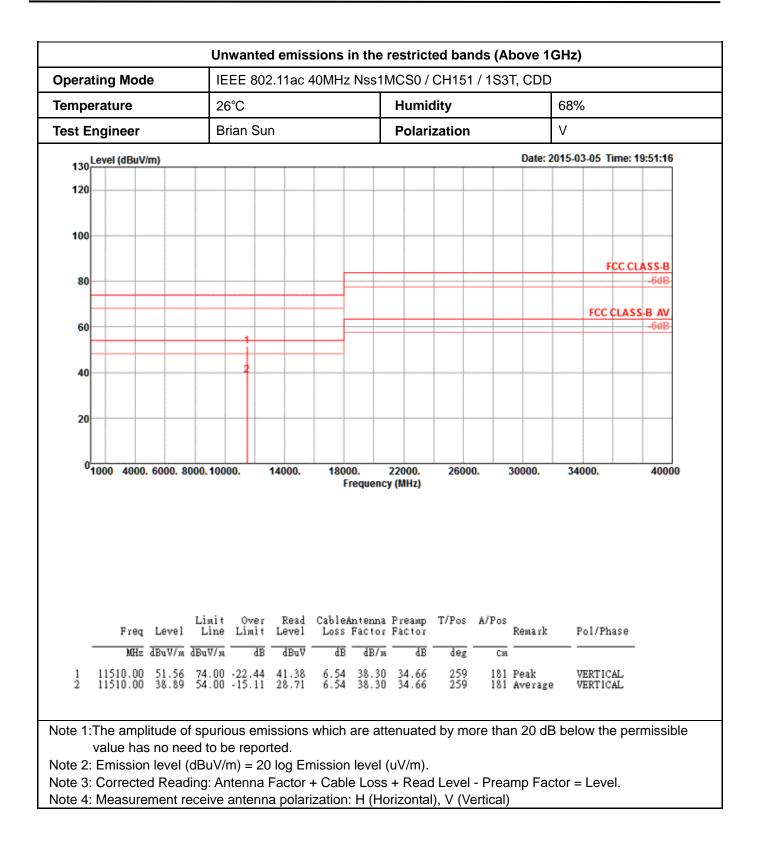


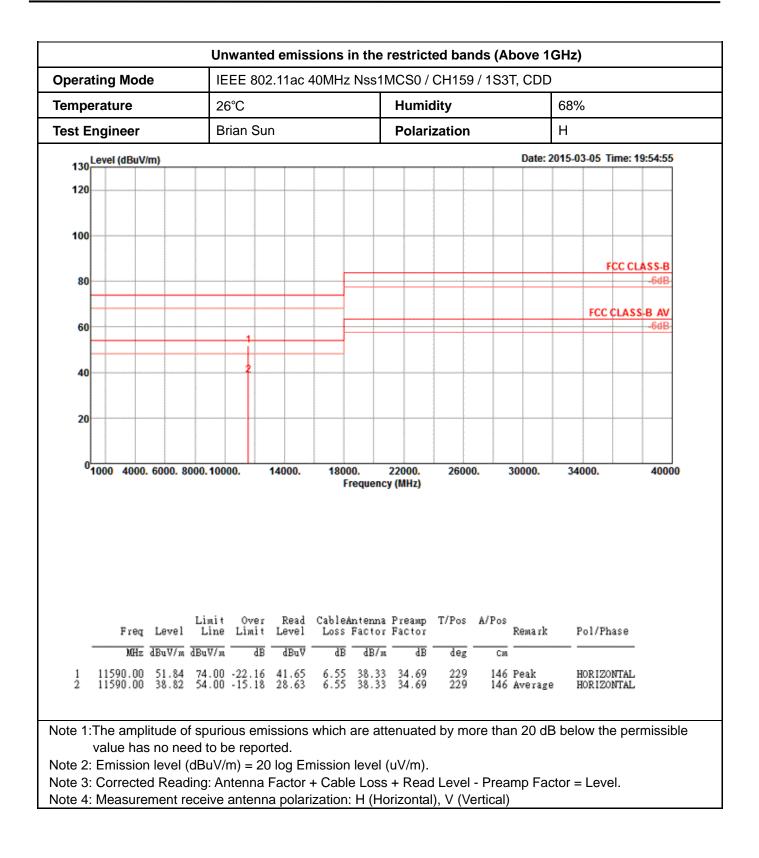


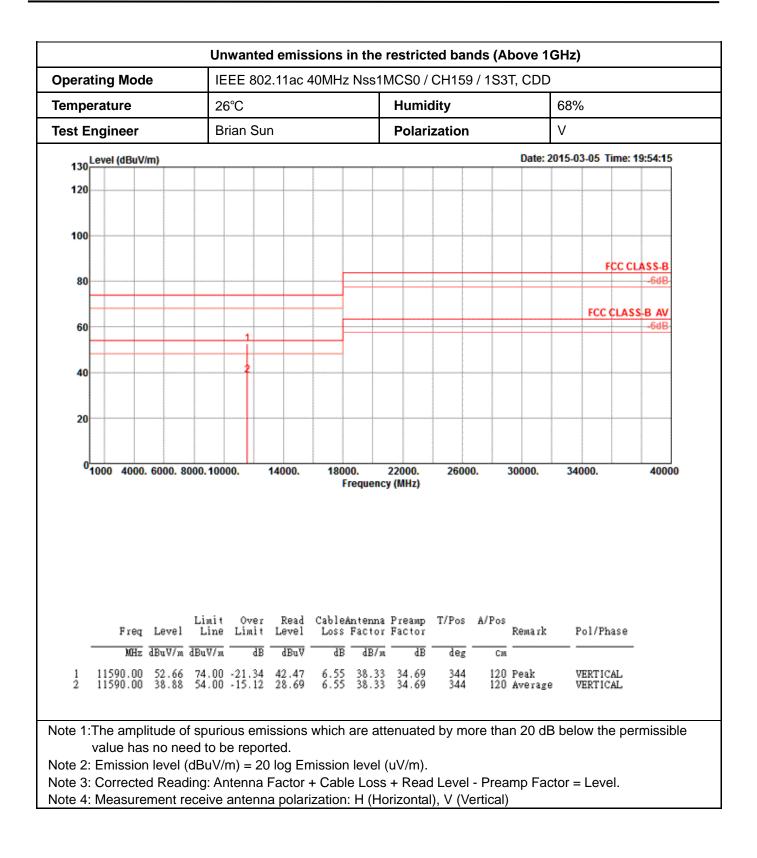


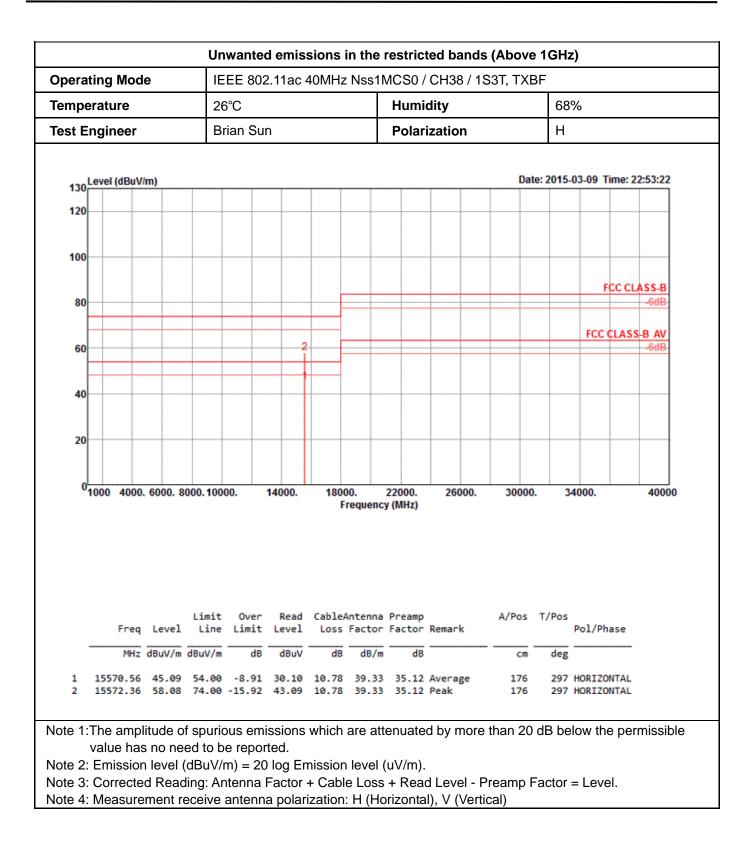


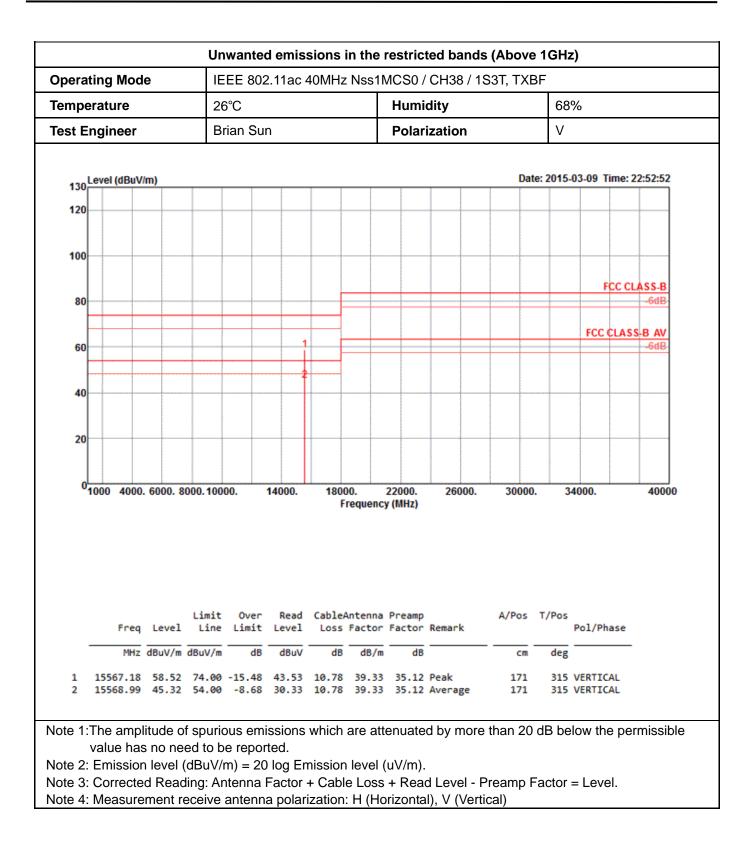
	ting Mod	e	IE	EE 802	2.11ac -	40MHz	z Nss1N	ACS0/	CH151	l / 1S3	T, CDD			
emp	erature		26	S°C				Humi	dity			68%)	
est E	Ingineer		В	rian Su	n			Polari	ization			Н		
420	Level (dBuV/	m)					L				Date: 2	015-03	3-05 Time:	: 19:52:08
120														
400														
100														
													FCC (CLASS-B
80														-988-
													FCC CLA	SS-B AV
60				1										-008
				-										
40														
20														
20														
U	1000 4000.	6000. 8	000.100	00.	14000.	180	00.	22000.	2000	-	30000.	240	000.	4000
						F	requenc		2600	0.	50000.	340		4000
		Level	Limit Line	Over Limit		Cable		y (MHz) Preamp			Rema rk		ol/Phase	
	Freq	Level dBuV/m	Line			Cable	Antenna Factor	y (MHz) Preamp						
1 2	Freq	dBu∀/m	Line dBuV/m	Limit dB	Level dBuV	Cable. Loss	Antenna Factor dB/m	y(MHz) Preamp Factor	T/Pos	A/Pos		P.		- L



