

Spectrum Anal Swept SA	yzer 1	+					Frequen	cy 🔻 🚬
KEYSIGHT ≀L +→- ⊠	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Powe Trig: Free Run	er (RMS <mark>123456</mark> A <del>WW WW W</del> A A A A A A A	Center Frequency 3.980000000 GHz	Settings
Spectrum cale/Div 10 c	, 1B		Ref LvI Offset 34.49 Ref Level 34.49 dB		Mkr1	3.980 04 GHz -37.160 dBm	Span 10.0000000 MHz Swept Span	
24.5							Zero Span Full Span	
14.5		land the second s	4				Start Freq 3.975000000 GHz Stop Freq	
5.51						DL1 -13.00 dBm	3.985000000 GHz	
25.5		All and a second second	New Street 1				CF Step 1.000000 MHz	
45.5		$\square$		yourney.	Maria		Auto Man Freg Offset	
55.5			#Video BW 100 k	an and a start of the start of	nd hatersmaterson	RMS իրիզիդանգորյանվե Span 10.00 MHz	0 Hz X Axis Scale	
Res BW 30 k		<b>?</b> Jan 02, 2025 10:34:28 AM	$\square$		#Sweep	o ~6.04 s (1001 pts)	Lin Signal Track (Span Zoom)	

#### n77(3700~3980 MHz)\_50 M\_Band Edge\_High\_BPSK\_1RB(1)



Spectrum Analy Swept SA	/zer 1	+						Frequency	▼
KEYSIGHT RL +→+	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	Preamp: Off G µW Path: Standard II	PNO: Best Wide Gate: Off F Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Run	wer (RMS <mark>123456</mark> A <del>WWWWW</del> AAAAAA	1000040000	Frequency 000000 GHz	Settings
1 Spectrum Scale/Div 10 d	т В		ef LvI Offset 34.49 ( ef Level 34.49 dBm		Mkr1	3.981 048 GHz -33.288 dBm	4.000	00000 MHz wept Span	
24.5			Ĭ				Z	ero Span Full Span	
14.5							Start F		
4.49							Stop F		
-15.5						DL1 -13.00 dBm	A	UTO TUNE	
-25.5		annon material generation and				RMS		D0 kHz	
-45.5							AI M Freq C	810-	
-55.5							0 Hz X Axis		
Start 3.981000 #Res BW 510 I		- In- 00 0005 -	#Video BW 2.0 MHz	2		Stop 3.985000 GHz ep ~6.03 s (1001 pts)	L	og n	
1	GLI	? Jan 02, 2025 10:33:27 AM					Signal (Span 2	Track (eom)	

#### n77(3700~3980 MHz)\_50 M\_Band Edge\_High\_BPSK\_FullRB(2)



Spectrum Analyzer 1				🔅 Frequency 🔻
KEYSIGHT     Input: RF       RL     +++     Coupling: DC       Align: Auto     Align: Auto	Corrections: Off	#Atten: 10 dB PNO: Best Wide Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Sig Track: Off	#Avg Type: Power (RMS 1 2 3 4 5 6 Trig: Free Run A WW WW A A A A A A	Center Frequency 3.983000000 GHz
Spectrum v cale/Div 10 dB		ef Lvi Offset 34.49 dB ef Level 34.49 dBm	Mkr1 3.982 212 GHz -39.024 dBm	4.0000000 1011 12
-og				Zero Span
14.5				Full Span Start Freg
4.49				3.981000000 GHz
5.51				Stop Freq 3.985000000 GHz
15.5			DL1 -13.00 dBm	AUTO TUNE
25.5				CF Step 400.000 kHz
45.5	A CONTRACTOR OF			Auto Man
55.5		and an of the second se	RMS ใหญ่สูงการการและการสมบัตรณ์สูงการสมบัตรณ์สุดการสมบัตรณ์เหลือการสมบัตร เหม	Freq Offset 0 Hz
tart 3.981000 GHz Res BW 510 kHz	ł	₩Video BW 2.0 MHz	Stop 3.985000 GHz #Sweep ~6.03 s (1001 pts)	
1501	<b>?</b> Jan 02, 2025 10:34:55 AM			Signal Track (Span Zeom)

#### n77(3700~3980 MHz)\_50 M\_Band Edge\_High\_BPSK\_1RB(2)



Spectrum Anal Swept SA		+ Input Ζ: 50 Ω	#Atten: 10 dB	PNO: Fast	#Ava Type Pow	er (RMS <mark>1 2 3 4 5 6</mark>	Frequenc	y y 🛃
	Coupling: DC Align: Auto	Corrections: Off Freq Ref: Int (S) NFE: Adaptive	Preamp: Off µW Path: Standard	Gate: Off	Trig: Free Run		Center Frequency 4.042500000 GHz	Settings
Spectrum cale/Div 10 (	<b>▼</b> dB		tef LvI Offset 34.49 tef Level 34.49 dBr		Mkr1	3.985 12 GHz -34.604 dBm	Span 115.000000 MHz	
<b>og</b> 4.5							Zero Span Full Span	
4.5							Start Freq 3.985000000 GHz	
.51						DL1 -13.00 dBm	Stop Freq 4.100000000 GHz	
5.5							AUTO TUNE	
1 35.5 Turing Marine	at the fore and a second a second a second a s	لىلەر <sup>ر</sup> ىلەر رىلەر رىلەر بەر رىلەر بەر بەر بەر بەر بەر بەر بەر بەر بەر ب	14 answer of harrow and server	ووديلار يكلكم ووليعازله يستللون	ر مەلقلار ، مەنبىرىتدۇنىشى روياملىي	RMS روره الاروني رقال ورياني روياني	11.500000 MHz Auto Man	
5.5							Freq Offset 0 Hz	
art 3.98500 Res BW 1.0			#Video BW 3.0 Mł	łz	#Swee	Stop 4.10000 GHz p 6.00 s (1001 pts)	X Axis Scale Log Lin	
15		Jan 02, 2025 10:33:56 AM					Signal Track (Span Zoom)	1

# n77(3700~3980 MHz)\_50 M\_Band Edge\_High\_BPSK\_FullRB(3)



Spectrum Analyz Swept SA	zer 1 🕴	+					Frequenc	y <b>v</b> 🖓
	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Pow Trig: Free Run	rer (RMS <mark>1</mark> 2 34 56 A WW WW W A A A A A A	Center Frequency 4.042500000 GHz Span	Settings
Spectrum cale/Div 10 dE	¥ 3		Ref LvI Offset 34.4 Ref Level 34.49 dB		Mkr1	3.992 48 GHz -38.213 dBm	115.000000 MHz Swept Span Zero Span	a.
4.5							Full Span	
4.5							Start Freq 3.985000000 GHz	
.51						DL1 -13.00 dBm	Stop Freq 4.100000000 GHz	
5.5							AUTO TUNE	
85.5 15.5							CF Step 11.500000 MHz	
15.5	A A						Auto Man	
55.5	North Lan	Marian Andrew				RMS	Freq Offset 0 Hz	
tart 3.98500 G Res BW 1.0 M			#Video BW 3.0 M	Hz	#Swe	Stop 4.10000 GHz ep 6.00 s (1001 pts)	X Axis Scale Log Lin	
1		Jan 02, 2025 10:35:23 AM					Signal Track (Span Zoom)	1

#### n77(3700~3980 MHz)\_50 M\_Band Edge\_High\_BPSK\_1RB(3)



Spectrum Analy Swept SA	zer 1	+					Frequer	ncy 🔻 📩
KEYSIGHT RL +→- ™	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Rur	wer (RMS <mark>123456</mark> A <del>WWWWW</del> A A A A A A	Center Frequency 3.700000000 GHz	Settings
Spectrum cale/Div 10 dl	v B		Ref LvI Offset 34.49 Ref Level 34.49 dBm		Mkr1	3.699 956 GHz -35.917 dBm	Swept Span	
24.5							Zero Span Full Span	
1.49							Start Freq 3.698000000 GHz	
5.51					and a second calls open age a dere	DL1 -13.00 dBm	Stop Freq 3.702000000 GHz	
25.5							AUTO TUNE CF Step	
45.5	and the property of the state o	<sup>9</sup> 9892.574862.6738624.74524 <u>2</u> 8747.54 <u>3</u> 8747.54 <u>3</u> 97	ALL MARKAN AND ALL AND A	Phene			400.000 kHz Auto Man	
55.5							Freq Offset 0 Hz	
enter 3.70000 Res BW 360 k			#Video BW 1.2 MH	z	#Swe	Span 4.000 MHz ep ~6.03 s (1001 pts)		
<b>1</b> う (		Jan 02, 2025 12:11:18 PM					Signal Track (Span Zoom)	

# n77(3700~3980 MHz)\_60 M\_Band Edge\_Low\_BPSK\_FullRB(1)



Spectrum Analy Swept SA	vzer 1 🛛 🕇	F					Frequer	ncy v 🛃
EYSIGHT	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Rui	ower (RMS <mark>123456</mark> A <del>WW WW W</del> A A A A A A	Center Frequency 3.700000000 GHz	Settings
Spectrum cale/Div 10 d	₹ B		Ref LvI Offset 34.49 Ref Level 34.49 dB		Mkr1	3.699 984 GHz -27.615 dBm	Span 4.00000000 MHz Swept Span	
.og			Í				Zero Span	
14.5							Full Span Start Freq	-
					manum		3.698000000 GHz	
5.51				witht	<i>i</i>	Чи, DL1-13.00 dBm	Stop Freq 3.702000000 GHz	
5.5			1.	attent the state of the state o		DL1-13.00 dBm	AUTO TUNE	
5.5			and a main all all of the traction			, white	400.000 KHZ	
		Martin Constant	our and a second				Auto Man	
55.5	sources of the population of the	an a					Freq Offset 0 Hz	
enter 3.7000 Res BW 30 kl			#Video BW 100 k	łz	#Swe	Span 4.000 MHz eep ~6.03 s (1001 pts)	X Axis Scale Log Lin	
15	<□?	Jan 02, 2025 12:12:45 PM	ÐA				Signal Track (Span Zoom)	

	n77(3700~3980 MHz)	60 M	Band Edge	Low	BPSK	1RB(1)
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Spectrum Anal Swept SA	yzer 1	+					Frequent	ey v 🛃
KEYSIGHT ≀L -→- ⊠	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Run	wer (RMS <mark>123456</mark> AWWWWW AAAAAA	Center Frequency 3.697000000 GHz	Settings
Spectrum	, ∎	I CONTRACTOR OF CONTRACTOR	Ref Lvi Offset 34.49 Ref Level 34.49 dBi	) dB	Mkr1	3.696 008 GHz -36.057 dBm	4.00000000 11112	
Log							Swept Span Zero Span	
24.5							Full Span	
4.49							Start Freq 3.695000000 GHz	
5.51						125.032.04	Stop Freq 3.699000000 GHz	
15.5						DL1 -13.00 dBm	AUTO TUNE	
25.5		<u>1</u>					CF Step 400.000 kHz	1
45.5	y I and the Second s	ntu ta a se fan gentu togen gange an yn gang	₩\$	8791-0-04 (14)-05-01-0-04 (14)-0-0-4		₩₩₽₽₩₩₩₽₩₽₩₽₩₽₩₽₩₽₩₽₩₽₩₽₩₽₩₽₩₽₩₽₩₽₩₽₩₽	Auto Man	
55.5							Freq Offset 0 Hz	1
tart 3.695000 Res BW 510			#Video BW 2.0 MI	Hz	#Swe	Stop 3.699000 GHz eep ~6.03 s (1001 pts)		
1		Jan 02, 2025 12:11:46 PM					Signal Track (Span Zoom)	

