

No.: SRTC2019-9004(F)-19030705(C) FCC ID: 2ADOBHLTE315E

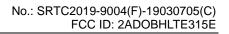
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APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 5

1 RF Power Output

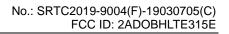
1 RF Power	Output					0 1 (1
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
				1	0	23.29
				1	5	23.29
	824.7	20407		3	2	22.36
				6	0	22.22
				1	0	23.26
				1	5	23.26
QPSK	836.5	20525	1.4	3	2	22.32
				6	0	22.14
				1	0	23.21
	0.40.0	00010		1	5	23.21
	848.3	20643		3	2	22.27
1				6	0	22.15
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
				1	0	22.64
	824.7	20407		1	5	22.64
	024.7	20407		3	2	21.30
-				6	0	21.15
				1	0	22.56
16QAM	836.5	20525	1.4	1	5	22.56
IOQAW		20525	1.4	3	2	21.23
				6	0	21.11
				1	0	22.55
	848.3	20643		1	5	22.55
	848.3	20043		3	2	21.24
				6	0	21.10
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
				1	0	22.57
	004.7	20407		1	5	22.64
	824.7	20407		3	2	21.24
				6	0	21.20
				1	0	22.61
64QAM	020 5	20525		1	5	22.61
	836.5	20525	1.4	3	2	21.19
				6	0	21.17
			-	1	0	22.60
	040.2	20642		1	5	22.60
	848.3	20643		3	2	21.17
				6	0	21.15



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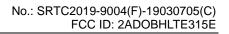
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
				1	0	23.21
	925 5	20415		1	14	23.21
	825.5	20415		8	4	22.28
				15	0	22.14
				1	0	23.18
ODCK	926 5	20525	2	1	14	23.18
QPSK	836.5	20525	3	8	4	22.24
				15	0	22.12
				1	0	23.19
	0.47.5	00005		1	14	23.19
	847.5	20635		8	4	22.25
				15	0	22.13
NA 1 1 4	0 . ((141)		DW	55.6	DD 011 1	Conducted power
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	(dBm)
				1	0	22.62
	005.5	00445		1	14	22.62
	825.5	20415		8	4	21.28
				15	0	21.17
				1	0	22.58
400 414	200.5	00505		1	14	22.58
16QAM	836.5	20525	3	8	4	21.28
				15	0	21.16
			-	1	0	22.60
	0.47.5	00005		1	14	22.60
	847.5	20635		8	4	21.29
				15	0	21.15
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
				1	0	22.62
	825.5	20415		1	14	22.57
	825.5	20415		8	4	21.17
				15	0	21.13
				1	0	22.54
64QAM	936.5	20525	_	1	14	22.54
	836.5	20525	3	8	4	21.12
				15	0	21.10
				1	0	22.53
	0.47.5	20025		1	14	22.53
	847.5	20635		8	4	21.10
				15	0	21.08



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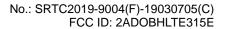
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
				1	0	23.24
	926 5	20425		1	24	23.24
	826.5	20425		12	6	22.31
				25	0	22.17
				1	0	23.21
QPSK	836.5	20525	5	1	24	23.21
QPSK	030.5	20525	5	12	6	22.27
				25	0	22.13
				1	0	23.19
	946 5	20625		1	24	23.19
	846.5	20625		12	6	22.25
				25	0	22.13
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
				1	0	22.62
				1	24	22.62
	826.5	20425		12	6	21.28
				25	0	21.19
_				1	0	22.60
				1	24	22.60
16QAM	836.5	20525	5	12	6	21.27
			i	25	0	21.15
				1	0	22.59
	0.40.5	22225		1	24	22.59
	846.5	20625		12	6	21.28
				25	0	21.14
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
				1	0	22.61
	200 5	00.405		1	24	22.60
	826.5	20425		12	6	21.20
				25	0	21.16
				1	0	22.57
64QAM	020.5	20525	_	1	24	22.57
	836.5	20525	5	12	6	21.15
				25	0	21.13
				1	0	22.56
	940.5	20625		1	24	22.56
	846.5			12	6	21.13
				25	0	21.11



