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9.4 TEST RESULT

The maximum Conducted Power (CP) for VHF/UHF is Analog: 5W/1 W for 12.5 KHz Channel Separation Digital: 5W/1 W for 12.5 KHz Channel Separation Calculation Formula: CP = R + A + L

* Note:

CP: The final Conducted Power

R : The reading value from spectrum analyzer

A : The attenuation value of the used attenuator

L : The loss of all connection cables

VHF:

Analog:

Conducted Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(136.025MHz)	36.93
	Middle(151.850MHz)	36.85
	Middle(155.025MHz)	36.86
	Middle(161.610MHz)	36.83
	Top (173.975MHz)	36.87

Radiated Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(136.025MHz)	36.75
	Middle(151.850MHz)	36.81
	Middle(155.025MHz)	36.82
	Middle(161.610MHz)	36.80
	Top (173.975MHz)	36.76

Conducted Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(136.025MHz)	29.92
	Middle(151.850MHz)	29.85
	Middle(155.025MHz)	29.90
	Middle(161.610MHz)	29.87
	Top (173.975MHz)	29.86

Radiated Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(136.025MHz)	29.76
	Middle(151.850MHz)	29.82
	Middle(155.025MHz)	29.82
	Middle(161.610MHz)	29.68
	Top (173.975MHz)	29.72

Digital:

Date + voice:

Conducted Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(136.025MHz)	36.82
	Middle(151.850MHz)	36.79
	Middle(155.025MHz)	36.83
	Middle(161.610MHz)	36.81
	Top (173.975MHz)	36.75

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Radiated Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(136.025MHz)	36.77
	Middle(151.850MHz)	36.74
	Middle(155.025MHz)	36.84
	Middle(161.610MHz)	36.81
	Top (173.975MHz)	36.82

Date transmission mode:

Conducted Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(136.025MHz)	36.82
	Middle(151.850MHz)	36.78
	Middle(155.025MHz)	36.81
	Middle(161.610MHz)	36.84
	Top (173.975MHz)	36.76

Radiated Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(136.025MHz)	36.75
	Middle(151.850MHz)	36.81
	Middle(155.025MHz)	36.78
	Middle(161.610MHz)	36.79
	Top (173.975MHz)	36.84

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Date + voice:

Conducted Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(136.025MHz)	29.84
	Middle(151.850MHz)	29.68
	Middle(155.025MHz)	29.88
	Middle(161.610MHz)	29.83
	Top (173.975MHz)	29.91

Radiated Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(136.025MHz)	29.78
	Middle(151.850MHz)	29.79
	Middle(155.025MHz)	29.82
	Middle(161.610MHz)	29.78
	Top (173.975MHz)	29.93

Date transmission mode:

Conducted Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(136.025MHz)	29.81
	Middle(151.850MHz)	29.84
	Middle(155.025MHz)	29.76
	Middle(161.610MHz)	29.86
	Top (173.975MHz)	29.82

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Radiated Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(136.025MHz)	29.82
	Middle(151.850MHz)	29.85
	Middle(155.025MHz)	29.75
	Middle(161.610MHz)	29.79
	Top (173.975MHz)	29.85

UHF:

Analog:

Conducted Power Measurement Results-5W		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(400.025MHz)	36.91
	Middle(453.225MHz)	36.85
	Middle(454.025MHz)	36.84
	Top (479.975MHz)	36.72

Radiated Power Measurement Results-5W		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(400.025MHz)	36.63
	Middle(453.225MHz)	36.79
	Middle(454.025MHz)	36.81
	Top (479.975MHz)	36.72

Conducted Power Measurement Results-1W		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(400.025MHz)	29.93
	Middle(453.225MHz)	29.91
	Middle(454.025MHz)	29.79
	Top (479.975MHz)	29.92

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Radiated Power Measurement Results-1W		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(400.025MHz)	29.88
	Middle(453.225MHz)	29.82
	Middle(454.025MHz)	29.85
	Top (479.975MHz)	29.72

Digital:

Date + voice:

Conducted Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(400.025MHz)	36.82
	Middle(453.225MHz)	36.81
	Middle(454.025MHz)	36.89
	Top (479.975MHz)	36.74