### n77(3700~3980 MHz)\_60 M\_Band Edge\_Low\_BPSK\_FullRB(2)



Spectrum Analy Swept SA	zer 1 💡	+		-			Frequenc	y <b>v</b>
KEYSIGHT RL +++	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB Preamp: Off μW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Power Trig: Free Run	r (RMS <mark>123456</mark> A <del>WW WW W</del> A A A A A A A	Center Frequency 3.697000000 GHz Span	Settings
1 Spectrum Scale/Div 10 d	₹ B		ef LvI Offset 34.49 ef Level 34.49 dB		Mkr1 3	.699 000 GHz -35.747 dBm	4.00000000 MHz	
24.5			Ĭ				Zero Span Full Span	
4.49							Start Freq 3.695000000 GHz	
-5.51						DL1 -13.00 dBm	Stop Freq 3.699000000 GHz	
-15.5						1	AUTO TUNE CF Step 400.000 kHz	
-35.5			plantation and the Alastan provident	afington of the stand of the st	interspection of the second	erenasintententenanonagemin	Auto Man	
-55.5							Freq Offset 0 Hz	
Start 3.695000 #Res BW 510 I			#Video BW 2.0 M	Hz	#Sweep	Stop 3.699000 GHz ∼6.03 s (1001 pts)	X Axis Scale Log Lin	
しょう		<b>?</b> Jan 02, 2025 12:13:12 PM	•∆				Signal Track (Span Zoom)	

#### n77(3700~3980 MHz)\_60 M\_Band Edge\_Low\_BPSK\_1RB(2)



Spectrum Analy Swept SA	vzer 1	+					Freque	ncy v 💦
KEYSIGHT <sup>RL</sup> →→→ ⊠	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	Preamp: Off G µW Path: Standard II	PNO: Fast Sate: Off F Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Rur	ower (RMS <mark>123456</mark> A <del>WW WW W</del> A A A A A A	3.337300000 GHZ	Settings
I Spectrum Scale/Div 10 d	¥ B		Ref LvI Offset 34.49 ( Ref Level 34.49 dBm		Mkr1	3.691 100 GHz -32.885 dBm	100.000000 10112	
24.5							Full Span	
4.49							Start Freq 3.500000000 GHz	
5.51						DL1 -13.00 dBm	Stop Freq 3.695000000 GHz	
25.5							AUTO TUNE	
35.5			The Andreas	and a start and a start and a start a s	- re- prover any		19.500000 MHz Auto Man	
45.5							Freq Offset 0 Hz	
tart 3.50000 0 Res BW 1.0 N			#Video BW 3.0 MHz	2	#Sw	Stop 3.69500 GHz veep 6.00 s (1001 pts)		
15		Jan 02, 2025 12:12:13 PM	$\mathbf{D}$				Signal Track (Span Zoom)	

### n77(3700~3980 MHz)\_60 M\_Band Edge\_Low\_BPSK\_FullRB(3)



Spectrum Analyzer 1 Swept SA	• +			Frequency 🔹
RL +++ Align: Auto	C Corrections: Off Pre	ien: 24 dB PNO: Fast amp: Off Gate: Off Path: Standard IF Gain: Low Sig Track: Off	#Avg Type: Power (RMS 1 2 3 4 5 6 Trig: Free Run A WW WW A A A A A A	Center Frequency 3.597500000 GHz Settings
I Spectrum v Scale/Div 10 dB		vl Offset 34.49 dB evel 34.49 dBm v	Mkr1 3.693 440 GHz -33.327 dBm	Span 195.000000 MHz Swept Span Zero Span
24.5				Full Span
4.49				Start Freq 3.500000000 GHz
5.51			DL1 -13.00 dBm	Stop Freq 3.695000000 GHz
25.5				AUTO TUNE CF Step
35.5		The stand and the second stand and the second		19.500000 MHz
45.5				Man Freq Offset 0 Hz
tart 3.50000 GHz Res BW 1.0 MHz	#Vie	ieo BW 3.0 MHz	Stop 3.69500 GHz #Sweep 6.00 s (1001 pts)	X Axis Scale
4 h C L	Jan 02, 2025	<u></u>		Signal Track (Span Zoom)

#### n77(3700~3980 MHz)\_60 M\_Band Edge\_Low\_BPSK\_1RB(3)





#### n77(3700~3980 MHz)\_60 M\_Band Edge\_High\_BPSK\_FullRB(1)









Spectrum Analy Swept SA	zer 1 🗸	+	a.		-		Freque	ency 🔻 🔛
REYSIGHT	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Power Trig: Free Run	(RMS123456 A WW WW W A A A A A A A	Center Frequency 3.983000000 GHz	Settings
1 Spectrum	*		ef LvI Offset 34.49			982 276 GHz	Span 4.00000000 MHz	
Scale/Div 10 d	В	R	ef Level 34.49 dB	m		-37.834 dBm	Swept Span Zero Span	
24.5							Full Span	
4.49							Start Freq 3.981000000 GHz	
-5.51							Stop Freq 3.985000000 GHz	
-15.5						DL1 -13.00 dBm	AUTO TUNE	
-25.5		1					CF Step 400.000 kHz	
-45.5		ana	Malaan Malaan ahaan a Malaan ahaan aha	hebanetakennikanakkanti		RMS	Auto Man	
-55.5							Freq Offset 0 Hz	
Start 3.981000 #Res BW 510 I			#Video BW 2.0 M	Hz		top 3.985000 GHz ~6.03 s (1001 pts)	X Axis Scale Log Lin	
1		<b>?</b> Jan 02, 2025 10:44:34 AM	$\bullet \triangle$				Signal Track (Span Zoom)	

# n77(3700~3980 MHz)\_60 M\_Band Edge\_High\_BPSK\_FullRB(2)



Swept SA KEYSIGHT RL	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standa	PNO: Best Wide Gate: Off rd IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Rur	ower (RMS123456 A WWWW A A A A A A	3.36300000 GHz	Settings
Spectrum cale/Div 10 c	v iB		Ref LvI Offset 34. Ref Level 34.49 d		Mkr1	3.981 016 GH -37.798 dBn	4.00000000 11112	
24.5							Full Span	
14.5							Start Freq 3.981000000 GHz	
5.51						DL1 -13.00 dBn	Stop Freq 3.985000000 GHz	
15.5						OCT-10.00 (ID)	AUTO TUNE	
25.5 35.5 <b>1</b>							CF Step 400.000 kHz	
15.5	nenetisterreteterentet	whowever the second	A CONTRACTOR OF A CONT	thusan		RMS	Auto Man	
55.5				and	un ananan anananan a	RMS without and a state of the	0 Hz	
tart 3.981000 Res BW 510			#Video BW 2.0	MHz	#Swe	Stop 3.985000 GH eep ~6.03 s (1001 pts		
15	C -	Jan 02, 2025 10:46:01 AM	$\square$				Signal Track	

# n77(3700~3980 MHz)\_60 M\_Band Edge\_High\_BPSK\_1RB(2)



Spectrum Analy: Swept SA		+	_				Frequenc	sy 🕇 🛃
	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Pow Trig: Free Run	er (RMS <mark>1 2 3 4 5 6</mark> A <del>WW WW W</del> A A A A A A A	Center Frequency 4.042500000 GHz	Settings
Spectrum cale/Div 10 dl	v B		ef LvI Offset 34.49 ef Level 34.49 dBr		Mkr1	4.007 20 GHz -33.793 dBm	Swept Span	
24.5							Zero Span Full Span	
14.5							Start Freq 3.985000000 GHz	
5.51						DL1 -13.00 dBm	Stop Freq 4.100000000 GHz	
25.5	1						AUTO TUNE CF Step 11.500000 MHz	
35.5 mm <sup>h</sup> lun <sub>hwa</sub> m 45.5	national prostation and and	tenyaten antiteten atten atten a	hanner the state of the second and the second se	ununer withing and and	Anger and all the participation	RMS	Auto Man	
55.5							Freq Offset 0 Hz X Axis Scale	
tart 3.98500 G Res BW 1.0 M		Jan 02, 2025 🖌	#Video BW 3.0 Mł	Hz		Stop 4.10000 GHz ep 6.00 s (1001 pts)	Log Lin	
+ う (	GLIE	10:45:01 AM					Signal Track (Span Zoom)	

### n77(3700~3980 MHz)\_60 M\_Band Edge\_High\_BPSK\_FullRB(3)



KEYSIGHT	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Powe Trig: Free Run	rr (RMS <mark>123456</mark> A <del>WW WW W</del> A A A A A A A	Center Frequency 4.042500000 GHz	Settings
Spectrum cale/Div 10 c	<b>▼</b> IB		Ref LvI Offset 34.4 Ref Level 34.49 dB		Mkr1	3.993 05 GHz -36.751 dBm	Span 115.000000 MHz Swept Span Zero Span	
24.5							Full Span	
.49							Start Freq 3.985000000 GHz	
5.51						DL1 -13.00 dBm	Stop Freq 4.100000000 GHz	
15.5							AUTO TUNE	
35.5	1						CF Step 11.500000 MHz	
15.5	NAAA						Auto Man	
55.5	www	And the second s	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	·····		RMS	Freq Offset 0 Hz	
art 3.98500 ( Res BW 1.0 M			#Video BW 3.0 M	Hz	#Swee	Stop 4.10000 GHz p 6.00 s (1001 pts)	X Axis Scale Log Lin	
15	C [ ]	Jan 02, 2025 10:46:28 AM					Signal Track (Span Zeom)	1