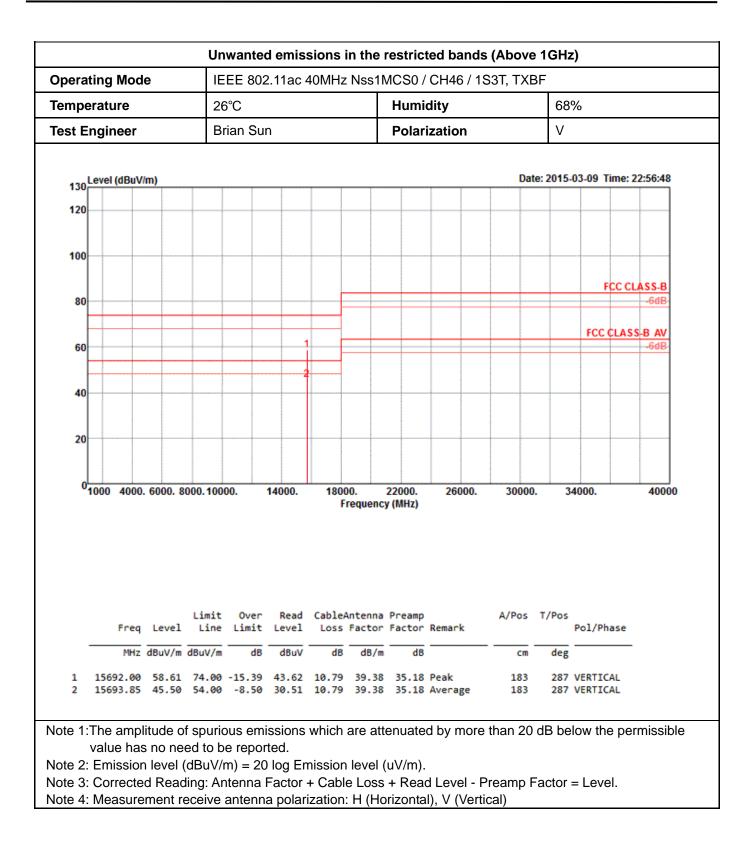


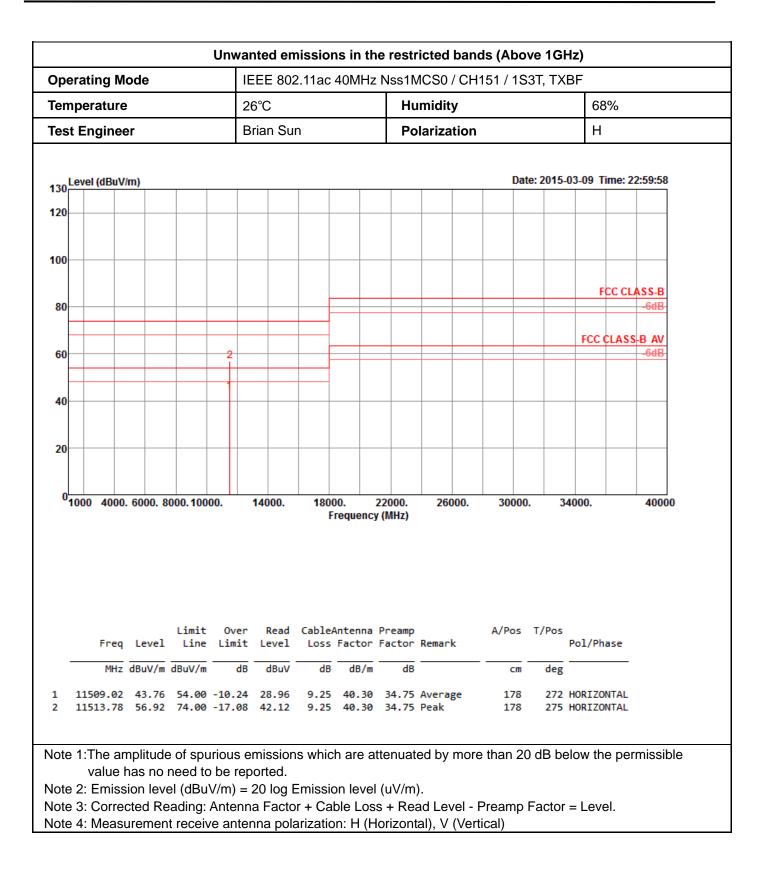


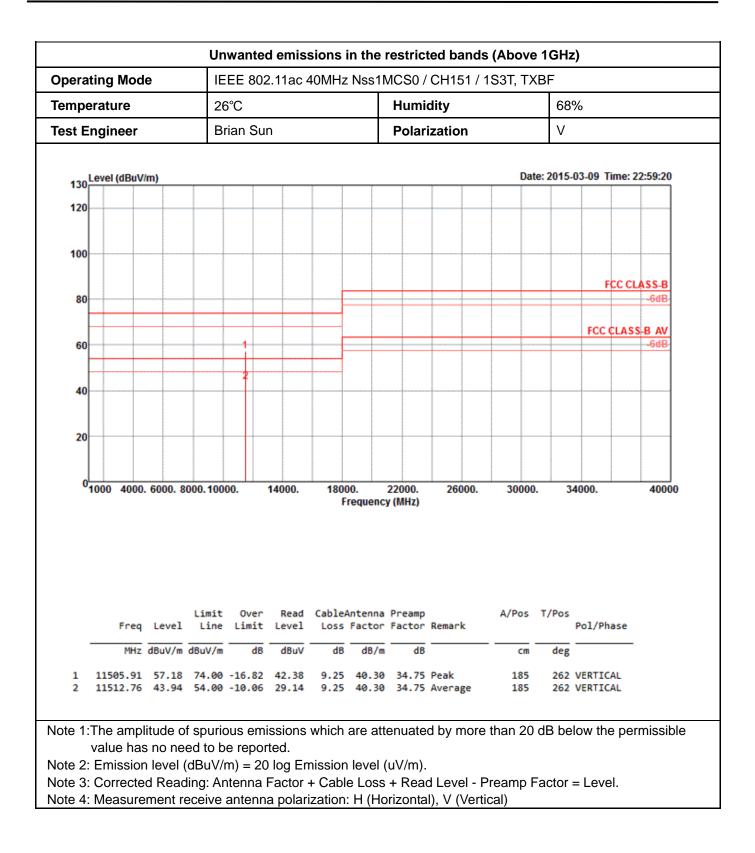


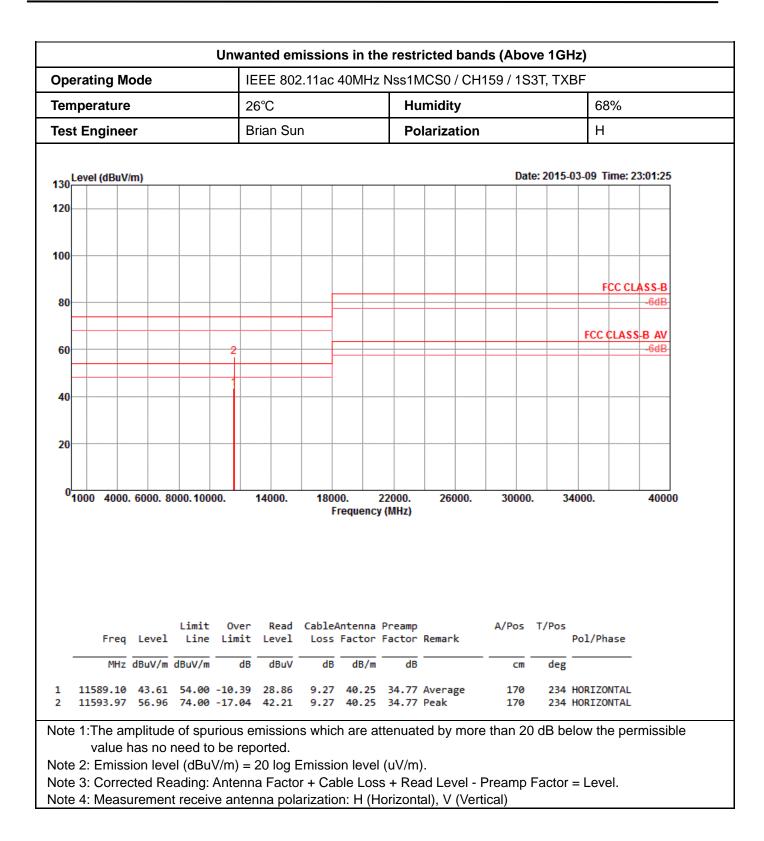


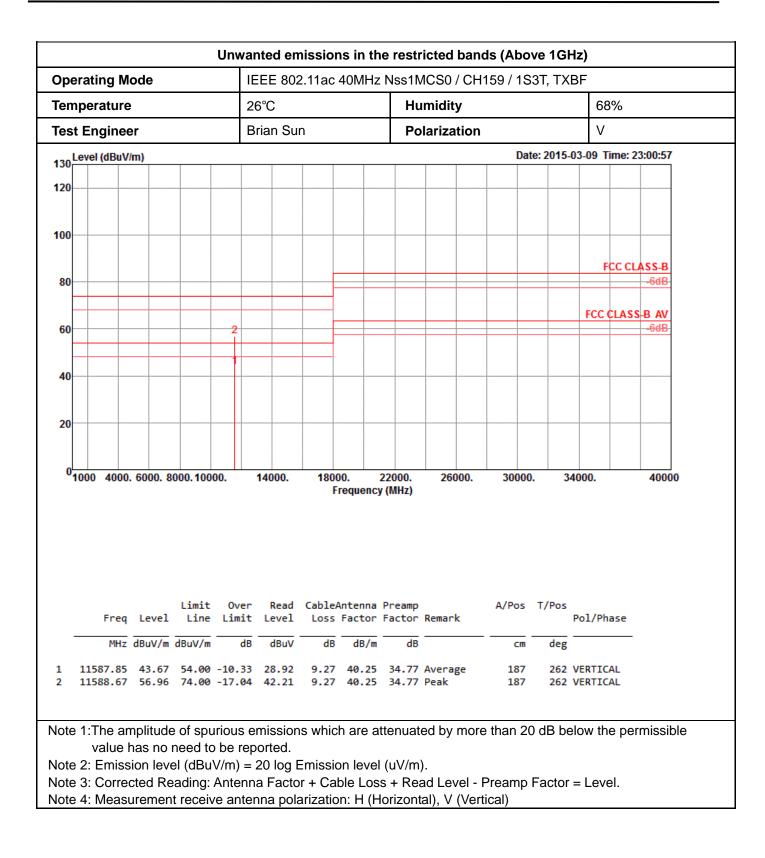
pera	ting Mod	е	IE	EE 802	2.11ac -	40MHz	z Nss1N	ACS0/	CH46 / 1	S3T, TXE	BF		
emp	erature		26	S°C				Humi	dity		68	%	
est E	ingineer		В	rian Sui	n			Polar	ization		Н		
	Level (dBuV	/m)								Dat	e: 2015-	03-09 Time: 2	2:57:24
120													
400													
100						-							
80												FCC CL	ASS-B
60					-							FCC CLASS	-6dB
					_								
40												-	
20											_		
0	1000 4000	6000. 8	000.100	00.	14000.	180	00.	22000.	26000.	30000	. 3	4000.	40000
						,	requenc	y (wnz)					
				Over Limit			Antenna Factor			A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg		
1 2	15688.41 15692.13									192 192		HORIZONTAL HORIZONTAL	
	The ampl	itude o	f spurio	ous emi	ssions	which	are att	enuate	d by more	than 20	dB be	low the per	missible