Radiated Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(400.025MHz)	36.92
	Middle(453.225MHz)	36.85
	Middle(454.025MHz)	36.91
	Top (479.975MHz)	36.72

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Date transmission mode:

Conducted Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(400.025MHz)	36.73
	Middle(453.225MHz)	36.84
	Middle(454.025MHz)	36.83
	Top (479.975MHz)	36.65

Radiated Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 36.99dBm(5W)
12.5 KHz	Bottom(400.025MHz)	36.82
	Middle(453.225MHz)	36.81
	Middle(454.025MHz)	36.84
	Top (479.975MHz)	36.81

Date + voice:

Conducted Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(400.025MHz)	29.87
	Middle(453.225MHz)	29.79
	Middle(454.025MHz)	29.90
	Top (479.975MHz)	29.91

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Radiated Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(400.025MHz)	29.83
	Middle(453.225MHz)	29.81
	Middle(454.025MHz)	29.82
	Top (479.975MHz)	29.65

Date transmission mode:

Conducted Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(400.025MHz)	29.86
	Middle(453.225MHz)	29.85
	Middle(454.025MHz)	29.84
	Top (479.975MHz)	29.78

Radiated Power Measurement Results		
Channel Separation	Channel	Measurement Result (dBm)
		For 30dBm(1W)
12.5 KHz	Bottom(400.025MHz)	29.76
	Middle(453.225MHz)	29.75
	Middle(454.025MHz)	29.82
	Top (479.975MHz)	29.65

9.5 CONDUCT SPURIOUS PLOT

VHF:

Analog:

Conducted Spurious Emission (worst) @136.025MHz With 12.5 KHz Channel Separation-5W

📕 Agilent Spectrum Analyzer - Swept SA ALIGN AUTO 09:14:58 下午 五月 07, 2017 Avg Type: Log-Pwr Avg|Hold:>100/100 Peak Search TRACE 1 2 3 4 5 6 TYPE MWWWW DET P NNNNN Marker 4 680.126506325 MHz PNO: Fast IFGain:Low #Atten: 20 dB Next Peak Mkr4 680.13 MHz -36.746 dBm Ref Offset 30 dB Ref 0.00 dBm 10 dB/div Log Next Pk Right **⊘**¹ ¢³ 4 Next Pk Left Marker Delta Start 30.0 MHz #Res BW 100 kHz Stop 1.0000 GHz Sweep 93.33 ms (20000 pts) #VBW 300 kHz Mkr→CF FUNCTION FUNCTION WIDTH 272.12 MHz 408.08 MHz 544.13 MHz 680.13 MHz -32.308 dBm -36.949 dBm -37.745 dBm -36.746 dBm N 1 f N 1 f N 1 f 1 2 Mkr→RefLvl More 1 of 2 11 STATUS

30MHz-1GHz

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Conduct Spurious Emission (worst) @ 136.025MHz With 12.5 KHz Channel Separation-5W



Conducted Spurious Emission (worst) @151.850 MHz With 12.5 KHz Channel Separation-5W 30MHz-1GHz

🎉 Agilent Spe	ctrum Analyzer - Swept SA							
Marker 1	RF 50 Ω DC 131.176058803	MHz	SENSE:	INT	ALIGN AUTO Type: Log-Pwr	08:53:28 下午 五 TRACE	i月 28,2017 <mark>1 2 3 4 5</mark> 6	Peak Search
10 dB/div	Ref Offset 30 dB Ref 0.00 dBm	PNO: Fast G	#Atten: 20 dl	un Avg B	Hold:>100/100	kr1 131.1 -36.49	8 MHz 7 dBm	Next Peak
-10.0 -20.0 -30.0							-20.00 dBm	Next Pk Right
-40.0		Landa a Mitting and Mi						Next Pk Left
-70.0 -80.0 -90.0								Marker Delta
Start 30.0 #Res BW	0 MHz 100 kHz RC SCL X	#VBV	V 300 kHz Y	FUNCTION	#Sweep 9:	Stop 1.00 8.33 ms (200 FUNCTION	00 GHz 000 pts) VALUE	Mkr→CF
1 N 1 2 3 4 5 6 7		31.18 MHz	<u>-36.497 dBm</u>					Mkr→RefLvl
8 9 10 11			m					More 1 of 2
MSG					STATU	s		

