

		_				_			um Analyzer - Swep	
Frequency	8 PM May 24, 2024 RACE 1 2 3 4 5 6 TYPE A WWWWWW	TRA	ALIGN AUTO	#Avg Ty	NSE:INT	20.02	Ηz	00000 GI	RF 50 Ω eq 1.91500	Center Fr
Auto Tune	004 GHz 955 dBm		Mkr1			A Trig: Fre #Atten: 2	NO: Wide ↔ Gain:Low	IF .2 dB	Ref Offset 27. Ref 27.20 d	10 dB/div
Center Freq 1.915000000 GHz										17.2
Start Fred 1.913000000 GHz										-2.80
Stop Freq 1.917000000 GHz	-13.00 dBm				1	And a second second				-12.8
CF Step 400.000 kH Auto Mar	RMS				A A					-32.8
Freq Offse 0 H:										-52.8
	4.000 MHz s (1001 pts)	Span 4	#Sweep			470 kHz	#\/B\A		15000 GHz	
	s (100 i pts)		#Sweep			47 U KHZ	#VBV		JU KHZ	#Res BW

LTE B25(2)_15 M_Band Edge_High_QPSK_1RB



RL RF Center Freq 1. Center Freq 1. Ref 0 10 dB/div Ref 2 7.20 -2.80 -12.8 -22.8	50 Ω AC 915000000 ffset 27.2 dB 27.20 dBm	GHz PNO: Wide ↔			#Avg Typ		TRAC TYL D	M May 24, 2024 E 12 3 4 5 6 A A A A A A A D12 GHz 59 dBm	с	equency Auto Tune enter Frec 000000 GH2
10 dB/div Ref 2 17.2 7.20 -2.80	ffset 27.2 dB 27.20 dBm					Mkr1	DI		с	enter Fred
-og 17.2 7.20 2.80 12.8										
12.80					_					
									1.913	Start Fre
				1				-13.00 dBm)	1.917	Stop Fre
42.8			ملودينورياريم مراوي	Nerger Stangtory	Jong and a second s	50° 100- 100- 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100		RMS	<u>Auto</u>	CF Ste 400.000 kH Ma
52.8									F	req Offs 0 H
Center 1.91500	0 GHz	#)/(B)4	470 kHz			#Swoon	Span 4	.000 MHz (1001 pts)		
SG	12	#VDV	7470 KHZ			#Sweep		roor prs)		

LTE B25(2)_15 M_Band Edge_High_QPSK_FullRB



	rum Analyzer - Chan		-	_	_	_			
Center Fre	RF 50 Ω eq 1.91650	AC 0000 GHz #IFGain:	Low	SENSE:INT Center Freq: 1. Trig: Free Run #Atten: 20 dB	916500000 G	ALIGN AUTO Hz Hold: 300/300	Radio Dev		Frequency
10 dB/div	Ref Offset: Ref 30.00		_						
20.0									Center Fre 1.916500000 GH
0.00 -10.0									
-20.0									
-40.0	~~~~~	~~~~~~			~~~~~			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
-60.0	47.04-							on A Ballin	CF Ste 400.000 kH
Res BW 3				VBW 3 9	90 kHz			an 4 MHz p 3.2 ms	<u>Auto</u> Ma
Chann	Channel Power				wer Spe	ctral Dens	ity		Freq Offse 0 H
-2	9.61 dE	3m / 1 MI	Ηz	-89.61 dBm /Hz					
MSG						STATUS	S		

LTE B25(2)_15 M_Extended Band Edge_High_QPSK_FullRB



			1	n Analyzer - Swept SA
Frequency	09:25:06 PM May 24, 2024 TRACE 1 2 3 4 5 5 TYPE A WWWW DET A A A A A A A	#Avg Type: RMS	. Trig: Free Run #Atten: 20 dB	RF 50 Ω AC q 1.850000000 GHz PNO: Wide ↔ IFGain:Low FGain:Low
Auto Tune	1.850 000 GHz -32.120 dBm	Mkr1	WAREN. 20 ab	Ref Offset 27.2 dB Ref 27.20 dBm
Center Fred 1.85000000 GH;				
Start Fred 1.848000000 GH:	BMS			
Stop Free 1.852000000 GH	-13.00 dBm			
CF Stej 400.000 kH <u>Auto</u> Ma			1.	
Freq Offse 0 H				
	Span 4.000 MHz 1.000 s (1001 pts)	#Sweep	620 kHz	0000 GHz 0 kHz #VBM
	1.000 S (1001 pts)	STATUS		#VDV

LTE B25(2)_20 M_Band Edge_Low_QPSK_1RB



						alyzer - Swept SA	
2 3 4 5 6 A WWWWW	09:24:32 PM May 24, 2024 TRACE 1 2 3 4 5 TYPE A WWWWW DET A A A A A A	ALIGN AUTO	#Avg	Trig: Free Run #Atten: 20 dB	PNO: Wide ->	50 Ω AC .850000000	nter Fre
0 GHz Auto Tur 6 dBm	1.850 000 GHz -31.516 dBm	Mkr1		#Atten: 20 dB	IFGain:Low	Offset 27.2 dB 27.20 dBm	lB/div
Center Fre 1.850000000 GH							2
RMS Start Fre	RMS)
-13 00 dBm 5 top Fre 1.852000000 GH	-13.00 dBm						3
CF Ste 400.000 ki <u>Auto</u> M			- Carlo Carlo Carlo	1		ะรุ่าะสู้แล้ะเริ่มกูลเรื่องสาวสิ่งเสียง -	3
Freq Offs 01							3
00 MHz	Span 4.000 MHz 1.000 s (1001 pts)	#Sweep		/ 620 kHz	#\/B\/		nter 1.85 es BW 2
		STATUS			"OEN		

LTE B25(2)_20 M_Band Edge_Low_QPSK_FullRB



	rum Analyzer - Char									
Center Fr	RF 50 Ω eq 1.84850	00000 GHz #IFGain	n:Low	SENSE:INT ALIGN AUTO Center Freq: 1.848500000 GHz Trig: Freq Run Avg Hold: 300/300 #Atten: 20 dB Avg Hold: 300/300 Avg Hold: 300/300			09:24:41 PM May 24, 2024 Radio Std: None Radio Device: BTS		Frequency	
10 dB/div Log	Ref Offset Ref 30.0									
20.0 10.0									Center Freq 1.848500000 GHz	
0.00 -10.0										
-20.0 -30.0								~~~~		
-40.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~					
-60.0 Center 1.3	849 GHz						Sp	an 4 MHz	CF Step 400.000 kHz Auto Man	
Res BW 3	es BW 39 kHz			VBW 39	0 kHz		Swee	p 3.2 ms	Hate Mari	
Chann	Channel Power				ver Spe	ctral Dens	sity		Freq Offset 0 Hz	
-2	8.13 dE	3m / 1 M	IHz		-88.1	l3 dBm	/Hz			
MSG						STATU	S			

LTE B25(2)_20 M_Extended Band Edge_Low_QPSK_FullRB



Agilent Spectrum Analyzer - Swept SA					- d ×
RL RF 50 Ω AC Center Freq 1.915000000	GHz	SENSE:INT	ALIGN AUTO #Avg Type: RMS	09:30:07 PM May 24, 2024 TRACE 1 2 3 4 5 0 TYPE A WWWW DET A A A A A A A	Frequency
Ref Offset 27.2 dB	PNO: Wide ++ IFGain:Low	#Atten: 20 dB	Mkr1	1.915 000 GHz -32.147 dBm	Auto Tune
17.2					Center Fred 1.915000000 GH;
2.80					Start Free 1.913000000 GH
.12.8				-13.00 dBm	Stop Free 1.917000000 GH
42.8		1		RMS	CF Ste 400.000 kH <u>Auto</u> Ma
52.8					Freq Offse 0 H
62.8 Center 1.915000 GHz #Res BW 200 kHz	#\/B\A	620 kHz	#Sween	Span 4.000 MHz 1.000 s (1001 pts)	
INGS DW 200 KHZ			STATUS		