# n77(3700~3980 MHz)\_60 M\_Band Edge\_High\_BPSK\_1RB(3)



Spectrum Anal Swept SA		+			_		Frequence	sy 🛛 🛃
KEYSIGHT ≀L +►+ ⊠	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Run	wer (RMS <mark>123456</mark> A <del>WWWWW</del> AAAAAA	Center Frequency 3.700000000 GHz	Settings
Spectrum	•		Ref Lvi Offset 34.49	dB	Mkr1	3.699 988 GHz	Span 4.00000000 MHz	
cale/Div 10 c	dB		Ref Level 34.49 dB	m		-35.314 dBm	Swept Span Zero Span	
24.5							Full Span	
14.5							Start Freq 3.698000000 GHz	
5.51							Stop Freq 3.702000000 GHz	
15.5				/		DL1 -13.00 dBm	AUTO TUNE	
25.5			1	and the second s			CF Step 400.000 kHz	1
35.5	alle ag-gage state and the same age	ngengangnagnagn grafa 196 at minimisia	and a subscription of the	and the			Auto Man	
55.5							Freq Offset 0 Hz	1
enter 3.7000 Res BW 360			#Video BW 1.2 M	Hz	#Swe	Span 4.000 MHz ep ~6.03 s (1001 pts)	X Axis Scale Log Lin	1
15	2	Jan 02, 2025 12:14:29 PM					Signal Track	

### n77(3700~3980 MHz)\_70 M\_Band Edge\_Low\_BPSK\_FullRB(1)



Spectrum Analy Swept SA		+					Frequence	y <b>t</b>
KEYSIGHT	Input: RF Coupling: DC Align: Auto	Input Ζ: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB Preamp: Off μW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Power ( Trig: Free Run	RMS 1 2 3 4 5 6 A WW WW W A A A A A A A	Center Frequency 3.700000000 GHz Span	Settings
Spectrum	•		of LvI Offset 34.49			699 996 GHz	4.00000000 MHz	
cale/Div 10 d	B	R	ef Level 34.49 dBi	n		31.327 dBm	Swept Span Zero Span	
24.5							Full Span	
14.5					poromorphy		Start Freq 3.698000000 GHz	
5.51					www.	4	Stop Freq 3.702000000 GHz	
15.5						Value DL1 -13.00 dBm	AUTO TUNE	
25.5			1	alifether and a second second		WALLALL	CF Step 400.000 kHz	1
45.5			Lawrence and the second				Auto Man	
55.5	-unit-busidetter fi	hyseriestaland metricital layestreede					Freq Offset 0 Hz	1
enter 3.70000 Res BW 30 kl			#Video BW 100 kl	Hz		Span 4.000 MHz 6.03 s (1001 pts)	X Axis Scale Log Lin	
15		Jan 02, 2025 12:15:55 PM					Signal Track (Span Zoom)	

#### n77(3700~3980 MHz)\_70 M\_Band Edge\_Low\_BPSK\_1RB(1)



Spectrum Anal Swept SA	yzer 1	+					Frequence	y 📢
KEYSIGHT ≀L -→- ⊠	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type. Po Trig: Free Rur	wer (RMS <mark>123456</mark> A WW WW W A A A A A A	3.697000000 GHZ	Settings
Spectrum	, tB		Ref LvI Offset 34.4 Ref Level 34.49 dB	9 dB	Mkr1	3.695 448 GHz -34.670 dBm	Span 4.00000000 MHz	
_og							Zero Span	
24.5							Full Span	
4.49							Start Freq 3.695000000 GHz	
5.51							Stop Freq 3.699000000 GHz	
15.5						DL1 -13.00 dBm	AUTO TUNE	
25.5	<b>↓</b> 1						CF Step 400.000 kHz	1
35.5 <b>••••••••</b> •	******	ระหว่างสุดรู้จำนุญาณจากคระหมุณในการ 	en la anno ann an ann an ann an ann an ann an		radaaaaageelagtoolooge	Q+44433341343343343344434444444444444444	Auto Man	
55.5							Freq Offset 0 Hz	
tart 3.695000 Res BW 510			#Video BW 2.0 M	Hz	#Swe	Stop 3.699000 GHz eep ~6.03 s (1001 pts)		
15	C <sup>2</sup>	Jan 02, 2025 12:14:56 PM	$\square$				Signal Track (Span Zoom)	

### n77(3700~3980 MHz)\_70 M\_Band Edge\_Low\_BPSK\_FullRB(2)



Spectrum Analy Swept SA	zer 1	+		-	-		Frequency	- <b>1</b> 😤
REYSIGHT	Input: RF Coupling: DC Align: Auto	Corrections: Off	#Atten: 24 dB Preamp: Off μW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type. Power Trig: Free Run	(RMS123456) A WW WW W A A A A A A	Center Frequency 3.697000000 GHz	Settings
1 Spectrum Scale/Div 10 d	₹ B		of LvI Offset 34.49 of Level 34.49 dB			.698 988 GHz -34.503 dBm	Span 4.00000000 MHz Swept Span	
24.5							Zero Span	
14.5							Full Span Start Freq	
4.49							3.695000000 GHz Stop Freq	
-15.5						DL1 -13.00 dBm	3.699000000 GHz	
-25.5						1	CF Step 400.000 kHz	
-35.5		and an address of the second	agine yan kasal di mga mendadi indi menangan seri	#1444-4444	and and any transferred and the	un and my have all the stand stades and	Auto Man	
-55.5							Freq Offset 0 Hz	
Start 3.695000 #Res BW 510 k			Video BW 2.0 M	Hz		top 3.699000 GHz ∼6.03 s (1001 pts)	X Axis Scale Log Lin	
ר <b>ד</b>	2	2 Jan 02, 2025 12:16:23 PM					Signal Track (Span Zoom)	

#### n77(3700~3980 MHz)\_70 M\_Band Edge\_Low\_BPSK\_1RB(2)



Spectrum Analy Swept SA	yzer 1	÷						y <b>v</b>
KEYSIGHT RL +→- ™	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB Preamp: Off µW Path: Standard	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Rur	ower (RMS <mark>123456</mark> A <del>WWWWW</del> A A A A A A	Center Frequency 3.597500000 GHz Span	Settings
1 Spectrum Scale/Div 10 d Log	<b>▼</b> IB		Ref LvI Offset 34.49 Ref Level 34.49 dBi		Mkr1	3.669 260 GHz -28.482 dBm	195.000000 MHz	
24.5							Full Span	
4.49							Start Freq 3.500000000 GHz	
-5.51						DL1 -13.00 dBm	Stop Freq 3.695000000 GHz	
25.5						1	AUTO TUNE CF Step 19.500000 MHz	
45.5				mon month M	and the ange and an add	antin anno araa	Auto Man	
-55.5							Freq Offset 0 Hz X Axis Scale	
Start 3.50000 ( #Res BW 1.0 M			#Video BW 3.0 MI	Hz		Stop 3.69500 GHz veep 6.00 s (1001 pts)	Log Lin	
1		Jan 02, 2025 12:15:24 PM					Signal Track (Span Zoom)	

### n77(3700~3980 MHz)\_70 M\_Band Edge\_Low\_BPSK\_FullRB(3)



Spectrum Analyz Swept SA	er 1 ,	+			Frequency 🔹 🗧
	nput: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB PNO: Fast Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Sig Track: Off	#Avg Type: Power (RMS 1 2 3 4 5 6 Trig: Free Run A WW WW A A A A A A	Center Frequency 3.597500000 GHz
1 Spectrum Scale/Div 10 dB Log	•		Ref LvI Offset 34.49 dB Ref Level 34.49 dBm	Mkr1 3.693 050 GHz -35.242 dBm	195.000000 MHz
24.5					Full Span
4.49					Start Freq 3.500000000 GHz
5.51				DL1 -13.00 dBm	Stop Freq 3.695000000 GHz
25.5					AUTO TUNE CF Step
45.5					19.500000 MHz Auto Man
55.5					Freq Offset 0 Hz
Start 3.50000 GH Res BW 1.0 MH			#Video BW 3.0 MHz	Stop 3.69500 GHz #Sweep 6.00 s(1001 pts)	
<b>エ</b> ッ (		Jan 02, 2025 12:16:50 PM	$\Box \bigtriangleup$		Signal Track (Span Zoom)

#### n77(3700~3980 MHz)\_70 M\_Band Edge\_Low\_BPSK\_1RB(3)



EYSIGHT	Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB PNO: Best W Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Sig Track: Off	Trig: Free Run	3.30000000 GHZ
Spectrum cale/Div 10	, dB		Ref LvI Offset 34.49 dB Ref Level 34.49 dBm	Mkr1 3.980 50 GH: -41.510 dBn	2 10.0000000 MHz
4.5					Full Span
4.5					Start Freq 3.975000000 GHz
.49 .51	Levy			DL1-13.00 dBr	Stop Freq 3.985000000 GHz
5.5	4				AUTO TUNE
5.5	J. Welder				CF Step 1.000000 MHz
5.5	. AUUUUU			RM5	
5.5					Freq Offset 0 Hz
enter 3.9800 Res BW 360			#Video BW 1.2 MHz	Span 10.00 MH #Sweep ~6.04 s (1001 pts	
15	2	Jan 02, 2025 10:55:20 AM	ÐA		Signal Track (Span Zoom)

### n77(3700~3980 MHz)\_70 M\_Band Edge\_High\_BPSK\_FullRB(1)



Spectrum Analyzer 1	+			Frequency 🔻 🗦
KEYSIGHT     Input: RF       Coupling: DC       Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB PNO: Best Wi Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Sig Track: Off	de #Avg Type: Power (RMS <mark>123456</mark> Trig: Free Run A A A A A A	Center Frequency 3.980000000 GHz
I Spectrum v Scale/Div 10 dB		ef Lvl Offset 34.49 dB ef Level 34.49 dBm	Mkr1 3.980 00 GHz -33.094 dBm	10.000000 1011 12
_og		Í		Zero Span
24.5				Full Span
4.49	m	h .		Start Freq 3.975000000 GHz
5.51				Stop Freq 3.985000000 GHz
15.5	at the second		DL1 -13.00 dBm	AUTO TUNE
25.5	and the second second			CF Step 1.000000 MHz
45.5	and the second s	A		Auto Man
55.5 March March March March	nd.	Manana Mana	MYN BMS	Freq Offset 0 Hz
Center 3.980000 GHz #Res BW 30 kHz		#Video BW 100 kHz	span 10.00 MHz #Sweep ~6.04 s (1001 pts)	
	Jan 02, 2025 10:56:49 AM			Signal Track (Span Zoom)

### n77(3700~3980 MHz)\_70 M\_Band Edge\_High\_BPSK\_1RB(1)



Spectrum Analy Swept SA	/zer 1	+				- 18	Frequen	cy v <mark>s¦≿</mark>
KEYSIGHT	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Pow Trig: Free Run	ver (RMS <mark>123456</mark> A <del>WW WW W</del> A A A A A A A	Center Frequency 3.983000000 GHz	Settings
1 Spectrum Scale/Div 10 d	T B		ef LvI Offset 34.49 ef Level 34.49 dB		Mkr1	3.981 152 GHz -41.143 dBm	Span 4.00000000 MHz Swept Span	
24.5			Ĭ				Zero Span Full Span	
14.5							Start Freq 3.981000000 GHz	1
-5.51							Stop Freq 3.985000000 GHz	
-15.5						DL1 -13.00 dBm	AUTO TUNE	
-25.5							CF Step 400.000 kHz	
-45.5	anananan anan anan anan anan anan anan	*********	ANINI MANANANANANANANANANANANANANANANANANANAN	nanatan pananananana	องสีสามีคมสามมากการปฏกเก	RMS MANANANANANANANANANANANANANANANANANANAN	Auto Man Freq Offset	
-55.5							0 Hz X Axis Scale	
Start 3.981000 #Res BW 510	kHz		#Video BW 2.0 M	Hz	#Swee	Stop 3.985000 GHz p ~6.03 s (1001 pts)	Log Lin	
しょう	C L L	2 Jan 02, 2025 10:55:47 AM					Signal Track (Span Zoom)	