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Conduct Spurious Emission (worst) @ 151.850MHz With 12.5 KHz Channel Separation-5W



Conducted Spurious Emission (worst) @136.025MHz With 12.5 KHz Channel Separation-1W 30MHz-1GHz



Conduct Spurious Emission (worst) @ 136.025MHz With 12.5 KHz Channel Separation-1W 1GHz-12.75GHz



Conducted Spurious Emission (worst) @161.610 MHz With 12.5 KHz Channel Separation-1W 30MHz-1GHz

🇾 Agilent Spe	ctrum Analyze	r - Swept SA	•								
w Marker 1	^{RF} 39.263	50Ω D 963198	e 8 MHz		SEN	SE:INT	Avg Type	ALIGN AUTO	08:51:23 下午 TRAG	·五月 28,2017 E 1 2 3 4 5 6	Peak Search
10 dB/div	PNO: Fast Trig: Free Run Avg Hold:>100/100 TYPE MANANANA Det PNNNNN Ref Offset 30 dB Ref 0.00 dBm -34.204 dBm										Next Peak
-10.0 -20.0 -30.0										-20.00 dBm	Next Pk Right
-40.0 1000 1000 -50.0			an derek di di di		trpelaturi, si shekata ki turova t 1917 - Matanika ta sa	est ten ten distance internet					Next Pk Left
-70.0 -80.0 -90.0											Marker Delta
Start 30.0 #Res BW) MHz 100 kHz		X	#VB	W 300 kHz Y	FUNCT	#S	weep 93	Stop 1.0 3.33 ms (2 FUNCTI	0000 GHz 0000 pts)	Mkr→CF
1 N 7 2 3 4 5 6 9	1 f		39.26	MHz	-34.204 dB					=	Mkr→RefLvl
7 8 9 10 11											More 1 of 2
MSG								STATU	5		

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Conduct Spurious Emission (worst) @ 161.610MHz With 12.5 KHz Channel Separation-1W



Digital:

Conducted Spurious Emission (worst) @136.025MHz With 12.5 KHz Channel Separation-5W

30MHz-1GHz



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Conduct Spurious Emission (worst) @ 136.025MHz With 12.5 KHz Channel Separation-5W



Conducted Spurious Emission (worst) @151.850 MHz With 12.5 KHz Channel Separation-5W 30MHz-1GHz

🎉 Agilent Spectrum	n Analyzer - Swept SA							- 6 -
<mark>w</mark> Marker 1 17	RF 50 Ω DC 72.597129856	MHz	SENSE	INT Avg	ALIGN AUTO Type: Log-Pwr Hold:>100/100	0\$:49:06 下午 五月 TRACE 1 TYPE M	28,2017 23456	Peak Search
R 10 dB/div R	tef Offset 30 dB tef 0.00 dBm	IFGain:Low	#Atten: 20 d	B	M	ьет Р kr1 172.60 -38.735	MHz dBm	Next Peak
-10.0 -20.0 -30.0	1						-20.00 dBm	Next Pk Right
-40.0				g net generative og Latina af frå gete forsen de net generative og konstruktive og som støre støre af fr				Next Pk Left
-70.0 -80.0 -90.0								Marker Delta
Start 30.0 M #Res BW 10	Hz 0 kHz SCL X	#VBV	V 300 kHz Y 38 735 dBm	FUNCTION	#Sweep 9:	Stop 1.000 3.33 ms (200 FUNCTION V	10 GHz 00 pts) ALUE	Mkr→CF
2 3 4 5 6							=	Mkr→RefLvl
7 8 9 10 11							-	More 1 of 2
MSG					STATU	S		

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Conduct Spurious Emission (worst) @ 151.850MHz With 12.5 KHz Channel Separation-5W



1GHz-12.75GHz

Conducted Spurious Emission (worst) @136.025MHz With 12.5 KHz Channel Separation-1W 30MHz-1GHz