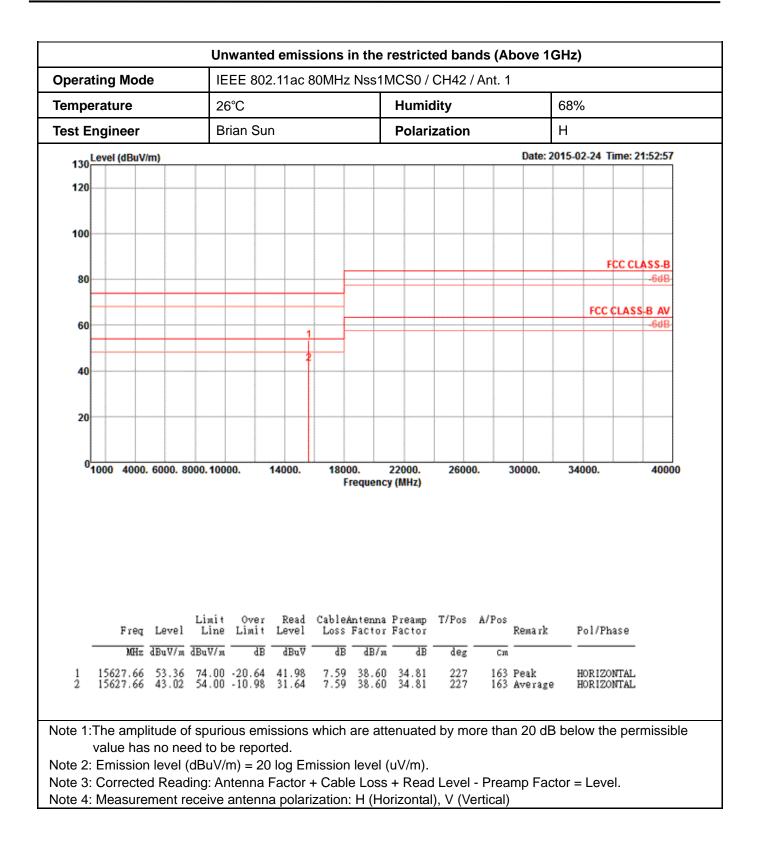


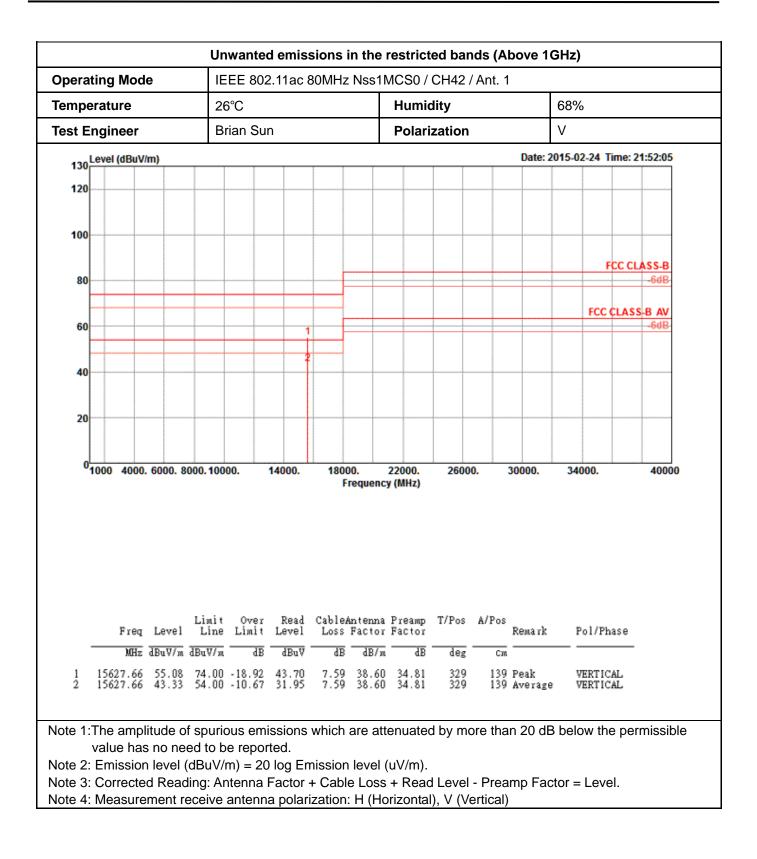


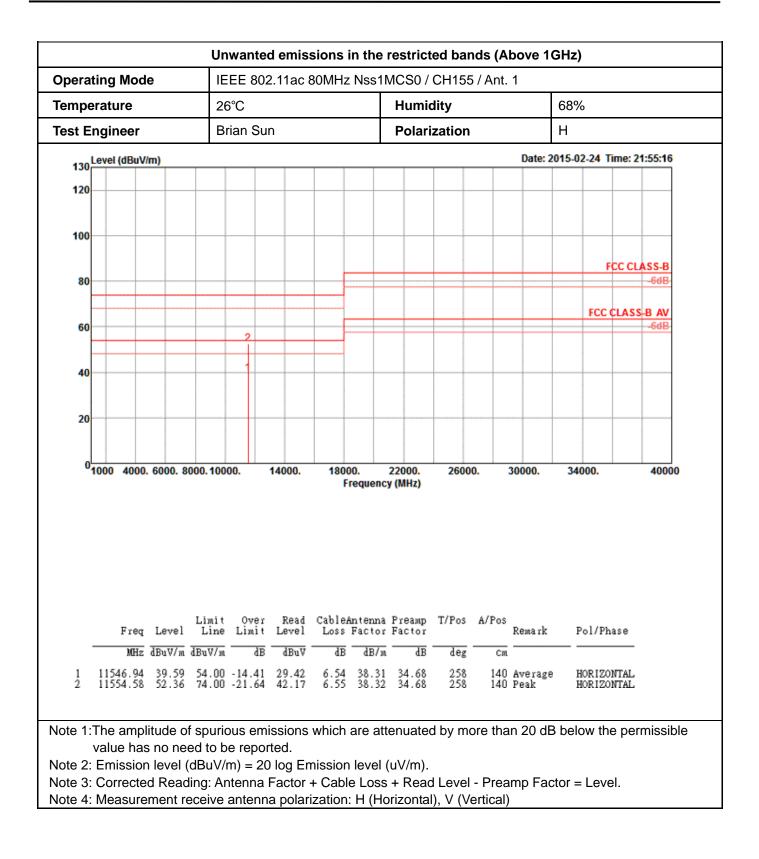


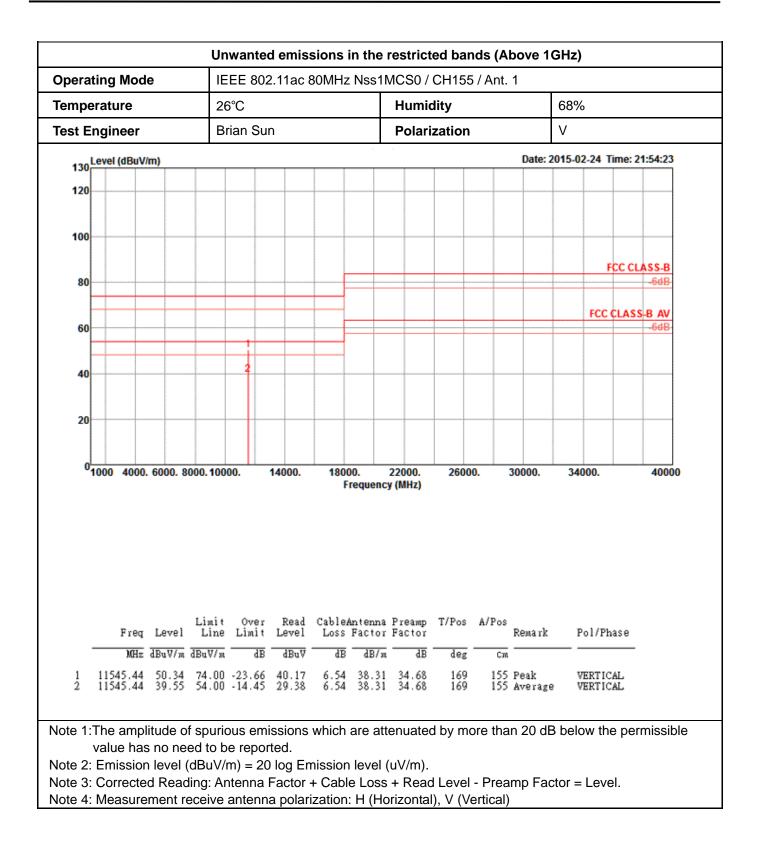


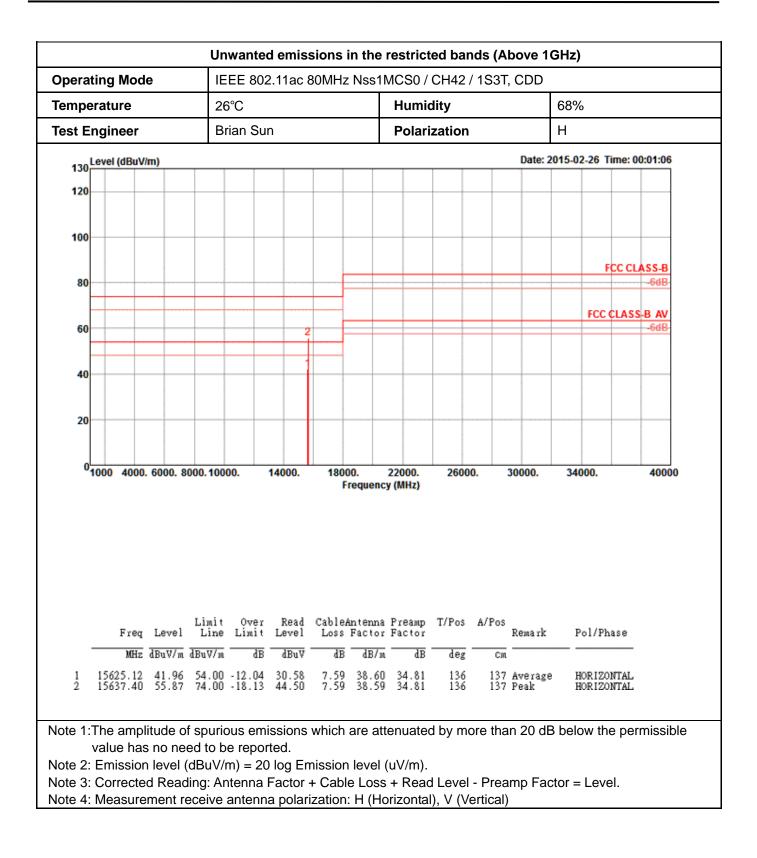


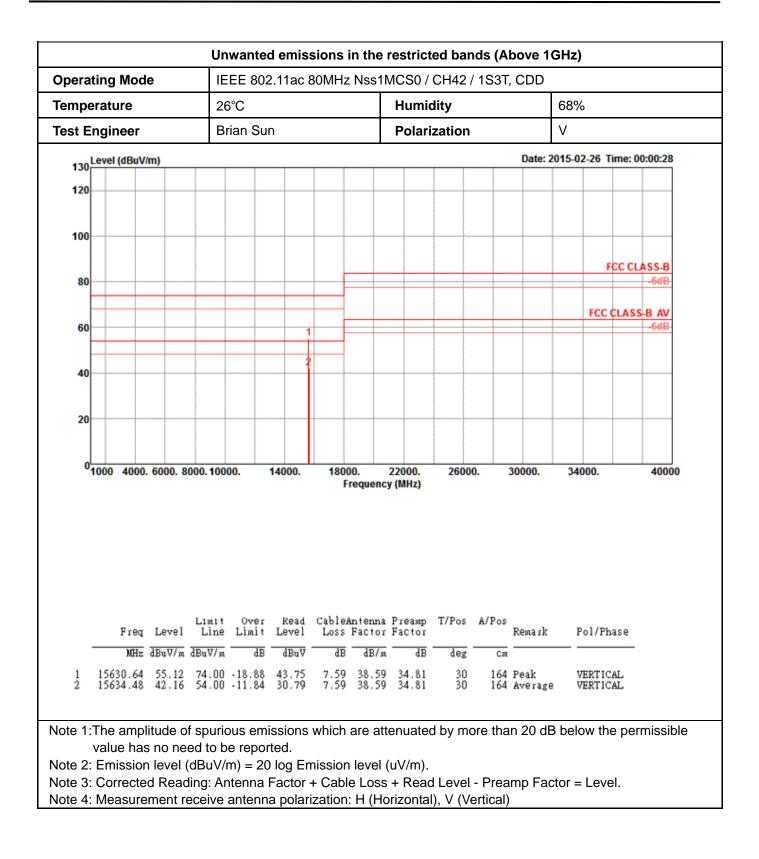




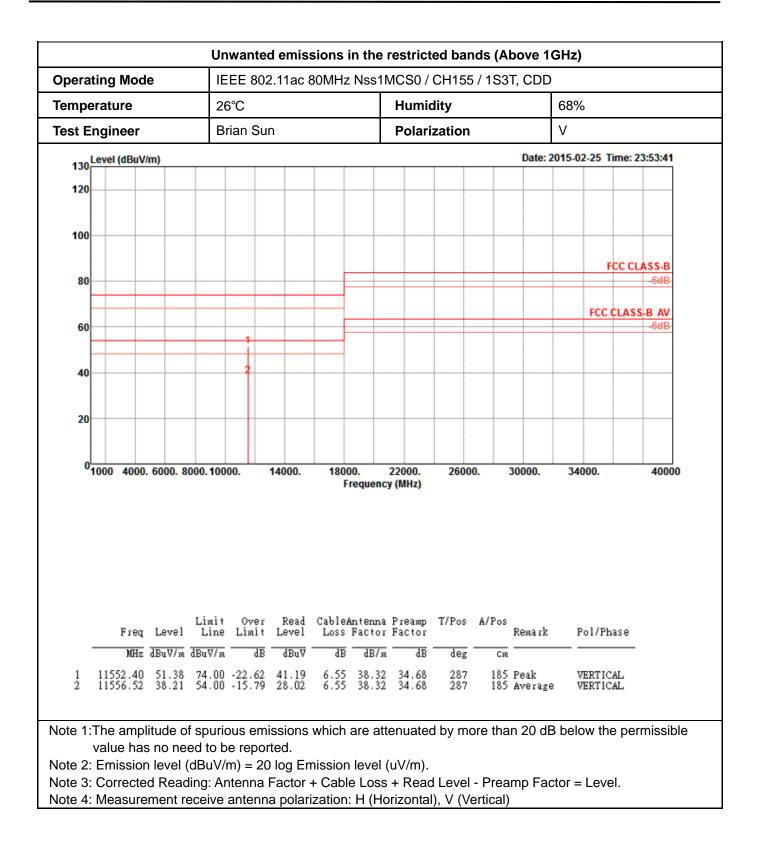


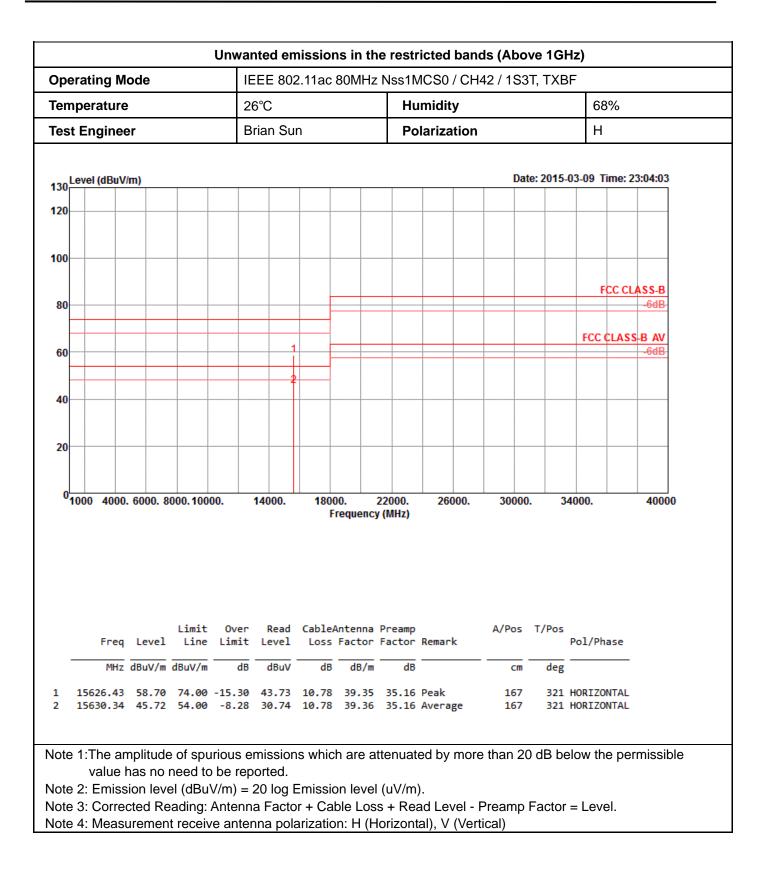


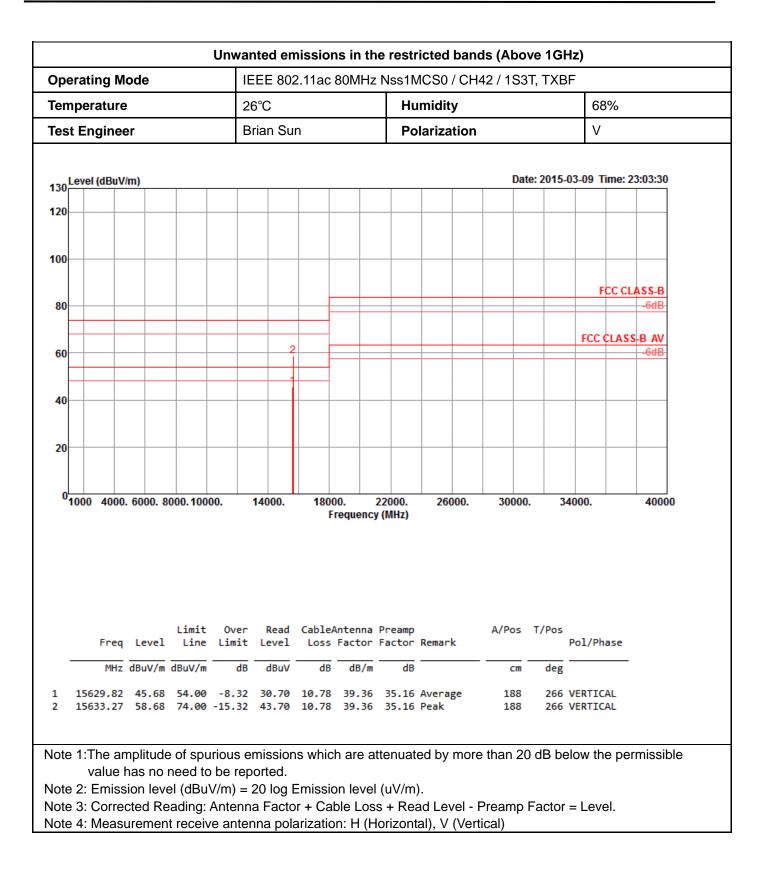


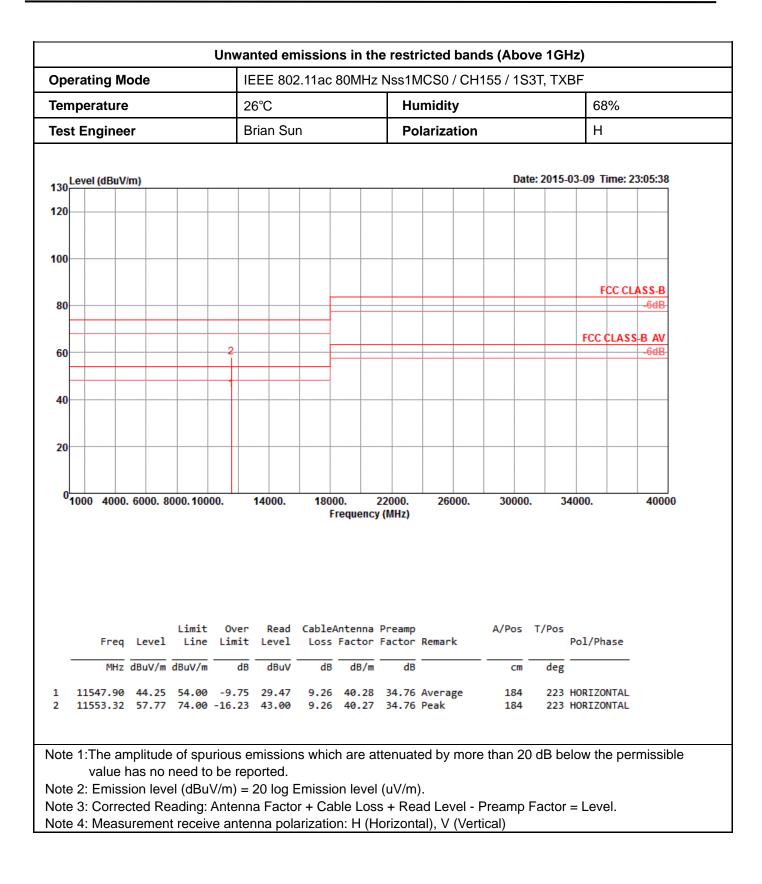


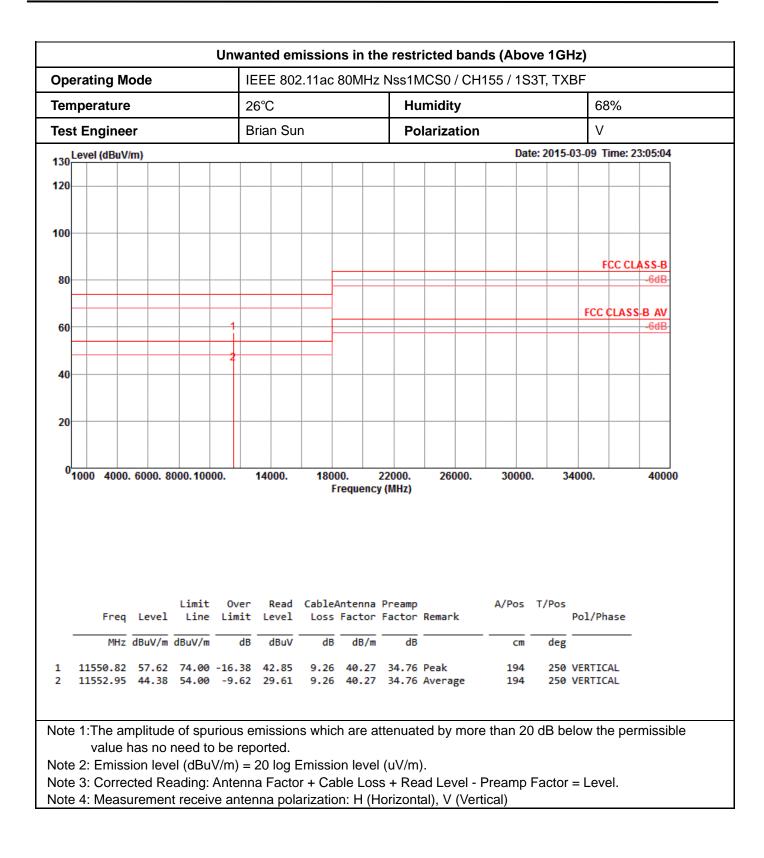
	ting Mode	IE	EE 802	2.11ac 8	80MHz	Nss1N	ACS0 /	CH155	5/1S3	T, CDD				
Temperature			26°C				Humio	dity			68%			
Test Engineer		В	Brian Sun					Polarization				н		
130	Level (dBuV/m)									Date: 2	015-02-	25 Time: 2	23:54:57	
120														
100														
80												FCC CI	-6dB	
												FCC CLAS	S D AV	
60												FUELAS	-6dB	
40			-1											
20														
0	1000 4000. 600). 8000.100	00	14000.	1800	0	22000.	2600	0	30000.	3400	0	40000	
					F	requency	y (MHz)							
	Freq Let	Limit el Line	Over Limit	Read Level	Cable/ Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Po	l/Phase		
		Limit el Line 7m dBuV/m	Limi t	Read Level dBuV	Cable/ Loss dB	Factor	Preamp Factor dB	T/Pos deg	A/Pos 	Rema rk	Po	l/Phase		
1 2		el Line 7m dBuV/m	Limi t dB	Level dBuV	Loss dB	Factor	Factor dB		Cm 157	Remark ——— Peak Average		l/Phase RIZONTAL RIZONTAL		
2	MHz dBuy	el Line /m dBuV/m 11 74.00 34 54.00	Limit dB -22.89 -15.66	Level dBuV 40.93 28.15	Loss dB 6.54 6.55	Factor dB/m 38.31 38.32	Factor dB 34.67 34.68	deg 355 355	Cm 157 157	Peak Average	HO HO	R IZONTAL R IZONTAL	rmissible	
2 te 1:	MHz dBuv 11541.44 51. 11555.80 38	el Line /m dBuV/m 11 74.00 34 54.00 e of spurie need to b	Limit <u>dB</u> -22.89 -15.66 Dus emi pe repor	Level dBuV 40.93 28.15 issions ted.	Loss 4B 6.54 6.55 which	Factor dB/m 38.31 38.32 are atte	Factor dB 34.67 34.68 enuated	deg 355 355	Cm 157 157	Peak Average	HO HO	R IZONTAL R IZONTAL	rmissible	







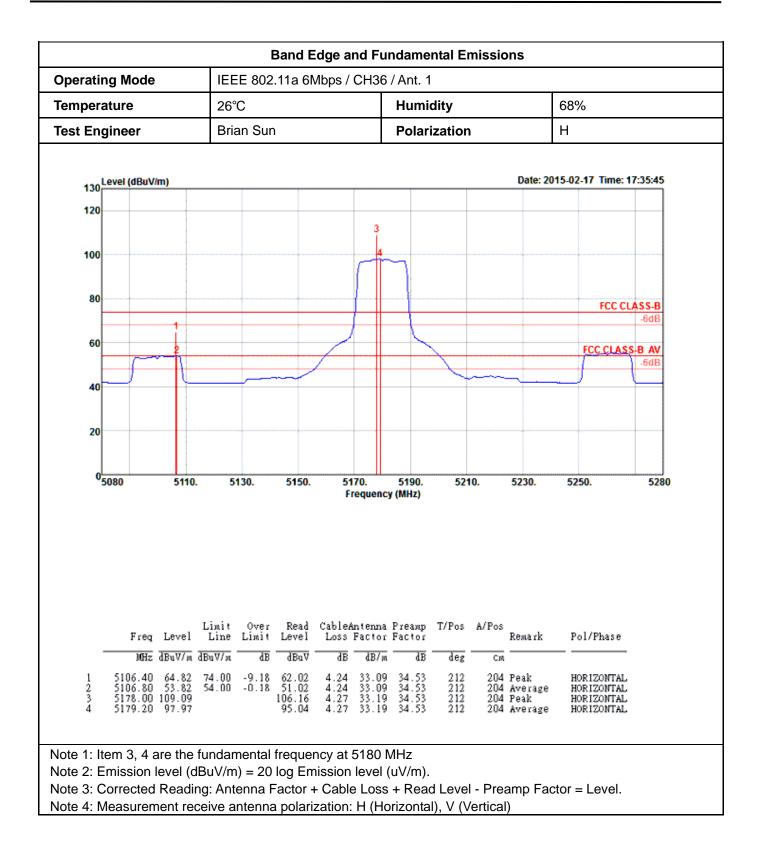


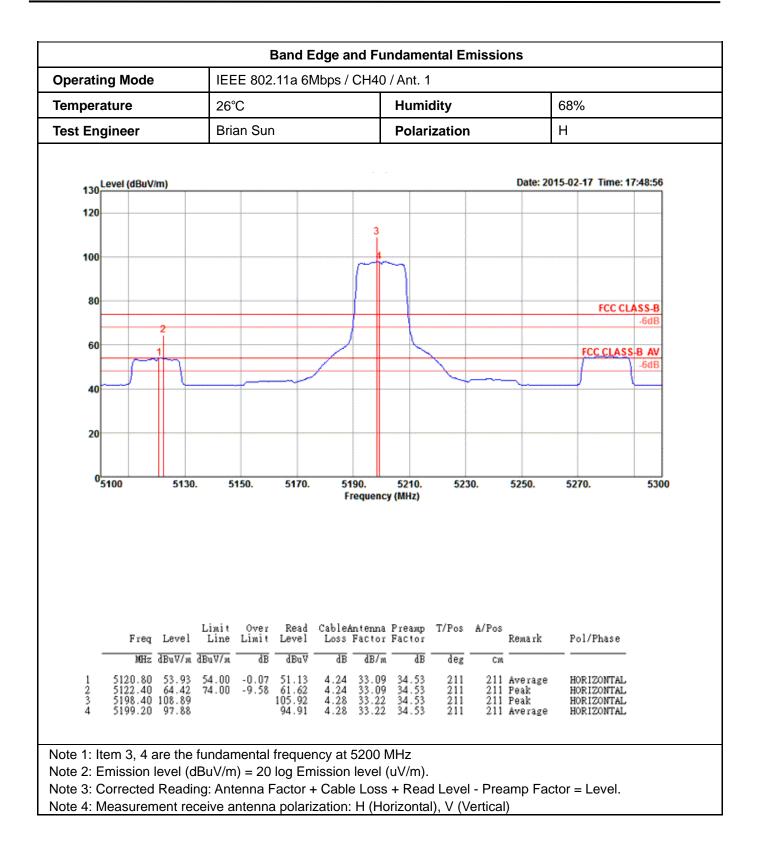


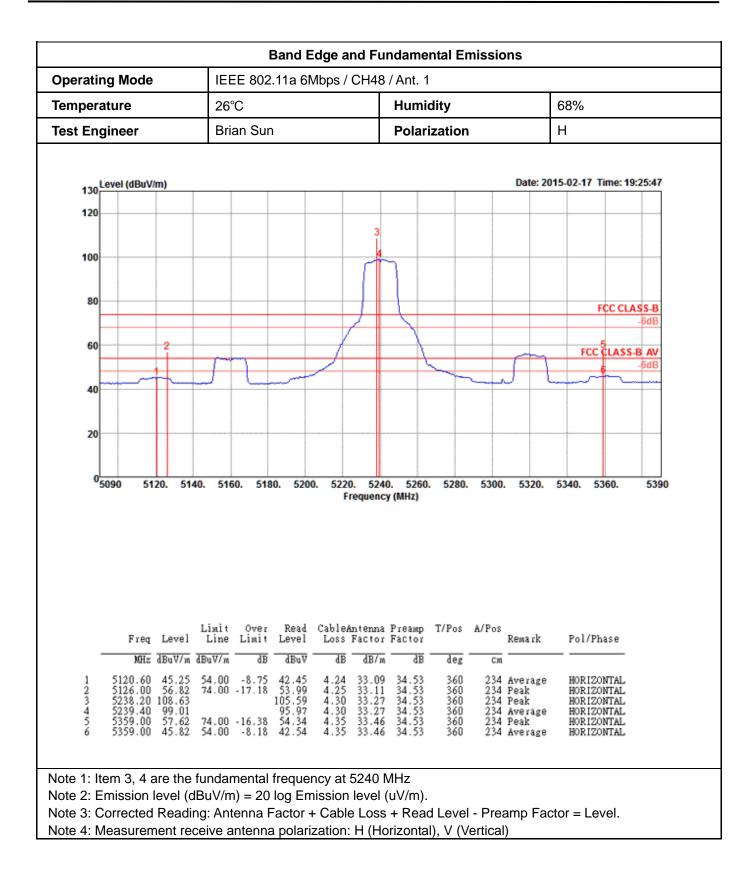
3.5.11 Test Result of Band Edge and Fundamental Emissions

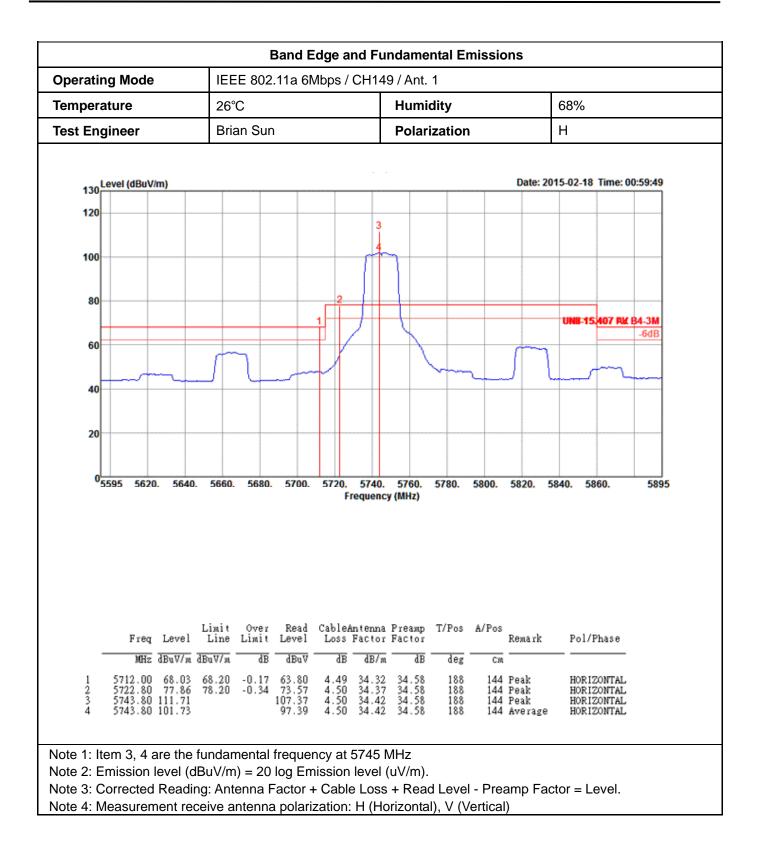
Mode	TX Antenna	Test Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11a	Ant.1	36, 40, 48 149, 157, 165	OFDM	BPSK	6
802.11a	1S3T, CDD	36, 40, 48 149, 157, 165	OFDM	BPSK	6
802.11ac 20MHz	Ant.1	36, 40, 48 149, 157, 165	OFDM	BPSK	Nss1MCS0 (6.5)
802.11ac 20MHz	1S3T, CDD	36, 40, 48 149, 157, 165	OFDM	BPSK	Nss1MCS0 (6.5)
802.11ac 20MHz	1S3T, TXBF	36, 40, 48 149, 157, 165	OFDM	BPSK	Nss1MCS0 (6.5)
802.11ac 40MHz	Ant.1	38, 46 151, 159	OFDM	BPSK	Nss1MCS0 (13.5)
802.11ac 40MHz	1S3T, CDD	38, 46 151, 159	OFDM	BPSK	Nss1MCS0 (13.5)
802.11ac 40MHz	1S3T, TXBF	38, 46 151, 159	OFDM	BPSK	Nss1MCS0 (13.5)
802.11ac 80MHz	Ant.1	42 155	OFDM	BPSK	Nss1MCS0 (29.5)
802.11ac 80MHz	1S3T, CDD	42 155	OFDM	BPSK	Nss1MCS0 (29.5)
802.11ac 80MHz	1S3T, TXBF	42 155	OFDM	BPSK	Nss1MCS0 (29.5)

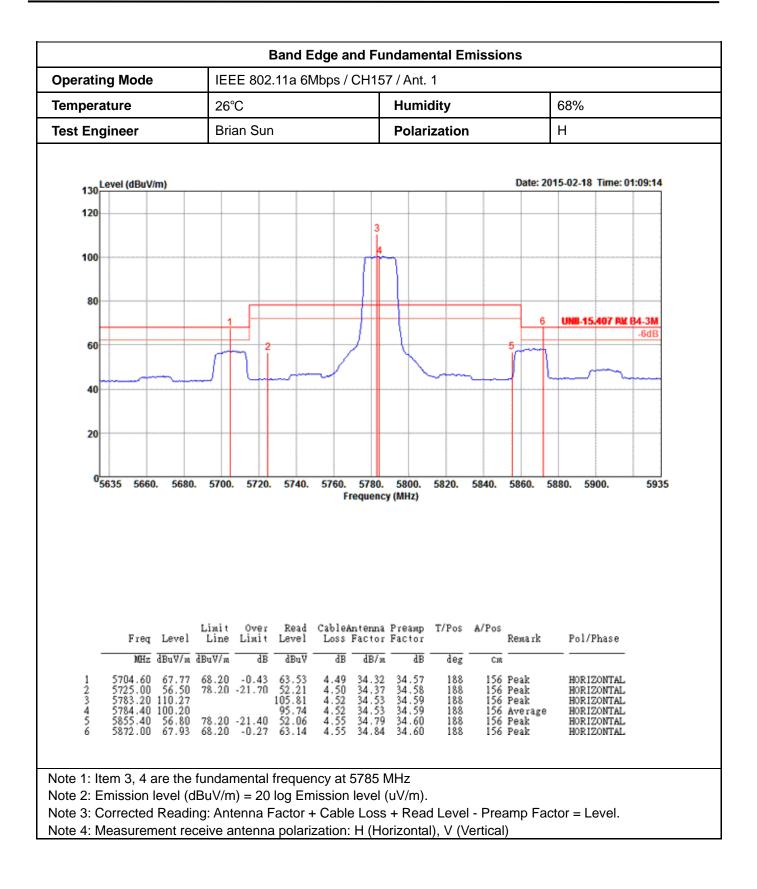
Following channel(s) was (were) selected for the final test as listed below.