### n77(3700~3980 MHz)\_70 M\_Band Edge\_High\_BPSK\_FullRB(2)



Span       Span       Span         1 Spectrum       Ref Lvi Offset 34.49 dB       .36.370 dBm       .4.00000000 MHz         Scale/Div 10 dB       Ref Level 34.49 dB       .36.370 dBm       .36.370 dBm         145	Settings	3.983000000 GHz	Power (RMS 1 2 3 4 5 6 un A WW WW W A A A A A A A	#Avg Type: Po Trig: Free Run	PNO Best Wide Gate: Off d IF Gain: Low Sig Track: Off	#Atten: 10 dB Preamp: Off µW Path: Standar	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	Input: RF Coupling: DC Align: Auto	pt SA YSIGHT -≁-	
145     Start Freq       149     Start Freq       551     DL1-33.00 dBm       155     DL1-31.00 dBm       255     CF Step		4.00000000 MHz		Mkr1				в	le/Div 10 d	cale
4.49 5.51 0L1-13.00 dBm 255 255 255 255 255 255 255 25		Full Span								
551 DL1-13.00 dBm 25.5 DL1-13.00 dBm CF Step CF Step CF Step C F Step										
AUTO TUNE CF Step CF Step										
		AUTO TUNE	DL1 -13.00 dBm						5 	15.5
45.5 Manual and a state of the							▲1			
Freq Offset			PMS			Meerinneparter	an and the second second second	AND DATA AND AND AND AND AND AND AND AND AND AN		
55.5 O Hz		Freq Offset 0 Hz	nund-utalimasi kundenna serin kundesi Kund	in and injurgest following n	andersen andersen ander ander andere and					
tart 3,981000 GHz #Video BW 2.0 MHz Stop 3.985000 GHz Log Res BW 510 kHz #Sweep ~6.03 s (1001 pts)		Log	Stop 3.985000 GHz					GHz		

### n77(3700~3980 MHz)\_70 M\_Band Edge\_High\_BPSK\_1RB(2)



KEYSIGHT     Input: RF       RL     Coupling: DC       Align: Auto	Input Z: 50 Ω #Atten: 10 dB PNO: Fr Corrections: Off Preamp: Off Gate: O Freq Ref: Int (S) μW Path: Standard IF Gain: NFE: Adaptive Sig Trac	ff Trig: Free Run AWWWWW	Center Frequency 4.042500000 GHz
Spectrum v cale/Div 10 dB	Ref LvI Offset 34.49 dB Ref Level 34.49 dBm	Mkr1 4.022 72 GHz -37.751 dBm	Span 115.000000 MHz Swept Span Zero Span
14.5			Full Span Start Freq 3.985000000 GHz
5.5		DL1-13.00 dBm	Stop Freq 4.10000000 GHz
25.5		RMS	CF Step 11.500000 MHz Auto Man
45.5 56.5 tart 3.98500 GHz	#Video BW 3.0 MHz	Stop 4.10000 GHz	Freq Offset 0 Hz X Axis Scale Log

### n77(3700~3980 MHz)\_70 M\_Band Edge\_High\_BPSK\_FullRB(3)



Spectrum Analy Swept SA		+			🔅 Frequency 🔹 🗦
KEYSIGHT सः म्रा	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB PNO: Fasl Preamp: Off Gate: Off µW Path: Standard IF Gain: Le Sig Track:	Trig: Free Run	4.042300000 GHz
Spectrum icale/Div 10 d	r B		Ref Lvi Offset 34.49 dB Ref Level 34.49 dBm	Mkr1 3.985 81 GHz -36.277 dBm	Swept Span
24.5					Zero Span Full Span
14.5					Start Freq 3.985000000 GHz
5.51				DL1 -13.00 dBm	Stop Freq 4.10000000 GHz
25.5					AUTO TUNE CF Step
35.5	A . A	٨			11.500000 MHz Auto Man
45.5 55.5	MAA	the beautistic the second	and the second	RMS	Freq Offset 0 Hz
tart 3.98500 0 Res BW 1.0 N			#Video BW 3.0 MHz	Stop 4.10000 GHz #Sweep 6.00 s (1001 pts)	
15		Jan 02, 2025 10:57:44 AM		📰 🕃 🕂 📉	Signal Track (Span Zpom)

### n77(3700~3980 MHz)\_70 M\_Band Edge\_High\_BPSK\_1RB(3)



Spectrum Anal Swept SA		+					Frequen	cy 🔻 🛃
KEYSIGHT ≀L +→- ⊠	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Run	wer (RMS <mark>123456</mark> A <del>WWWW</del> AAAAAA	Center Frequency 3.700000000 GHz	Settings
Spectrum			Ref LvI Offset 34.49		Mkr1	3.699 972 GHz	Span 4.00000000 MHz	
cale/Div 10 o	dB		Ref Level 34.49 dBm	<b>\</b>		-34.540 dBm	Swept Span Zero Span	
24.5							Full Span	
14.5							Start Freq 3.698000000 GHz	
5.51					A REAL PROPERTY AND A REAL		Stop Freq 3.702000000 GHz	1
15.5				J. Lakata and		DL1 -13.00 dBm	AUTO TUNE	
25.5			<b>↓</b> 1				CF Step 400.000 kHz	1
35.5 <b>**********</b> ***	(elevente) ( 11 fils 11	***********	usungtsourgeterrationalistikket				Auto Man	
55.5							Freq Offset 0 Hz	
enter 3.7000 Res BW 360			#Video BW 1.2 MH	z	#Swe	Span 4.000 MHz ep ~6.03 s (1001 pts)	X Axis Scale Log Lin	
1	2	Jan 02, 2025 12:17:42 PM				Contraction of the second second	Signal Track	

#### n77(3700~3980 MHz)\_80 M\_Band Edge\_Low\_BPSK\_FullRB(1)



Spectrum Analyzer 1 Swept SA	• +			Frequency 🔹
KEYSIGHT Input RL +++ Coupl Align:	ing DC Corrections: Off		e #Avg Type: Power (RMS 1 2 3 4 5 6 Trig: Free Run A WW WW A A A A A A	Center Frequency 3.70000000 GHz
Spectrum	•	Ref LvI Offset 34.49 dB	Mkr1 3.699 988 GHz	4.00000000 11112
cale/Div 10 dB		Ref Level 34.49 dBm	-32.330 dBm	Swept Span Zero Span
24.5				Full Span
4.49			paraustrachan	Start Freq 3.698000000 GHz
5.51			trade to the second sec	Stop Freq 3.702000000 GHz
15.5			DL1-13.00 dBm	AUTO TUNE
25.5		1 mutuallite		CF Step 400.000 kHz
45.5				Auto Man
45.5 55.5	earder with marty have been put a very	open of the second s		Freq Offset 0 Hz
enter 3.700000 GH Res BW 30 kHz	z	#Video BW 100 kHz	Span 4.000 MHz #Sweep ~6.03 s (1001 pts)	
- う で	Jan 02, 2025 12:19:08 PM			Signal Track (Span Zeom)

#### n77(3700~3980 MHz)\_80 M\_Band Edge\_Low\_BPSK\_1RB(1)



Spectrum Analy Swept SA		+		_			\$	Frequency	▼
KEYSIGHT RL +++	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Run	wer (RMS <mark>123456</mark> A <del>WWWWW</del> AAAAAA	100 State ( KAU	Frequency 000000 GHz	Settings
1 Spectrum Scale/Div 10 d	₹ B		ef Lvi Offset 34.49 ef Level 34.49 dBn		Mkr1	3.698 980 GHz -33.343 dBm	4.000	00000 MHz wept Span	
24.5			Í				Z	ero Span	
14.5							Start F	Full Span Freq 000000 GHz	
-5.51							Stop F 3.699	req 000000 GHz	
-15.5						DL1 -13.00 dBm	A	UTO TUNE	
-25.5		4111-12111-121-121-121-121-121-121-121-1				1	CF Ste 400.0	ep 00 kHz	
-45.5	46),080,000,000,000,000,000		194977111111111111111111111111111111111					uto lan	
-55.5							Freq C 0 Hz	Offset	
Start 3.695000 #Res BW 510 I			#Video BW 2.0 MH	łz	#Swe	Stop 3.699000 GHz ep ~6.03 s (1001 pts)	X Axis L L	og	
1		<b>?</b> Jan 02, 2025 12:18:09 PM						Track (com)	

#### n77(3700~3980 MHz)\_80 M\_Band Edge\_Low\_BPSK\_FullRB(2)



Spectrum Analy Swept SA	zer 1	+			-		Frequency	- <b>1</b> 😤
REYSIGHT	Input: RF Coupling: DC Align: Auto	Corrections: Off	#Atten: 24 dB Preamp: Off μW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Power Trig: Free Run	(RMS <mark>123456</mark> A <del>WWWWW</del> A A A A A A	Center Frequency 3.697000000 GHz	Settings
1 Spectrum Scale/Div 10 d	T B		of LvI Offset 34.49 of Level 34.49 dB			698 960 GHz -35.404 dBm	Span 4.00000000 MHz Swept Span	
24.5			<u> </u>				Zero Span Full Span	
14.5							Start Freq 3.695000000 GHz	
-5.51						DL1 -13.00 dBm	Stop Freq 3.699000000 GHz	
-15.5						UL1-13.00 0Dm	AUTO TUNE	
-25.5						1	CF Step 400.000 kHz	
-45.5				an a		news the providence	Auto Man	
-55.5							Freq Offset 0 Hz	
Start 3.695000 #Res BW 510 k			≇Video BW 2.0 Μ	Hz		top 3.699000 GHz ~6.03 s (1001 pts)	X Axis Scale Log Lin	
<b>エ</b> ッ		2 Jan 02, 2025 12:19:35 PM					Signal Track (Span Zoom)	

