



SGL Count 1/1 TRG:VID				
1Pk Clrw				
) dBm	successive the second design and	M1[1]		-16.15 dBr 11.50 µ
TRG -5.030 dBm to 1 minute	IL I M IN THE ALCE	D2[1]		
10 dBm	ALL HALLEL IN MARY		7 5	2.87036 m
MT I				
20 dBm				
30 dBm				
		1.2		
40 dBm				
50 d0m		and by the strength	لير الألفان والمتعاطية المالية الم	NJ 4
TA PERIOD AND A CONTRACTOR	12 gi		a la construction de la construction La construction de la construction d	
	at,	In star And A Midday	lin bin hallon lin a bai	Market and a state
and a second a first of a second s		Indiana in the		. It made that made it is
70 dBm		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
80 dBm				



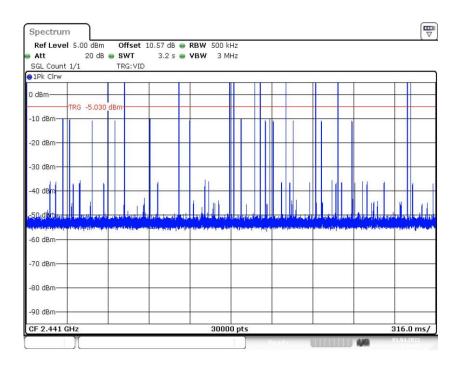


Fig. 72 Number of Burst in Observation Period (Dwell Time) (8DPSK, CH39)





# A.7 Number of Hopping Channels

### Measurement Limit:

Standard	Limit (Num)
FCC 47 CFR Part 15.247(a) &	At least 15 non overlenning channels
RSS-247 Section 5.1	At least 15 non-overlapping channels

### **Measurement Results:**

Mode	Packet	Number of Hopping Channels	Test results (Num)	Conclusion
GFSK	DH5	Fig.73	79	Р
π/4 DQPSK	2-DH5	Fig.74	79	Р
8DPSK	3-DH5	Fig.75	79	Р

# See below for test graphs.

Conclusion: Pass





Spectrum									
Ref Level 3 Att	0.00 dBm 40 dB	Offset SWT	10.54 dB 👄 1 ms 👄	RBW 100 k VBW 300 k		Auto Sweep	5		
Count 1000/1	000	11110000010000							
1Pk View			1						
20 dBm									
10 dBm									
			A A A A A A A A A A A A A A A A A A A				AAAAAAAA		
-10 dBm	nahnaad	allhallt	<u>Allon Alli</u>	AndAnadi	naahaa	alladlad.	TANAAAAAA	AAAAAAA	UNANNI
-20 dBm									
-30 dBm									L.
-40 dBm									
-50 dBm									
-60 dBm									
Start 2.4 GHz	2		1	691	pts			Stop 2.	4835 GHz
	[				l hiere	suring	n na an in in in na m	444	1.04.2022



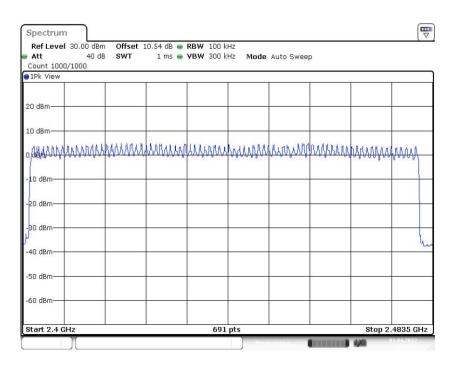


Fig. 74 Number of Hopping Channels ( $\pi$ /4 DQPSK, Hopping)





Ref Level	30.00 dBm	Offset	10.54 dB 😑	<b>RBW</b> 100 k	Hz				
Att	40 dB	SWT	1 ms 👄	<b>VBW</b> 300 k	Hz Mode	Auto Sweep	5		
Count 1000, 1Pk View	/1000								
TPK VIEW									
0 dBm									
0 dBm				-					
BALLIN	mount	num	www.	MIMI	nnunn	USAUM	MMM	MMMM	AMA
LO dBm									
20 dBm							-		
30 dBm									
40 dBm									Man
50 dBm		-							
50 dBm									
tart 2.4 GI	-17			691	nte			Stop 2	.4835 GHz

Fig. 75 Number of Hopping Channels (8DPSK, Hopping)





## A.8 Carrier Frequency Separation

#### **Measurement Limit:**

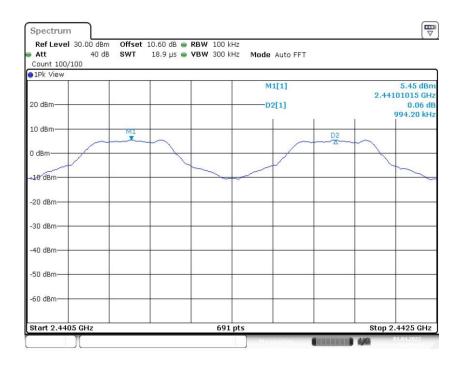
Standard	Limit
FCC 47 CFR Part 15.247(a) &	By a minimum of 25 kHz or two-thirds of the 20 dB
RSS-247 Section 5.1	bandwidth of the hopping channel, whichever is
	greater