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Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
				1	0	23.32
	829	20450		1	49	23.32
	029	20450		24	12	22.39
				50	0	22.25
				1	0	23.29
QPSK	836.5	20525	10	1	49	23.29
QPSK	030.5	20525	10	24	12	22.35
				50	0	22.21
				1	0	23.28
	844	20600		1	49	23.28
	644	20600		24	12	22.34
				50	0	22.22
Madulation	Corrier fraguescy (MIII-)	III Channal	DW	DD Cino	DD Offeet	Conducted power
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	(dBm)
				1	0	22.71
	000	20.450		1	49	22.71
	829	20450		24	12	21.37
			_	50	0	21.26
				1	0	22.67
160011	926 F	20525	10	1	49	22.67
16QAM	836.5		10	24	12	21.34
				50	0	21.22
				1	0	22.66
	0.4.4	20600		1	49	22.66
	844	20600		24	12	21.35
				50	0	21.21
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
				1	0	22.68
	829	20450		1	49	22.68
	029	20450		24	12	21.28
				50	0	21.24
				1	0	22.65
64QAM	926 F	20525	10	1	49	22.65
	836.5	20525	10	24	12	21.23
				50	0	21.21
			-	1	0	22.64
	0.4.4	20600		1	49	22.64
	844	20600		24	12	21.21
				50	0	21.19



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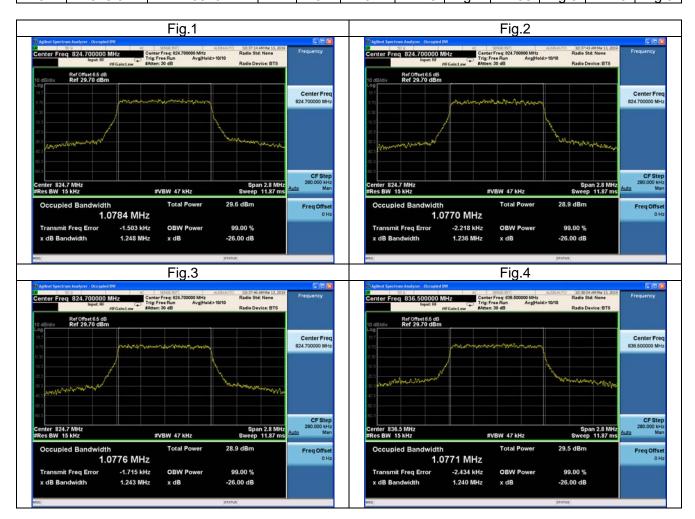


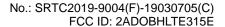
2 Occupied Bandwidth

Test result

Pand	Carrier	Channel(Low)	BW	RB	RB	I	Bandwi	dth of 99%	% Powe	er (MHz)	
Band	frequency (MHz)	Channel(Low)	DVV	Size	Offset	QPSK		16-Q	AM	64-QAM	
5	824.7	20407	1.4	6	0	1.0784	Fig.1	1.0770	Fig.2	1.0776	Fig.3
5	836.5	20525	1.4	6	0	1.0771 Fig.4		1.0755	Fig.5	1.0762	Fig.6
5	848.3	20643	1.4	6	0	1.0754 Fig.7 1.0773 Fig.8 1.0816				Fig.9	