LTE B25(2)_20 M_Band Edge_High_QPSK_1RB



	ctrum Analyzer - Swept SA					- F
Center F	RF 50 Ω AC Freq 1.91500000	PNO: Wide ->	Trig: Free Run	#Avg Type: RMS	09:29:30 PM May 24, 2024 TRACE 1 2 3 4 5 6 TYPE A WWWWWW DET A A A A A A	Frequency
10 dB/div	Ref Offset 27.2 dB Ref 27.20 dBm	IFGain:Low	#Atten: 20 dB	Mkr1	1.915 012 GHz -33.153 dBm	Auto Tune
17.2						Center Fre 1.915000000 GH
2.80						Start Fre 1.913000000 G⊦
22.8					-13.00 dBm	Stop Fre 1.917000000 GF
12.8		The second secon	1		RMS	CF Ste 400.000 kH <u>Auto</u> Ma
2.8						Freq Offs 0 F
	915000 GHz 200 kHz	#\/B\A	/ 620 kHz	#Sween	Span 4.000 MHz 1.000 s (1001 pts)	
SG SG	200 1112	# V D V	-020 KH2	STATUS		

LTE B25(2)_20 M_Band Edge_High_QPSK_FullRB



	rum Analyzer - Cha		_					
Center Fro	RF 50 Ω eq 1.91650	00000 GHz	in:Low	SENSE:INT Center Freq: 1.916500 Trig: Free Run #Atten: 20 dB	ALIGN AUTO	Radio Devi		Frequency
10 dB/div	Ref Offset Ref 30.0							
20.0								Center Freq 1.916500000 GHz
-10.0								
-20.0								
-40.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				······	~~~~~		
-60.0								CF Step 400.000 kHz
Center 1.9 Res BW 3	.917 GHz 39 kHz VBW 390 kHz						an 4 MHz p 3.2 ms	<u>Auto</u> Man
Chann	el Power			Power		Freq Offset 0 Hz		
-3	1.57 dl	Bm / 1 M	ſHz	-9				
MSG					STATU	IS		

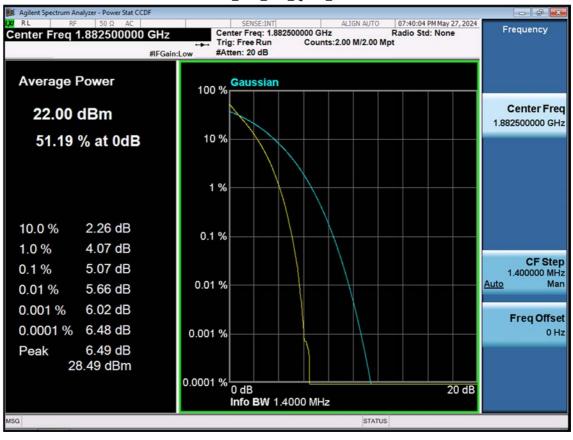
LTE B25(2)_20 M_Extended Band Edge_High_QPSK_FullRB