#### **Measurement Results:**

Mode	Channel	Packet	Separation of hopping channels	Test result (kHz)	Conclusion
GFSK	39	DH5	Fig.76	994.00	Р
π/4 DQPSK	39	2-DH5	Fig.77	1003.00	Р
8DPSK	39	3-DH5	Fig.78	997.00	Р

#### See below for test graphs.

#### **Conclusion: Pass**

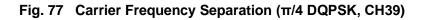


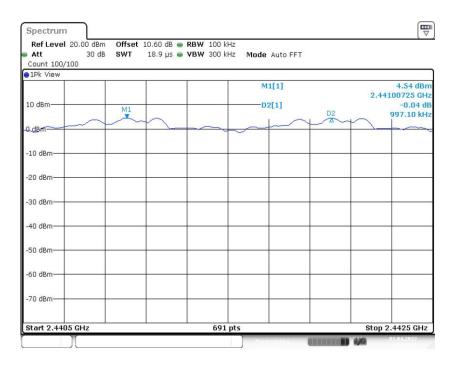
### Fig. 76 Carrier Frequency Separation (GFSK, CH39)

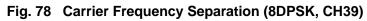




Ref Level 20.00 dBm Offse Att 30 dB SWT Count 100/100	: 10.60 dB 👄 RBW 100 k 18.9 µs 👄 VBW 300 k		
1Pk View	1	M1[1]	4.56 dBr
10 dBm		<b>D2[1]</b> D	2.44100435 GH -0.10 d 2 1.00290 MH
0.dBm			
-10 dBm			
-20 dBm			
-30 dBm-			
-40 dBm			
-50 dBm			
-60 dBm			
-70 dBm			
Start 2.4405 GHz	601	pts	Stop 2.4425 GHz











## A.9 99% Occupied Bandwidth

#### **Measurement Limit:**

Standard	Limit
RSS-Gen section 6.7	/

#### **Measurement Result:**

Mode	Channel	Occupied Ba	conclusion	
	0	Fig.79	896.00	
GFSK	39	Fig.80	896.00	/
	78	Fig.81	899.00	
	0	Fig.82	1178.00	
π/4 DQPSK	39	Fig.83	1175.00	/
	78	Fig.84	1178.00	
	0	Fig.85	1175.00	
8DPSK	39	Fig.86	1172.00	/
	78	Fig.87	1175.00	

# See below for test graphs.

### **Conclusion: Pass**

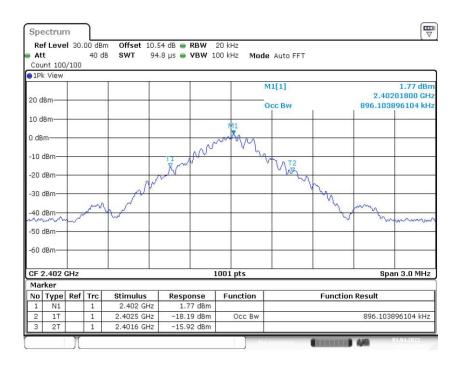


Fig. 79 99% Occupied Bandwidth (GFSK, CH0)





At Cou	<b>t</b> int 100		00 dBn 40 dB		57 dB 📻 RI 8 μs 🥌 VI			a Auto FFT			
20 d								41[1] )cc Bw			2.45 dBr 101500 GH 896104 kH
10 d 0 dB							M1				
	dBm—				T1 1	M	- Wy	A1 0 T2			
-20 (	dBm—			200	NW -		-	Mrz W			
-30 (	dBm—		~~~0	N			_	M	M	an	
~	dBm dBm dBm	w	23	$\sim$					b	h	min
	dBm										
CF :	2.441 (	GHz				10	101 pts			Spa	an 3.0 MHz
	rker		- 1								
NO 1	Type N1	Ref	Trc 1	Stimulus 2.441 GHz	Respon 2.45	_	Function		Function	n Result	
2	1T	_	1	2.4414 GHz	-17.43	25-073-4-C-C-	Occ Bw			896.103	896104 kHz
3	2T		1	2.4406 GHz	-15.21	dBm					



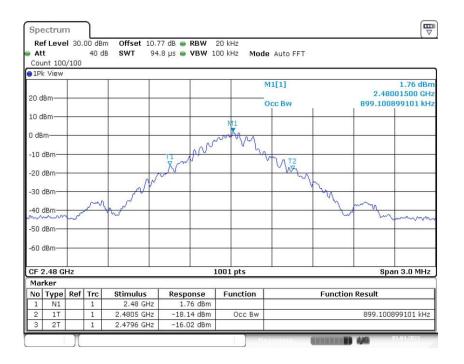


Fig. 81 99% Occupied Bandwidth (GFSK, CH78)