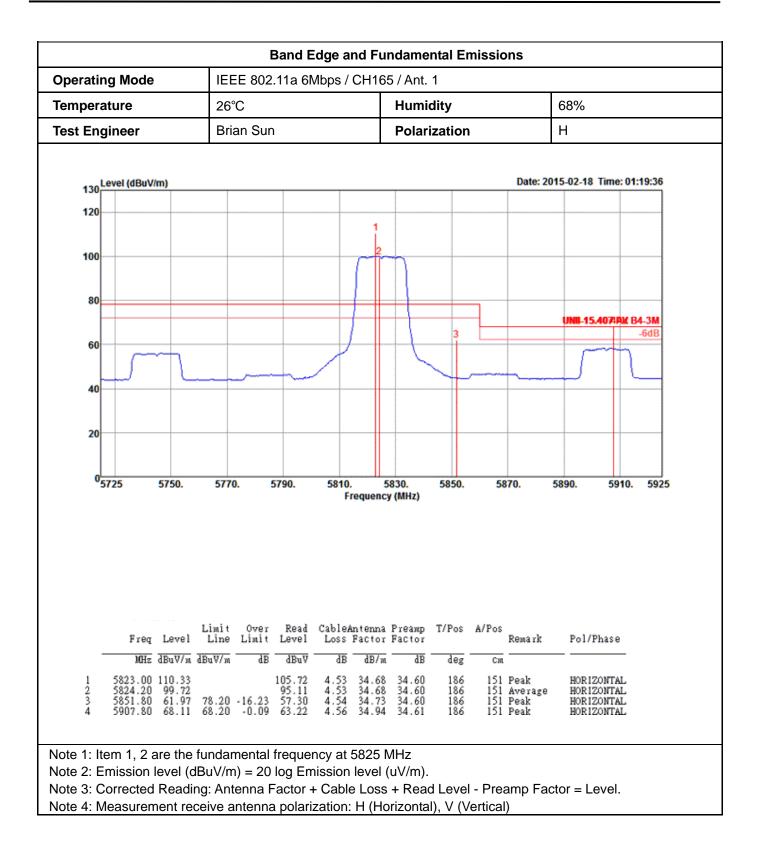


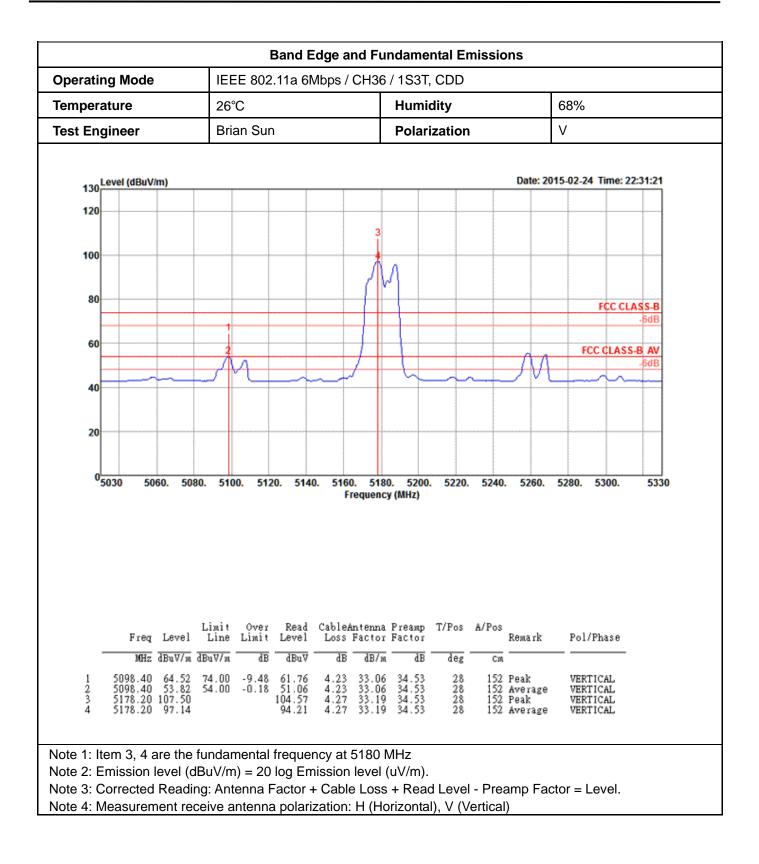






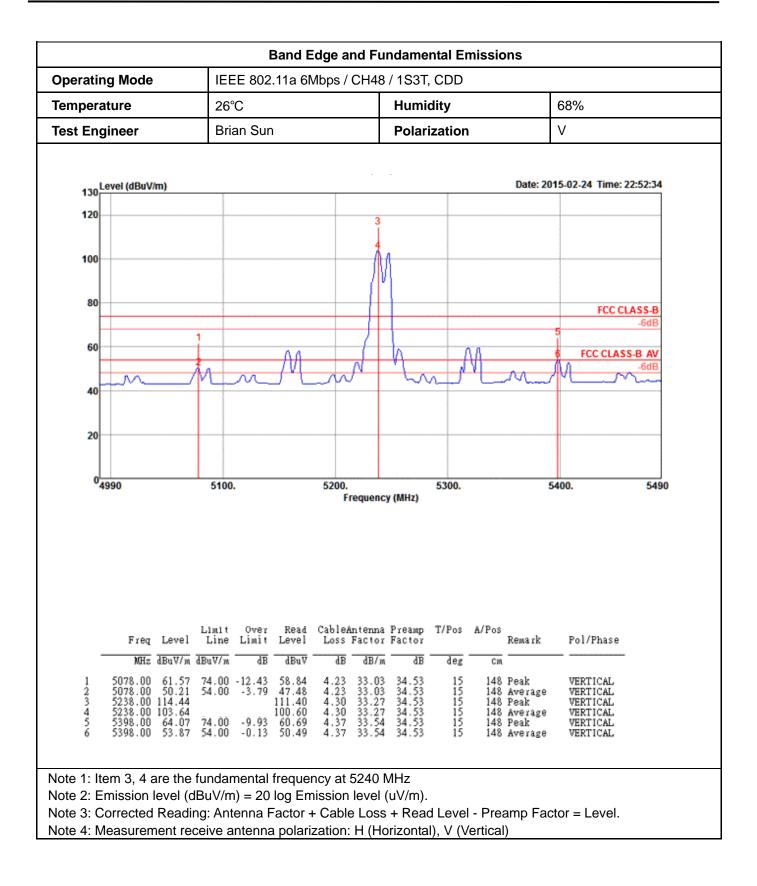


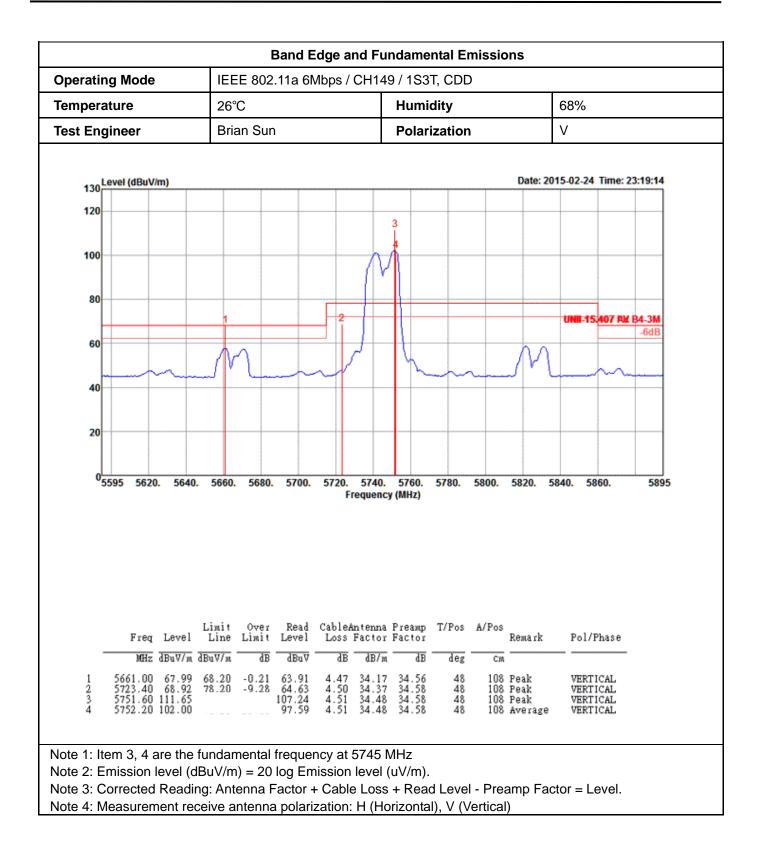


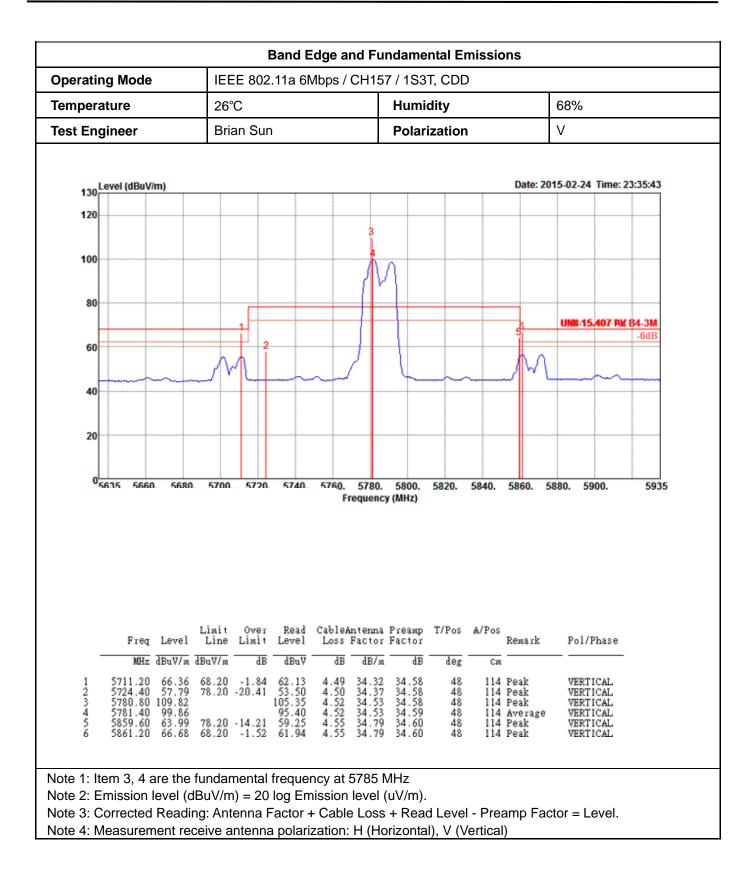


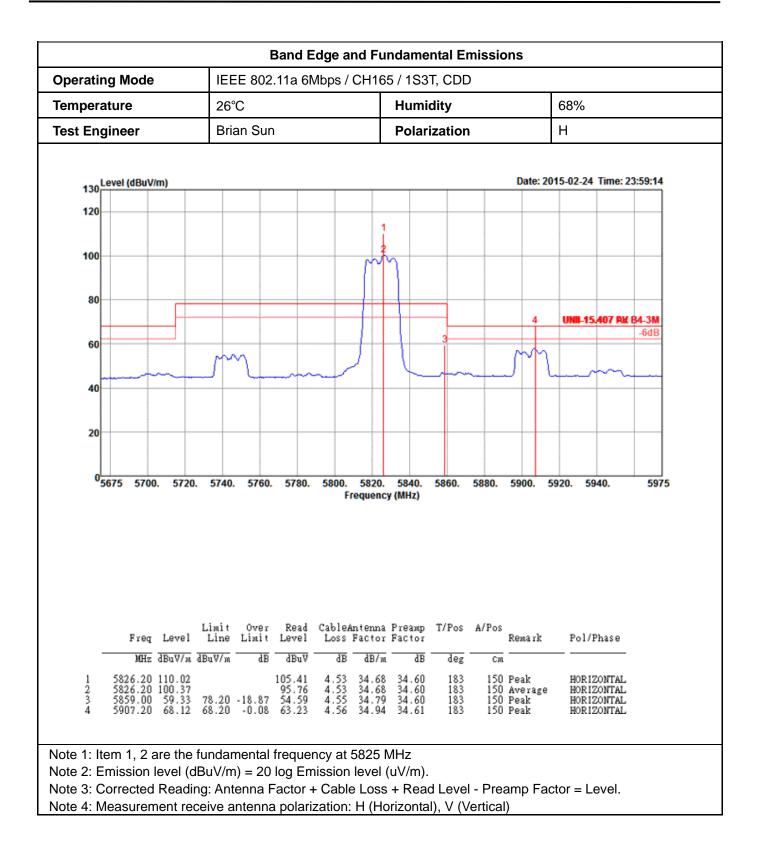
Report No.: FR510501AB

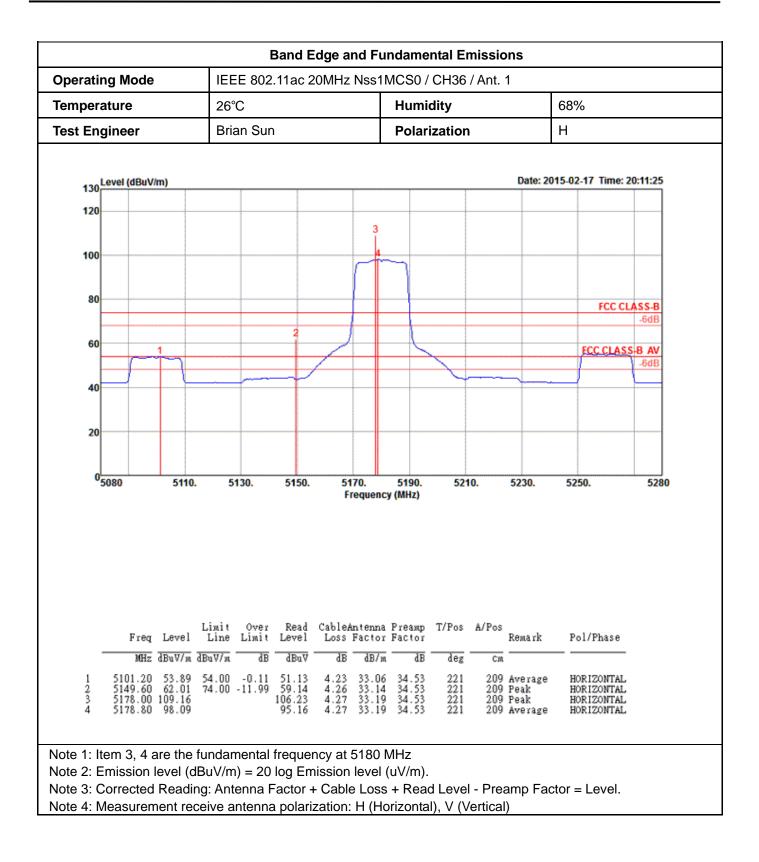
perating	g Mode			IEEE	802.11	la 6Mb	ops / C	H40 / 1	S3T, C	DD		<u>.</u>		
Temperature Test Engineer			26℃ Brian Sun				Hum	idity			e	68%		
							Pola	rizatio	n		١	J		
													_	
130	.evel (dBuV/m	n)									Date: 20	15-02-24	Time: 22:	39:20
120								•				2 2 2 2 2 2 2 2 2 2		
							3							
100							D							
							11							
80							-						FCC CLA	
ŀ								_						-6dB
60											~~	FC	C CLASS-	
		~	JV	h	_		\checkmark	\rightarrow	h		JYL			-6dB
40														
20														
	5050 508													
	Freq	Level		Over Limit	Read Level	Cable	Antenna Factor	Preamp	T/Pos	A/Pos	Remark	Pol/J	Phase	
-	MHz d	BuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	Cm				
1	5122.00 5122.00	64.81 53.90	74.00 54.00	-9.19 -0.10	62.01 51.10	4.24 4.24	33.09 33.09	34.53 34.53	286 286		Peak Average	VERT VERT		
234	5202.40 1 5202.40	08.87	2.100		105.90 95.16	4.28 4.28	33.22 33.22	34.53 34.53	286 286	196	Peak Average	VERT	ICAL	
á	5202.40	98.13	undam	ental fr	95.16				286					