Report No. HCT-RF-2407-FC025

11. TEST PLOTS(Sub 5 Ant)





1.4M_PAR_Mid_QPSK_FullRB



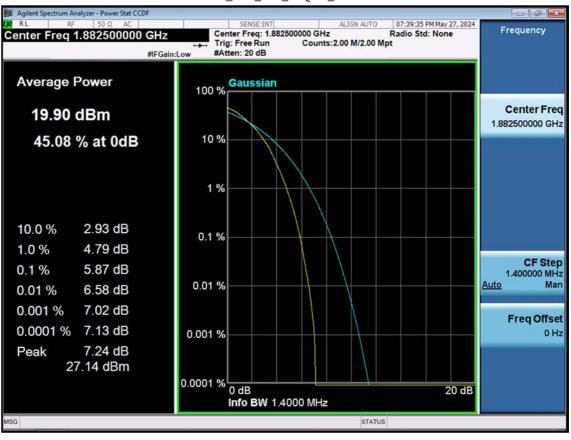




1.4M_PAR_Mid_16QAM_FullRB



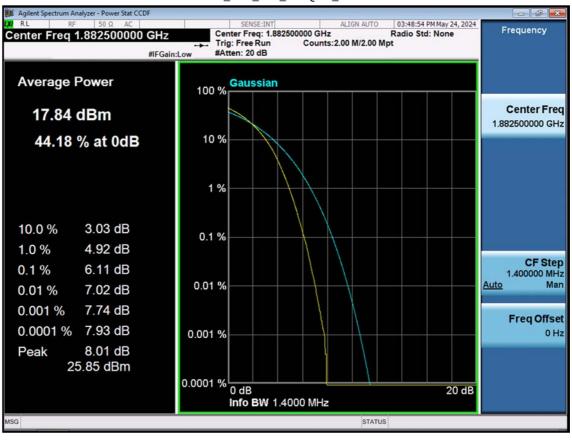




1.4M_PAR_Mid_64QAM_FullRB



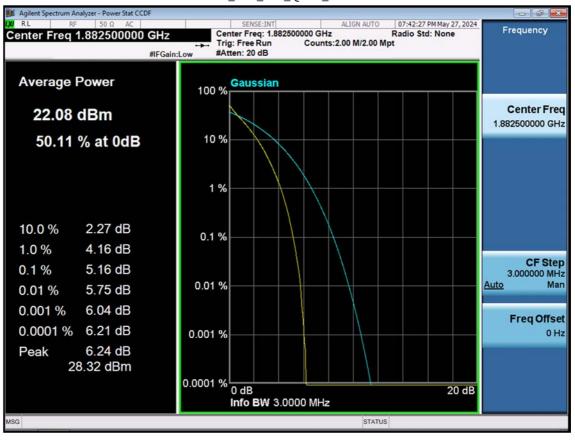




1.4M_PAR_Mid_256QAM_FullRB







3 M_PAR_Mid_QPSK_FullRB



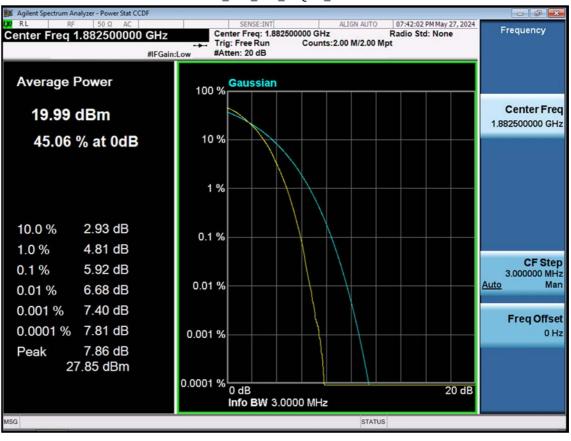




3 M_PAR_Mid_16QAM_FullRB



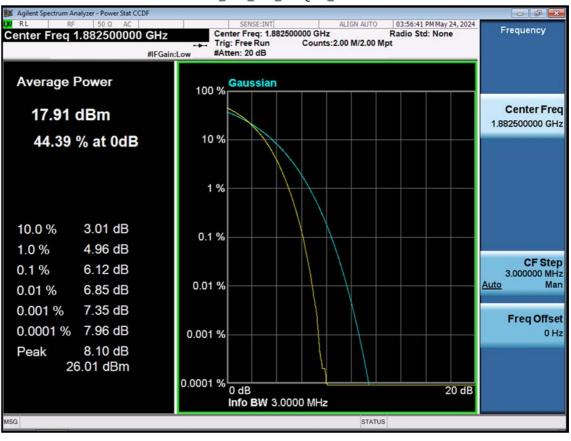




3 M_PAR_Mid_64QAM_FullRB



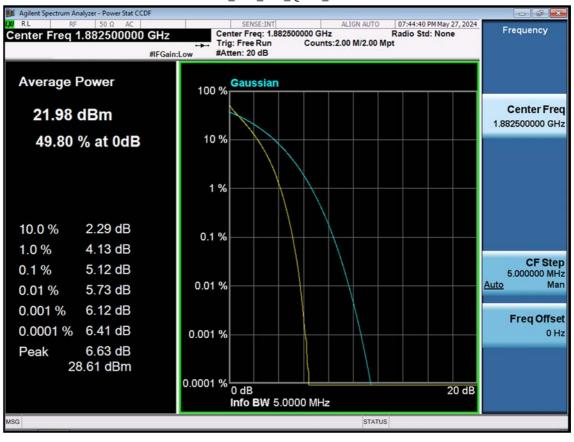




3 M_PAR_Mid_256QAM_FullRB



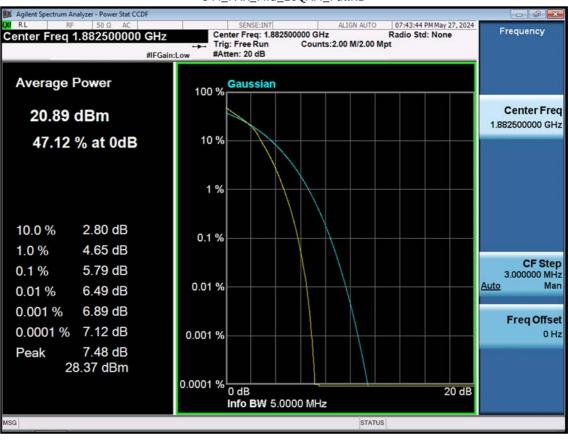




5 M_PAR_Mid_QPSK_FullRB



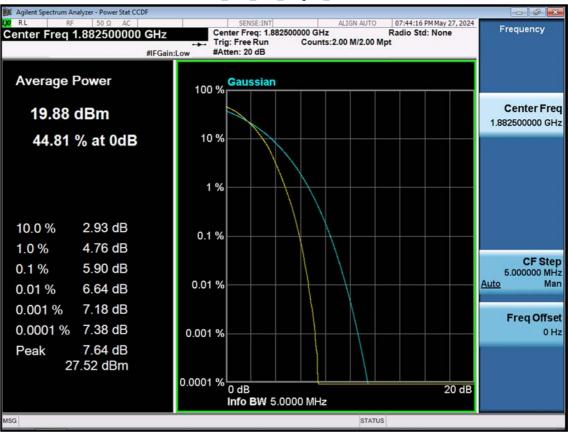




5 M_PAR_Mid_16QAM_FullRB



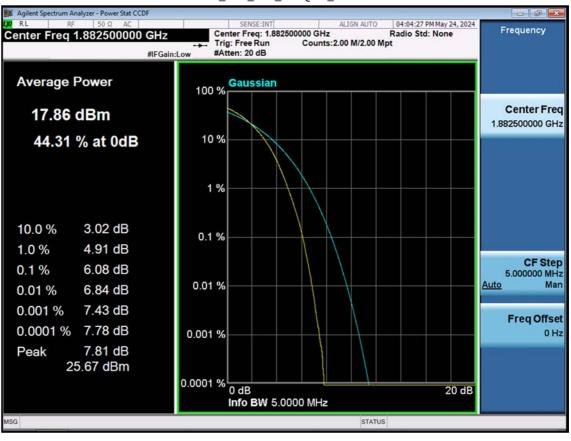




5 M_PAR_Mid_64QAM_FullRB



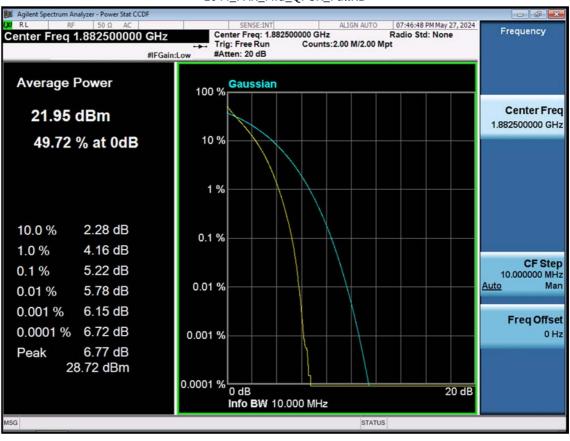




5 M_PAR_Mid_256QAM_FullRB





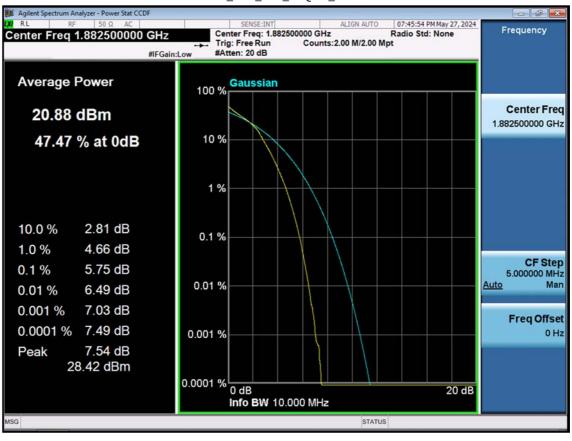


10 M_PAR_Mid_QPSK_FullRB

F-TP22-03 (Rev. 06)