At	<b>f Leve</b> t int 100		00 dBn 40 dB		54 dB 👄 RBW 4.8 µs 👄 VBW 1	20 kHz 00 kHz <b>Mod</b> i	e Auto FFT		(T
<b>)</b> 1P	< View	-			1		M1[1]		0.75 dBr
20 d	Bm						DCC BW		2.40201500 GH 1.177822178 MH
10 d	Bm					-			
0 dB	m					N11			
-10	dBm—			11	mon	2 hr	my		
-20	dBm—			PV.			A	<b>`</b>	
	dBm			ſ				1	
			~	m				has	m
	dB-fQ	1.0	W W	-9 w.				- L.	and Managements
-50 (	dBm—								
-60	dBm—								
CF :	2.402	GHz				001 pts			Span 3.0 MHz
Mai	rker								
	Туре	Ref		Stimulus	Response	Function		Function	Result
1	N1		1	2.402 GHz	0.75 dBm				
2	1T 2T		1	2.4026 GHz 2.4014 GHz	-16.64 dBm -14.41 dBm	Occ Bw			1.177822178 MHz



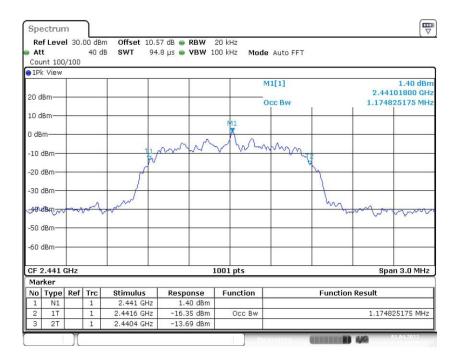


Fig. 83 99% Occupied Bandwidth (π/4 DQPSK, CH39)





At Cou	nt 100		00 de 40		7 dB 👄 RBW .8 μs 👄 VBW 1	20 kHz 00 kHz <b>Mode</b>	e Auto FFT		
20 d	dBm						M1[1] Dec Bw	0.69 dBr 2.48001500 GH 1.177822178 MH	
10 d						N11			
	dBm—			11/	mon	white	mm		
-20	dBm—			- A			- M		
	dBm		٨	m			h	2 10	
	<sup>#B</sup> m dBm−−	m		$\mathbf{v}$				- montheman	
-60	dBm								
	2.48 G	Hz			1	001 pts		Span 3.0 MHz	
	ker Type	Ref	Tre	Stimulus	Response	Function	Fund	ction Result	
1	N1	IXCI	1	2.480015 GHz	0.69 dBm	runction	r anocion Result		
2	1T 2T		1	2.48058741 G 2.47940959 G	-16.62 dBm -14.36 dBm	Occ Bw		1.177822178 MHz	



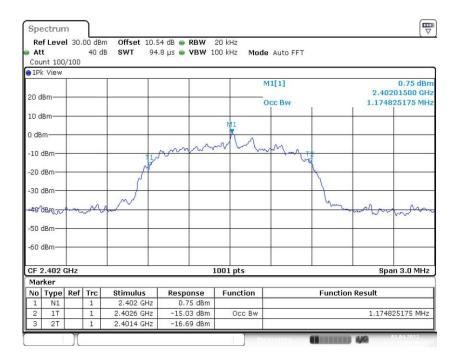


Fig. 85 99% Occupied Bandwidth (8DPSK, CH0)





At Cou	nt 100		00 dBr 40 dI		57 dB 👄 RBW 3 .8 μs 👄 VBW 1	20 kHz D0 kHz <b>Mode</b>	e Auto FFT				
●1P	CView Bm				M1[1] Occ Bw				1.42 dBr 2.44101500 GH 1.171828172 MH		
10 d	Bm—	-				r na					
0 dB	m	-				K.					
-10 (	dBm—	-			mm	w how	mate				
-20 (	dBm—	-		M							
-30 (	dBm	-									
,401	Ben	wm	A				++	m	war	narma	
-50 (	dBm—										
-60 (	dBm										
CF 2	2.441 (	GHz			1	.001 pts			Spar	n 3.0 MHz	
	ker	_									
	Туре	Ref		Stimulus	Response	Function	Function Result				
1	N1 1T		1	2.441 GHz 2.4416 GHz	1.42 dBm -14.51 dBm	Occ Bw	1.171828172 M				
3	2T		1	2.4404 GHz	-16.03 dBm	220 011					



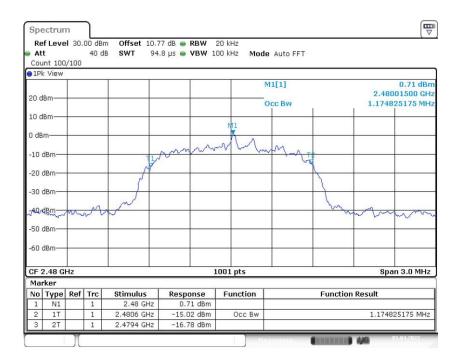


Fig. 87 99% Occupied Bandwidth (8DPSK, CH78)





# **ANNEX B: Accreditation Certificate**



\*\*\*END OF REPORT\*\*\*