🎉 Agilent Spectrum Ar	nalyzer - Swept SA				
Marker 4,680	50 Ω DC 126506325 MHz	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	09:18:19 下午 五月 07,2017 TRACE 123456	Peak Search
Ref	PNO: Fai IFGain:Lo Offset 30 dB	st 🖵 Trig: Free Run w #Atten: 20 dB	Avg Hold:>100/100	Kr4 680.13 MHz -39.480 dBm	NextPeak
Log -10.0 -20.0 -30.0				-20.00 dBm	Next Pk Right
-40.0 -50.0 -60.0					Next Pk Left
-70.0 -80.0 -90.0					Marker Delta
Start 30.0 MHz #Res BW 100	z kHz #	VBW 300 kHz	Sweep 9	Stop 1.0000 GHz 3.33 ms (20000 pts)	Mkr→CF
1 N 1 f 2 N 1 f 3 N 1 f 4 N 1 f 5 6	272.12 MHz 408.08 MHz 544.13 MHz 680.13 MHz	2 -32.750 dBm 2 -36.027 dBm 2 -36.763 dBm 2 -39.480 dBm			Mkr→RefLvl
7 8 9 10 11					More 1 of 2
MSG			STATU	IS	

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Conducted Spurious Emission (worst) @161.610 MHz With 12.5 KHz Channel Separation-1W 30MHz-1GHz

🎉 Agilent Spe	ctrum Analyzer - Swept SA							
<mark>w</mark> Marker 1	RF 50 Ω DC 122.348617431	MHz	SENSE:II		ALIGN AUTO	08:49:37 下午 五月 TRACE	28,2017 2 3 4 5 6	Peak Search
10 dB(div	Ref Offset 30 dB	Next Peak						
-10.0							20.00 dBm	Next Pk Right
-40.0 H H ^{1/2} (1996) -50.0		na Alggan ann Angga Tal Dynnisten yn Am ^{an} th Marganen y bwr ang angwyn a traw yn Am ^{an} th						Next Pk Left
-70.0 -80.0 -90.0								Marker Delta
Start 30.0 #Res BW	0 MHz / 100 kHz RC SCL X	#VBV	¥ 300 kHz ¥	FUNCTION	#Sweep 93 FUNCTION WIDTH	Stop 1.000 3.33 ms (2000 FUNCTION VA	0 GHz 10 pts) LUE	Mkr→CF
2 3 4 5 6								Mkr→RefLvl
7 8 9 10 11								More 1 of 2
MSG					STATU	S		

Conduct Spurious Emission (worst) @ 136.025MHz With 12.5 KHz Channel Separation-1W

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Conduct Spurious Emission (worst) @ 161.610MHz With 12.5 KHz Channel Separation-1W



Note: only result the worst case in this part.

UHF:

Analog:

Conducted Spurious Emission (worst) @ 400.025MHz With 12.5 KHz Channel Separation-5W 30MHz-1GHz



Conduct Spurious Emission (worst) @ 400.025MHz With 12.5 KHz Channel Separation-5W 1

Agilent Spectrum Analyzer - Swept SA			
₩ RF 50 Ω DC Marker 1 1.200347517376	GHz Trig: Free Rup	ALIGN AUTO 09:23:59 下午 五月 07, 3 Avg Type: Log-Pwr TRACE 1234 Avg Hold > 100(100 TYPE 100000	5 6 Trace/Detector
Ref Offset 30 dB 10 dB/div Ref 0.00 dBm	IFGain:Low #Atten: 10 dB	Mkr1 1.200 3 GI -36.048 dB	Select Trace
Log -10.0 -20.0 -30.0 -▲1		-20.00	Clear Write
-40.0 -50.0 -60.0			Trace Average
-70.0			Max Hold
Start 1.000 GHz #Res BW 1.0 MHz	#VBW 3.0 MHz	Stop 12.750 G Sweep 20.00 ms (20000 p	Hz ts) Min Hold
1 N 1 f 1.2 2 3 3 4 4 5 5 6 6 6	200 3 GHz36.048 dBm		View Blank Trace On
/ 8 9 10 11 ∢	m		More 1 of 3
MSG		STATUS	

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Conducted Spurious Emission (worst) @ 453.225MHz With 12.5 KHz Channel Separation-5W



Conduct Spurious Emission (worst) @ 453.225MHz With 12.5 KHz Channel Separation-5W 1GHz-12.75GHz



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Conducted Spurious Emission (worst) @ 454.025MHz With 12.5 KHz Channel Separation-5W