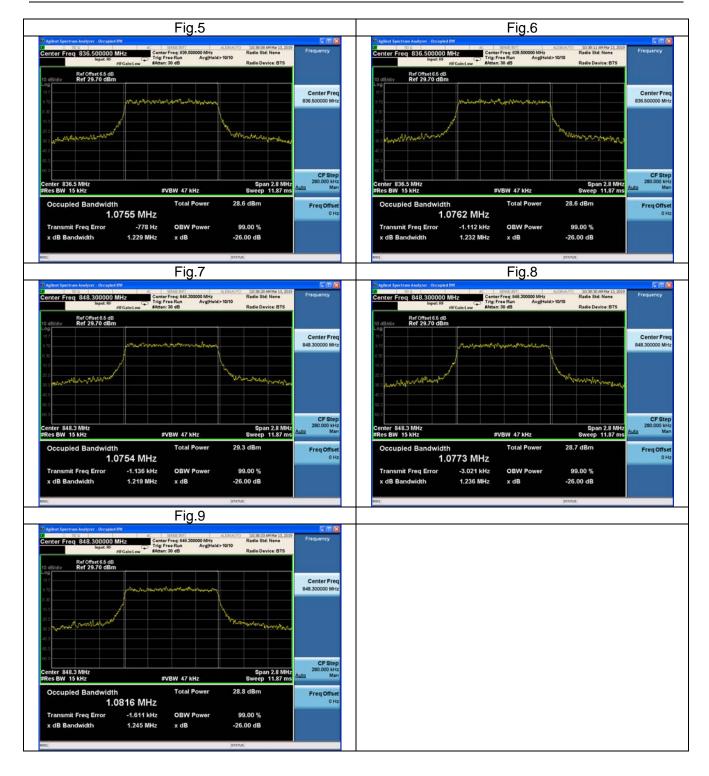
Band	Carrier	Channel(Low)	BW	RB	RB	Bar	ndwidth	of -26dE (MI		nitter po	wer
Danu	frequency (MHz)	Chamer(Low)	DVV	Size	Offset	QPSK		16-QAM		64-QAM	
5	824.7	20407	1.4	6	0	1.248	Fig.1	1.236	Fig.2	1.243	Fig.3
5	836.5	20525	1.4	6	0	1.240	Fig.4	1.229	Fig.5	1.232	Fig.6
5	848.3	20643	1.4	6	0	1.219	Fig.7	1.236	Fig.8	1.245	Fig.9

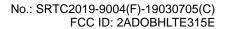




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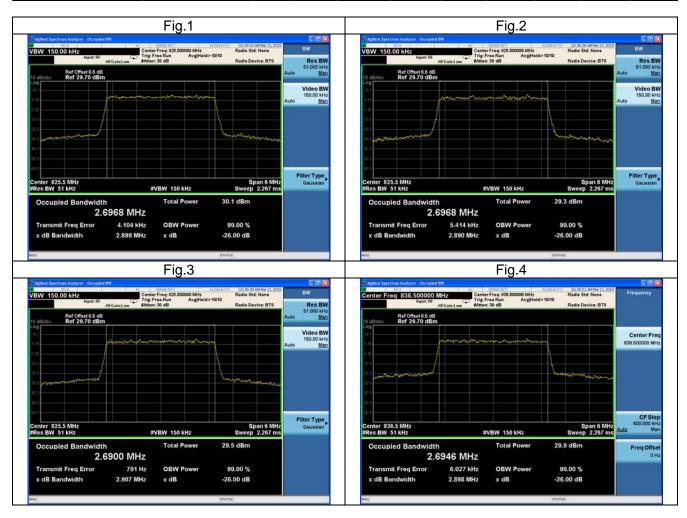


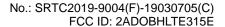
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Pand	Carrier	Channel(Low)	BW	RB	RB	Bandwidth of 99% Power (MHz)					
Band	frequency (MHz)	Channel(Low)	DVV	Size	Offset			16-QAM		64-QAI	
5	825.5	20415	3	15	0	2.6968	2.6968 Fig.1		Fig.2	2.6900	Fig.3
5	836.5	20525	3	15	0	2.6946 Fig.4		2.6922	Fig.5	2.6900	Fig.6
5	847.5	20635	3	15	0	2.6972 Fig.7 2.6980 Fig.8 2.			2.6937	Fig.9	

Pand	Carrier	Channel(Low)	BW	RB	RB	Bar	ndwidth	of -26dE (MI		nitter pov	wer
Band	frequency (MHz)	Channel(Low)	DVV	Size	Offset	QPSK		16-QAM		64-QAM	
5	825.5	20415	3	15	0	2.899	Fig.1	2.890	Fig.2	2.907	Fig.3
5	836.5	20525	3	15	0	2.898	Fig.4	2.924	Fig.5	2.903	Fig.6
5	847.5	20635	3	15	0	2.876	Fig.7	2.882	Fig.8	2.904	Fig.9