#### n77(3700~3980 MHz)\_80 M\_Band Edge\_Low\_BPSK\_1RB(2)



Spectrum Analy Swept SA	/zer 1	+					Frequenc	y <b>v</b> 👯
KEYSIGHT RL +++	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB Preamp: Off µW Path: Standard	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Run	wer (RMS <mark>123456</mark> A <del>WWWWW</del> AAAAAA	Center Frequency 3.597500000 GHz Span	Settings
1 Spectrum Scale/Div 10 d	¥ B		tef Lvi Offset 34.49 tef Level 34.49 dBr		Mkr1	3.662 435 GHz -30.071 dBm	195.000000 MHz	
24.5							Zero Span Full Span	
4.49							Start Freq 3.500000000 GHz	
5.51						DL1 -13.00 dBm	Stop Freq 3.695000000 GHz	
25.5						•1	AUTO TUNE CF Step 19.500000 MHz	
45.5			Mether Martin	And an and Andrew Public Parties	Anna ann an Anna ann ann ann ann ann ann	an and an and an and an and an and an	Auto Man	
55.5							Freq Offset 0 Hz	
tart 3.50000 0 Res BW 1.0 N			#Video BW 3.0 Mł	łz		Stop 3.69500 GHz eep 6.00 s (1001 pts)	X Axis Scale Log Lin	
1		Jan 02, 2025 12:18:37 PM					Signal Track (Span Zoom)	

#### n77(3700~3980 MHz)\_80 M\_Band Edge\_Low\_BPSK\_FullRB(3)



Spectrum Analyze Swept SA	er 1	÷				- 10-		\$	Frequency	y <b>√</b> ∦
	nput: RF Coupling: DC Nign: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	Preamp: Off 0 µW Path: Standard I	PNO: Fast Gate: Off F Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Rur	≤ A₩¥	4 5 6 ///////////////////////////////////	Center Fr 3.597500 Span	equency 1000 GHz	Settings
1 Spectrum Scale/Div 10 dB Log	•		Ref LvI Offset 34.49 Ref Level 34.49 dBm		Mkr1	3.693 635 -34.114		195.000 Swe	000 MHz ot Span Span	
24.5							_	Fu	I Span	
4.49								Contractory	000 GHz	
-5.51						DL1-1	3.00 dBm		0000 GHz	
25.5								CF Step	O TUNE	
45.5							L	19.50000 Auto Man	0 MHZ	
55.5							_	Freq Offs 0 Hz		
Start 3.50000 GH Res BW 1.0 MH			#Video BW 3.0 MH:	Z	#Sw	Stop 3.695 veep 6.00 s (10		X Axis Sc Log Lin	ale	
<b>キ</b> ッ (		Jan 02, 2025 12:20:03 PM	$\square$				X	Signal Tra (Span Zoo		1

#### n77(3700~3980 MHz)\_80 M\_Band Edge\_Low\_BPSK\_1RB(3)



	, ,-	_ 0_0_	_	· · /	
pectrum Analyzer 1 wept SA	+			Frequency	•
Input: RF       Coupling: DC       Align: Auto	Corrections: Off Preamp: Off Gat Freq Ref: Int (S) µW Path: Standard IF C	D: Best Wide #Avg Type: Power (R e: Off Trig: Free Run Sain: Low Track: Off	MS123456 AWWWWW AAAAAA	Center Frequency 3.980000000 GHz	Settings
Spectrum v	Ref Lvi Offset 34.49 dB	Mkr1 3.	980 81 GHz	Span 10.0000000 MHz	
cale/Div 10 dB	Ref Level 34.49 dBm	-4	12.546 dBm	Swept Span Zero Span	
4.5				Full Span	
4.5				Start Freq 3.975000000 GHz	
.49 .51				Stop Freq 3.985000000 GHz	
15.5			DL1 -13.00 dBm	AUTO TUNE	
25.5				CF Step 1.000000 MHz	
15.5	Northernorthe	1	RMS	Auto Man	
55.5				Freq Offset 0 Hz	
enter 3.980000 GHz Res BW 360 kHz	#Video BW 1.2 MHz		Span 10.00 MHz 5.04 s (1001 pts)	X Axis Scale Log Lin	
	<b>?</b> Jan 02, 2025	.11 🕅		Signal Track (Span Zoom)	

### n77(3700~3980 MHz)\_80 M\_Band Edge\_High\_BPSK\_FullRB(1)



Swept SA KEYSIGHT RL +++	Input: RF Coupling: DC Align: Auto	Input Z: 5 Correctio Freq Ref	ns: Off : Int (S)	#Atten: 10 dB Preamp: Off µW Path: Stand	PNO: Best Wide Gate: Off ard IF Gain: Low	#Avg Type: Po Trig: Free Rur	ower (RMS <mark>12 3 4 5 6</mark> A WWWW A A A A A A	Center Frequency 3.98000000 GHz	Settings
⊠ I Spectrum Scale/Div 10 d	T IB	NFE: Add	R	ef LvI Offset 34 ef Level 34.49		Mkr	1 3.980 03 GHz -33.895 dBm	Span 10.0000000 MHz Swept Span	
24.5								Zero Span Full Span	
4.49			pril	W				Start Freq 3.975000000 GHz	
5.51				l.			DL1 -13.00 dBm	Stop Freq 3.985000000 GHz	
15.5 25.5		ļ	a a a a a a a a a a a a a a a a a a a	Willing the second	1			AUTO TUNE CF Step	
35.5		1						1.000000 MHz Auto Man	
45.5	- Corporation and a strain	~			Martin Martin Martin	With Marcia	RMS	Freq Offset 0 Hz	
enter 3.98000	00 GHz			#Video BW 10	0 kHz	witewanderstanderstanderstanderstanderstanderstanderstanderstanderstanderstanderstanderstanderstanderstandersta #Swee	Span 10.00 MHz sep ~6.04 s (1001 pts		
<b>1</b>	2	<b>?</b> Jan 02, 11:08:0						Signal Track (Span Zoom)	

n77(3700~3980 MHz)	_80 M	_Band Edge_	_High_	_BPSK_	_1RB(1)
--------------------	-------	-------------	--------	--------	---------



Spectrum Analy Swept SA	zer 1 🔹	÷					0	Frequency	<ul> <li>▼ </li> <li>★</li> </ul>
KEYSIGHT RL +→+	Input: RF Coupling: DC Align: Auto	Corrections: Off	#Atten: 10 dB Preamp: Off μW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Pow Trig: Free Run	er (RMS <mark>123456</mark> A <del>WWWWW</del> A A A A A A	COLORADO AND	Frequency 000000 GHz	Settings
1 Spectrum Scale/Div 10 d	₹ B		ef Lvi Offset 34.49 ef Level 34.49 dBr		Mkr1	3.984 668 GHz -41.032 dBm	4.000 S	00000 MHz wept Span	
24.5								ero Span Full Span	
4.49							Start F 3.981	req 000000 GHz	
-5.51						DL1 -13.00 dBm	Stop F 3.985	req 000000 GHz	
-15.5							A CF Ste		
-35.5	2472 <i>0</i> 224745747777777777777			unationananation	51111111111111111111	anadabilantanananananana	400.0	, 00 kHz uto	
-45.5							Freq C 0 Hz		
Start 3.981000 #Res BW 510 I			#Video BW 2.0 Mł	łz		Stop 3.985000 GHz p ~6.03 s (1001 pts)	X Axis Li	og 🛛	
1		<b>?</b> Jan 02, 2025 11:07:06 AM					Signal	Track (oom)	

## n77(3700~3980 MHz)\_80 M\_Band Edge\_High\_BPSK\_FullRB(2)



NFE: Spectrum v Scale/Div 10 dB	Ref LvI Offset 34.4			AAAAAA		
.og	Ref Level 34.49 dB		Mkr1 3.981 -39.3	012 GHz 358 dBm	Span 4.00000000 MHz Swept Span Zero Span	
24.5					Full Span	
4.49					Start Freq 3.981000000 GHz	
5.51					Stop Freq 3.985000000 GHz	
15.5				0L1 -13.00 dBm	AUTO TUNE	
25.5 <b>1</b>					CF Step 400.000 kHz Auto	
45.5 56.5	uvanaaanaa ahaanaa ahaanaa ahaanaa ahaanaa	onectechnicolgraphicolgrawigeben	abelantationalitettettettettettettettettettettettettet	RMS	Man Freq Offset 0 Hz	
tart 3.981000 GHz Res BW 510 kHz	#Video BW 2.0 M			985000 GHz	X Axis Scale Log Lin	

### n77(3700~3980 MHz)\_80 M\_Band Edge\_High\_BPSK\_1RB(2)



Spectrum Anal Swept SA	yzer 1	+					Frequenc	y <b>v</b> ₿%
KEYSIGHT ≀L +→-• ⊠	Input: RF Coupling: DC Align: Auto	Input Ζ: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Powe Trig: Free Run	er (RMS <mark>123456</mark> A <del>WWWW</del> A A A A A A A	Center Frequency 4.042500000 GHz	Settings
Spectrum cale/Div 10 c	т iB		Ref LvI Offset 34.49 Ref Level 34.49 dBi		Mkr1	4.016 86 GHz -35.361 dBm	Span 115.000000 MHz Swept Span	
.og							Zero Span Full Span	
14.5							Start Freq 3.985000000 GHz	
5.51						DL1 -13.00 dBm	Stop Freq 4.100000000 GHz	
25.5							AUTO TUNE CF Step	
	NNO <sup>PANNA</sup> ANNINOPANN	NUMBER OF T	unnanananan ana ana ana ana ana ana ana	10 <sup>23</sup> 8053400 <sup>07253000100<sup>00300</sup></sup>	lanna ann ann ann ann ann ann ann ann an	RMS- NIN <sup>AANINANN<sup>NA</sup>NNANN</sup>	11.500000 MHz Auto Man	
45.5 55.5							Freq Offset 0 Hz	
tart 3.98500 Res BW 1.0 I			#Video BW 3.0 MI	Hz	#Swee	Stop 4.10000 GHz p 6.00 s (1001 pts)	X Axis Scale Log Lin	
1	<u>ر</u>	<b>?</b> Jan 02, 2025 11:07:33 AM	ÐA				Signal Track (Span Zoom)	1

## n77(3700~3980 MHz)\_80 M\_Band Edge\_High\_BPSK\_FullRB(3)



Spectrum Anal Swept SA		<u> </u>			🔅 Frequency 🕇
EYSIGHT	Input: RF Coupling: DC Align: Auto	Input Ζ: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB PNO: Fast Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Sig Track: Off	#Avg Type: Power (RMS <mark>123456</mark> Trig: Free Run A WWWWW A A A A A A	Center Frequency 4.042500000 GHz
Spectrum cale/Div 10 c	₹		Ref Lvi Offset 34.49 dB Ref Level 34.49 dBm	Mkr1 3.986 61 GHz -33.182 dBm	
og					Zero Span
4.5					Full Span Start Freg
					3.985000000 GHz
.51					Stop Freq 4.100000000 GHz
5.5				DL1 -13.00 dBm	AUTO TUNE
5.5 1					CF Step 11.500000 MHz
15.5	4				Auto Man
5.5	1 June America	Ken hand		RMS	Freq Offset 0 Hz
tart 3.98500 Res BW 1.0 I			#Video BW 3.0 MHz	Stop 4.10000 GHz #Sweep 6.00 s (1001 pts)	X Axis Scale
5	2	2 Jan 02, 2025	$\square$		Signal Track (Span Zoom)