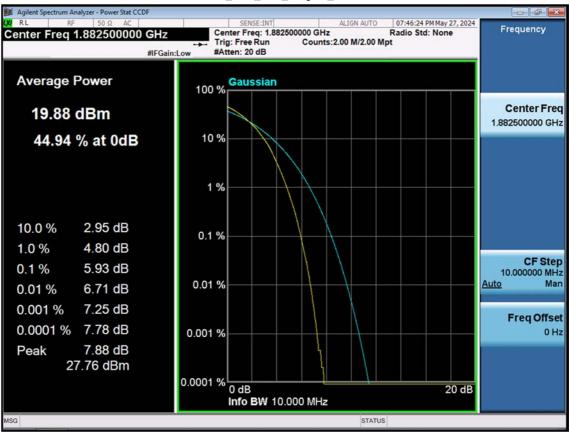




10 M_PAR_Mid_16QAM_FullRB



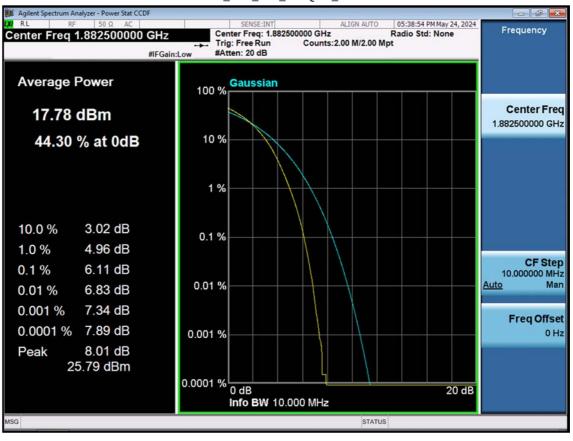




10 M_PAR_Mid_64QAM_FullRB



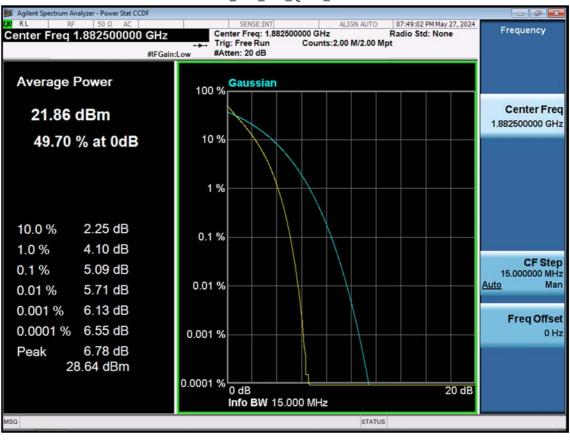




10 M_PAR_Mid_256QAM_FullRB



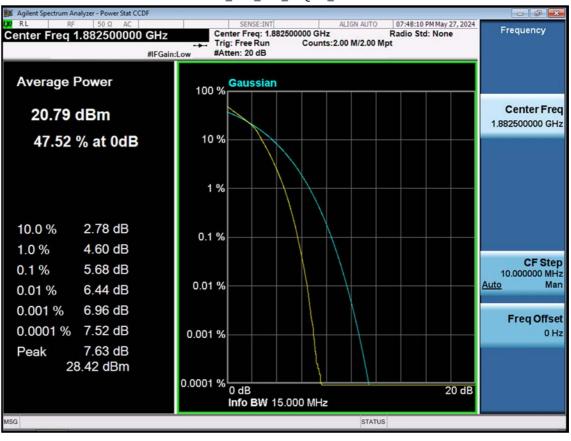




15 M_PAR_Mid_QPSK_FullRB



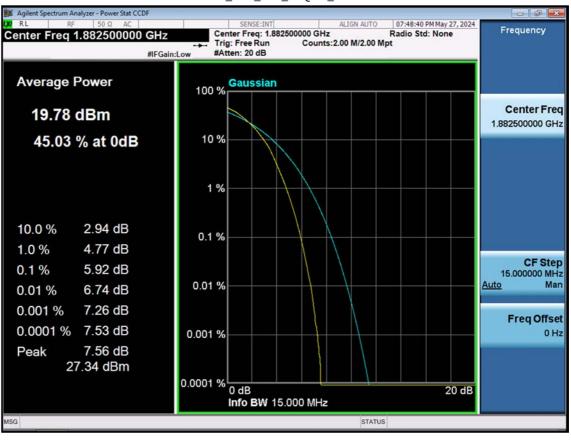




15 M_PAR_Mid_16QAM_FullRB



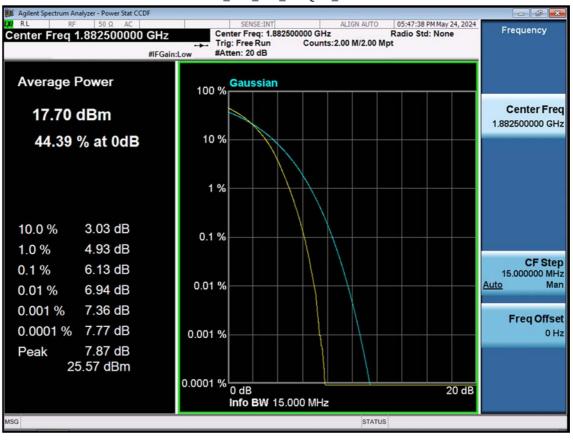




15 M_PAR_Mid_64QAM_FullRB



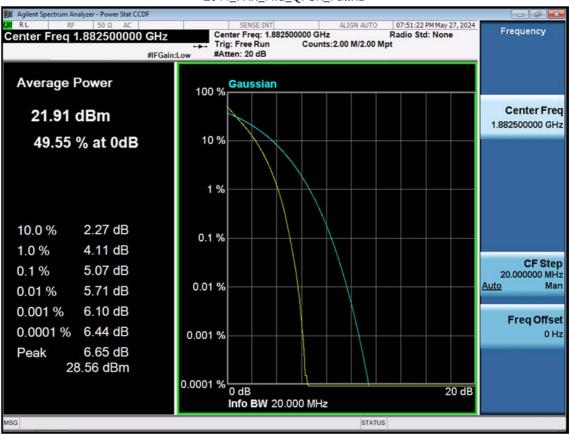




15 M_PAR_Mid_256QAM_FullRB



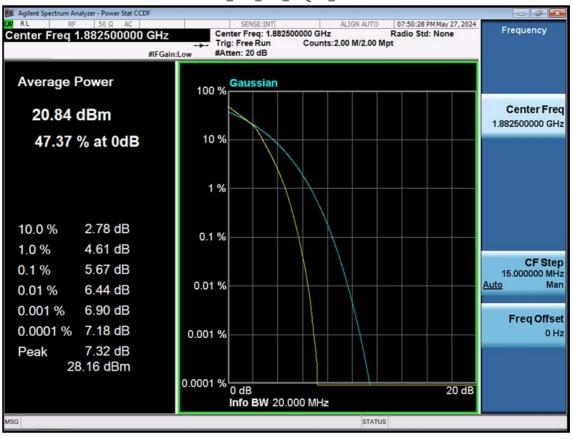




20 M_PAR_Mid_QPSK_FullRB





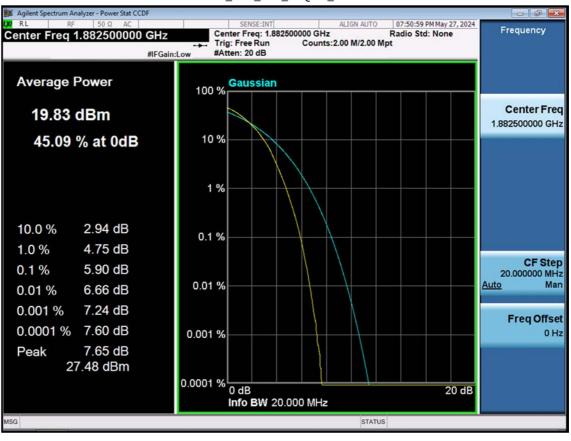


20 M_PAR_Mid_16QAM_FullRB

F-TP22-03 (Rev. 06)



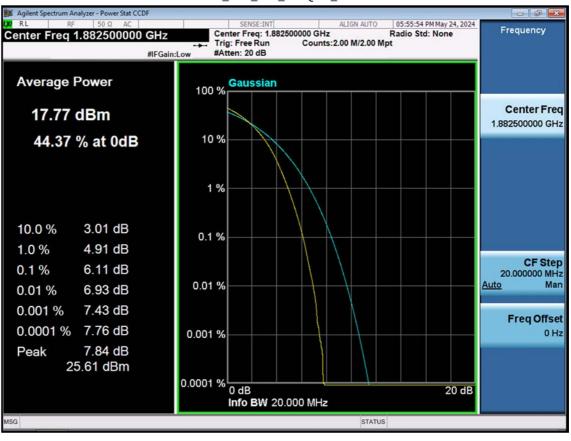




20 M_PAR_Mid_64QAM_FullRB







20 M_PAR_Mid_256QAM_FullRB





RL RF 50 Ω Center Freq 1.882500 PASS		Center Trig: F	SENSE:INT Freq: 1.88250 Free Run : 20 dB		ALIGN AUTO	07:39:52 F Radio Std		Frequency
Ref Offset 27 10 dB/div Ref 40.00	7.2 dB							
30.0								Center Free 1.882500000 GH
10.0		m.n.~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	-umm	·····				
10.0 20.0 mm mm mm	warne and a				John Mary	m	nharrow.	
30.0								
50.0								CF Ster 280.000 kH
Center 1.883 GHz Res BW 27 kHz		#\	#VBW 110 kHz			Spa Sweep	<u>Auto</u> Mar	
Occupied Bandw	Occupied Bandwidth 1.0975 MH		Total Power			ð dBm		Freq Offse 0 Ha
Transmit Freq Erro			OBW P	ower	99	9.00 %		
x dB Bandwidth	1.354 M	MHz	x dB		-26.	00 dB		
ISG					STATU	S		