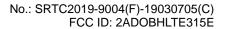




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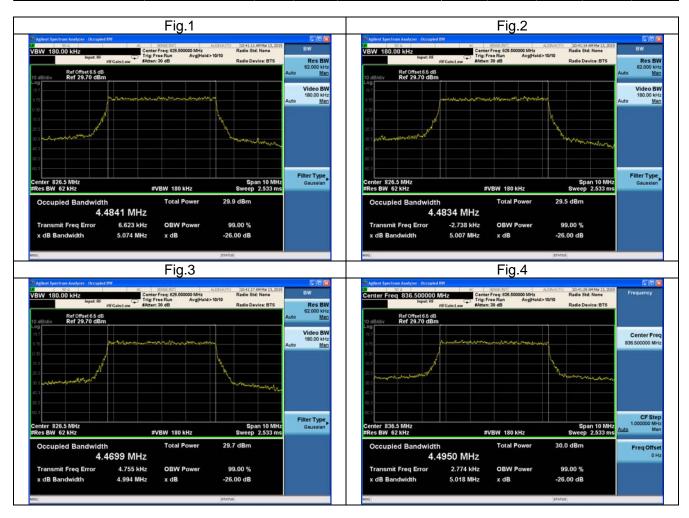


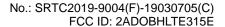
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Pand	Carrier	Channel(Low)	BW	RB	RB		Bandwi	% Powe	er (MHz)		
Band	frequency (MHz)	Channel(Low)	DVV	Size	Offset	QPSK		16-Q	AM	64-QAM	
5	826.5	20425	5	25	0	4.4841	4.4841 Fig.1		Fig.2	4.4699	Fig.3
5	836.5	20525	5	25	0	4.4950 Fig.4		4.4895	Fig.5	4.4914	Fig.6
5	846.5	20625	5	25	0	4.4827	Fig.7	4.4844	Fig.8	4.4934	Fig.9

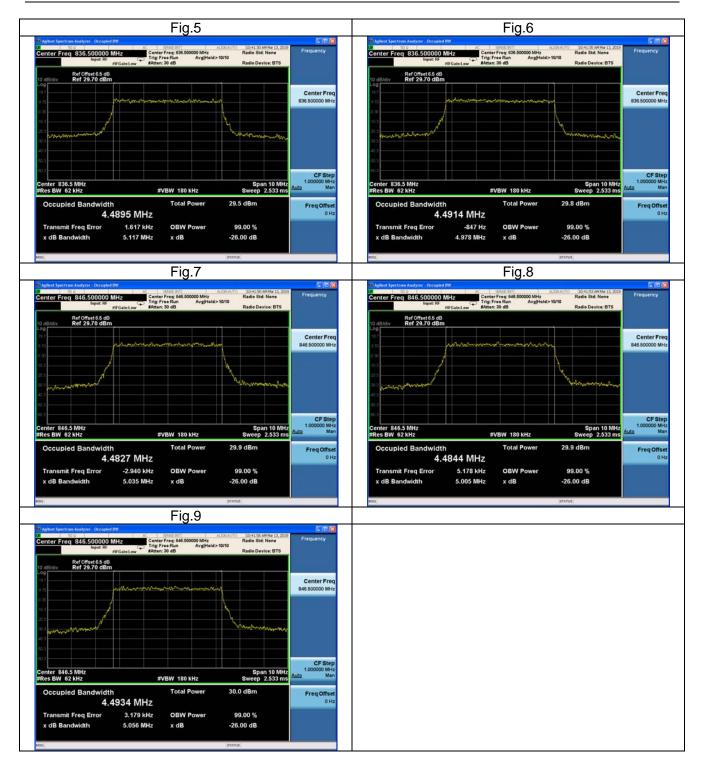
Band	Carrier	y Channel(Low)	BW	RB	RB	Bar	ndwidth	of -26dE (Ml		nitter po	wer
Danu	frequency (MHz)	Channel(Low)	DVV	Size	Offset	QPSK		16-QAM		64-QAM	
5	826.5	20425	5	25	0	5.074	Fig.1	5.007	Fig.2	4.994	Fig.3
5	836.5	20525	5	25	0	5.018	Fig.4	5.117	Fig.5	4.978	Fig.6
5	846.5	20625	5	25	0	5.035	Fig.7	5.005	Fig.8	5.056	Fig.9