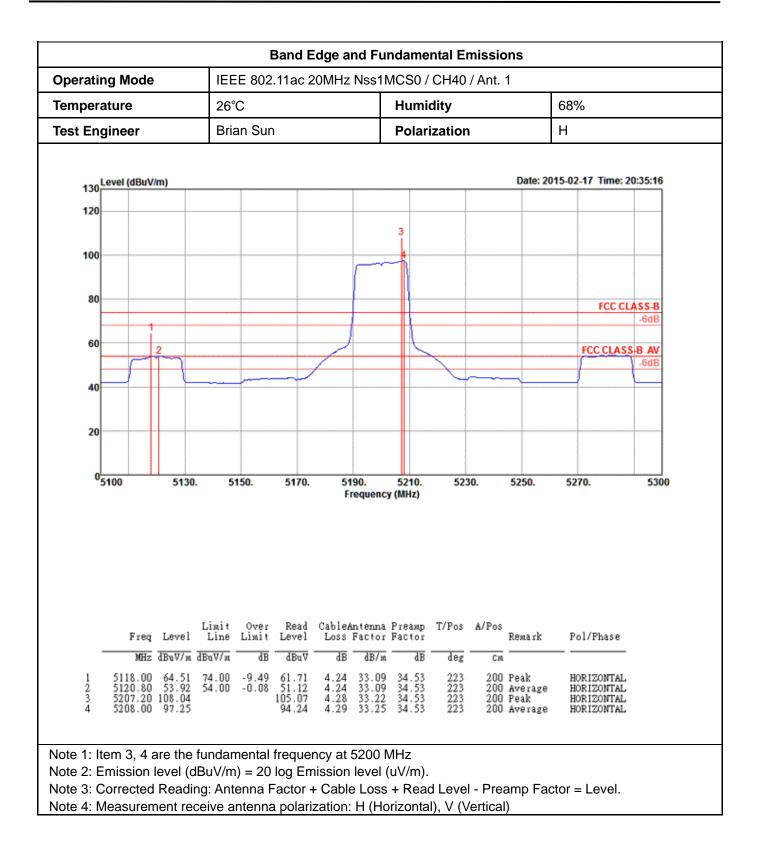


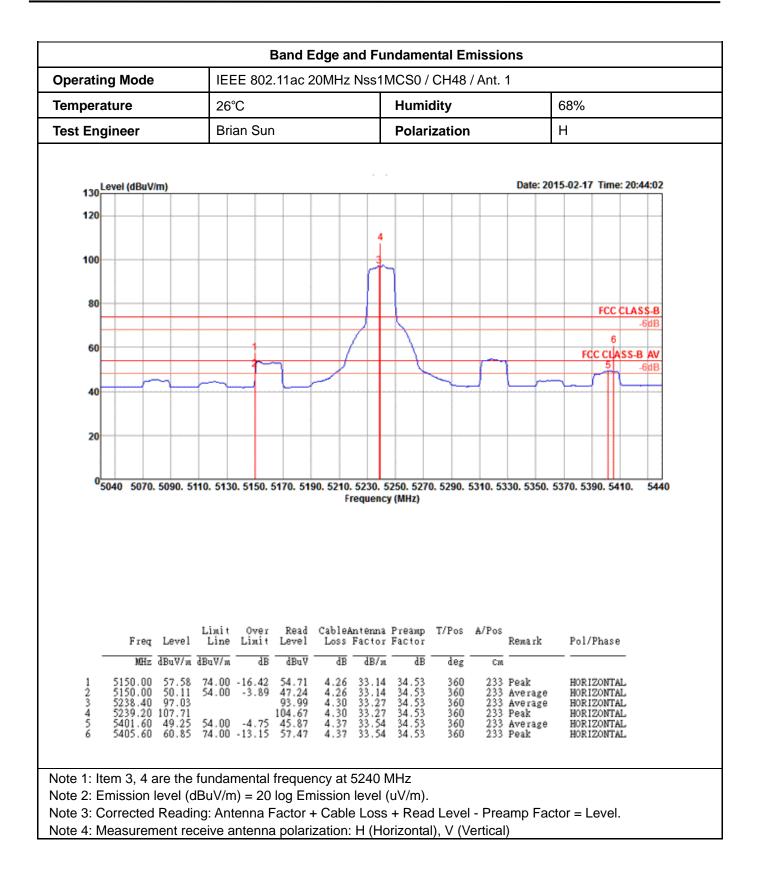


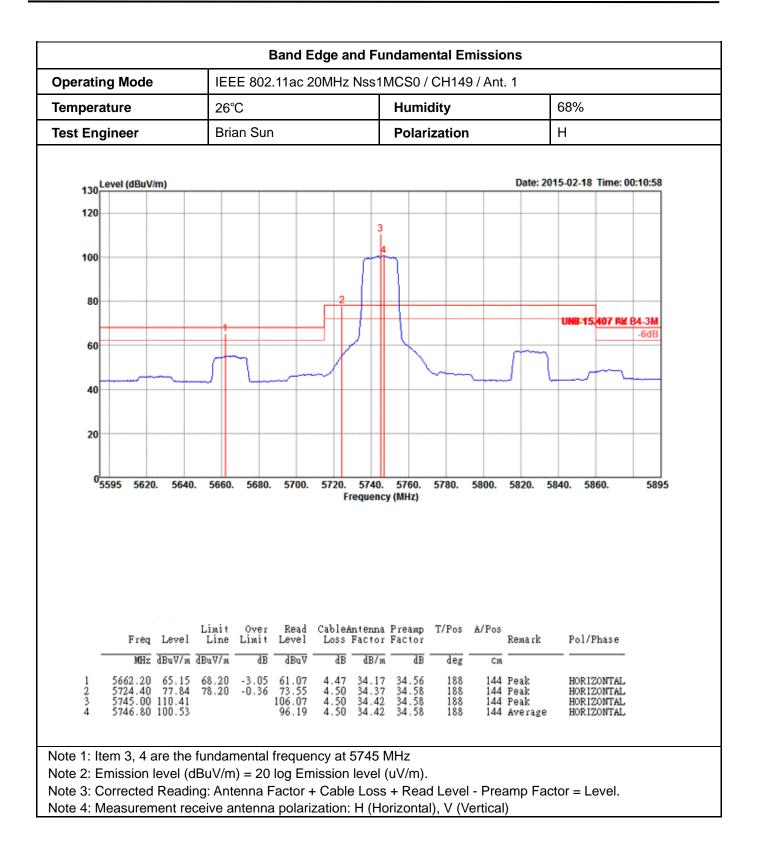


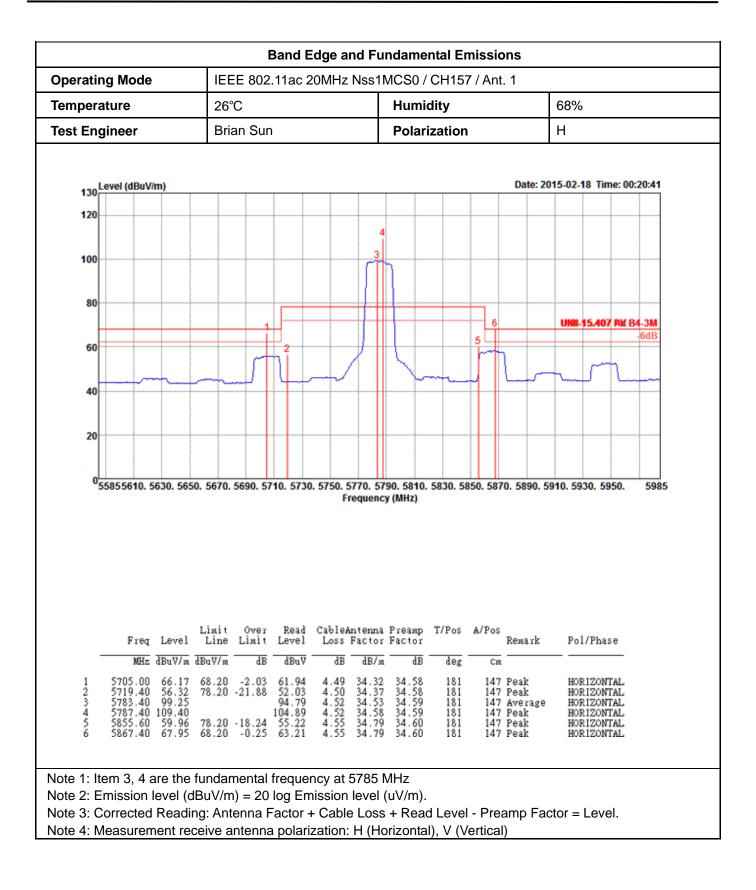


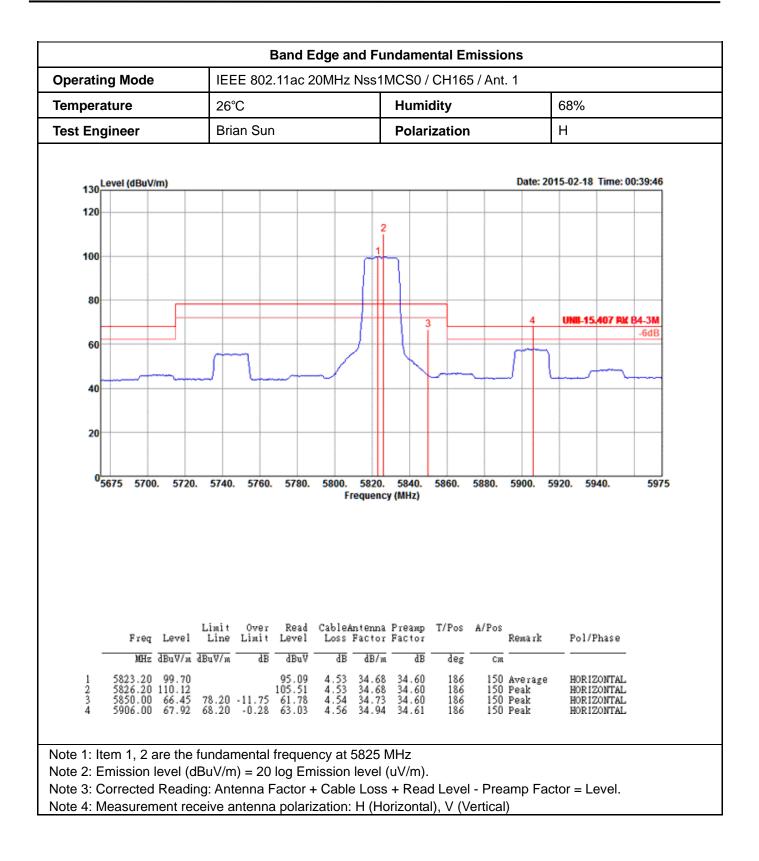


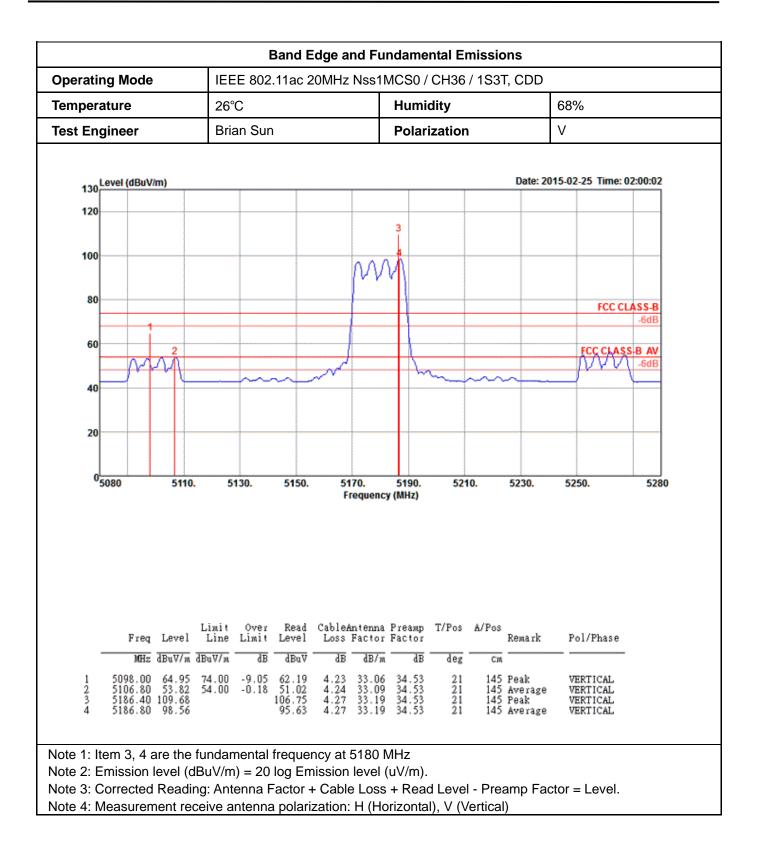




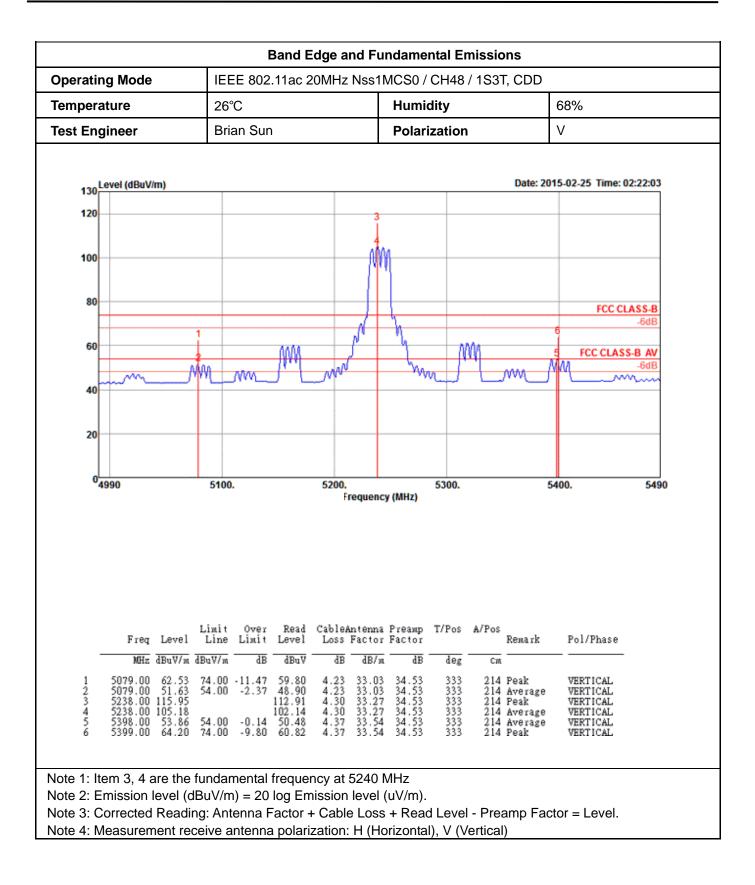




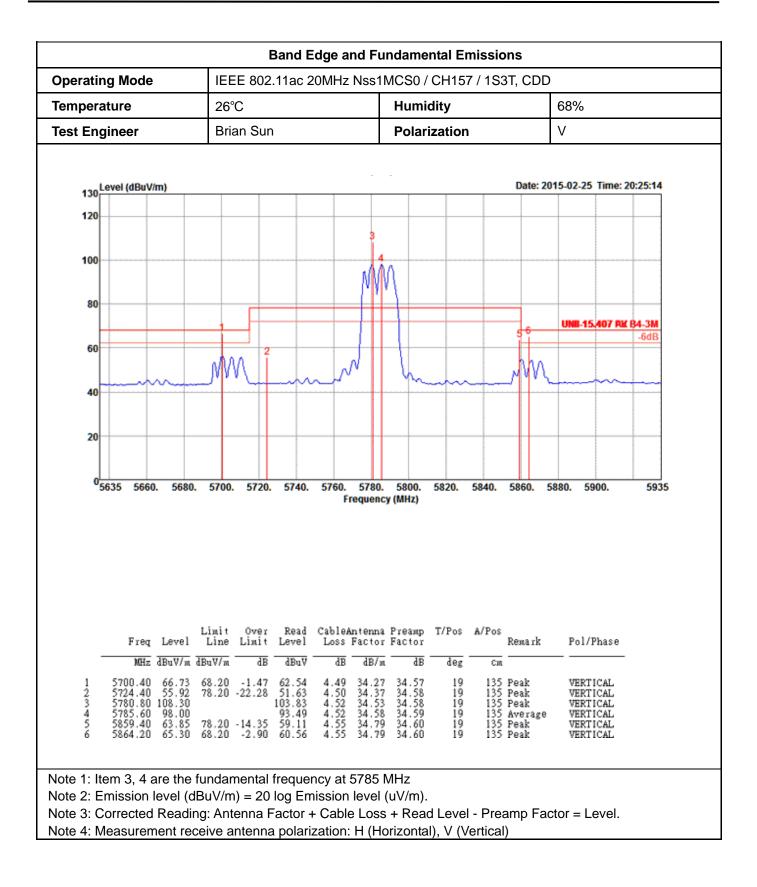


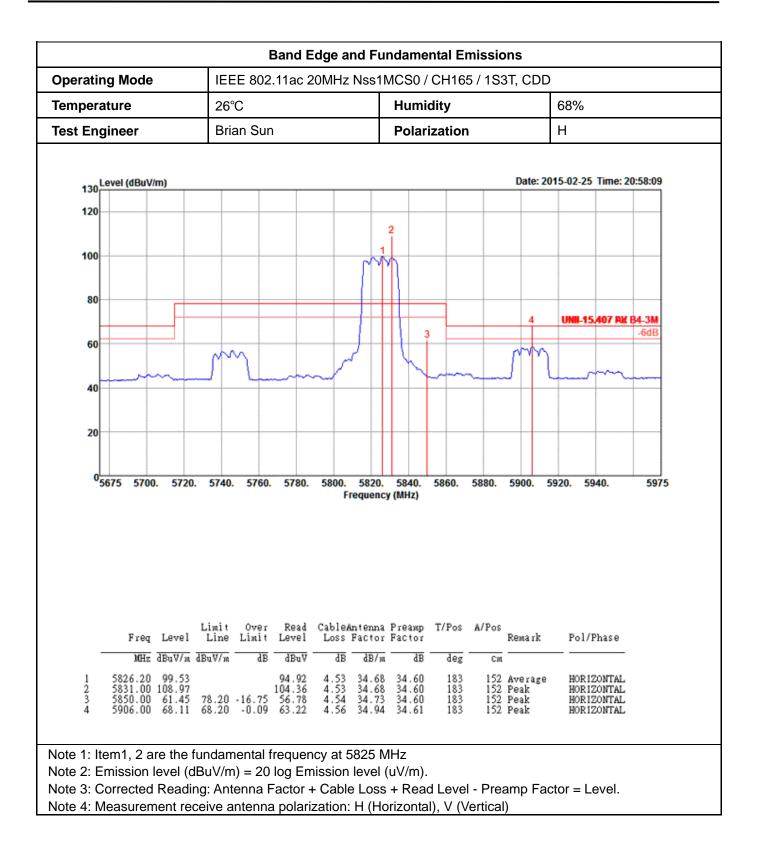


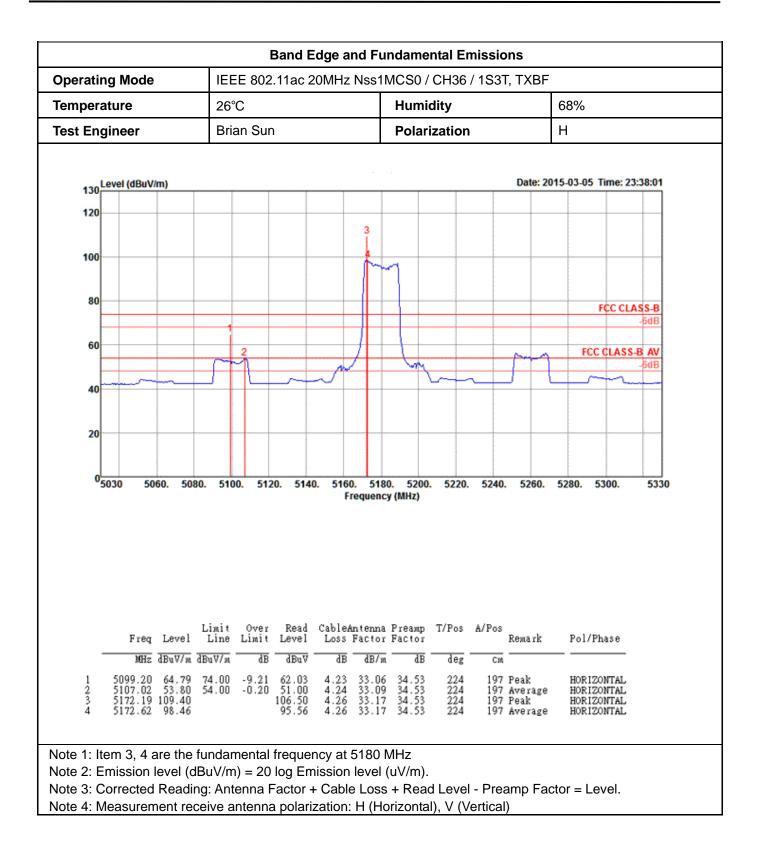
perating Mode	IEEE 802.11ac 20	IEEE 802.11ac 20MHz Nss1MCS0 / CH40 / 1S3T, CDD								
emperature	26°C	Humidity	68%							
est Engineer	Brian Sun	Polarizatio	n V							
130 Level (dBuV/m)			Date: 2015-02-25 Time	e: 02:08:46						
120										
		3								
100										
		[////\								
80			FCC	CLASS-B						
	2			-6dB						
60	1		FCC CLA	SS-B AV						
40		m hm	n d''l min							
20										
05050 5080.	5100. 5120. 5140. 5160		0. 5260. 5280. 5300. 5320.	5350						
		Frequency (MHz)								
Freq Leve		CableAntenna Preamp T/Pos Loss Factor Factor	A/Pos Remark Pol/Phase	,						
MHz dBuV	/m dBuV/m dB dBuV -	dB dB/m dB deg	Cm	_						
1 5122.00 53.9 2 5126.80 64.9 3 5201.80 109.1	90 74.00 -9.10 62.07	4.24 33.09 34.53 25 4.25 33.11 34.53 25	142 Average VERTICAL 142 Peak VERTICAL							
3 5201.80 109.1 4 5201.80 98.3	15 106.18 39 95.42	4.28 33.22 34.53 25 4.28 33.22 34.53 25	142 Peak VERTICAL 142 Average VERTICAL							
	ne fundamental frequen	ncy at 5200 MHz								
	$(dBuV/m) = 20 \log Em$	-								



perating Mode	IEEE 802.11ac 20MHz Nss1MCS0 / CH149 / 1S3T, CDD								
mperature	26°C		Humidity		68%				
st Engineer	Brian Sun		Polarization		V				
130_Level (dBuV/m)				Date: 20	15-02-25 Time: 20:13:31				
120									
100		3	Ĵ						
100		NVV							
80		2			UNII-15.407 PM B4-3M -6dB				
60									
			- m	~~~~~					
40									
20									
⁰ 5645 5670.	5690. 5710.	5730. 57 Frequency	750. 5770. (MHz)	5790. 5	5810. 5830. 5845				
Freq Level	Limit Over Read C Line Limit Level 1	ableAntenna I Loss Factor I	Preamp T/Pos Factor	A/Pos Remark	Pol/Phase				
MHz dBuV/m	dBuV/m dB dBuV −	dB dB/m	dB deg	Cm					
1 5665.40 68.11 2 5725.00 76.77 3 5745.80 101.80 4 5751.00 110.98	78.20 -1.43 72.48	4.47 34.17 4.50 34.37 4.50 34.42 4.50 34.42	34.56 22 34.58 22 34.58 22 34.58 22 34.58 22 34.58 22	136 Peak 136 Peak 136 Average 136 Peak	VERTICAL VERTICAL VERTICAL VERTICAL				