## n77(3700~3980 MHz)\_80 M\_Band Edge\_High\_BPSK\_1RB(3)



Spectrum Analy Swept SA		T Input Z: 50 Ω	#Atten: 24 dB	PNO: Best Wide			Frequen	°Y T
KEYSIGHT	Coupling: DC Align: Auto	Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB Preamp: Off µW Path: Standard	Gate: Off	Trig: Free Rur	ower (RMS <mark>123456</mark> A WWWWW A A A A A A	Center Frequency 3.700000000 GHz	Settings
Spectrum			ef Lvi Offset 34.4	e dB	Mkr1	3.699 988 GHz	Span 4.00000000 MHz	
Scale/Div 10 d	iB	F	Ref Level 34.49 dB	m		-37.196 dBm	Swept Span Zero Span	
24.5							Full Span	
4.49							Start Freq 3.698000000 GHz	1
5.51					And the second		Stop Freq 3.702000000 GHz	1
15.5						DL1 -13.00 dBm	AUTO TUNE	
25.5			1	- and the state of			CF Step 400.000 kHz	1
35.5 45.5	มหาศักรุษการมีทา	derend for the state of the sta	Allowed and a starting of the second	gange -			Auto Man	
55.5							Freq Offset 0 Hz	
enter 3.7000 Res BW 360			#Video BW 1.2 M	Hz	#Swe	Span 4.000 MHz eep ~6.03 s (1001 pts)		
15		Jan 02, 2025 12:20:53 PM					Signal Track (Span Zoom)	

## n77(3700~3980 MHz)\_90 M\_Band Edge\_Low\_BPSK\_FullRB(1)



Spectrum Anal Swept SA	yzer 1	+			Frequency 🔻 🗧
KEYSIGHT RL +→- ™	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB PNO: Bes Preamp: Off Gate: Off µW Path: Standard IF Gain: L Sig Track:	ow Trig: Free Run	3.70000000 GHz
Spectrum	•		Ref LvI Offset 34.49 dB	Mkr1 3.699 996 GH	4.0000000 11112
cale/Div 10 c	iB		Ref Level 34.49 dBm	-30.383 dB	Swept Span Zero Span
24.5					Full Span
14.5				Margarian (1)	Start Freq 3.698000000 GHz
5.51					Stop Freq 3.702000000 GHz
15.5				DL1-13.00 dE	AUTO TUNE
25.5			1 manufacture		CF Step 400.000 kHz
45.5		Ausonan	Contraction of the contraction o		Auto Man
	and an and the states of the second	homewhere	A)M		Freq Offset 0 Hz
enter 3.7000 Res BW 30 k			#Video BW 100 kHz	Span 4.000 Mi #Sweep ~6.03 s (1001 pf	
15	C -	<b>?</b> Jan 02, 2025 12:22:19 PM			Signal Track (Span Zoom)

### n77(3700~3980 MHz)\_90 M\_Band Edge\_Low\_BPSK\_1RB(1)



Spectrum Analy Swept SA	zer 1 🗸	+	4				\$	Frequency	- 7 器
KEYSIGHT RL +++	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 24 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Run	wer (RMS <mark>123456</mark> A <del>WWWW</del> A A A A A A	DODO-RADO-UNI	Frequency 100000 GHz	Settings
1 Spectrum Scale/Div 10 d	₹ B		ef Lvi Offset 34.49 ef Level 34.49 dB		Mkr1	3.698 888 GHz -37.205 dBm	4.0000 Sv	00000 MHz vept Span	
24.5								ro Span <sup>-</sup> ull Span	
4.49							Start Fi 3.6950	eq 100000 GHz	
-5.51						DL1 -13.00 dBm	Stop Fr 3.6990	eq 100000 GHz	
-15.5							AL CF Ste		
-35.5	aberis 1946-1946		+)++++++++++++++++++++++++++++++++++++	ectionary and a transfer	~~~	nga na malanga na kana n Na kana na kana n	400.00	to	
-45.5							Freq O 0 Hz		
Start 3.695000 #Res BW 510 I			#Video BW 2.0 M	Hz	#Swe	Stop 3.699000 GHz ep ~6.03 s (1001 pts)	X Axis : Lo	g	
ا د		<b>?</b> Jan 02, 2025 12:21:20 PM					Signal ' (Span Z	Track	

## n77(3700~3980 MHz)\_90 M\_Band Edge\_Low\_BPSK\_FullRB(2)



Spectrum Analy Swept SA	zer 1	+			-		Frequency	- <b>1</b> 😤
REYSIGHT	Input: RF Coupling: DC Align: Auto	Corrections: Off	#Atten: 24 dB Preamp: Off μW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type. Power Trig: Free Run	(RMS <mark>123456</mark> A <del>WWWWW</del> AAAAAA	Center Frequency 3.697000000 GHz	Settings
1 Spectrum Scale/Div 10 d	₹ B		of LvI Offset 34.49 of Level 34.49 dB			698 972 GHz -33.485 dBm	Span 4.00000000 MHz Swept Span	
24.5							Zero Span	
14.5							Full Span Start Freq 3.695000000 GHz	
-5.51						DL1 -13.00 dBm	Stop Freq 3.699000000 GHz	
-15.5						0111000000	AUTO TUNE	
-25.5						1	CF Step 400.000 kHz	
-45.5	ententen anten etter etter				****	and a stand and	Auto Man	
-55.5							Freq Offset 0 Hz	
Start 3.695000 #Res BW 510 F			∜Video BW 2.0 M	Hz		top 3.699000 GHz ~6.03 s (1001 pts)	X Axis Scale Log Lin	
15		2 Jan 02, 2025 12:22:45 PM					Signal Track (Span Zoom)	

### n77(3700~3980 MHz)\_90 M\_Band Edge\_Low\_BPSK\_1RB(2)



Swept SA KEYSIGHT Input: RF Coupling: DC Align: Auto	Freq Ref: Int (S) µW Path: Standa	Gate: Off Trig: Fre and IF Gain: Low	De: Power (RMS 1 2 3 4 5 6 e Run A WW WW W A A A A A A	Center Frequency 3.597500000 GHz Settings
Ø Spectrum ▼ cale/Div 10 dB	NFE: Adaptive Ref LvI Offset 34 Ref Level 34.49 d	.49 dB	kr1 3.614 075 GHz -32.142 dBm	Span 195.000000 MHz Swept Span Zero Span
24.5				Full Span
1.49				Start Freq 3.500000000 GHz
5.51			DL1 -13.00 dBm	Stop Freq 3.695000000 GHz
15.5				AUTO TUNE
35.5		1	Mone.	CF Step 19.500000 MHz
15.5	ſ	Mundan and and and and and and and and and	ere f <sup>an generalen er en generalen g</sup>	Auto Man
55.5				Freq Offset 0 Hz
tart 3.50000 GHz Res BW 1.0 MHz	#Video BW 3.0	MHz	Stop 3.69500 GHz #Sweep 6.00 s (1001 pts)	X Axis Scale Log Lin
4 h C L	<b>?</b> Jan 02, 2025		II 💽 🔣 🔀	Signal Track (Span Zpom)

## n77(3700~3980 MHz)\_90 M\_Band Edge\_Low\_BPSK\_FullRB(3)



Spectrum Analyz Swept SA	er 1	+					\$	Frequenc	y y 👯
	nput: RF Coupling: DC Nign: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	Preamp: Off Gate µW Path: Standard IF Ga	#Avg Type: Po Trig: Free Run	wer (RMS <mark>123</mark> A www A A A A	www	Center Fr 3.59750 Span	equency 0000 GHz	Settings
1 Spectrum Scale/Div 10 dB Log			Ref LvI Offset 34.49 dB Ref Level 34.49 dBm	Mkr1	3.693 635 -32.165 c		195.000 Swe	000 MHz ot Span Span	
24.5						_		ll Span	
4.49							Start Free 3.50000	1 0000 GHz	
-5.51					DL1 -13.	00 dBm	Stop Free 3.69500	l 0000 GHz	
-15.5						1.	AUT CF Step	O TUNE	
-35.5				 			19.5000 Auto Man		
55.5							Freq Offs 0 Hz	et	
Start 3.50000 GH Res BW 1.0 MH			#Video BW 3.0 MHz	#Sw	Stop 3.6950 /eep 6.00 s (100		X Axis So Log Lin	ale	
<b>ま</b> り(		Jan 02, 2025 12:23:13 PM				X	Signal Tra (Span Zoo		

### n77(3700~3980 MHz)\_90 M\_Band Edge\_Low\_BPSK\_1RB(3)



Spectrum Analyzer 1 Swept SA	+			Frequency	- <b>1</b> 8
KEYSIGHT Input: RF R L + Align: Auto			Avg Type: Power (RMS <mark>123456</mark> ig: Free Run A & WW WW W A A A A A A	Center Frequency 3.980000000 GHz	Settings
1 Spectrum v Scale/Div 10 dB	Ref Lvi Offset Ref Level 34.4		Mkr1 3.981 40 GHz -43.022 dBm	Span 10.0000000 MHz Swept Span	
24.5				Zero Span Full Span	
4.49				Start Freq 3.975000000 GHz	
-5.51	unanananananananananananananananananana		OL1 -13.00 dBm	Stop Freq 3.985000000 GHz	
-15.5			01-10.00 000	AUTO TUNE	
-25.5	huy hu.	1		CF Step 1.000000 MHz Auto	
-45.5			RMS	Man Freq Offset	
-55.5 Center 3.980000 GHz	#Video BW	1 2 MHz	Span 10.00 MHz	0 Hz X Axis Scale	
#Res BW 360 kHz	<b>?</b> Jan 02, 2025	112 MITE	#Sweep ~6.04 s (1001 pts)	Log Lin Signal Track (Span Zoom)	

## n77(3700~3980 MHz)\_90 M\_Band Edge\_High\_BPSK\_FullRB(1)



Spectrum Analy Swept SA								🗘 Frequ	ency 🕇 📮
KEYSIGHT RL +→+ M	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off I IF Gain: Low Sig Track: Off	#Avg Type. F Trig. Free Ru	A A	2 3 4 5 6	Center Frequency 3.980000000 GHz	Settings
Spectrum cale/Div 10 d	, B		Ref LvI Offset 34.4 Ref Level 34.49 dE	9 dB	Mki	r1 3.980 -31.69	00 GHz 9 dBm	Span 10.0000000 MHz Swept Span	
.og			Ť					Zero Span	
24.5								Full Span	
14.5			muly					Start Freq 3.975000000 GHz	z
5.51							1 -13.00 dBm	Stop Freq 3.985000000 GHz	z
15.5			- Walker				1-13.00 dbm	AUTO TUNE	
25.5		Marked	<sup>1</sup> 4444444					CF Step 1.000000 MHz	
45.5			and a start of the			wal		Auto Man	
55.5	and a subset of the subset of	v.t.		Wy Attacking Man				Freq Offset 0 Hz	
enter 3.98000 Res BW 30 kł	00 GHz		#Video BW 100 H	Hz	######################################		RMS Louinter 10.00 MHz (1001 pts)	X Axis Scale Log Lin	
15		Jan 02, 2025 11:27:35 AM	$\odot$					Signal Track	