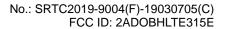




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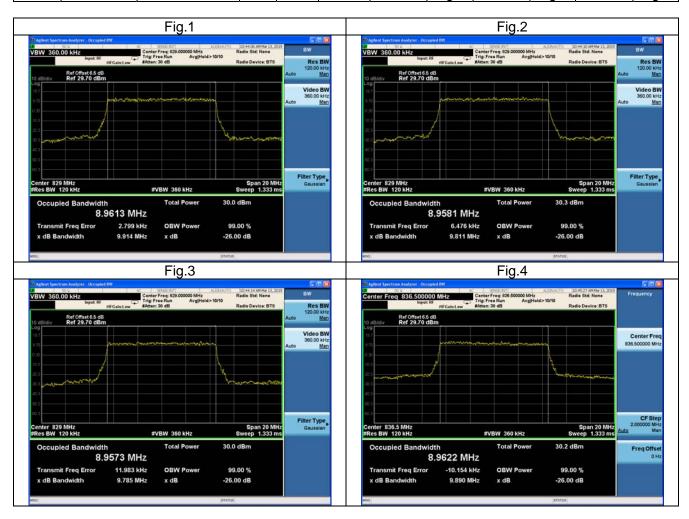


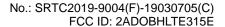
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Pand	Carrier	Channel(Low)	BW	RB	RB	QPSK		dth of 999	% Powe	er (MHz)	
Band	frequency (MHz)	Channel(Low)	DVV	Size	Offset			16-Q	AM	64-Q	AM
5	829	20450	10	50	0	8.9613	Fig.1	8.9581	Fig.2	8.9573	Fig.3
5	836.5	20525	10	50	0	8.9622	Fig.4	8.9527	Fig.5	8.9833	Fig.6
5	844	20600	10	50	0	8.9528 Fig.7		8.9447	Fig.8	8.9523	Fig.9

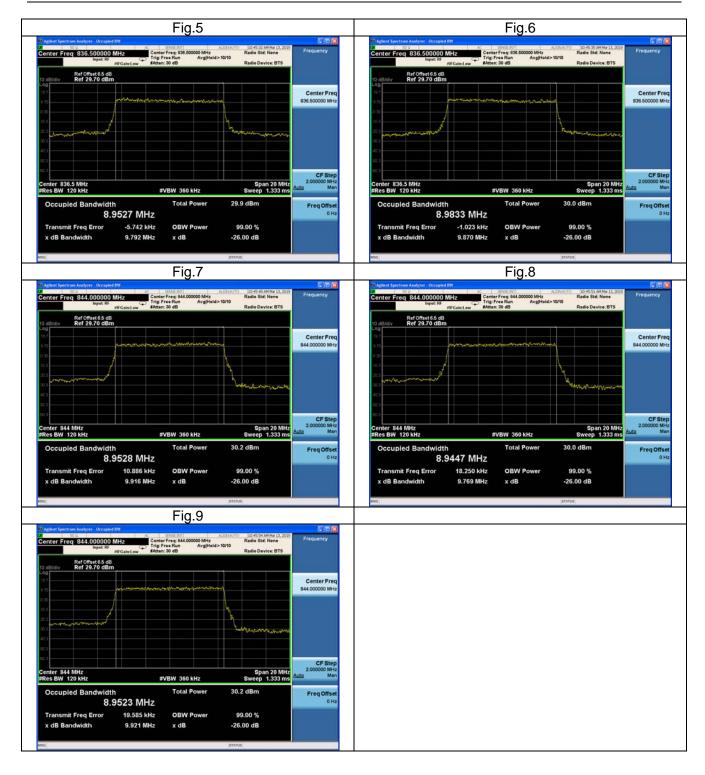
Band	Carrier	Channel(Low)	BW	RB	RB	Bandw	vidth of ·	-26dB tra	nsmitte	r power (I	MHz)
Danu	frequency (MHz)	Charmer(Low)	DVV	Size	Offset	QPSK		16-Q	AM	64-QAM	
5	829	20450	10	50	0	9.914	Fig.1	9.981	Fig.2	9.978	Fig.3
5	836.5	20525	10	50	0	9.890	Fig.4	9.792	Fig.5	9.870	Fig.6
5	844	20600	10	50	0	9.916	Fig.7	9.769	Fig.8	9.921	Fig.9

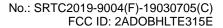




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3 Peak-Average Ratio

Test result:



Peak-Average Ratio Plot(1.4MHz BW,QPSK,Band 5-mid Channel)



Peak-Average Ratio Plot(1.4MHz BW,16QAM,Band 5-mid Channel)

