

Antenna 0 / 30 MHz ~ Low Edge - 100 MHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Low

Center Freq 1.02000000 GHz PN0: Fast +++ IFGain:Low #Atten: 20 dB 4Nov 05, 2021 Frequency Avg Type: RMS Avg|Hold: 10/10 TYPE Auto Tune Mkr1 1.988 418 GHz -33.577 dBm 10 dB/div Ref 0.00 dBm **Center Freq** 1.020000000 GHz Start Freq 30.000000 MHz AND MANY CAL Stop Freq and the second second - Holleney Hol 2.01000000 GHz CF Step 198.000000 MHz ato Man Auto Freq Offset 0 Hz Start 30.0 MHz #Res BW 1.0 MHz Stop 2.0100 GHz Sweep 2.67 ms (10001 pts) #VBW 3.0 MHz* 5

Antenna 1 / Low Edge - 100 MHz ~ Low Edge / B66 LTE 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / High

O GHZ PNO: Fast ++ Trig: Free Run IFGain:Low #Atten: 30 dB	Avg Type: RMS Avg Hold: 100/100	TRACE 2 3 4 5 TYPE A WANNAW DET A N N N N N	Frequency
	Mk	r1 2.085 55 GHz -38.005 dBm	Auto Tune
			Center Freq 2.060000000 GHz
			Start Freq 2.010000000 GHz
		-26 01 dên	Stop Freq 2.110000000 GHz
a tha a tha an	nture to part a stream young titer	heigene gegent Bester konstruktionsprachet.	CF Step 10.000000 MHz <u>Auto</u> Man
			Freq Offset 0 Hz
		Stop 2.11000 GHz	
	10 GHz PN0: Fast ↔ IFGain:Low Trig: Free Run #Atten: 30 dB	10 GHz PN0: Fast IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: RMS Avg Hold: 100/100 Mk	10 GHz PNO: Fast Trig: Free Run #Atten: 30 dB Trig: Free Run #Atten: 30 dB Mkr1 2.085 55 GHz -38.005 dBm -2801 dBm -2801 dBm -2801 dBm -2801 dBm -2801 dBm -2801 dBm





Antenna 1 / High Edge ~ High Edge + 100 MHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Low



Antenna 1 / High Edge + 100 MHz ~ 10 GHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / Low















Antenna 1 / 150 kHz ~ 30 MHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Middle



Antenna 1 / 30 MHz ~ Low Edge - 100 MHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle

RL RF 50.9 AC LUMBL Center Freq 1.020000000 GHz PN0: Fast +++ IFGain:Low #Atten: 20 dB PMNov 05.2 Frequency Avg Type: RMS Avg|Hold: 10/10 RACE TYPE Auto Tune Mkr1 1.958 124 GHz -33.481 dBm 10 dB/div Ref 0.00 dBm **Center Freq** 1.020000000 GHz Start Freq 30.000000 MHz Stop Freq 2.01000000 GHz CF Step 198.000000 MHz Ito Man Auto Freq Offset 0 Hz Start 30.0 MHz #Res BW 1.0 MHz Stop 2.0100 GHz Sweep 2.67 ms (10001 pts) #VBW 3.0 MHz* **G**

Antenna 1 / Low Edge - 100 MHz ~ Low Edge / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / High

	PNO: Fast	Trig: Free Run #Atten: 30 dB	Avg Hold: 100/100	TYPE A WANNAME DET A N N N N N	Frequency Auto Tune
dB/div Ref 20.00 dBm			Mk	r1 2.020 55 GHz -37.905 dBm	Auto Tune
00					Center Freq 2.060000000 GHz
100					Start Freq 2.010000000 GHz
ao				-26 01 dBm	Stop Freq 2.110000000 GHz
0 0	nautoring Barnes (Labor and Address)	and the second secon	alafalar na se ordokladar tili og til stor	alaanti ya ayaa gaatti ya ta ta ta ayaa ya ya	CF Step 10.000000 MHz <u>Auto</u> Man
aa					Freq Offset 0 Hz
tart 2.01000 GHz	#\/B\/\:	300 kHz*	Sween	Stop 2.11000 GHz	



Antenna 1 / High Edge ~ High Edge + 100 MHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / High



Antenna 1 / High Edge + 100 MHz ~ 10 GHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / Middle