Conduct Spurious Emission (worst) @ 454.025MHz With 12.5 KHz Channel Separation-5W 1GHz-12.75GHz

🎉 Agilent Spectrum Analyzer - Swept SA							
Marker 1 1.3625056252	81 GHz	SENSE:INT	Avg Typ Avg Hold	ALIGN AUTO e: Log-Pwr i:>100/100	09:07:48 下午 TRAC TYF	五月 28,2017 E <mark>1 2 3 4 5 6</mark> E M WWWW	Peak Search
Ref Offset 30 dB 10 dB/div Ref -10.00 dBr	IFGain:Low	Atten: 10 dB		MI	(r1 1.362 -39.82	2 5 GHz 21 dBm	Next Peak
-20.0 -30.0				and the second second		-20.00 dBm	Next Pk Right
-400							Next Pk Left
-80.0							Marker Delta
Start 1.000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz	UNCTION FU	weep 20	Stop 12 0.00 ms (2 FUNCTIO	.750 GHz 0000 pts) DN VALUE	Mkr→CF
						=	Mkr→RefLvl
7 8 9 10 11							More 1 of 2
MSG				STATU	5		

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Conduct Spurious Emission (worst) @ 400.025MHz With 12.5 KHz Channel Separation-1W 1GHz-12.75GHz

🎉 Agilent Spectrum Analyzer - Swep	et SA						
Marker 1 1 2003/1751		SENSE:INT		LIGN AUTO	09:25:04 下午 TRAC	五月 07,2017 E 1 2 3 4 5 6	Trace/Detector
	PNO: Fast C IFGain:Low	Trig: Free Run #Atten: 10 dB	Avg Hold:	>100/100	TYF DE		Select Trace
Ref Offset 30 10 dB/div Ref 0.00 dE	dB 3m			Mk	r1 1.200 -34.50) 3 GHz 67 dBm	1
-20.0						-20.00 dBm	Clear Write
-30.0							Trace Average
-60.0 -70.0 -80.0 -90.0							Max Hold
Start 1.000 GHz #Res BW 1.0 MHz	#VB	W 3.0 MHz		weep 20	Stop 12. .00 ms (2) FUNCTIO	750 GHz 0000 pts)	Min Hold
1 N 1 f 2	1.200 3 GHz	-34.567 dBm				E	View Blank Trace On
8 9 10 11							More 1 of 3
MSG				STATUS	3		

Conducted Spurious Emission (worst) @ 400.025MHz With 12.5 KHz Channel Separation-1W

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Conducted Spurious Emission (worst) @ 453.225MHz With 12.5 KHz Channel Separation-1W



Conduct Spurious Emission (worst) @ 453.225MHz With 12.5 KHz Channel Separation-1W 1GHz-12.75GHz



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Conducted Spurious Emission (worst) @ 454.025MHz With 12.5 KHz Channel Separation-1W



Conduct Spurious Emission (worst) @ 454.025MHz With 12.5 KHz Channel Separation-1W

1GHz-12.75GHz



Note: All the test frequencies was tested, but only the worst data be recorded in this part.

Digital:



Conducted Spurious Emission (worst) @400.025MHz With 12.5 KHz Channel Separation-5W

Conduct Spurious Emission (worst) @ 400.025MHz With 12.5 KHz Channel Separation-5W 1GHz-12.75GHz

🎉 Agilent S	Spectrum A	nalyzer - Sv	/ept SA											
Marker	1 1.2	50 50347	Ω DC 517376	6 GHz		SEN	SE:INT	Avg	Туре	ALIGN AUTO	09:25:34 下午 TRAG	・五月 07,201 こころ 1 2 3 4 5	7	Trace/Detector
				PNO: Fas IFGain:Lo	st 😱 w	Trig: Free #Atten: 10	Run) dB	Avg	Hold:	:>100/100	TY D		Ň	Select Trace
10 dB/di	v Re	f Offset 3 f 0.00 (80 dB d B m							Mk	r1 1.20 -34.5	03 GHz 62 dBm		1*
-10.0 -20.0												-20.00 dBm		Clear Write
-30.0				lleter a state att					Julia.	a dina tanga da ka		Dectes only a division of		
-50.0														Trace Average
-70.0														Max Hold
-90.0														
Start 1. #Res B	.000 GI W 1.0	Hz MHz		#`	VBW	3.0 MHz			S	weep 20	Stop 12 .00 ms (2	.750 GHz 0000 pts)	Min Hold
MKR MODE	TRC SCI		x 1	.200 3 GHz		Y -34.562 dE	FU Im	INCTION	FUN	ICTION WIDTH	FUNCTI	ON VALUE		
2 3 4 5 6													3	View Blank Trace On
7 8 9 10														More 1 of 3
												•		
MSG										STATUS	3			