1.4M_OBW_Mid_QPSK_FullRB





Agilent Spectrum Analyzer - Occupied		CENCE ANT		07-29-42 04 49- 27-20	
Center Freq 1.8825000		SENSE:INT Center Freq: 1.88250 Trig: Free Run #Atten: 20 dB	ALIGN AUTO 0000 GHz Avg Hold: 500/500	07:38:42 PM May 27, 20 Radio Std: None Radio Device: BTS	Frequency
Ref Offset 27.2					_
20.0					Center Free 1.882500000 GH
10.0	- marine	mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm	m m		
0.00 10.0 20.0	- And		- North Contraction of the second sec	mmmmm	
center 1.883 GHz				Span 2.8 Mł	CF Ste 280.000 kH Z Auto Ma
tes BW 27 kHz		#VBW 110 k	Hz	Sweep 3.667 n	
	Occupied Bandwidth 1.1044 MHz		ower 29	.3 dBm	Freq Offse 0 H
Transmit Freq Error	2.909	kHz OBW Po	ower 9	99.00 %	
x dB Bandwidth	1.349 M	MHz x dB	-20	6.00 dB	
SG			STAT	rus	

1.4M_OBW_Mid_16QAM_FullRB





Je Agilent Spectrum Analyzer - Occupied BW					_		
RL RF 50 Ω AC Center Freq 1.882500000 PASS Ref Offset 27.2 dB 10 dB/div Ref 40.00 dBm	#IFGain:Low	SENSE:INT Center Freq: 1.8824 Trig: Free Run #Atten: 20 dB		ALIGN AUTO	07:39:13 P Radio Std: Radio Dev		Frequency
20.0							Center Freq 1.882500000 GHz
10.0 0.00 -10.0 -20.		#VBW 110			Spar	1 2.8 MHz 3.667 ms	CF Step 280.000 kHz Auto Man
Occupied Bandwidth 1.1	080 MF	Total I	Power	28.6	dBm		Freq Offset 0 Hz
Transmit Freq Error x dB Bandwidth	1.624 k 1.309 M	Hz OBW I	Power		.00 % 00 dB		
MSG				STATUS			

1.4M_OBW_Mid_64QAM_FullRB





Agilent Spectrum Analyzer - Occupie							- 6
X RL RF 50 Ω / Center Freq 1.8825000 PASS /		SENSE:INT Center Freq: 1.88 Trig: Free Run #Atten: 20 dB		ALIGN AUTO	Radio Std Radio Dev		Frequency
Ref Offset 27 10 dB/div Ref 40.00 c				.			
30.0							Center Freq 1.882500000 GHz
10.0	mm	mm	h				
-10.0	North			A A A A A A A A A A A A A A A A A A A			
-20.0 adhress monometers				~~~ ~~~	han and a second and a second s	many	
-50.0							CF Step 280.000 kHz
Center 1.883 GHz Res BW 27 kHz		#VBW 11	0 kHz			n 2.8 MHz 3.667 ms	<u>Auto</u> Man
Occupied Bandw	^{idth} 1.0953 MI		Power	26.5	ō dBm		Freq Offset 0 Hz
Transmit Freq Error	846	Hz OBW	Power	99	0.00 %		
x dB Bandwidth	1.331 N	1Hz x dB		-26.	00 dB		
MSG				STATU	S		

1.4M_OBW_Mid_256QAM_FullRB





Mailent Spectrum Analyzer - Occupied B	w						
RL RF 50 Ω AC Center Freq 1.88250000 PASS PASS	00 GHz #IFGain:Low	SENSE:INT Center Freq: 1.882 Trig: Free Run #Atten: 20 dB		500/500	Radio Std:		Frequency
Ref Offset 27.2 10 dB/div Ref 40.00 dE				-,,-			
20.0							Center Fred 1.882500000 GHz
0.00	A	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	maan				
-10.0	2			Mm	ᡝ᠇ᡘ᠁ᠬ	Mmm	
-30.0							
50.0 Center 1.883 GHz #Res BW 62 kHz		#VBW 240	kHz		Sp Sweep	an 6 MHz 1.533 ms	CF Step 600.000 kHz <u>Auto</u> Mar
Occupied Bandwic	ith 7206 M I	Total	Power	30.6			Freq Offset 0 Hz
Transmit Freq Error	4.285		Power	99.0	00 %		
x dB Bandwidth	3.106 N	MHz x dB		-26.0	0 dB		
NSG				STATUS			

3 M_OBW_Mid_QPSK_FullRB





Agilent Spectrum Analyzer - Occupied Agilent Spectrum Analyzer - Occupied Agilent Spectrum Analyzer - Οccupied Agilent Spectrum Analyzer - Οccupied		CENCE INT			07.41.40		
Center Freq 1.8825000		Center Freq: 1.88 Trig: Free Run #Atten: 20 dB	2500000 GHz Avg Hold	ALIGN AUTO I: 500/500	Radio Std		Frequency
Ref Offset 27. 10 dB/div Ref 40.00 d							
30.0 20.0							Center Free 1.882500000 GH
0.00	1 de la compañía de l	mon	mm	M			
10.0 20.0 mm & mm				- ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	un m	man	
40.0							
center 1.883 GHz						oan 6 MHz	CF Ste 600.000 kH Auto Ma
Res BW 62 kHz		#VBW 24				1.533 ms	
Occupied Bandwi	dth 2.7308 M		l Power	29.	6 dBm		Freq Offse 0 H
Transmit Freq Error	11.899	kHz OBW	Power	9	9.00 %		
x dB Bandwidth	3.109	MHz x dB		-26	.00 dB		
ISG				STATU	JS		

3 M_OBW_Mid_16QAM_FullRB





Center Freq 1.8825000 PASS		. Trig: I	SENSE:INT r Freq: 1.88250 Free Run h: 20 dB		ALIGN AUTO	07:41:44 Radio Sto Radio Der		Frequency
Ref Offset 27. 10 dB/div Ref 40.00 d								
30.0 20.0								Center Free 1.882500000 GH
10.0	franktin	nm		mm	m			
0.00	<i>Å</i>				- Charles	Vi. 0		
0.0						mante	and the second	
0.0								CF Ste
Center 1.883 GHz Res BW 62 kHz		#	VBW 2401	kHz		Sp Sweep	oan 6 MHz 1.533 ms	600.000 kH <u>Auto</u> Ma
Occupied Bandwi	^{dth} 2.7095 MI	47	Total P	ower	28.	7 dBm		Freq Offse 0 H
Transmit Freq Error			OBW P	ower	9	9.00 %		
x dB Bandwidth	3.069 N	IHz	x dB		-26	.00 dB		
SG					STAT	JS		

3 M_OBW_Mid_64QAM_FullRB





Agilent Spectrum Analyzer - Occupied RL RF 50 Ω A0		5	ENSE:INT		ALIGN AUTO	03:56:23	PM May 24, 2024	
Center Freq 1.8825000		Center F	Freq: 1.88250 ee Run		1: 500/500	Radio Sto		Frequency
Ref Offset 27.2 0 dB/div Ref 40.00 dl								
20.0								Center Fre 1.882500000 GH
0.0	formanna		man	un Ann	m h			
0.0. 0.0	x					~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	man	
0.0								CF Ste
enter 1.883 GHz Res BW 62 kHz		#V	BW 2401	(Hz		SI Sweep	oan 6 MHz 1.533 ms	600.000 kH
Occupied Bandwi	^{dth} 2.7225 M I	Hz	Total P	ower	26.	5 dBm		Freq Offso 0 ⊦
Transmit Freq Error	11.291	kHz	OBW P	ower	9	9.00 %		
x dB Bandwidth	3.111 M	/Hz	x dB		-26	.00 dB		
5G					STATL	JS		