Antenna 1 / 10 GHz ~ 26.5 GHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Middle







Antenna 1 / 9 kHz ~ 150 kHz / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

Antenna 0 / 150 kHz ~ 30 MHz / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM







Antenna 1 / 30 MHz ~ Low Edge - 100 MHz / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK



Antenna 1 / Low Edge - 100 MHz ~ Low Edge / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

	Mkr1 :		Frequency Auto Tune		
D dB/div Ref 20.00 dBm -38.058 dBm					
			Center Freq 2.057500000 GHz		
			Start Freq 2.010000000 GHz		
		-25.01 48m	Stop Freq 2.105000000 GHz		
ite and a second se	lander attriktion in alle attrikter attrikter attrikter	alahadiyan ayar toorin hik	CF Step 9.500000 MHz <u>Auto</u> Man		
			Freq Offset 0 Hz		
		Stop 2.10500 GHz			
	W 300 kHz*	W 300 kHz* Sweep	م الم الم الم الم الم الم الم الم الم ال		





Antenna 0 / High Edge ~ High Edge + 100 MHz / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 64QAM



Antenna 1 / High Edge + 100 MHz ~ 10 GHz / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 64QAM









Antenna 1 / 10 GHz ~ 26.5 GHz / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK





Antenna 1 / 9 kHz ~ 150 kHz / B66 LTE 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM

Antenna 0 / 150 kHz ~ 30 MHz / B66 LTE 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM





Antenna 0 / 30 MHz ~ Low Edge - 100 MHz / B66 LTE 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM

OURL RF 500 ALC CONTROL Center Freq 1.020000000 GHz PN0: Fast ----IFGain:Low 2 PM Nov 02, 2021 Frequency Avg Type: RMS Avg|Hold: 10/10 RACE Trig: Free Run #Atten: 20 dB TYPE Auto Tune Mkr1 2.001 486 GHz -33.326 dBm 10 dB/div Ref 0.00 dBm **Center Freq** 1.020000000 GHz Start Freq 30.000000 MHz Stop Freq and days printing and a state of the day of the watching of 2.01000000 GHz CF Step 198.000000 MHz Auto Man Freq Offset 0 Hz Start 30.0 MHz #Res BW 1.0 MHz Stop 2.0100 GHz Sweep 2.67 ms (10001 pts) #VBW 3.0 MHz* í,

Antenna 0 / Low Edge - 100 MHz ~ Low Edge / B66 LTE 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

Frequency	TRACE 2 3 4 5 0 TYPE A VILLANIAN DET A N N N N N	Avg Type: RMS Avg Hold: 100/100	Trig: Free Run	000 GHz PNO: Fast	req 2.050000000	Center Fr
Auto Tune	1 2.029 00 GHz -37.932 dBm	Mkr		m	Ref 20.00 dBm	0 dB/div
Center Freq 2.050000000 GHz						10.0
Start Freq 2.010000000 GHz						0.00 10.0
Stop Freq 2.090000000 GHz	-26.01 dBn					30 Ó
CF Step 8.000000 MHz Auto Man	(kaya dah mantasan perlamban kanan sara	ayata di Mangdila da ana ana an	ydau ondodd ar fryf yr yr ondo fodano	1 alassasianan ana ana ana ana ana ana ana ana an	ารสาราราชาวิทา	40 0
Freq Offset 0 Hz						30 Q
	Stop 2 09000 GHz				000 GH7	700
1	10.0 ms (2001 pts)	Sweep	300 kHz*	#VBW	100 kHz	Res BW





Antenna 0 / High Edge ~ High Edge + 100 MHz / B66 LTE 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM



Antenna 0 / High Edge + 100 MHz ~ 10 GHz / B66 LTE 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM

Center Fre	RF 50 AC	CORREC GHZ PNO: Fast	rig: Free Run	Avg Type: RMS Avg Hold: 10/10	04:35:40 PMNov 02, 2021 TRACE 2 3 4 5 TYPE A WARMAN DET A N N N N	Frequency
10 dB/div	Ref 10.00 dBm	IFGain:Low #	Atten: 20 db	Mk	r1 9.381 628 GHz -27.661 dBm	Auto Tune
0.00						Center Freq 6.140000000 GHz
20.0					-15.01 dBn	Start Freq 2.280000000 GHz
30.0 40 0 100	an da filina a su an		and the first of the state of the		Harrison and the second second	Stop Freq 10.000000000 GHz
50.0						CF Step 772.000000 MHz Auto Man
70 C						Freq Offset 0 Hz
Start 2.280	GHz	4V/DW 2	0.5414-5		Stop 10.000 GHz	
ASG		#VBVV J.	0 WIHZ	Sweep	TUS '	