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Conducted Spurious Emission (worst) @ 453.225MHz With 12.5 KHz Channel Separation-5W



Conduct Spurious Emission (worst) @ 453.225MHz With 12.5 KHz Channel Separation-5W 1GHz-12.75GHz



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Conducted Spurious Emission (worst) @ 454.025MHz With 12.5 KHz Channel Separation-5W



Conduct Spurious Emission (worst) @ 454.025MHz With 12.5 KHz Channel Separation-5W 1GHz-12.75GHz



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Conducted Spurious Emission (worst) @ 400.025MHz MHz With 12.5 KHz Channel Separation-1W



Conduct Spurious Emission (worst) @ 400.025MHz MHz With 12.5 KHz Channel Separation-1W 1GHz-12.75GHz

🎉 Agilent Spe	ctrum Analyzer ·	Swept SA								
<mark>w</mark> Marker 1	^{RF} 1.20034	50 Ω DC 7517376	GHz	SEN	SE:INT	Avg Type	ALIGN AUTO e: Log-Pwr	09:26:29 下午 TRAC	五月 07,2017 CE <mark>1 2 3 4 5 6</mark>	Trace/Detector
	Ref Offse	Select Trace								
-10.0									-20.00 dBm	Clear Write
-40.0 -50.0 -60.0					er ja verten ur jugan konstruktionen er som en som er s					Trace Average
-70.0 -80.0 -90.0										Max Hold
Start 1.00 #Res BW	0 GHz 1.0 MHz	X	#VE	W 3.0 MHz	FUNCTIC	S N FUI	weep 20	Stop 12 0.00 ms (2 FUNCTI	.750 GHz 0000 pts) ^{ON VALUE}	Min Hold
1 N 2 3 4 5 6		1.20	00 3 GHz	-34.663 dB	im					View Blank Trace On
7 8 9 10 11										More 1 of 3
MSG							STATUS	3		

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Conducted Spurious Emission (worst) @ 453.225MHz With 12.5 KHz Channel Separation-1W



Conduct Spurious Emission (worst) @ 453.225MHz With 12.5 KHz Channel Separation-1W 1GHz-12.75GHz



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Conducted Spurious Emission (worst) @ 454.025MHz With 12.5 KHz Channel Separation-1W



Conduct Spurious Emission (worst) @ 454.025MHz With 12.5 KHz Channel Separation-1W

1GHz-12.75GHz



Note: All the test frequencies was tested, but only the worst data be recorded in this part.

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10. RANSMITTER FREQUENCY BEHAVIOR

10.1PROVISIONS APPLICABLE

FCC §90.214

	Maximum fraguaney	All equipment								
Time intervals 1. 2	difference 3	150 to 174 MHz	421 to 512 MHz							
Transient Frequency Behavior for Equipment Designed to Operate on 25 kHz Channels										
t1 ⁴ t2 t3 ⁴	± 25.0 kHz ± 12.5 kHz ± 25.0 kHz	5.0 ms 20.0 ms 5.0 ms	10.0 ms 25.0 ms 10.0 ms							
Transient Frequency Behavior for Equipme	nt Designed to Operate	on 12.5 kHz Channels								
t1 ⁴ t2 t3 ⁴	± 12.5 kHz ± 6.25 kHz ± 12.5 kHz	5.0 ms 20.0 ms 5.0 ms	10.0 ms 25.0 ms 10.0 ms							
Transient Frequency Behavior for Equipment Designed to Operate on 6.25 kHz Channels										

t1 ⁴	± 6.25 kHz	5.0 ms	10.0 ms
t ₂	± 3.125 kHz	20.0 ms	25.0 ms
t3 ⁴	± 6.25 kHz	5.0 ms	10.0 ms

 $^1t_{on}$ is the instant when a 1 kHz test signal is completely suppressed, including any capture time due to phasing. t_1 is the time period immediately following t_{on} . t_2 is the time period immediately following t_1 . t_3 is the time period from the instant when the transmitter is turned off until t_{off} . t_{off} is the instant when the 1 kHz test signal starts to rise. 2 During the time from the end of t_2 to the beginning of t_3 , the frequency difference must not exceed the limits specified in c_{off} . §90.213.