3 M_OBW_Mid_256QAM_FullRB





Magilent Spectrum Analyzer - Occupied BV	v				anna i thea	
RL RF 50 Ω AC Center Freq 1.88250000 PASS AC	₩IFGain:Low	SENSE:INT Center Freq: 1.88250 Trig: Free Run #Atten: 20 dB	ALIGN A 00000 GHz Avg Hold: 500/5	Radio Std: I		Frequency
Ref Offset 27.2 c 10 dB/div Ref 40.00 dB						l
20.0						Center Freq 1.882500000 GHz
0.00	A	harmon	mann			
-10.0 -20.0	/			Why www.	mm	
-30.0						
-50.0 Center 1.883 GHz				Span	10 MHz A	CF Step 1.000000 MHz Auto Man
#Res BW 100 kHz		#VBW 3901	kHz		ep 1 ms	<u>kuto</u> iwan
Occupied Bandwid 4	th .5411 MI	Total P HZ	ower	30.5 d B m		Freq Offset 0 Hz
Transmit Freq Error	17.625	KHZ OBW P	ower	99.00 %		
x dB Bandwidth	5.574 N	IHz x dB		-26.00 dB		
MSG				STATUS		

5 M_OBW_Mid_QPSK_FullRB





Mailent Spectrum Analyzer - Occupied BV	V	I conversion					
KI RF 50 Ω AC Center Freq 1.88250000 PASS Ref Offset 27.2 c	+ #IFGain:Low	Center Freq: 1.882 Trig: Free Run #Atten: 20 dB		ALIGN AUTO	Radio Std Radio Dev		Frequency
10 dB/div Ref 40.00 dB							
20.0							Center Freq 1.882500000 GHz
10.0	minim	mmmm	www.loom	m			
0.00	\wedge			- 1 %			
-10.0 -20.0 prover have marked				ww	Jown	20.00	
-30.0						- A Anna Abri	
-40.0							
-50.0							CF Step
Center 1.883 GHz #Res BW 100 kHz		#VBW 390) kHz			n 10 MHz ep 1 ms	1.000000 MHz <u>Auto</u> Man
Occupied Bandwid	th	Total	Power	29.5	dBm		Freq Offset
	5401 M	Hz					0 Hz
Transmit Freq Error	26.774	kHz OBW	Power	99	.00 %		
x dB Bandwidth	5.548 N	MHz x dB		-26.0	00 dB		
MSG				STATUS			
				0.1100			

5 M_OBW_Mid_16QAM_FullRB





RL RF 50 Ω AC Center Freq 1.88250000 PASS	0 GHz #IFGain:Low	. Trig: I	SENSE:INT r Freq: 1.8825 Free Run h: 20 dB		ALIGN AUTO	Radio Sto	PM May 27, 2024 d: None vice: BTS	Frequency
Ref Offset 27.2 10 dB/div Ref 40.00 dB								
30.0 20.0								Center Fred 1.882500000 GHz
10.0	Jumm	mm	mmm	r	~			
20.0 10.0 20.0 10.0 10.0 10.0 10.0 10.0					how w	mmm	manne	
40.0								
50.0 Center 1.883 GHz #Res BW 100 kHz		#	VBW 390	kH7		Sp	an 10 MHz eep 1 ms	CF Step 1.000000 MH Auto Mar
Occupied Bandwid			Total F		28.	5 dBm		Freq Offse
	.5193 M	HZ						
Transmit Freq Error	17.212		OBW F	Power	9	9.00 %		
x dB Bandwidth	5.261 N	/Hz	x dB		-26	.00 dB		
ISG					STATU	JS		

5 M_OBW_Mid_64QAM_FullRB





Magilent Spectrum Analyzer - Occupied BV	r	_					
RL RF 50 Ω AC Center Freq 1.88250000 PASS Ref Offset 27.2 c	#IFGain:Low	T	1.882500000 G	ALIGN AUTO Hz Hold: 500/500	Radio De		Frequency
10 dB/div Ref 40.00 dBi Log 30.0 20.0	n <u>.</u>						Center Freq 1.882500000 GHz
10.0 0.00 -10.0 -20.0 -30.0					Mannen	mmm	
40.0 50.0 Center 1.883 GHz #Res BW 100 kHz		#VBW	390 kHz			an 10 MHz eep 1 ms	CF Step 1.000000 MHz Auto Mar
Occupied Bandwid 4	th .5083 MH		otal Power	26	.4 dBm		Freq Offsel 0 Hz
Transmit Freq Error x dB Bandwidth	14.120 k 5.289 M		BW Power dB		99.00 % 6.00 dB		
MSG				STAT	TUS .		

5 M_OBW_Mid_256QAM_FullRB





RL RF 50 Ω AC Center Freq 1.88250000 PASS PASS	0 GHz #IFGain:Low	. Trig: I	SENSE:INT r Freq: 1.88250 Free Run h: 20 dB		ALIGN AUTO	07:46:40 F Radio Std Radio Dev		Frequency
Ref Offset 27.2 10 dB/div Ref 40.00 dB								
20.0								Center Fred 1.882500000 GH2
10.0	ale and a second	mmm	manne	ann Mari	h-n l			
10.0 20.0 million marine Ma	ph -				Prof.	have been and the second	mmm	
30.0								
50.0								CF Step
Center 1.883 GHz #Res BW 200 kHz		#	VBW 8201	kHz			in 20 MHz eep 1 ms	2.000000 MHz <u>Auto</u> Mar
Occupied Bandwic	Ith .0424 MI	Hz	Total P	ower	30.	4 dBm		Freq Offset 0 Hz
Transmit Freq Error	27.653	kHz	OBW P	ower	9	9.00 %		
x dB Bandwidth	10.24 N	IHz	x dB		-26	.00 dB		
ISG					STAT	US		

10 M_OBW_Mid_QPSK_FullRB





Agilent Spectrum Analyzer - Occupied B	N	_					- Ø ×
RL RF 50 Ω AC Center Freq 1.88250000 PASS PASS PASS PASS	0 GHz #IFGain:Low	SENSE:INT Center Freq: 1.88 Trig: Free Run #Atten: 20 dB		ALIGN AUTO	Radio Sto		Frequency
Ref Offset 27.2 10 dB/div Ref 40.00 dB							
30.0 20.0							Center Fred 1.882500000 GH;
10.0	manna	en an	souther whether the	m			
0.00 -10.0 -20.0 mar Anna mar mar mar and	N			N. N. N.	halmanna		
20.0						and severyther	
-40.0							CF Step
Center 1.883 GHz #Res BW 200 kHz		#VBW 82	0 kHz	I		an 20 MHz eep 1 ms	2.000000 MHz <u>Auto</u> Man
Occupied Bandwid	th .0395 MI		l Power	29.3	3 dBm		Freq Offset 0 Hz
Transmit Freq Error	29.071 k	Hz OBW	Power	99	9.00 %		
x dB Bandwidth	10.65 N	IHz x dB		-26	.00 dB		
ASG				STATU	IS		

10 M_OBW_Mid_16QAM_FullRB





Agilent Spectrum Analyzer - Occupied B	w		SENSE:INT	-	ALIGN AUTO	07:46:00 0	M May 27, 2024	
Center Freq 1.88250000	0 GHz #IFGain:Low	Center Trig: F	Freq: 1.8825 ree Run : 20 dB		1: 500/500	Radio Std Radio Dev	: None	Frequency
Ref Offset 27.2 10 dB/div Ref 40.00 dB								
30.0 20.0								Center Fre 1.882500000 GH
10.0	Januan	mallin	makerman	hanne	my			
0.00 10.0 20.0	A rd				A Const	nathannama		
20.0							and the strend of the strend o	
50.0								CF Ste 2.000000 MH
Center 1.883 GHz Res BW 200 kHz		#	VBW 820	kHz			n 20 MHz eep 1 ms	<u>Auto</u> Ma
Occupied Bandwid 9	Ith .0258 M	Hz	Total F	Power	28.	3 dBm		Freq Offse 0 H
Transmit Freq Error	31.199	kHz	OBW P	ower	9	9.00 %		
x dB Bandwidth	10.35 M	/Hz	x dB		-26	.00 dB		
ISG					STAT	us		