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Peak-Average Ratio Plot(1.4MHz BW,64QAM,Band 5-mid Channel)



Peak-Average Ratio Plot(3MHz BW,QPSK,Band 5-mid Channel)

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Peak-Average Ratio Plot(3MHz BW,16QAM,Band 5-mid Channel)



Peak-Average Ratio Plot(3MHz BW,64QAM,Band 5-mid Channel)

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Fax:86-10-57996388





Peak-Average Ratio Plot(5MHz BW,QPSK,Band 5-mid Channel)



Peak-Average Ratio Plot(5MHz BW,16QAM,Band 5-mid Channel)

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Peak-Average Ratio Plot(5MHz BW,64QAM,Band 5-mid Channel)



Peak-Average Ratio Plot(10MHz BW,QPSK,Band 5-mid Channel)

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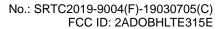


Peak-Average Ratio Plot(10MHz BW,16QAM,Band 5-mid Channel)



Peak-Average Ratio Plot(10MHz BW,64QAM,Band 5-mid Channel)

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4 Spurious Emissions at antenna terminal

Test result

	Band	Carrier	Channel	I BW/		RB	Conducted Spurious Plot	
	Danu	frequency (MHz)	(Low)	DVV	Size	Offset	QPSK	
Ī	5	829	20450	10	1	0	Fig.1	

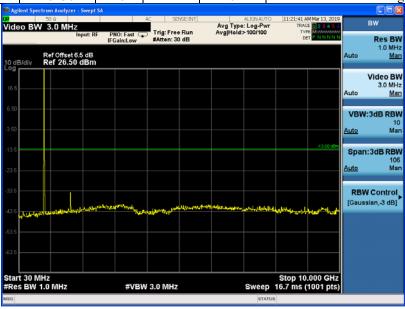
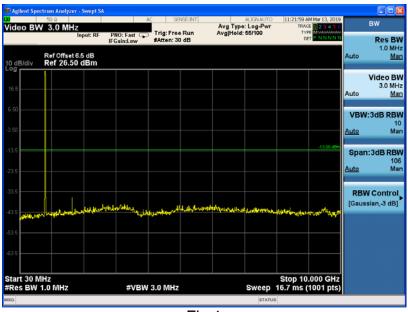


Fig.1

Band	Carrier frequency (MHz)	Channel (Mid)	BW	RB Size	RB Offset	Conducted Spurious Plot
Danu						QPSK
5	836.5	20525	10	1	0	Fig.1



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	Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB	Conducted Spurious Plot
			(High)	DVV		Offset	QPSK
	5	844	20600	10	1	0	Fig.1

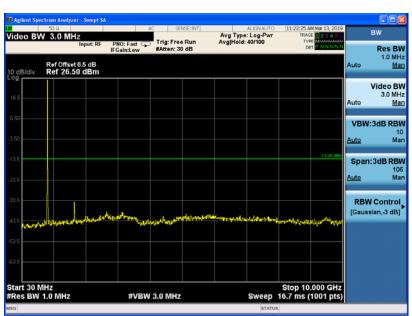
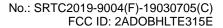


Fig.1





5 Band Edges Compliance

Test result

	Band	Carrier	Channel	BW	RB	RB	Band EdgesPlot	
	Danu	frequency (MHz)	(Low)	DVV	Size	Offset	QPSK	
Ī	_	924.7	20407	1.4	1	0	Fig.1	
	J	824.7	20407		6	0	Fig.4	

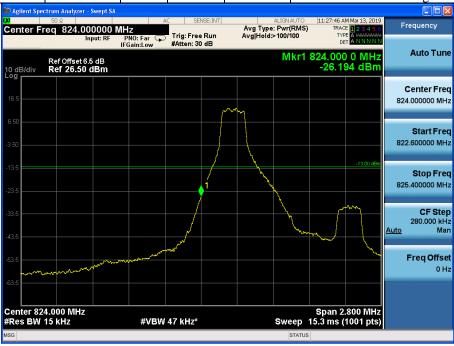
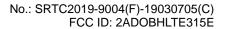