³ Difference between the actual transmitter frequency and the assigned transmitter frequency. ⁴ If the transmitter carrier output power rating is 6 watts or less, the frequency difference during this time period may exceed the maximum frequency difference for this time period.

10.2 TEST METHOD

TIA/EIA-603 2.2.19.3

10.3 DESCRIBE LIMIT LINE OF RANSMITTER FREQUENCY BEHAVIOR

ton: The switch-on instant ton of a transmitter is defined by the condition when the output power, measured at the antenna terminal, exceeds 0,1 % of the full output power (-30 dBc).

t1: period of time starting at ton and finishing according to above 11.1

t2: period of time starting at the end of t1 and finishing according to above 11.1

toff: switch-off instant defined by the condition when the output power falls below 0,1 % of the full output power (-30 dBc).

t3: period of time that finishing at toff and starting according to above 11.1



10.4 MEASURE RESULT

VHF:

Transmitter Frequency Behavior @ 12.5 KHz Channel Separation--Off to On



Transmitter Frequency Behavior @ 12.5 KHz Channel Separation--On to Off





Transmitter Frequency Behavior @ 12.5 KHz Channel Separation--Off to On

Transmitter Frequency Behavior @ 12.5 KHz Channel Separation--On to Off



UHF:

11. AUDIO LOW PASS FILTER RESPONSE

11.1 LIMITS

2.1047(a): Voice modulated communication equipment. A curve or equivalent data showing the frequency response of the audio modulating circuit over a range of 100 to 5000 Hz shall be submitted. For equipment required to have an audio low-pass filter, a curve showing the frequency response of the filter or of all circuitry installed between the modulation limiter and the modulated stage shall be submitted.
90.242(b)(8): Recommended audio filter attenuation characteristics are given below:

Audio band	Minimum Attenuation Rel. to 1 KHz Attenuation
3 –20 KHz	60 log ₁₀ (f/3) dB where f is in KHz
20 – 30 KHz	50dB

11.2. METHOD OF MEASUREMENTS

The rated audio input signal was applied to the input of the audio low-pass filter (or of all modulation stages) using an audio oscillator, this input signal level and its corresponding output signal were then measured and recorded using the FFT Digital Spectrum Analyzer. Tests were repeated at different audio signal frequencies from 0 to 50 KHz.

11.3 TEST DATA

Analog:

12.5 KHZ CHANNEL SPACING, F3E, FREQUENCY OF ALL MODULATION STATES (TEST RESULT FOR UHF)-5W

Frequency	Audio In	Audio out	Attenuation	Attenuation	Recommended Attenuation
(KHz)	(dBV)	(dBV)	(Out_In)	Rel.to 3 KHz	(dB)
			dB	(dB)	
0.1	-76.18	-31.26	45.63	-36.56	
0.2	-76.18	-17.36	58.22	-25.62	
0.4	-76.18	-6.28	71.64	-12.81	
0.6	-76.18	0.43	74.22	-6.42	
0.8	-76.18	4.16	78.94	-2.91	
1.0	-76.18	7.15	83.63	-0.02	
1.5	-76.18	8.26	84.82	2.15	
2.0	-76.18	8.98	85.36	1.52	
2.5	-76.18	7.53	83.81	0.65	
3.0	-76.18	6.24	82.54	-1.81	0
3.5	-76.18	2.61	78.42	-4.92	-4
4.0	-76.18	-2.35	74.63	-9.41	-8
4.5	-76.18	-9.22	68.24	-16.54	-13
5.0	-76.18	-15.16	60.63	-21.75	-14
6.0	-76.18	-21.21	54.12	-28.62	-17
7.0	-76.18	-31.63	46.24	-36.45	-21
8.0	-76.18	-39.25	37.91	-47.67	-25
9.0	-76.18	-61.92	15.16	-66.41	-26
10.0	-76.18	-61.92	15.16	-66.41	-30
12.0	-76.18	-61.92	15.16	-66.41	-38
14.0	-76.18	-61.92	15.16	-66.41	-41
16.0	-76.18	-61.92	15.16	-66.41	-43
18.0	-76.18	-61.92	15.16	-66.41	-46
20.0	-76.18	-61.92	15.16	-66.41	-48
25.0	-76.18	-61.92	15.16	-66.41	-48
30.0	-76.18	-61.92	15.16	-66.41	-48
35.0	-76.18	-61.92	15.16	-66.41	-48
40.0	-76.18	-61.92	15.16	-66.41	-48
45.0	-76.18	-61.92	15.16	-66.41	-48
50.0	-76.18	-61.92	15.16	-66.41	-48