10 M_OBW_Mid_64QAM_FullRB





Agilent Spectrum Analyzer - Occupied B	v							
RL RF 50 Ω AC Center Freq 1.88250000 PASS PASS PASS PASS	0 GHz #IFGain:Low	Center	SENSE:INT Freq: 1.8825 ree Run : 20 dB		ALIGN AUTO	Radio Sto	PM May 24, 2024 d: None vice: BTS	Frequency
Ref Offset 27.2 of 10 dB/div Ref 40.00 dB						_		
20.0								Center Freq 1.882500000 GHz
0.00	monor	honor		****	Amy			
-10.0 -20.0 -30.0	/				- Ar white	nugetwart Mar	w	
-40.0								CF Step
Center 1.883 GHz #Res BW 200 kHz		#\	/BW 820	kHz			an 20 MHz eep 1 ms	2.000000 MHz
Occupied Bandwid 9	th .0209 MI	Hz	Total F	Power	26.	3 dBm		Freq Offset 0 Hz
Transmit Freq Error	20.896	kHz	OBW F	Power	9	9.00 %		
x dB Bandwidth	10.17 N	IHz	x dB		-26	.00 dB		
MSG					STATU	JS		

10 M_OBW_Mid_256QAM_FullRB





J Agilent Spectrum Analyzer - Occupied B							
X RL RF 50 Ω AC Center Freq 1.88250000 PASS PASS			1.882500000 GHz	ALIGN AUTO	Radio Std: Nor Radio Device:	ne	Frequency
Ref Offset 27.2 10 dB/div Ref 40.00 dE							
30.0							Center Freq 1.882500000 GHz
10.0		minnallundi	annal manua	1-197 <u>1</u>			
-10.0 -20.0 million while war Will	4			The Andrew	manan	Withhere	
-30.0							
-50.0					0		CF Step 3.000000 MHz
Center 1.883 GHz #Res BW 300 kHz		#VBW	1.2 MHz		Span 3 Sweep		<u>Auto</u> Man
Occupied Bandwid	ath 3.529 MI		tal Power	30.4	dBm		Freq Offset 0 Hz
Transmit Freq Error	46.605	kHz OE	3W Power	99.	00 %		
x dB Bandwidth	15.30 N	1Hz x o	IB	-26.0	0 dB		
MSG				STATUS			

15 M_OBW_Mid_QPSK_FullRB





🧱 Agilent Spectrum Analyzer - Occupied BV	V	_	_		-		
RL RF 50 Ω AC Center Freq 1.88250000 PASS Ref Offset 27.2 d	#IFGain:Low	Center Freq: 1.88 Trig: Free Run #Atten: 20 dB		ALIGN AUTO	Radio Std		Frequency
10 dB/div Ref 40.00 dB Log 30.0 20.0			- the bit - the state				Center Freq 1.882500000 GHz
10.0 0.00 -10.0 -20.0 -4.09 -40.0					where and have	mar and a second	
50.0 Center 1.883 GHz #Res BW 300 kHz		#VBW 1.:	2 MHz		Spa	n 30 MHz eep 1 ms	CF Step 3.000000 MHz <u>Auto</u> Man
Occupied Bandwid	th 3.491 MI		l Power	29.	4 dBm		Freq Offset 0 Hz
Transmit Freq Error x dB Bandwidth	48.425 H 15.31 N		Power		9.00 % .00 dB		
MSG				STATU	IS		

15 M_OBW_Mid_16QAM_FullRB





Agilent Spectrum Analyzer - Occupied								
RL RF 50 Ω AC Center Freq 1.8825000 PASS PASS		Center Fr			ALIGN AUTO	Radio Std Radio Dev		Frequency
Ref Offset 27.2 10 dB/div Ref 40.00 dl								
20.0								Center Freq 1.882500000 GHz
0.00	Junnorman	Marina and and and and and and and and and a	ᡃᢘᠼᡁᡡ᠇ᠲᠴᢗᡗᡅᡟ	mound	nen j			
-10.0	£				hogh by	+slow Mr. ward	whentry when	
-40.0								
Center 1.883 GHz #Res BW 300 kHz		#VB	W 1.2 №	IHz			n 30 MHz ep 1 ms	CF Step 3.000000 MHz <u>Auto</u> Mar
Occupied Bandwi	^{dth} 3.466 MI		Total P	ower	28.	3 dBm		Freq Offset 0 Hz
Transmit Freq Error	51.858	kHz	OBW P	ower	99	9.00 %		
x dB Bandwidth	15.27 N	MHz	x dB		-26	.00 dB		
MSG					STATU	IS		

15 M_OBW_Mid_64QAM_FullRB





J Agilent Spectrum Analyzer - Occupied BV	r	_				-		
RF 50 Ω AC Center Freq 1.88250000 PASS Ref Offset 27.2 c	#IFGain:Low	Center Fr			ALIGN AUTO	Radio De		Frequency
10 dB/div Ref 40.00 dB/ log 30.0 20.0	m							Center Freq 1.882500000 GHz
10.0 0.00 -10.0 -20.0		nennenenenen	syllestatul.	Annonenen A	KA L	Non America		
-20.0 Highlannahar lahan an la						North Market	erren wahrten	CF Step 3.000000 MHz
Center 1.883 GHz #Res BW 300 kHz		#VB	W 1.2 M	Hz			an 30 MHz eep 1 ms	Auto Man
Occupied Bandwid	th 3.525 MI	١z	Total P	ower	26.3	3 dBm		Freq Offset 0 Hz
Transmit Freq Error	22.551	Hz	OBW P	ower	99	9.00 %		
x dB Bandwidth	15.27 N	Hz	x dB		-26.	00 dB		
MSG					STATU	s		

15 M_OBW_Mid_256QAM_FullRB





Agilent Spectrum Analyzer - Occupied B RL RF 50 Q AC			concentral			07.51.15	000000000000000000000000000000000000000	
RL RF 50 Ω AC Center Freq 1.88250000 PASS PASS		Center	SENSE:INT Freq: 1.8825 ree Run : 20 dB		ALIGN AUTO	Radio St	PM May 27, 2024 d: None vice: BTS	Frequency
Ref Offset 27.2 10 dB/div Ref 40.00 dE								
20.0								Center Free 1.882500000 GH:
10.0	n manananananananananananananananananana	n ha hinarih	man	nonman	www			
10.0	1				1 ha	Waynow	not a c	
30.0							an. i's jeren ijende	
50.0								CF Ster
Center 1.883 GHz #Res BW 390 kHz		#\	/BW 1.6 M	∬ MHz			an 40 MHz eep 1 ms	4.000000 MH <u>Auto</u> Mar
Occupied Bandwig			Total F	Power	30.	.5 dBm		Freq Offse 0 Hi
	7.950 MI			-				
Transmit Freq Error	61.061		OBW F	ower		9.00 %		
x dB Bandwidth	20.04 N	IHZ	x dB		-26	6.00 dB		
ISG					STAT	us		

20 M_OBW_Mid_QPSK_FullRB





Agilent Spectrum Analyzer - Occupied E		1						
RL RF 50Ω AC Center Freq 1.88250000 PASS		Center F			ALIGN AUTO	Radio Std: Radio Dev		Frequency
Ref Offset 27.2 10 dB/div Ref 40.00 dE								
20.0								Center Freq 1.882500000 GHz
10.0	approximation and a	manner	www.	kantupon	-			
-10.0 -20.0 strannannin ministration	×				hum	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	monthe	
-30.0								
-50.0 Center 1.883 GHz #Res BW 390 kHz		#VE	BW 1.6 N	1Hz			n 40 MHz ep 1 ms	CF Step 4.000000 MHz <u>Auto</u> Man
Occupied Bandwic	ath 7.978 MI	Ηz	Total P	ower	29.	5 dBm		Freq Offset 0 Hz
Transmit Freq Error	51.979	ĸHz	OBW P	ower	9	9.00 %		
x dB Bandwidth	19.75 N	lHz	x dB		-26	.00 dB		
MSG					STATU	21		