Fig.1 Center Freq 824.000000 MHz
Input: RF PNO: Far Free Run
#Atten: 30 dB Avg Type: Pwr(RMS) Avg|Hold:>100/100 Auto Tune Mkr1 824.000 0 MHz -33.847 dBm Ref Offset 6.5 dB Ref 26.50 dBm Center Freq 824.000000 MHz Start Freq 822.600000 MHz Stop Freq 825.400000 MHz CF Step 280.000 kHz Man Freq Offset 0 Hz Center 824.000 MHz #Res BW 15 kHz Span 2.800 MHz Sweep 15.3 ms (1001 pts) #VBW 47 kHz*

Fig.4





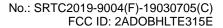
	Band	Carrier frequency (MHz)	Channel (High)	BW	RB Size	RB Offset	Band EdgesPlot
	Dallu						QPSK
ĺ	5	848.3	20642	1.4	1	5	Fig.1
	3	848.3	20643	1.4	6	0	Fig.4



Fig.1



Fig.4



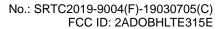


	Band	Carrier	Channel	IRWI		RB	Band EdgesPlot	
	Danu	frequency (MHz)	(Low)	DVV	Size	Offset	QPSK	
ĺ	_	825.5	20415	3	1	0	Fig.1	
	3	823.3	20415		15	0	Fig.4	





Fig.4



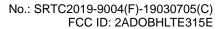


Band	Carrier	Channel	nannel BW RB RB		RB	Band EdgesPlot	
Danu	frequency (MHz)	(High)	DVV	Size	Offset	QPSK	
_	947.5	20635 3	2	2 1	14	Fig.1	
3	847.5		3	15	0	Fig.4	





Fig.4





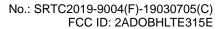
Band	Carrier	Channel (Low)	BW	RB Size	RB	Band EdgesPlot	
Dallu	frequency (MHz)				Offset	QPSK	
5	926.5	20425	5	1	0	Fig.1	
3	826.5	20425	3	25	0	Fig.4	





Fig.4

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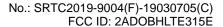


Band	Carrier	Channel	BW	RB	RB	Band EdgesPlot	
Dallu	frequency (MHz)	(High)	DVV	Size	Offset	QPSK	
	946 5	20625	_	1	24	Fig.1	
3	846.5	20625	3	25	0	Fig.4	





Fig.4





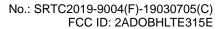
	Band	Carrier	Channel (Low)	BW 10	RB Size	RB	Band EdgesPlot	
	Dallu	frequency (MHz)				Offset	QPSK	
ĺ	5	829	20450		1	49	Fig.1	
	3	829	20450		50	0	Fig.4	





Fig.4

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	Band	Carrier	Channel	Channel BW RB		RB	Band EdgesPlot	
	Dallu	frequency (MHz)	(High)	DVV	Size	Offset	QPSK	
ĺ	5	844	20600	10	1	49	Fig.1	
	3	844	20600	10	50	0	Fig.4	





Fig.4

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6 Frequency Stability

Test result:

Tomporaturo(°C)	Voltago	Test Result (ppm) Band5 Low Channel							
Temperature(°C)	Voltage	1.4M	3M	5M	10M				
-10	NV	0.067	0.011	0.099	0.032				
0	NV	0.075	0.047	0.005	0.086				
+10	NV	0.122	0.079	0.081	0.109				
+20	NV	0.052	0.020	0.070	0.003				
+30	NV	0.080	0.044	0.143	0.014				
+40	NV	0.081	0.041	0.033	0.003				
+50	NV	0.113	0.037	0.122	0.071				
+55	NV	0.107	0.063	0.093	0.055				
+20	LV	0.079	0.012	0.099	0.080				
+20	HV	0.059	0.075	0.048	0.054				

Temperature(°C)	Voltage	Test Result (ppm) Band5 High Channel			
		1.4M	3M	5M	10M
-10	NV	0.048	0.129	0.055	0.034
0	NV	0.028	0.099	0.033	0.066
+10	NV	0.082	0.054	0.110	0.068
+20	NV	0.092	0.024	0.100	0.049
+30	NV	0.054	0.020	0.114	0.079
+40	NV	0.069	0.142	0.097	0.036
+50	NV	0.029	0.087	0.038	0.021
+55	NV	0.103	0.149	0.060	0.023
+20	LV	0.068	0.073	0.043	0.138
+20	HV	0.081	0.142	0.063	0.017