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Note: Due to the difficulty of measuring the Frequency Response of the internal low-pass filter, the Frequency Response of All Modulation States is performed to show the roll-off at 3 KHz in comparison with the recommended audio filter attenuation.



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12.5KHZ CHANNEL SPACING, F3E, FREQUENCY OF ALL MODULATION STATES (TEST RESULT FOR VHF)-5W

Frequency	Audio In	Audio out	Attenuation	Attenuation	Recommended Attenuation
(KHz)	(dBV)	(dBV)	(Out_In)	Rel.to 3 KHz	(dB)
			dB	(dB)	
0.1	-76.15	-31.12	45.63	-36.25	
0.2	-76.15	-17.26	58.28	-25.16	
0.4	-76.15	-6.22	71.16	-12.69	
0.6	-76.15	0.43	74.23	-6.15	
0.8	-76.15	4.18	78.94	-2.86	
1.0	-76.15	7.19	83.69	-0.06	
1.5	-76.15	8.23	84.86	2.12	
2.0	-76.15	8.94	85.32	1.58	
2.5	-76.15	7.52	83.82	0.64	
3.0	-76.15	6.28	82.52	-1.83	0
3.5	-76.15	2.66	78.46	-4.92	-3
4.0	-76.15	-2.33	74.63	-9.43	-9
4.5	-76.15	-9.26	68.22	-16.51	-11
5.0	-76.15	-15.17	60.62	-21.75	-15
6.0	-76.15	-21.23	54.14	-28.63	-17
7.0	-76.15	-31.63	46.22	-36.47	-22
8.0	-76.15	-39.26	37.93	-47.65	-25
9.0	-76.15	-61.92	15.17	-66.46	-29
10.0	-76.15	-61.92	15.17	-66.46	-32
12.0	-76.15	-61.92	15.17	-66.46	-36
14.0	-76.15	-61.92	15.17	-66.46	-41
16.0	-76.15	-61.92	15.17	-66.46	-45
18.0	-76.15	-61.92	15.17	-66.46	-46
20.0	-76.15	-61.92	15.17	-66.46	-48
25.0	-76.15	-61.92	15.17	-66.46	-48
30.0	-76.15	-61.92	15.17	-66.46	-48
35.0	-76.15	-61.92	15.17	-66.46	-48
40.0	-76.15	-61.92	15.17	-66.46	-48
45.0	-76.15	-61.92	15.17	-66.46	-48
50.0	-76.15	-61.92	15.17	-66.46	-48

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Note: Due to the difficulty of measuring the Frequency Response of the internal low-pass filter, the Frequency Response of All Modulation States is performed to show the roll-off at 3 KHz in comparison with the recommended audio filter attenuation.



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APPENDIX I: PHOTOGRAPHS OF SETUP RADIATED EMISSION TEST SETUP



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APPENDIX II: EXTERNAL VIEW OF EUT TOTAL VIEW OF EUT



TOP VIEW OF EUT



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BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



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BACK VIEW OF EUT



LEFT VIEW OF EUT



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RIGHT VIEW OF EUT

THE LABLE OF POWER ADAPTER MARKETED



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OPEN VIEW-1 OF EUT

OPEN VIEW-2 OF EUT



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INTERNAL VIEW-2 OF EUT



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INTERNAL VIEW-3 OF EUT

INTERNAL VIEW-4 OF EUT



----END OF REPORT----