### n77(3700~3980 MHz)\_90 M\_Band Edge\_High\_BPSK\_1RB(1)



Spectrum Analy Swept SA	zer 1 💡	+		-			Frequency	- 湯
KEYSIGHT RL +++	Input: RF Coupling: DC Align: Auto	Corrections: Off	#Atten: 10 dB Preamp: Off μW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Power (I Trig: Free Run	RMS123456 AWWWWW AAAAAA	Center Frequency 3.983000000 GHz Span	Settings
1 Spectrum Scale/Div 10 d	₹ B		ef LvI Offset 34.49 of Level 34.49 dB			981 468 GHz 42.433 dBm	4.00000000 MHz	
24.5							Zero Span Full Span	
14.5							Start Freq 3.981000000 GHz	
-5.51							Stop Freq 3.985000000 GHz	
-15.5						DL1 -13.00 dBm	AUTO TUNE	
-25.5							CF Step 400.000 kHz	
-35.5	anolennanennen	unnannan an agus an an		un na anna anna anna anna anna anna ann	den ter de la d	RMS	Auto Man	
-55.5						_	Freq Offset 0 Hz	
Start 3.981000 #Res BW 510 I			#Video BW 2.0 M	Hz		op 3.985000 GHz 6.03 s (1001 pts)	X Axis Scale Log Lin	
1		<b>?</b> Jan 02, 2025 11:26:34 AM					Signal Track (Span Zoom)	

## n77(3700~3980 MHz)\_90 M\_Band Edge\_High\_BPSK\_FullRB(2)



wept SA		1	10 JD	DUO D			Frequer	
	nput: RF Coupling: DC Nign: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Rur	ower (RMS <mark>123456</mark> A <del>WW WW W</del> A A A A A A	Center Frequency 3.983000000 GHz	Settings
Spectrum			ef LvI Offset 34.4		Mkr1	3.983 108 GHz	Span 4.00000000 MHz	
cale/Div 10 dB		F	ef Level 34.49 dB	m		-29.925 dBm	Swept Span Zero Span	
24.5							Full Span	
14.5							Start Freq 3.981000000 GHz	
5.51							Stop Freq 3.985000000 GHz	
15.5						DL1 -13.00 dBm	AUTO TUNE	
25.5			WANTA HOMAN	1. Newseywayna			CF Step 400.000 kHz	1
35.5 MAAMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	National Contraction of the Contraction of Contracti	الأوب	NOWNWIPHER	analla and			Auto Man	
55.5		nomanapitanya <sub>nya</sub> ,			"Hangertaungloopered	RMS เการสไฟสารฟลิกสรไปก่องในสารประกาณ	Freq Offset 0 Hz	
tart 3.981000 G Res BW 510 kH			#Video BW 2.0 M	Hz	#Swe	Stop 3.985000 GHz eep ~6.03 s (1001 pts)		
150	2 7 ?	Jan 02, 2025	$\rightarrow$ $\wedge$				Signal Track	

## n77(3700~3980 MHz)\_90 M\_Band Edge\_High\_BPSK\_1RB(2)



Spectrum Analy Swept SA	vzer 1	÷					Frequency	y <b>v</b> 👯
KEYSIGHT RL +→-• ⊠	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Powe Trig: Free Run	er (RMS <mark>123456</mark> A <del>WW WW W</del> A A A A A A A	Center Frequency 4.042500000 GHz	Settings
Spectrum	T IB		ef LvI Offset 34.49 ef Level 34.49 dBr		Mkr1	4.071 25 GHz -32.134 dBm	Span 115.000000 MHz Swept Span Zero Span	
24.5							Full Span	
4.49							Start Freq 3.985000000 GHz Stop Freq	
15.5						DL1 -13.00 dBm	4.10000000 GHz	
25.5					•1	RMS	AUTO TUNE CF Step 11,500000 MHz	
35.5 بیپل <sup>الل</sup> الیس 45.5	and and the state of the state	annannannan an an an an an an an an an a	hannanang ang panang		, and an and a second stand	A CONTRACTOR OF	Auto Man	
55.5							Freq Offset 0 Hz X Axis Scale	
Start 3.98500 ( Res BW 1.0 M		Lat 00, 0005	#Video BW 3.0 Mł	Hz		Stop 4.10000 GHz ep 6.00 s (1001 pts)	Log Lin	
		11:27:02 AM					Signal Track (Span Zoom)	

## n77(3700~3980 MHz)\_90 M\_Band Edge\_High\_BPSK\_FullRB(3)



Swept SA	Input: RF Coupling: DC Align: Auto	Input Ζ: 50 Ω Corrections: Off Freq Ref: Int (S)	Preamp: Off Ga µW Path: Standard IF		#Avg Type: Pow Trig: Free Run	rer (RMS <mark>123456</mark> A WW WW W A A A A A A	Frequency 4.042500000 GHz	Settings
or Spectrum cale/Div 10 d	Ŧ		tef LvI Offset 34.49 dB tef Level 34.49 dBm	Track: Off	Mkr1	3.991 44 GHz -32.032 dBm	Span 115.000000 MHz Swept Span Zero Span	
24.5							Full Span	
14.5							Start Freq 3.985000000 GHz	
.51						DL1 -13.00 dBm	Stop Freq 4.100000000 GHz	
5.5							AUTO TUNE	
5.5							CF Step 11.500000 MHz	
15.5	MAA.	A A	AAAA		4	RMS	Auto Man	
5.5		and have been been	Control Concerned Concerned				Freq Offset 0 Hz	
art 3.98500 C Res BW 1.0 N			#Video BW 3.0 MHz		#Swe	Stop 4.10000 GHz ep 6.00 s (1001 pts)	X Axis Scale Log Lin	
15		Jan 02, 2025 11:28:29 AM					Signal Track (Span Zpom)	

### n77(3700~3980 MHz)\_90 M\_Band Edge\_High\_BPSK\_1RB(3)





#### n77(3700~3980 MHz)\_100 M\_Band Edge\_Low\_BPSK\_FullRB(1)



Spectrum Anal Swept SA		+					Frequen	cy 🛛 🛃
KEYSIGHT ≀L +→- ⊠	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Po Trig: Free Rur	wer (RMS <mark>123456</mark> A <del>WWWWW</del> A A A A A A	Center Frequency 3.700000000 GHz	Settings
Spectrum	, ∎B		tef LvI Offset 34.49 tef Level 34.49 dBn		Mkr1	3.699 984 GHz -29.244 dBm	Span 4.00000000 MHz Swept Span Zero Span	
24.5							Full Span	
14.5					Hallandharlen		Start Freq 3.698000000 GHz Stop Freq	
5.51						DL1-13.00 dBm	3.702000000 GHz	
25.5			1	and the second second		and	CF Step 400.000 kHz	
45.5		rna-havismpigabernehter	and and the second s				Auto Man Freg Offset	
	frequencies for the second						0 Hz X Axis Scale	
enter 3.7000 Res BW 30 k		Jan 02, 2025 🖌	#Video BW 100 kH	z		Span 4.000 MHz eep ~6.03 s (1001 pts)	Log Lin Signal Track	
		12:25:32 PM	2 <u></u>				(Span Zoom)	

n77(3700~3980 MHz)_100 M_Band Edge_Low_BPSK_1RB(1)
--



Spectrum Analy Swept SA	zer 1	+					Frequency	(-1)
KEYSIGHT RL +++	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	Preamp: Off Gat µW Path: Standard IF C	0: Best Wide le: Off Sain: Low Track: Off	#Avg Type: Po Trig: Free Run	wer (RMS <mark>123456</mark> A <del>WWWW</del> A A A A A A	Center Frequency 3.697000000 GHz Span	Settings
1 Spectrum Scale/Div 10 d	₹ B		ef Lvi Offset 34.49 dB ef Level 34.49 dBm	ł	Mkr1	3.698 076 GHz -36.608 dBm	4.00000000 MHz	
24.5							Zero Span Full Span	
4.49							Start Freq 3.695000000 GHz	
-5.51						DL1 -13.00 dBm	Stop Freq 3.699000000 GHz	
-15.5							AUTO TUNE	
	andr.ag.199110-0-1991	119745-117991-947-1-94916-15981-938-939-1	74-12-14-14-14-14-14-14-14-14-14-14-14-14-14-	ىۋەۋەرىيە بەرىيەر بەر يەر بەر يەر بەر بەر يەر	2002 10 10 10 10 10 10 10 10 10 10 10 10 10		CF Step 400.000 kHz Auto Man	
-45.5							Freq Offset 0 Hz	
Start 3.695000 #Res BW 510 I			#Video BW 2.0 MHz		#Swe	Stop 3.699000 GHz eep ~6.03 s (1001 pts)	X Axis Scale Log Lin	
<b>1</b> 5		2 Jan 02, 2025 12:24:33 PM	$\square$				Signal Track (Span Zoom)	

### n77(3700~3980 MHz)\_100 M\_Band Edge\_Low\_BPSK\_FullRB(2)



Spectrum Analy Swept SA	zer 1	+			-		Frequenc	y <b>v</b> 👯
REYSIGHT	Input: RF Coupling: DC Align: Auto	Corrections: Off	#Atten: 24 dB Preamp: Off μW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Power (RI Trig: Free Run	MS <mark>123456</mark> A WW WW W A A A A A A A	Center Frequency 3.697000000 GHz	Settings
1 Spectrum Scale/Div 10 d	₹ B		of LvI Offset 34.49 of Level 34.49 dB			98 988 GHz 5.727 dBm	Span 4.00000000 MHz	
24.5							Zero Span	
14.5							Full Span Start Freq	
4.49							3.695000000 GHz Stop Freq	
-5.51						DL1 -13.00 dBm	3.699000000 GHz	
-25.5						1.	CF Step 400.000 kHz	
-35.5			a			, salve de server verser de serve	Auto Man	
-55.5							Freq Offset 0 Hz	
Start 3.695000 #Res BW 510 F			∜Video BW 2.0 M	Hz		o 3.699000 GHz 03 s (1001 pts)	X Axis Scale Log Lin	
1		? Jan 02, 2025 12:25:59 PM					Signal Track (Span Zoom)	1