20 M_OBW_Mid_16QAM_FullRB





Agilent Spectrum Analyzer - Occupied E K RL RF 50 Ω AC	W		SENSE:INT	_		07-50-44.0	M May 27, 2024	- Ø 🔀
Center Freq 1.88250000	00 GHz #IFGain:Low	Center Trig: F	Freq: 1.8825 Free Run 20 dB		ALIGN AUTO	Radio Std: Radio Dev	None	Frequency
Ref Offset 27.2 10 dB/div Ref 40.00 dE					,			
20.0								Center Free 1.882500000 GH
10.0	when Arabi	-	monder	water sauged	m h			
20.0 Howbstrathand	A				hour	manulacup	withness	
40.0								07.04
Center 1.883 GHz #Res BW 390 kHz		#	VBW 1.6 N	ЛНz			n 40 MHz ep 1 ms	CF Stej 4.000000 MH <u>Auto</u> Ma
Occupied Bandwic	ith 7.958 MI	Hz	Total F	Power	28.	5 dBm		Freq Offse 0 H
Transmit Freq Error	71.996	kHz	OBW F	ower	9	9.00 %		
x dB Bandwidth	19.83 N	ИНz	x dB		-26	.00 dB		
ISG					STATU	JS		

20 M_OBW_Mid_64QAM_FullRB





XI RF 50 Ω AC Center Freq 1.882500000 GHz PASS #IFGai Ref Offset 27.2 dB 10 dB/div Ref 40.00 dBm Log	Center Trig: Fr	20 dB	Hold: 500/500	05:55:39 PM May 24, 2024 Radio Std: None Radio Device: BTS	Frequency Center Freq 1.882500000 GHz
10 dB/div Ref 40.00 dBm 30.0	normal mph Brann			Introduction for the second	
30.0 20.0 10.0 0.00 -0.000 -0.000 -0.0	n in produced Bern		huteria	lel-puistichertinannelly	
0.00 -10.0 -20.0 -20.0 -30.0 -40.0 -50.0 Center 1.883 GHz	nninpredmedillern	on	huter	10-your when why	
-20.0 -30.0 -40.0 -50.0 Center 1.883 GHz			An Hawing	el-manlownamety	
-40.0 -50.0 Center 1.883 GHz					
					CF Step
	#V	/BW 1.6 MHz		Span 40 MHz Sweep 1 ms	4.000000 MHz <u>Auto</u> Man
Occupied Bandwidth 17.98	2 MHz	Total Power	26.6 d	IBm	Freq Offset 0 Hz
Transmit Freq Error 38	3.865 kHz	OBW Power	99.0	0 %	
x dB Bandwidth 1	9.78 MHz	x dB	-26.00	dB	
MSG			STATUS		

20 M_OBW_Mid_256QAM_FullRB



Agilent Spectrum Analyzer - Swept SA RL RF 50 Ω AC		SENSE:INT	ALIGN AUTO	03:46:40 PM May 24, 2024	
enter Freq 5.0150000	O GHz PNO: Fast ↔ IFGain:Low		#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A A A A A A	Frequency
0 dB/div Ref 10.00 dBm	THE DECOMPOSITION	WAREN. 10 GD	MI	(r1 3.161 1 GHz -67.357 dBm	Auto Tun
					Center Fre 5.015000000 GH
30.0 40.0 50.0					Start Fre 30.000000 MH
50.0 70.0 50.0				RMS	Stop Fre 10.000000000 GF
tart 30 MHz Res BW 1.0 MHz		/ 3.0 MHz		Stop 10.000 GHz 7.33 ms (20001 pts)	CF Ste 997.000000 Mi Auto Mi
	3.161 1 GHz 1.851 0 GHz	-67.357 dBm -4.932 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	Freq Offs 0 H
6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7					
G		m			

1.4M_Conducted Spurious(30 M-10 G)_Low_QPSK_1RB



	ctrum Analyzer - Swe	pt SA								
Center F	RF 50 ດ req 5.01500	00000 GH	IZ NO: Fast ↔			#Avg Typ	ALIGN AUTO	TRACI	1 May 24, 2024 1 2 3 4 5 6 A ************************************	Frequency
10 dB/div	Ref 10.00	IF	Gain:Low	#Atten: 20			Mk	r1 3.708		Auto Tune
0.00	\$	2								Center Freq 5.015000000 GHz
-30.0 -40.0 -50.0										Start Freq 30.000000 MHz
-60.0 -70.0 -80.0	أمنيت مستريب المناسب		¹			~~~	<u> </u>		RMS	Stop Freq 10.00000000 GHz
Start 30 N #Res BW	1.0 MHz	X	#VBV	V 3.0 MHz	FUNCTI		weep 17	Stop 10. .33 ms (20 FUNCTIO	0001 pts)	CF Step 997.000000 MHz Auto Mar
1 N 1		3.708	4 GHz 9 GHz	-67.324 dBr -5.094 dBr	n					Freq Offset 0 Hz
8 9 10 11				ш					•	
ISG							STATUS	6		

1.4M_Conducted Spurious(30 M-10 G)_Mid_QPSK_1RB



Agilent Spectrum Analyzer - Swept SA					
Center Freq 5.0150000		SENSE:INT	#Avg Type: RMS	03:52:05 PM May 24, 2024 TRACE 1 2 3 4 5 0 TYPE A WWWW DET A A A A A A A	Frequency
10 dB/div Ref 10.00 dBn	IFGain:Low	#Atten: 20 dB	Mł	cr1 3.707 9 GHz -67.424 dBm	Auto Tune
2 0.00 10.0 20.0					Center Fred 5.015000000 GHz
-30.0					Start Freq 30.000000 MHz
-60.0 -70.0 -80.0				RMS	Stop Fred 10.000000000 GHz
Start 30 MHz #Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep 17	Stop 10.000 GHz 2.33 ms (20001 pts)	CF Step 997.000000 MH Auto Mar
1 N 1 f 2 N 1 f 3 4 5 6	3.707 9 GHz 1.915 3 GHz	-67.424 dBm -5.353 dBm			Freq Offset 0 Hz
7 8 9 10 11					
≺ MSG		ш	STATU	S	

1.4M_Conducted Spurious(30 M-10 G)_High_QPSK_1RB



Agilent Spec	ctrum Analyzer - Swept S		_	-						
	RF 50 Ω req 5.015000	000 GHz	SENSE:IN	#Avg	ALIGN AUTO	03:54:40 PM May 24, 202 TRACE 2 3 4 5	Frequency			
		PNO: Fast - IFGain:Low	#Atten: 20 dB				The second second			
10 dB/div										
0.00	\$ ²						Center Fre 5.015000000 GH			
30.0 40.0 -50.0							Start Fre 30.000000 MH			
60.0 70.0 80.0			1	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~	RM	Stop Fre 10.000000000 GH			
	1.0 MHz		W 3.0 MHz			Stop 10.000 GHz .33 ms (20001 pts	CF Ste 997.000000 MH <u>Auto</u> Ma			
MKR MODE TH 2 N 1 3 4 5	1 f	X 3.716 9 GHz 1.851 0 GHz	<u>-67.465 dBm</u> -5.210 dBm	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	Freq Offse 0 H			
6 7 8 9 10										
			m							
SG					STATU	S				

3 M_Conducted Spurious(30 M-10 G)_Low_QPSK_1RB