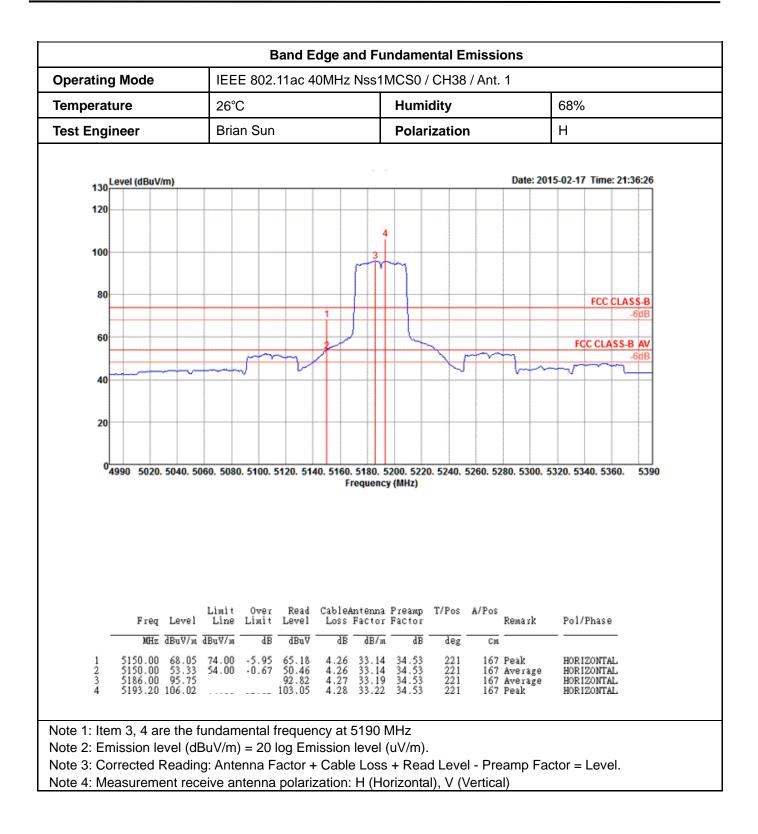
perating Mode	IEEE 802.11ac 20MH	Hz Nss1MCS0 / CH40 / 1S3	T, TXBF	
emperature	26°C	Humidity	68%	
est Engineer	Brian Sun	Polarization	V	
			Date: 2015-03-05 Time: 23:5	2.46
130 Level (dBuV/m)			Date: 2013-03-03 Time: 23.3	2.10
120		4		
100				
80			FCC CLAS	6 B
				5dB
60	2		FCC CLASS-B	AV
		2 Martin		6dB
40				
20				
0 5050 5080.	5100. 5120. 5140. 5160. 5	180. 5200. 5220. 5240. 5260	. 5280. 5300. 5320.	5350
		Frequency (MHz)		
Freq Lev		leAntenna Preamp T/Pos A/Pos ss Factor Factor	Remark Pol/Phase	
	el Line Limit Level Los /m dBuV/m dB dBuV (ss Factor Factor dB dB/m dB deg Cm	Remark Pol/Phase	
MHz dBuV	el Line Limit Level Los /m dBuV/m dB dBuV (ss Factor Factor dB dB/m dB deg Cm	Remark Pol/Phase	
MHz dBuV 1 5127.86 63.	el Line Limit Level Los /m dBuV/m dB dBuV (ss Factor Factor dB dB/m dB deg cm 25 33.11 34.53 22 148 25 33.11 34.53 22 148 29 33.25 34.53 22 148	Remark Pol/Phase	
MHz dBuV 1 5127.86 63. 2 5127.86 53. 3 5207.81 99.	el Line Limit Level Los /m dBuV/m dB dBuV (ss Factor Factor dB dB/m dB deg Cm	Peak VERTICAL Average VERTICAL	
MHz dBuV 1 5127.86 63. 2 5127.86 53. 3 5207.81 99. 4 5208.25 108. te 1: Item 3, 4 are th	el Line Limit Level Los /m dBuV/m dB dBuV (ss Factor Factor dB dB/m dB deg cm 25 33.11 34.53 22 148 25 33.11 34.53 22 148 29 33.25 34.53 22 148 29 33.25 34.53 22 148 29 33.25 34.53 22 148 at 5200 MHz	Peak VERTICAL Average VERTICAL	

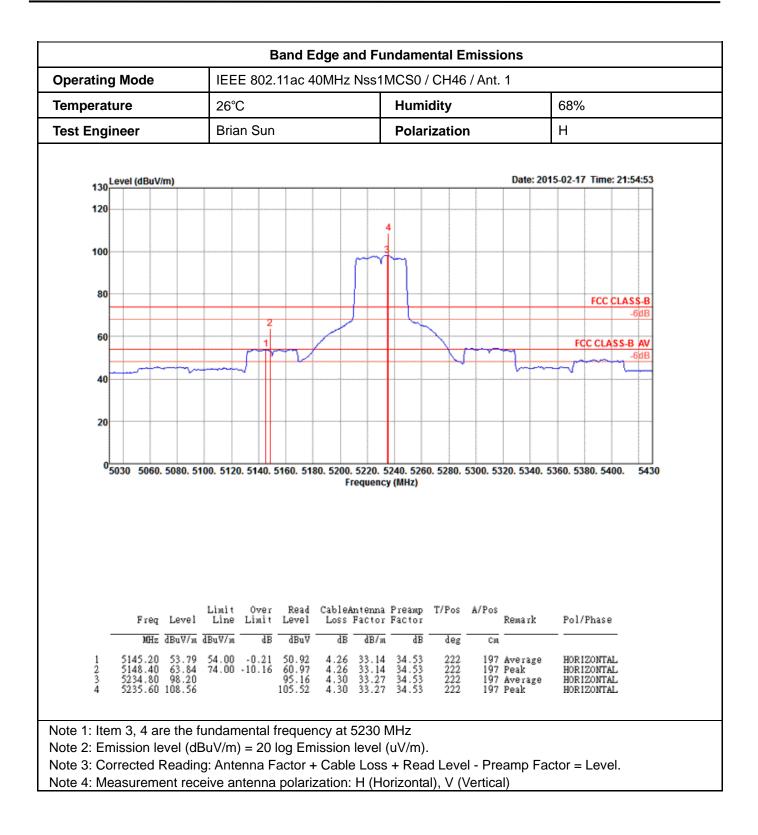
	IEEE 802.11	ac 20MHz Nss1	MCS0 / CH48	3 / 1S3T, TXBF	
mperature	26°C		Humidity		68%
st Engineer	Brian Sun		Polarizatio	n	V
130 Level (dBuV/m)			4	Date: 201	5-03-06 Time: 00:05:
100		~	3		
80					FCC CLASS-
60	1	~ /		1	-6d 5 FCC CLASS-B A
40					-6d
20					
20 00 0	5100.	5200. Frequenc	5300. :y (MHz)	54	400. 5
04990	Limit Över		y(MHz) .Preamp T/Pos	A/Pos	100. 5 Pol/Phase
0 0 Freq La	Limit Over evel Line Limit L	Frequence Read CableAntenna evel Loss Factor dBuV dB dB/m	Preamp T/Pos Factor dB deg	A/Pos	

	IEEE 802.11ac 20MHz Nss	31MCS0 / CH149 / 1S3T, T	XBF
emperature	26°C	Humidity	68%
est Engineer	Brian Sun	Polarization	н
130 Level (dBuV/m) 120 100 80 60 40		Date	2015-03-06 Time: 00:24:40
20 0 <u>5595 5620. 564</u>		40. 5760. 5780. 5800. 5820. 2ncy (MHz)	5840. 5860. 5895
Freq Leve			k Pol/Phase

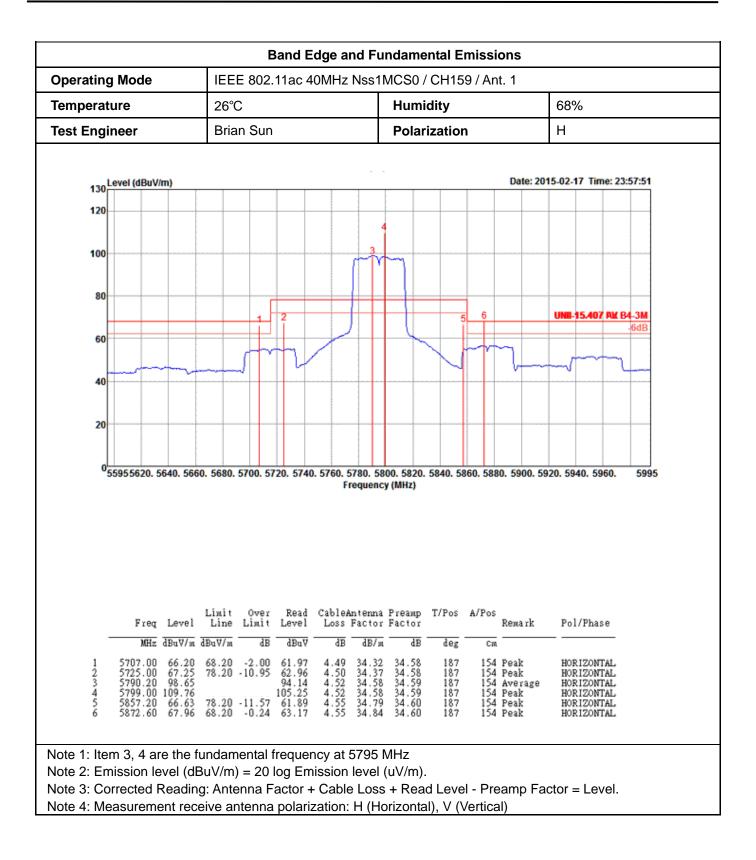
rating Mode	IEE	E 802.′	11ac 2	0MHz	Nss1	MCS0	/ CH15	57/18	ЗТ, ТХВ	F	
perature	26°(С				Humi	idity			68%	
Engineer	Bria	ın Sun				Polar	rizatio	n		Н	
130 Level (dBuV/m)				-		[Date: 20	15-03-06 Time: 0	0:40:11
120						4		_			
						3					
100					1 m	1					
80											
	1								56	UNII-15,407 PM	B4-3M
60		2			$\downarrow \downarrow$				m		-6dB
	\square	71		~/~		\mathbb{N}		~]][\		
40											
20											
0											
20 0 5635 5660. 56	80. 5700.	5720.	5740.	5760. F	5780. requenc		5820.	5840.	5860. 5	880. 5900.	5935
0	80. 5700.	5720.	5740.				5820.	5840.	5860. 5	880. 5900.	5935
	80. 5700.	5720.	5740.				5820.	5840.	5860. 5	880. 5900.	5935
	80. 5700.	. 5720.	5740.				5820.	5840.	5860. 5	880. 5900.	5935
0	80. 5700.	. 5720.	5740.				5820.	5840.	5860. 5	880. 5900.	5935
0				F	requenc	y (MHz)				880. 5900.	5935
0 <mark>5635 5660. 56</mark>	Limit 1 Line	Over Limit	Read Level	F Cable# Loss	intenna Factor	у (МН2) Preamp Factor	T/Pos			880. 5900. Pol/Phase	5935
0 5635 5660. 56 Freq Leve MHz dBuV/	Limit 1 Line m dBuV/m	Over Limit dB	Read Level dBuV	Cable# Loss dB	ntenna Factor dB/m	y(MHz) Preamp Factor dB	T/Pos deg	A/Pos	Remark	Pol/Phase	5935
0 5635 5660. 56 Freq Leve MHz dBuV/ 1 5701.98 67.3 2 5721.09 58.2	Limit 1 Line m dBuV/m 9 68.20 9 78.20	Over Limit	Read Level dBuV 63.15 54.00	Cable# Loss dB	antenna Factor dB/m 34 32	Preamp Factor dB 34.57 34.58	T/Pos 	A/Pos 	Remark Peak Peak	Pol/Phase 	5935
0 5635 5660. 56 Freq Leve MHz dBuV/ 1 5701.98 67.3	Limit 1 Line m dBuV/m 9 68.20 9 78.20 1 2 78.20	Over Limit -0.81 -19.91	Read Level dBuV 63.15 54.00 97.10 107.10	Cable# Loss dB	antenna Factor dB/m 34 32	Preamp Factor dB 34.57 34.58 34.59 34.59	T/Pos 	A/Pos 	Remark Peak	Pol/Phase HORIZONTAL	5935

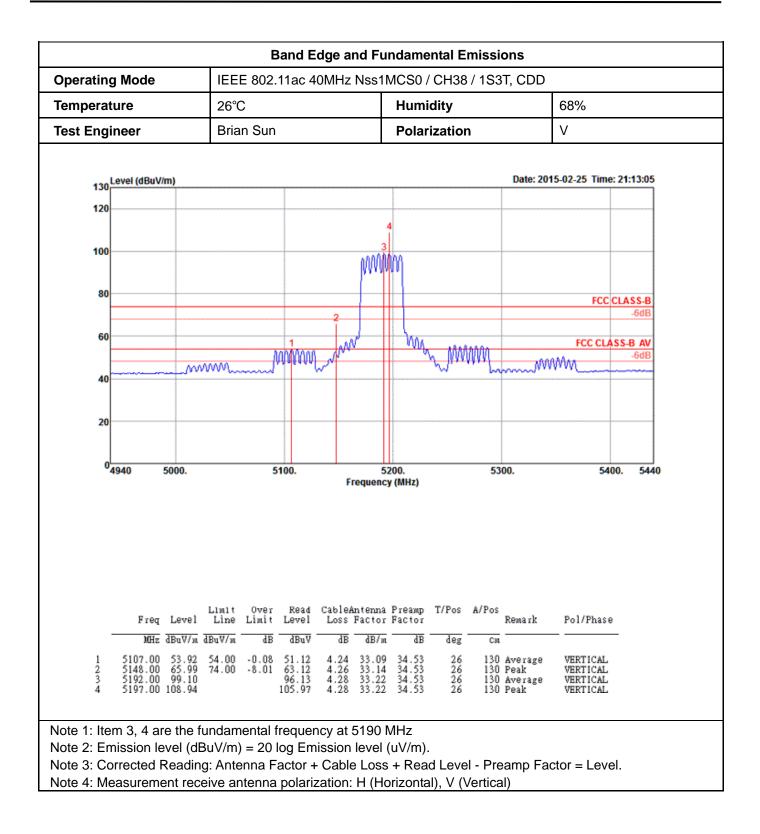
rating Mode	IEEE 802.11ac 20MHz N	ss1MCS0 / CH165 / 1S3	Γ, TXBF
perature	26°C	Humidity	68%
Engineer	Brian Sun	Polarization	Н
130 Level (dBuV/m)			Date: 2015-03-06 Time: 00:49:03
120		2	
100			
100			
80			
		3	4 UNII-15,407 PM 84-3M -6dB
60	m		
40		harman	Landrad
20			
⁰ 5675 5700. 5720	0. 5740. 5760. 5780. 5800. 5		900. 5920. 5940. 597
	Freq	uency (MHz)	
	Limit Over Read CableAnt	enna Preamp T/Pos A/Pos	
Freq Level	Limit Over Read CableAnt Line Limit Level Loss Fa	enna Preamp T/Pos A/Pos Ctor Factor Re	mark Pol/Phase
Freq Level 	Limit Over Read CableAnt Line Limit Level Loss Fau dBuV/m dB dBuV dB	enna Preamp T/Pos A/Pos ctor Factor Re dB/m dB deg Cm	verage HORIZONTAL
Freq Level 	Limit Over Read CableAnt Line Limit Level Loss Fa dBuV/m dB dBuV dB	enna Preamp T/Pos A/Pos Ctor Factor Re dB/m dB deg Cm	verage HORIZONTAL Pak HORIZONTAL Pak HORIZONTAL