EYSIGHT Input: RF L ++ Coupling: DC Align: Auto	Corrections: Off Preamp: Off Gate Freq Ref: Int (S) µW Path: Standard IF G		Center Frequency 3.597500000 GHz
Spectrum v cale/Div 10 dB	Ref Lvi Offset 34.49 dB Ref Level 34.49 dBm	Mkr1 3.604 130 GHz -30.956 dBm	Swept Span Zero Span
4.5			Full Span Start Freq 3.500000000 GHz
5.5		DL1 -13.00 dBm	Stop Freq 3.695000000 GHz AUTO TUNE
15.5		Santaukannyana ang Panggaban	CF Step 19.500000 MHz Auto Man
15.5	#Video BW 3.0 MHz	Stop 3.69500 GHz	Freq Offset 0 Hz X Axis Scale Log

## n77(3700~3980 MHz)\_100 M\_Band Edge\_Low\_BPSK\_FullRB(3)



Swept SA	T Input Ζ: 50 Ω	#Atten: 24 dB PNO: Fast	#Avg Type: Power (RMS 1 2 3 4 5 6	Frequency
Coupling: DC Align: Auto		Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Sig Track: Off	Trig: Free Run AWWWW A A A A A A A	Center Frequency 3.597500000 GHz
Spectrum v cale/Div 10 dB		Ref Lvi Offset 34.49 dB Ref Level 34.49 dBm	Mkr1 3.602 570 GHz -37.716 dBm	
.og				Zero Span
14.5				Full Span Start Freq
1.49				3.500000000 GHz Stop Freg
5.51			QL1-13.00 dBm	3.695000000 GHz
5.5				AUTO TUNE CF Step
35.5		1		19.500000 MHz
45.5				Man Freg Offset
55.5				0 Hz
tart 3.50000 GHz Res BW 1.0 MHz		#Video BW 3.0 MHz	Stop 3.69500 GHz #Sweep 6.00 s (1001 pts)	
<b>1</b> 7 7 <b>1</b>	Jan 02, 2025 12:26:28 PM	$\square$		Signal Track (Span Zoom)

n77(3700~3980 MHz)_	100 M Ban	d Edge Low	BPSK 1RB(3)



Spectrum Analyze Swept SA	r1 •	+					Frequer	icy 🔻 🛃
	put: RF oupling: DC ign: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Power (RM Trig: Free Run	S123456 AWWWWW AAAAAA	Center Frequency 3.98000000 GHz	Settings
Spectrum cale/Div 10 dB	۲	R	ef Lvi Offset 34.49 ef Level 34.49 dB	) dB		84 23 GHz .659 dBm	10.0000000 1011 12	
.og							Zero Span	
14.5							Full Span Start Freq 3.975000000 GHz	
5.51	nananananan an	Manimuna da				DL1 -13.00 dBm	Stop Freq 3.985000000 GHz	
5.5		1					AUTO TUNE	
35.5			Angene and a state of the state	NADARDADJIR DA KORANA ANA AN	ก่านการแกรงการเรื่องการเรื่องการเรื่องการเรื่องการเรื่องการเรื่องการเรื่องการเรื่องการเรื่องการเรื	1 RMS	CF Step 1.000000 MHz Auto Man	
55.5							Freq Offset 0 Hz	
enter 3.980000 Res BW 360 kH:			#Video BW 1.2 M	Hz		an 10.00 MHz 4 s (1001 pts)		
150		Jan 02, 2025 11:37:27 AM	$\square$				Signal Track (Span Zpom)	

n77(3700~3080 MHz)	100 M Ron	d Edgo High	RDCK FullDR(1)
n77(3700~3980 MHz)_		u Luge_ingn	



Spectrum Analyzer 1 Swept SA	+			Frequency 🔹 🗦
KEYSIGHT Input: RF RL ↔ Coupling: DC Align: Auto	Input Z: 50 Ω #Atten: 10 dB Corrections: Off Preamp: Off Freq Ref: Int (S) μW Path: Standard NFE: Adaptive	Gate: Off	#Avg Type: Power (RMS 1 2 3 4 5 6 Trig: Free Run A WW WW A A A A A A	Center Frequency 3.980000000 GHz Span
Spectrum v cale/Div 10 dB	Ref Lvi Offset 34.49 Ref Level 34.49 dBr		Mkr1 3.980 01 GHz -30.954 dBm	10.0000000 MHz
4.5				Full Span
1.49	prin			Start Freq 3.975000000 GHz Stop Freq
15.5			DL1 -13.00 dBm	3.985000000 GHz
25.5				CF Step 1.000000 MHz
45.5		Level Mar.		Auto Man Freq Offset
55.5	#Video BW 100 kł		RMS RMS RMS Span 10.00 MHz	0 Hz X Axis Scale
	<b>?</b> Jan 02, 2025		#Sweep ~6.04 s (1001 pts)	Log Lin Signal Track (Span Zoom)

### n77(3700~3980 MHz)\_100 M\_Band Edge\_High\_BPSK\_1RB(1)



Spectrum Analy Swept SA	vzer 1	+		-			<b>‡</b>	Frequency	- <b>1</b> 😤
KEYSIGHT RL +++	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Pow Trig: Free Run	er (RMS <mark>123456</mark> A <del>WW WW W</del> A A A A A A A	Center Fred 3.9830000 Span		Settings
1 Spectrum Scale/Div 10 d	т В		ef Lvi Offset 34.49 ef Level 34.49 dB		Mkr1 3	3.984 316 GHz -39.674 dBm	4.0000000	Span	
24.5							Zero S Full \$		
4.49							Start Freq 3.9810000	00 GHz	
-5.51						DL1 -13.00 dBm	Stop Freq 3.9850000	00 GHz	
-15.5							AUTO CF Step		
-35.5		anonnecentari patrico con con	ntaraattententeraan			1RMS	400.000 kł Auto Man	Hz	
-55.5							Freq Offset 0 Hz		
Start 3.981000 #Res BW 510 I		:	#Video BW 2.0 M	Hz		Stop 3.985000 GHz p ∼6.03 s (1001 pts)	X Axis Scal Log Lin	e	
<b>エ</b> ッ		<b>?</b> Jan 02, 2025 11:37:55 AM					Signal Trac (Span Zoom)		

## n77(3700~3980 MHz)\_100 M\_Band Edge\_High\_BPSK\_FullRB(2)



Spectrum Analy Swept SA	zer 1 🔹	+	a.		-		Frequency	y <b>、</b> 影
REYSIGHT	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) NFE: Adaptive	#Atten: 10 dB Preamp: Off µW Path: Standard	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	#Avg Type: Power ( Trig: Free Run	(RMS <mark>123456</mark> A <del>WWWWW</del> A A A A A A	Center Frequency 3.983000000 GHz	Settings
1 Spectrum	•		ef Lvi Offset 34.4			981 008 GHz -37.156 dBm	Span 4.00000000 MHz	
Scale/Div 10 d	в	R	ef Level 34.49 dB	m		-37.136 dBm	Swept Span Zero Span	
24.5							Full Span	
4.49							Start Freq 3.981000000 GHz	
-5.51							Stop Freq 3.985000000 GHz	
-15.5						DL1 -13.00 dBm	AUTO TUNE	
-25.5							CF Step 400.000 kHz	
-35.5 -45.5	anan anan ana ana ana ana ana ana ana a	annan manantanana	a a a a a a a a a a a a a a a a a a a	LEVER STREET STREET STREET STREET STREET		RMS	Auto Man	
-55.5							Freq Offset 0 Hz	
Start 3.981000 #Res BW 510 k			#Video BW 2.0 M	Hz		op 3.985000 GHz 6.03 s (1001 pts)	X Axis Scale Log Lin	
<b>エ</b> ち		<b>?</b> Jan 02, 2025 11:39:28 AM	∍∆				Signal Track (Span Zoom)	

### n77(3700~3980 MHz)\_100 M\_Band Edge\_High\_BPSK\_1RB(2)



Spectrum Analy Swept SA	zer 1 💡	+		- ·	-		Frequency	· - 1器
REYSIGHT	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corrections: 0 Freq Ref: Int ( NFE: Adaptive	<li>s) µW Path: Standard</li>	PNO:Fast Gate:Off IFGain:Low Sig Track:Off	#Avg Type: Power Trig: Free Run	(RMS123456) A WWWWW A A A A A A A	Center Frequency 4.042500000 GHz	Settings
1 Spectrum Scale/Div 10 d	, B		Ref LvI Offset 34.4 Ref Level 34.49 dB			4.096 21 GHz -33.793 dBm	Span 115.000000 MHz Swept Span	
24.5							Zero Span Full Span	
14.5							Start Freq 3.985000000 GHz	
4.49							Stop Freq 4.100000000 GHz	
-15.5						DL1 -13.00 dBm	AUTO TUNE	
-25.5 -35.5	and the state of the	annan an a	lannapanananananananana	ang	han management		CF Step 11.500000 MHz Auto	
-45.5							Man Freq Offset 0 Hz	
Start 3.98500 0 #Res BW 1.0 N			#Video BW 3.0 M	IHz		Stop 4.10000 GHz 6.00 s (1001 pts)	X Axis Scale Log Lin	
ר <b>ד</b>		<b>?</b> Jan 02, 202 11:38:26 AM					Signal Track (Span Zoom)	

## n77(3700~3980 MHz)\_100 M\_Band Edge\_High\_BPSK\_FullRB(3)



Spectrum Analyzer 1				Frequency 🔹
KEYSIGHT     Input: RF       Coupling: DC       Align: Auto	Input Z: 50 Ω Corrections: Off Freq Ref. Int (S) NFE: Adaptive	#Atten: 10 dB PNO: Fast Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Sig Track: Off	#Avg Type: Power (RMS 1 2 3 4 5 6 Trig: Free Run A WW WW A A A A A A	Center Frequency 4.042500000 GHz
Spectrum v	F	Ref LvI Offset 34.49 dB	Mkr1 4.027 78 GHz	Span 115.000000 MHz
eog	F	Ref Level 34.49 dBm	-39.161 dBm	Swept Span Zero Span
24.5				Full Span
4.49				Start Freq 3.985000000 GHz
5.51				Stop Freq 4.100000000 GHz
15.5			DL1 -13.00 dBm	AUTO TUNE
25.5		1		CF Step 11.500000 MHz
35.5	X			Auto Man
45.5 Rollinguinger	eson constructions and	had week and an and a second an and a second and an and a second and a second as a	RMS	Freq Offset 0 Hz
tart 3.98500 GHz Res BW 1.0 MHz		#Video BW 3.0 MHz	Stop 4.10000 GHz #Sweep 6.00 s (1001 pts)	X Axis Scale
	Jan 02, 2025 11:39:54 AM			Signal Track (Span Zoom)

### n77(3700~3980 MHz)\_100 M\_Band Edge\_High\_BPSK\_1RB(3)



# **12. ANNEX A\_ TEST SETUP PHOTO**

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-2502-FC100-P