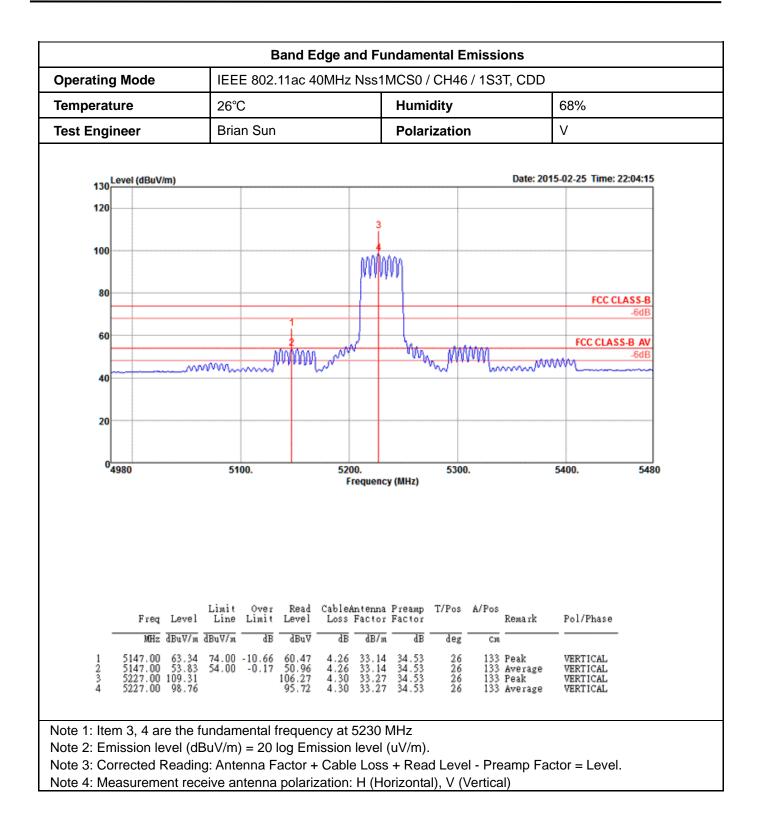


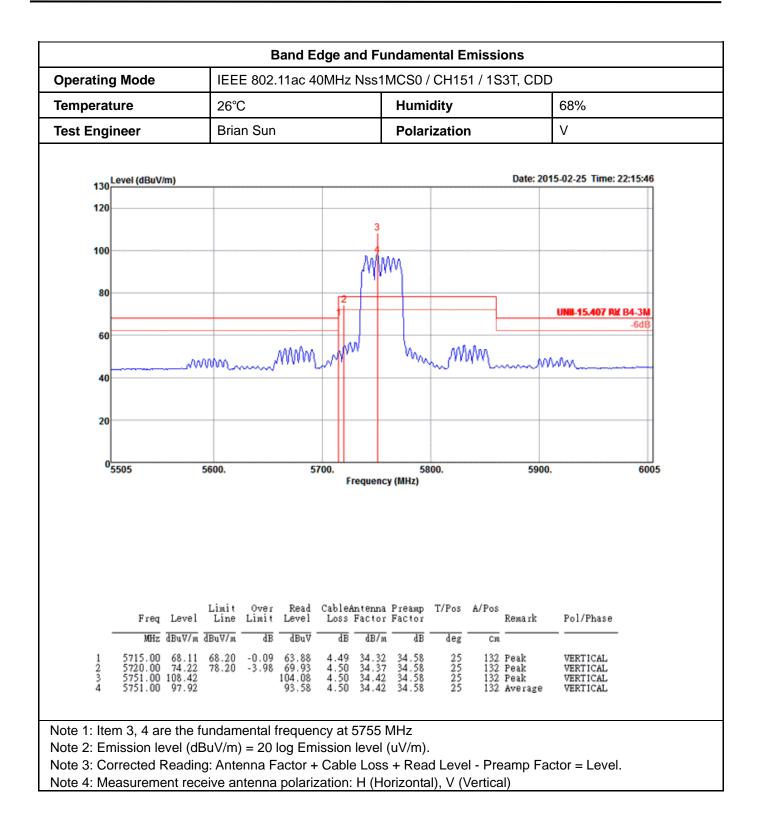


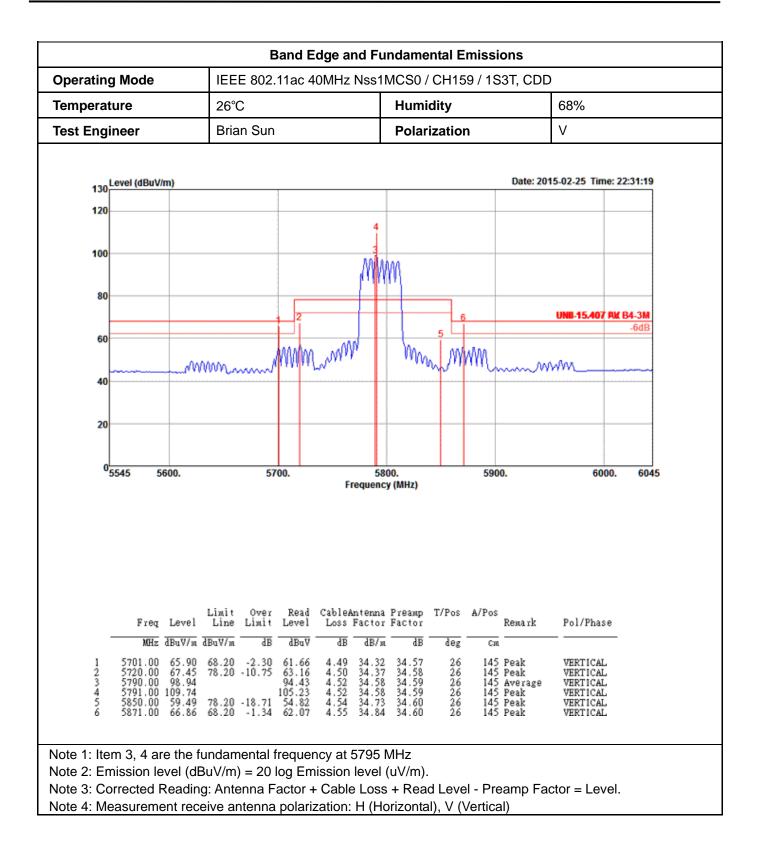
	IEEE 802.11ac 40MHz I	Nss1MCS0 / CH151 / Ant. 1	1
mperature	26°C	Humidity	68%
st Engineer	Brian Sun	Polarization	Н
130 Level (dBuV/m)			Date: 2015-02-17 Time: 23:37:49
120			
100		3	
80	2		
60			UNII-15.407 AV B4-3M -6dB
40			
20			
0	0. 5620. 5640. 5660. 5680. 5700. 5720. 57	740 5760 5700 5000 5020 5040	5860, 5880, 5900, 5920, 5955
Freq L	evel Line Limit Level Loss F		mark Pol/Phase
MHz dB	evel Line Limit Level Loss F uV/m dBuV/m dB dBuV dB		

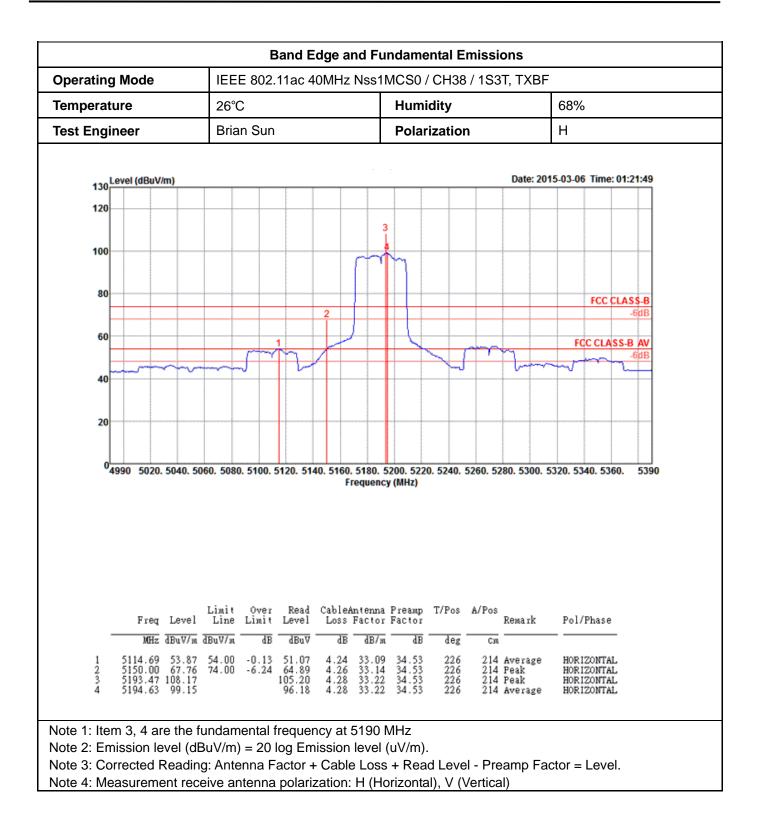












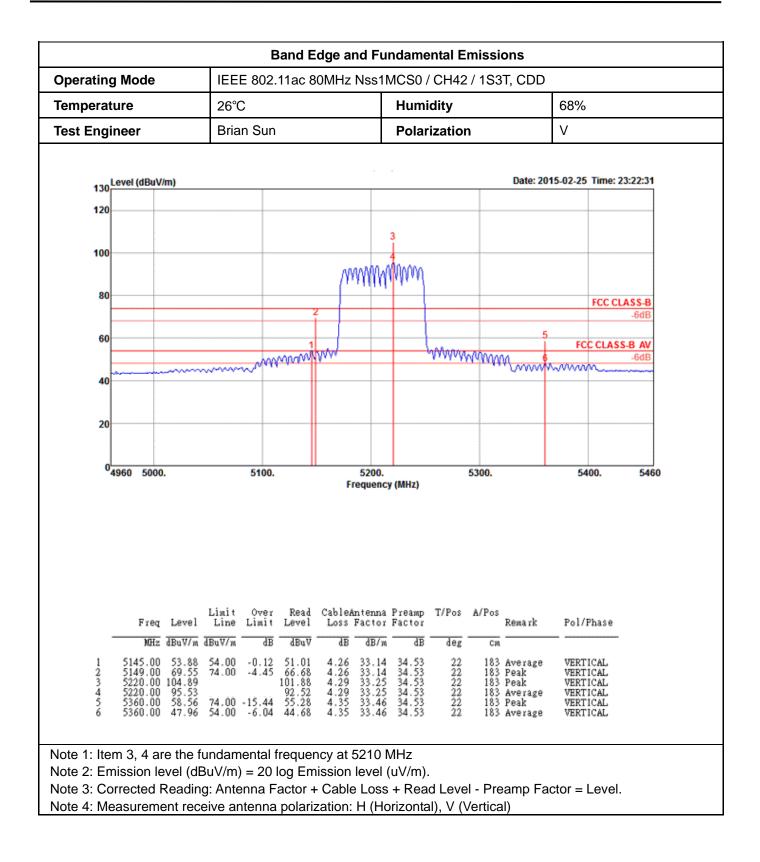
	IEEE 802.11ac 40MHz N	ss1MCS0 / CH46 / 1S3	T, TXBF
nperature	26°C	Humidity	68%
st Engineer	Brian Sun	Polarization	V
130_Level (dBuV/m)			Date: 2015-03-06 Time: 01:34:34
120			
		3	
100	r		
80			FCC CLASS-B
	2		-6dB
60	- In /	1 V pr	FCC CLASS-B AV
40			hand the second se
20			
05030 5060 508	80. 5100. 5120. 5140. 5160. 5180. 5200. 52	20, 5240, 5260, 5280, 5300, 53	20. 5340. 5360. 5380. 5400. 5430
Freq Le	evel Line Limit Level Loss Fa	enna Preamp T/Pos A/Pos ctor Factor	Remark Pol/Phase
		dB/m dB deg cm	American IRPORTAT
	7.09 J4.00 -0.11 J1.02 4.20 J	3.14 34.53 318 214	Average VERTICAL Peak VERTICAL Peak VERTICAL

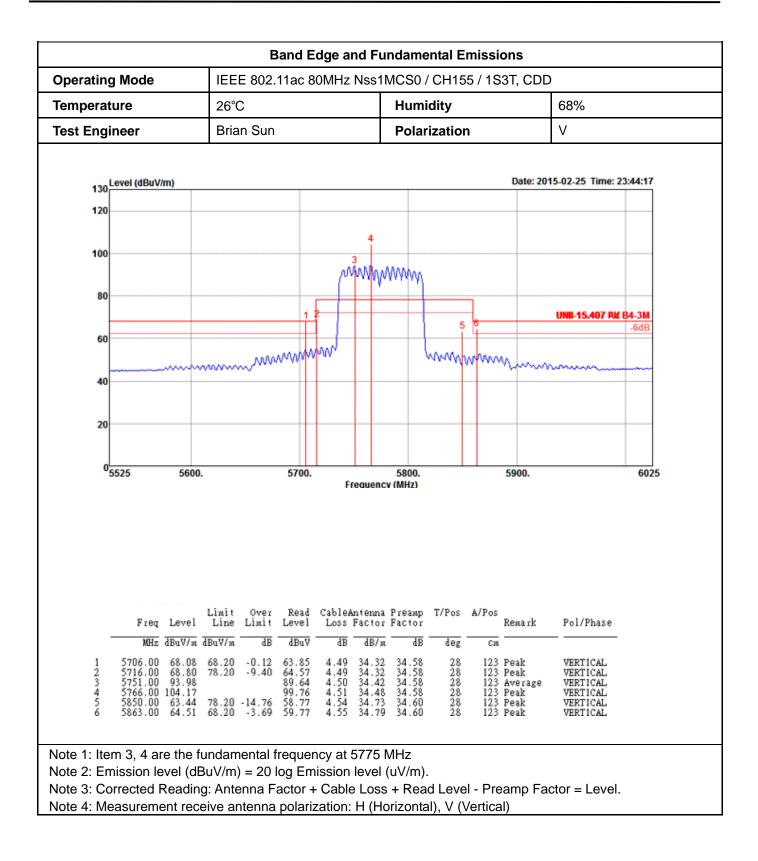
	l	IEEE 802.11	1ac 40N	/Hz Ns	s1MC	S0 / CI	H151 /	1S3T, ⁻	TXBF	
emperature	:	26°C			н	umidit	у			68%
est Engineer		Brian Sun			Р	olariza	tion		,	V
130 Level (d 120 100 80 60 40 20	BuV/m)				3 4					ne: 01:21:32
05605 5	630. 5650.	5670. 5690.	5710. 57	730. 575 Frequer			5810. 5	830. 58	50. 587	70. 5905
	L	Limit Over		Frequer	ncy (MH2	:)	5810. 5		50. 587 Remark	
Freq	L	Limit Over Line Limit	Read	Frequer	ncy (MH2	Preamp Factor				
Freq 	Level dBuV/m 67.78	Limit Over Line Limit BuV/m dB 68.20 -0.42	Read Level dBuV 59.68	CableA Loss 6.81	ntenna Factor dB/m 34.68	Preamp Factor dB 33.39	T/Pos deg 288	A/Pos 	Remark 	<pre>Pol/Phas </pre>
Freq 	Level dBuV/m dB 67.78 6 73.79 7	Limit Over Line Limit BuV/m dB 68.20 -0.42 78.20 -4.41	Read Level dBuiv 59.68 65.64	CableA Loss dB 6.81 6.83	ntenna Factor dB/m 34.68 34.69	Preamp Factor dB 33.39 33.37	T/Pos 	A/Pos cm 226 226	Remark Peak Peak	VERTICAL
Freq MHz 1 5688.52 2 5724.13 3 5753.26	Level dBuV/m 67.78	Limit Over Line Limit BuV/m dB 68.20 -0.42 78.20 -4.41	Read Level dBuV 59.68	CableA Loss dB 6.81 6.83 6.86	ntenna Factor dB/m 34.68 34.69 34.70	Preamp Factor dB 33.39	T/Pos 	A/Pos 	Remark 	VERTICAL VERTICAL VERTICAL VERTICAL
Freq MHz 1 5688.52 2 5724.13 3 5753.26 4 5759.78 5 5850.00	Level dBuV/m dBuV/m dB 67.78 73.79 710.48 100.44 67.24 7	Limit Over Line Limit BuV/m dB 68.20 -0.42 78.20 -4.41	Read Level dBuV 59.68 65.64 102.28 92.22 58.88	CableA Loss dB 6.81 6.83 6.86 6.88 6.95	ntenna Factor dB/m 34.68 34.69 34.70 34.70 34.70	Preamp Factor 	T/Pos deg 288 288 288 288 288 288	A/Pos cm 226 226 226 226 226 226	Remark ——— Peak Peak Peak	VERTICAL VERTICAL VERTICAL VERTICAL

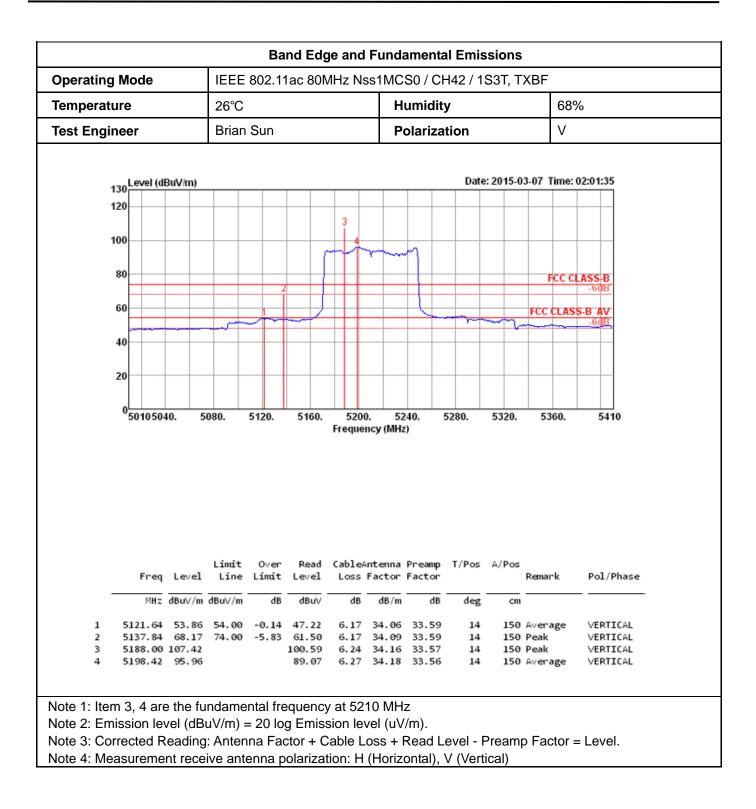
	IEEE 8	802.11ac 40N	/Hz Nss1M	CS0 / CH	H159 /	1S3T, ⁻	TXBF	
mperature	26°C			Humidity	у		6	8%
st Engineer	Brian	Sun		Polariza	tion		Н	
130 Level (0 120 100 80 60 40	BuV/m)	2	4		Date		3-07 Time	e: 01:44:15
20 0 5645 5	570. 5690. 5710 .	5730. 5750. 57	770. 5790. 58 Frequency (M		5850. 5	870. 58	90. 5910	9. 5945
05645 5	570. 5690. 5710. Limit Level Line	Over Read		Hz) a Preamp			90. 5910 Remark	9. 5945 Pol/Phase
0_5645_5	Limit	Over Read	Frequency (M CableAntenn	a Preamp r Factor				

	lode		IEEE	E 802.	11ac 8	0MHz	Nss1N	ACS0 /	′ CH42	/ Ant.	1			
mperatur	е		26°C)				Humi	dity			68%		
st Engine	er		Bria	n Sun				Polar	izatior	า		Н		
Low	el (dBuV/r	m)									Date: 201	5.02.17	Time: 2	3-14-04
130	ei (ubuvi	10									Date: 201	0-02-11		
120														
100								4		_				
						~		ᢪ						
80													FCC CL/	ASS-B
						2								-6dB
60					1	J			have		5		C CLASS	
				~~~~~						T	7	6	- <u> </u>	-6dB
40														
20														
0496	0 5000.			5100.			5200.			5300.		54	100.	5460
						F	requency	y (MHz)						
	Freq	Level	Limit Line	Over Limit				Preamp Factor	T/Pos	Å/Pos	Remark	Pol/	Phase	
_	MHz	Level dBuV/m d	Line iBuV/m	Limi t dB	Level dBuV	Loss dB	Factor dB/m	Factor dB	deg	A/Pos	Rema rk	Pol/)	Phase	
1 2 2 2	MHz	Level <u>dBuV/m</u> d 53.45 66.98	Line	Limi t dB	Level dBuV 50.58 64.11	Loss dB	Factor dB/m	Factor dB	deg 223 223		Åverage Peak	HORI:	ZONTAL ZONTAL	
2345	MHz	Level dBuV/m d 53.45 66.98 92.68 102.14 57.82	Line HBuV/m 54.00 74.00	Limit dB -0.55 -7.02	Level dBuV 50.58 64.11 89.67 99.10	Loss dB 4.26 4.26 4.29 4.30 4.36	Factor	Factor	deg	Cm 208 208 208 208 208 208		HORI: HORI: HORI: HORI: HORI:	ZONTAL	
2345	MHz 5146.00 5150.00 5219.00 5225.00 5364.00	Level dBuV/m d 53.45 66.98 92.68 102.14 57.82	Line HBuV/m 54.00 74.00	Limit dB -0.55 -7.02	Level dBuV 50.58 64.11 89.67 99.10 54.50	Loss dB 4.26 4.26 4.29 4.30 4.36	Factor dB/m 33.14 33.25 33.27 33.49	34.53 34.53 34.53 34.53 34.53 34.53 34.53	deg 223 223 223 223 223 223	Cm 208 208 208 208 208 208	Åverage Peak Åverage Peak Peak	HORI: HORI: HORI: HORI: HORI:	ZONTAL ZONTAL ZONTAL ZONTAL ZONTAL	
2 5 5 5	MHz 5 5146.00 5150.00 5219.00 5225.00 5364.00 5381.00 3, 4 are	Level dBuV/m d 53.45 66.98 92.68 102.14 57.82 46.92 e the fu	Line 1BuV/m 54.00 74.00 54.00 54.00	Limit dB -0.55 -7.02 -16.18 -7.08 ental f	Level dBuV 50.58 64.11 89.67 99.10 54.50 43.57 requer	Loss dB 4.26 4.26 4.29 4.30 4.37 4.37 hcy at s	Factor dB/m 33.14 33.25 33.27 33.49 33.51 5210 M	Factor dB 34.53 34.53 34.53 34.53 34.53 34.53 34.53	deg 223 223 223 223 223 223 223	Cm 208 208 208 208 208 208	Åverage Peak Åverage Peak Peak	HORI: HORI: HORI: HORI: HORI:	ZONTAL ZONTAL ZONTAL ZONTAL ZONTAL	

erating Mode	IEEE 802	.11ac 80MHz	Nss1MCS0 /	CH155 / /	Ant. 1		
nperature	26°C		Humi	dity		68%	
st Engineer	Brian Sur	1	Polar	ization		Н	
130 Level (dBuV/m)					Date: 201	5-02-17 Time: 23	3:24:09
120							
			4				
100		~	-m-				
80							
80		1		56		UNII-15.407 PM 8	34-3M
60		=		F			-6dB
40							
20							
0'5525 50	500.	5700.	5800. requency (MHz)		5900.		6025
Freq Lev	Limit Over el Line Limit		Antenna Preamp Factor Factor		°os Remark	Pol/Phase	
		Level Loss				Pol/Phase	
MHz dBuV 1 5707.00 67.	el Line Limit /m dBuV/m dB 69 68.20 -0.51	Level Loss	dB/m dB	deg 184 1	Remark	Pol/Phase 	
MHz dBuV 1 5707.00 67. 2 5720.00 71. 3 5765.00 94.	el Line Limit /m dBuV/m dB 69 68.20 -0.51 95 78.20 -6.25 10	Level Loss dBuV dB 63.46 4.49 67.66 4.50 89.69 4.51	dB/m dB	deg 184 1 184 1 184 1 184 1	Remark Cm 57 Peak 57 Peak 57 Average 57 Peak	HORIZONTAL HORIZONTAL HORIZONTAL HORIZONTAL	
MHz dBuV 1 5707.00 67. 2 5720.00 71. 3 5765.00 94.	el Line Limit /m dBuV/m dB 69 68.20 -0.51	Level Loss dBuV dB 63.46 4.49 67.66 4.50 89.69 4.51	dB/m dB	deg 184 1 184 1 184 1 184 1 184 1	Cm Remark Cm 57 Peak 57 Peak 57 Average	HORIZONTAL HORIZONTAL HORIZONTAL	
MHz dBuV 1 5707.00 67. 2 5720.00 71. 3 5765.00 94. 4 5766.00 103. 5 5859.00 68. 6 5866.00 67.	el Line Limit /m dBuV/m dB 69 68.20 -0.51 95 78.20 -6.25 10 70 34 78.20 -9.86 21 68.20 -0.99	Level Loss dBuV dB 63.46 4.49 67.66 4.50 89.69 4.51 99.29 4.51 63.60 4.55 62.47 4.55	Factor Factor dB/m dB 34.32 34.58 34.37 34.58 34.48 34.58 34.48 34.58 34.48 34.58 34.79 34.60 34.79 34.60	deg 184 1 184 1 184 1 184 1 184 1	Remark Cm 57 Peak 57 Peak 57 Average 57 Peak 57 Peak	HORIZONTAL HORIZONTAL HORIZONTAL HORIZONTAL HORIZONTAL HORIZONTAL	
MHz dBuV 1 5707.00 67. 2 5720.00 71. 3 5765.00 94.	el Line Limit /m dBuV/m dB 69 68.20 -0.51 95 78.20 -6.25 10 70 34 78.20 -9.86 21 68.20 -0.99 e fundamental	Level Loss dBuV dB 63.46 4.49 67.66 4.50 89.69 4.51 63.60 4.55 62.47 4.55 frequency at	Factor Factor dB/m dB 34.32 34.58 34.48 34.58 34.48 34.58 34.48 34.58 34.79 34.60 34.79 34.60 5775 MHz	deg 184   184   184	Remark Cm 57 Peak 57 Peak 57 Average 57 Peak 57 Peak	HORIZONTAL HORIZONTAL HORIZONTAL HORIZONTAL HORIZONTAL HORIZONTAL	







-	Mode		IEEE	802.1	1ac 801	/Hz Ns	ss1MC	S0 / CI	H155 /	1S3T,	TXBF	
mperatu	ure		26°C				н	umidit	у		68%	6
st Engir	neer		Brian	Sun			Р	olariza	tion		V	
1	30 Level (df	BuV/m)	1 1			1			Date	: 2015-0	13-07 Time: (	02:15:47
1	20					3						
1	00						-					
	80				1 2		·····				III- 15.407 RM	314 D4
	60				$\exists \mathcal{V}$				5 6		10.107 HA	-60B
	40											
	20											
	05575											
	5575	5620.	5660.	570	0. 57		5780. ncy (MH	5820. z)	5860	. 59	00. 5940	0. 5975
		5620. Level	Limit	0ver		Freque	ncy (MH	z) Preamp	5860 T/Pos		00. 5940 Remark	0. 5975 Pol/Phase
-	Freq		Limit Line	0ver	Read	Freque	ncy (MH	Preamp Factor			Remark	
1 2 3	Freq MHz 5709.79 5723.84	Level dBuV/m 67.92 70.89	Limit Line dBuV/m 68.20	Over Limit dB -0.28	Read Level dBuv 59, 79 62, 74	CableA Loss dB 6.83 6.83	antenna Factor dB/m 34.68 34.69	Preamp Factor dB 33.38 33.37	T/Pos 	A/Pos 	Remark  Peak Peak	Pol/Phase VERTICAL VERTICAL
2 3 4	Freq MHz 5709.79 5723.84 5743.16 5784.26	Level dBuV/m 67.92 70.89 107.15 95.41	Limit Line dBuV/m 68.20 78.20	Over Limit dB -0.28 -7.31	Read Level dBuV 59.79 62.74 98.96 87.15	Cable# Loss dB 6.83 6.83 6.83 6.86 6.90	antenna Factor dB/m 34.68 34.69 34.70 34.71	Preamp Factor dB 33.38 33.37 33.37 33.37	T/Pos deg 282 282 282 282	A/Pos cm 229 229 229 229	Remark Peak Peak Peak Average	Pol/Phase VERTICAL VERTICAL VERTICAL VERTICAL
2 3	Freq MHz 5709.79 5723.84 5743.16	Level dBuV/m 67.92 70.89 107.15 95.41 65.83	Limit Line dBuV/m 68.20 78.20 78.20	0ver Limit dB -0.28 -7.31 -12.37	Read Level dBuv 59,79 62,74 98,96 87,15 57,47	Cable4 Loss dB 6.83 6.83 6.86 6.90 6.95	ncy (MH antenna Factor dB/m 34.68 34.69 34.70 34.71 34.74	Preamp Factor 	T/Pos deg 282 282 282 282 282	A/Pos cm 229 229 229 229 229 229	Remark  Peak Peak Peak	Pol/Phase VERTICAL VERTICAL VERTICAL

### 3.6 Frequency Stability Measurement

#### 3.6.1 Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emissions is maintained within the band of operation under all conditions of normal operation as specified in the user's manual or ±20ppm (IEEE 802.11n specification).

#### 3.6.2 Measuring Instruments and Setting

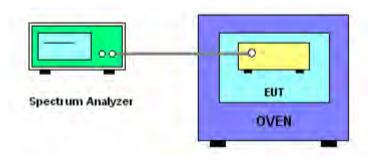
Please refer to section 4 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RBW	10 kHz
VBW	10 kHz
Sweep Time	Auto

#### 3.6.3 Test Procedures

- 1. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- 2. The EUT was programmed to be in continuously un-modulation transmitting mode.
- 3.Set the spectrum analyzer span to view the entire un-modulation emissions bandwidth.
- 4. Turn the EUT on and couple its output to a spectrum analyzer.
- 5.Turn the EUT off and set the chamber to the highest temperature specified.
- 6.Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- 7.Extreme temperature rule is -20°C~50°C.
- 8.Repeat step 4 and 5 with the temperature chamber set to the lowest temperature.
- 9. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

#### 3.6.4 Test Setup Layout



#### 3.6.5 Test Deviation

There is no deviation with the original standard.

#### 3.6.6 EUT Operation during Test

The EUT was programmed to be in continuously un-modulation transmitting mode.

#### 3.6.7 Test Result of Frequency Stability

Test date	Mar. 17, 2015~Mar. 25, 2015	Test Site No.	TH01-CB
Temperature	<b>20</b> ℃	Humidity	60%
Test Engineer	Mars Lin	Mode	20MHz

#### **Operating frequency: 5200 MHz**

#### Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)		
voltage	Ant. 1	Ant. 2	Ant. 3
(V)	5200	5200	5200
126.50	5199.9527	5199.9535	5199.9537
110.00	5199.9527	5199.9527	5199.9526
93.50	5199.9527	5199.9527	5199.9526
Max. Deviation (MHz)	0.047320	0.047320	0.047400
Max. Deviation (ppm)	9.1000	9.1000	9.1154

Temperature	Ме	Measurement Frequency (MHz)		
remperature	Ant. 1	Ant. 2	Ant. 3	
(°C)	5200	5200	5200	
-20	5199.9921	5199.9921	5199.9921	
-10	5199.9952	5199.9947	5199.9939	
0	5200.0026	5200.0017	5200.0008	
10	5199.9947	5199.9930	5199.9926	
20	5199.9527	5199.9527	5199.9526	
30	5199.9626	5199.9600	5199.9600	
40	5199.9613	5199.9557	5199.9531	
50	5199.9565	5199.9574	5199.9583	
Max. Deviation (MHz)	0.047320	0.047320	0.047400	
Max. Deviation (ppm)	9.1000	9.1000	9.1154	

### **Operating frequency: 5785 MHz**

#### Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)		
voltage	Ant. 1	Ant. 2	Ant. 3
(V)	5785	5785	5785
126.50	5784.9500	5784.9480	5784.9474
110.00	5784.9583	5784.9475	5784.9479
93.50	5784.9544	5784.9475	5784.9500
Max. Deviation (MHz)	0.050000	0.052530	0.052600
Max. Deviation (ppm)	8.6430	9.0804	9.0925

Tomporaturo	Measurement Frequency (MHz)		
Temperature	Ant. 1	Ant. 2	Ant. 3
(°C)	5785	5785	5785
-20	5784.9917	5784.9917	5784.9917
-10	5784.9926	5784.9926	5784.9921
0	5784.9908	5784.9080	5784.9904
10	5784.9930	5784.9917	5784.9913
20	5784.9583	5784.9475	5784.9479
30	5784.9552	5784.9561	5784.9583
40	5784.9474	5784.9479	5784.9483
50	5784.9531	5784.9518	5784.9509
Max. Deviation (MHz)	0.052600	0.092000	0.052100
Max. Deviation (ppm)	9.0925	15.9032	9.0061

Test date	Mar. 17, 2015~Mar. 25, 2015	Test Site No.	TH01-CB
Temperature	<b>20</b> ℃	Humidity	60%
Test Engineer	Mars Lin	Mode	40MHz

### **Operating frequency: 5190 MHz**

### Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)		
voltage	Ant. 1	Ant. 2	Ant. 3
(V)	5190	5190	5190
126.50	5189.9544	5189.9544	5189.9544
110.00	5189.9536	5189.9540	5189.9544
93.50	5189.9531	5189.9527	5189.9544
Max. Deviation (MHz)	0.046890	0.047320	0.045590
Max. Deviation (ppm)	9.0347	9.1175	8.7842

Temperature	Measurement Frequency (MHz)		
Temperature	Ant. 1	Ant. 2	Ant. 3
(°C)	5190	5190	5190
-20	5189.9921	5189.9921	5189.9921
-10	5189.9921	5189.9921	5189.9921
0	5189.9921	5189.9921	5189.9921
10	5189.9926	5189.9921	5189.9921
20	5189.9536	5189.9540	5189.9544
30	5189.9613	5189.9600	5189.9596
40	5189.9535	5189.9531	5189.9531
50	5189.9561	5189.9574	5189.9583
Max. Deviation (MHz)	0.046500	0.046900	0.046900
Max. Deviation (ppm)	8.9595	9.0366	9.0366

#### **Operating frequency: 5755 MHz**

#### Voltage vs. Frequency Stability

Voltago	Measurement Frequency (MHz)		
Voltage	Ant. 1	Ant. 2	Ant. 3
(V)	5755	5755	5755
126.50	5754.9483	5754.9483	5754.9483
110.00	5754.9479	5754.9487	5754.9488
93.50	5754.9479	5754.9488	5754.9488
Max. Deviation (MHz)	0.052100	0.051700	0.051700
Max. Deviation (ppm)	9.0530	8.9835	8.9835

Temperature	Ме	Measurement Frequency (MHz)		
remperature	Ant. 1	Ant. 2	Ant. 3	
(°C)	5755	5755	5755	
-20	5754.9913	5754.9913	5754.9908	
-10	5754.9913	5754.9917	5754.9917	
0	5754.9921	5754.9926	5754.9926	
10	5754.9965	5754.9982	5754.9995	
20	5754.9479	5754.9487	5754.9488	
30	5754.9548	5754.9557	5754.9578	
40	5754.9479	5754.9479	5754.9483	
50	5754.9539	5754.9531	5754.9513	
Max. Deviation (MHz)	0.052100	0.052100	0.051700	
Max. Deviation (ppm)	9.0530	9.0530	8.9835	

Test date	Mar. 17, 2015~Mar. 25, 2015	Test Site No.	TH01-CB
Temperature	<b>20</b> ℃	Humidity	60%
Test Engineer	Mars Lin	Mode	80MHz

### Operating frequency: 5210 MHz

### Voltage vs. Frequency Stability

Voltago	Measurement Frequency (MHz)				
Voltage	Ant. 1	Ant. 2	Ant. 3		
(V)	5210	5210	5210		
126.50	5209.9540	5209.9540	5209.9540		
110.00	5209.9544	5209.9544	5209.9540		
93.50	5209.9549	5209.9549	5209.9548		
Max. Deviation (MHz)	0.046020	0.046020	0.046020		
Max. Deviation (ppm)	8.8330	8.8330	8.8330		

Tomporature	Measurement Frequency (MHz)				
Temperature	Ant. 1	Ant. 2	Ant. 3		
(°C)	5210	5210	5210		
-20	5210.0386	5210.0395	5210.0395		
-10	5210.0351	5210.0351	5210.0351		
0	5210.0434	5210.0477	5210.0416		
10	5209.9917	5209.9917	5209.9917		
20	5209.9544	5209.9544	5209.9540		
30	5209.9604	5209.9591	5209.9591		
40	5209.9531	5209.9526	5209.9526		
50	5209.9574	5209.9583	5209.9887		
Max. Deviation (MHz)	0.046900	0.047700	0.047400		
Max. Deviation (ppm)	9.0019	9.1555	9.0979		

#### **Operating frequency: 5775 MHz**

#### Voltage vs. Frequency Stability

Valtara	Measurement Frequency (MHz)				
Voltage	Ant. 1	Ant. 2	Ant. 3		
(V)	5775	5775	5775		
126.50	5774.9518	5774.9518	5774.9518		
110.00	5774.9509	5774.9509	5774.9509		
93.50	5774.9505	5774.9505	5774.9505		
Max. Deviation (MHz)	0.049490	0.049490	0.049490		
Max. Deviation (ppm)	8.5697	8.5697	8.5697		

Tomporatura	Measurement Frequency (MHz)				
Temperature	Ant. 1	Ant. 2	Ant. 3		
(°C)	5775	5775	5775		
-20	5775.0547	5775.0542	5775.0542		
-10	5775.0538	5775.0538	5775.0534		
0	5775.0521	5775.0516	5775.0512		
10	5775.0499	5775.0494	5775.0499		
20	5774.9509	5774.9509	5774.9509		
30	5774.9548	5774.9548	5774.9561		
40	5774.9479	5774.9479	5774.9479		
50	5774.9548	5774.9544	5774.9531		
Max. Deviation (MHz)	0.054700	0.054200	0.054200		
Max. Deviation (ppm)	9.4719	9.3853	9.3853		

### 3.7 Antenna Requirements

#### 3.7.1 Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

#### 3.7.2 Antenna Connector Construction

Please refer to section 2.3 in this test report; antenna connector complied with the requirements.

# **4 LIST OF MEASURING EQUIPMENTS**

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Test Receiver	R&S	ESCS 30	100355	9kHz ~ 2.75GHz	Apr. 23, 2014	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 02, 2014	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 02, 2014	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	Dec. 03, 2014	Conduction (CO01-CB)
Software	Audix	E3	5.410e	-	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA	Schaffner	CBL6112D	22021	20MHz ~ 2GHz	May 26, 2014	Radiation (03CH01-CB)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jul. 28, 2014	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~18GHz	Oct. 28, 2014	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2014	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Nov. 15, 2014	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 12, 2015	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Apr. 22, 2014	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 06, 2014	Radiation (03CH01-CB)
EMI Test Receiver	Agilent	N9038A	MY52260123	9kHz ~ 8GHz	Jan. 21, 2015	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESR26	101289	9kHz~26GHz	Aug. 22, 2014	Radiation (03CH01-CB)
Turn Table	INN CO	CO 2000	N/A	0 ~ 360 degree	N.C.R.	Radiation (03CH01-CB)
Antenna Mast	INN CO	CO 2000	N/A	1 m - 4 m	N.C.R.	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-1	N/A	30 MHz - 1 GHz	Nov. 15, 2014	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G-1	N/A	1 GHz - 40 GHz	Nov. 15, 2014	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G-2	N/A	1 GHz - 40 GHz	Nov. 15, 2014	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec.12, 2014	Conducted (TH01-CB)
RF Power Divider	Woken	2 Way	TH01-DV-02	1GHz ~ 6GHz	Jan. 10, 2015	Conducted (TH01-CB)
RF Power Divider	Woken	4 Way	TH01-DV-01	1GHz ~ 6GHz	Jan. 10, 2015	Conducted (TH01-CB)

### Report No.: FR510501AB

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Cable-high	Woken	RG402	High Cable-7	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 03, 2014	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.

SPORTON International Inc.	Page No.	: 342 of 343
TEL : 886-3-327-3456	Issued Date	: Apr. 17, 2015
FAX : 886-3-327-0973	FCC ID	: G95-TC8737C

# **5 MEASUREMENT UNCERTAINTY**

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%