Antenna 1 / 9 kHz ~ 150 kHz / B66 LTE 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

Antenna 1 / 150 kHz ~ 30 MHz / B66 LTE 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM







Antenna 1 / 30 MHz ~ Low Edge - 100 MHz / B66 LTE 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

RL 46 PM Nov 03, 2021 Center Freq 1.020000000 GHz IFGain:Low Frequency Avg Type: RMS Avg|Hold: 10/10 TRACE Trig: Free Run #Atten: 20 dB TYPE Auto Tune Mkr1 1.969 410 GHz -33.292 dBm 10 dB/div Ref 0.00 dBm **Center Freq** 1.020000000 GHz Start Freq 30.000000 MHz La M. d the flat of the state Stop Freq Service of the providence of the service dillin word 2.01000000 GHz CF Step 198.000000 MHz ato Man Auto Freq Offset 0 Hz Start 30.0 MHz #Res BW 1.0 MHz Stop 2.0100 GHz Sweep 2.67 ms (10001 pts) #VBW 3.0 MHz* í,

Antenna 1 / Low Edge - 100 MHz ~ Low Edge / B66 LTE 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 64QAM

IFGain:Low #Atten		Avginoid: 100/100	TYPE A WANKAAN	
	30 dB	Mk	r1 2.013 28 GHz -37.873 dBm	Auto Tune
				Center Freq 2.050000000 GHz
				Start Freq 2.010000000 GHz
			-26.01 dBm	Stop Freq 2.090000000 GHz
dhebyyaansa dahaanada kayaanaa	an a	ny marcul a capacitation de arrès	ng at set in frank and an a particular distance and a set of the se	CF Step 8.000000 MHz <u>Auto</u> Man
				Freq Offset 0 Hz
#VBW 300 ki	lz*	Sween	Stop 2.09000 GHz	
	#VBW 300 kł	#VBW 300 kHz*	#VBW 300 kHz*	#VBW 300 kHz*





Antenna 1 / High Edge ~ High Edge + 100 MHz / B66 LTE 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM



Antenna 1 / High Edge + 100 MHz ~ 10 GHz / B66 LTE 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

					rum Analyzer - Swept SA	Agilent Spectr		
Frequency	01:06:14 PMNov 03, 2021 TRACE 2 3 4 5 TYPE A	Avg Type: RMS Avg Hold: 10/10	SENSE:INT	CORREC GHZ PNO: Fast +++	req 6.140000000	Center F		
Auto Tune	IFGain:Low #Atten: 20 dB Mkr1 9.993 824 GHz 10 dB/div Ref 10.00 dBm -26.559 dBm							
Center Freq 6.140000000 GHz						.0.00		
Start Freq 2.280000000 GHz	-16.01 dBm					30.0		
Stop Freq 10.000000000 GHz		Martin Andrew Landson and Statistics	and the second secon		den ber aufle bilde bilden ihr sinde ihr gebann af sem sinde Alter ber aufle med eine eine sen berbereten genetigten gebanteten.	30.0		
CF Step 772.000000 MHz Auto Man						-50 C		
Freq Offset 0 Hz						-70 C		
	Stop 10.000 GHz				0 GHz	Start 2.28		
	3.3 ms (20001 pts)	Sweep 1	3.0 WHZ*	#VBW :	1.0 WHZ	#Res BW		









Antenna 1 / 9 kHz ~ 150 kHz / 5G NR n66 5 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM



Antenna 1 / 150 kHz ~ 30 MHz / 5G NR n66 5 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM

MSG				Th STATU	DC Co	upled	
Start 150 kHz #Res BW 10 kHz	#VBW	30 kHz*		Sweep	Stop 3 368 ms	0.00 MHz (6001 pts)	
-84.0							
-74 0							0 H
-64.0 Variation of the state of the state							Eronoffe
:54.0							CF Ste 2.985000 MH Auto Ma
34.0 						-36.01 dBm	Stop Fre 30.000000 MH
24.0							Start Fre 150.000 ki
4.00							Center Fre 15.075000 Mi
IO dB/div Ref 6.00 dBm					Mkr1 -44.7	150 kHz 13 dBm	Auto Tur
Center Freq 15.075000	PNO: Fast	Trig: Free Run #Atten: 16 dB	Avg Type Avg Hold:	: RMS 10/10	TRA TY C	CE 12345 0 PE A WARMAN ET A N N N N N	Frequency
RL RE 50 Q A DO	CORREC	SENSE:INT		ALIGNAUTO	09:45:10	MNov 03, 2021	





Antenna 1 / 30 MHz ~ Low Edge - 100 MHz / 5G NR n66 5 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

RL AMNov 03, 2021 Center Freq 1.020000000 GHz IFGain:Low Frequency Avg Type: RMS Avg|Hold: 10/10 RACE Trig: Free Run #Atten: 20 dB TYPE Auto Tune Mkr1 2.010 000 GHz -33.281 dBm 10 dB/div Ref 0.00 dBm **Center Freq** 1.020000000 GHz Start Freq 30.000000 MHz di litulio Stop Freq and the standard n rup tik 2.01000000 GHz CF Step 198.000000 MHz Auto Man Freq Offset 0 Hz Start 30.0 MHz #Res BW 1.0 MHz Stop 2.0100 GHz Sweep 2.67 ms (10001 pts) #VBW 3.0 MHz* í,

Antenna 1 / Low Edge - 100 MHz ~ Low Edge / 5G NR n66 5 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

70.0						
80 0						Freq Offset 0 Hz
40 0 	ogen de gentuit kantu (ontagenen	antinakanan kapi bahak		equeryal mysis wells an iniyate 1993 A	al landorynaithad norainaith	CF Step 9,500000 MHz <u>Auto</u> Man
30 0					-25.01 dBn	Stop Freq 2.105000000 GHz
0.00						Start Freq 2.010000000 GHz
100						Center Freq 2.057500000 GHz
Mkr1 2.058 355 0 GHz gdB/div Ref 20.00 dBm -38.193 dBm						
Center F	req 2.057500	PNO: Fast - IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Type: RMS Avg Hold: 100/100	TRACE 2 2 3 4 5 1 TYPE A UNUMU	Frequency





Antenna 1 / High Edge ~ High Edge + 100 MHz / 5G NR n66 5 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 64QAM



Antenna 0 / High Edge + 100 MHz ~ 10 GHz / 5G NR n66 5 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 64QAM











Antenna 0/ 9 kHz ~ 150 kHz / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM



Antenna 1 / 150 kHz ~ 30 MHz / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM

RL RF 50 Q ADC	CORREC	SENSE:INT	ALIGNAUTO	11:21:49 AMNov 03, 2021	Frequency
enter Freq 15.075000 M	PNO: Fast	Trig: Free Run #Atten: 16 dB	Avg Type: RMS Avg Hold: 10/10	TRACE 2 3 4 5 0 TYPE A WANNANY DET A N N N N N	requercy
dB/div Ref 6.00 dBm	H GGIMESH			Mkr1 165 kHz -44.156 dBm	Auto Tune
.00					Center Freq 15.075000 MHz
4.0					Start Freq 150.000 kHz
4.0 4.0				-36 07 161 0	Stop Freq 30.000000 MHz
40					CF Step 2.985000 MHz <u>vuto</u> Man
4 D			and a solution of the solution	Angen and the second second second	Freq Offset 0 Hz
tart 150 kHz	#\/D\M	30 kHz*	Sween	Stop 30.00 MHz	





Antenna 1 / 30 MHz ~ Low Edge - 100 MHz / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 64QAM



Antenna 1 / Low Edge - 100 MHz ~ Low Edge / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM

Frequency	TRACE	rpe: RMS Id: 100/100	Avg T Avg H	Trig: Free Run #Atten: 30 dB	GHz PNO: Fast	req 2.050000000	Center Fi
Auto Tune	1 2.057 04 GHz -38.093 dBm	Mkr			N GOMESH	Ref 20.00 dBm	0 dB/div
Center Freq 2.050000000 GHz							10.0
Start Freq 2.010000000 GHz							0.00 10.0
Stop Freq 2.090000000 GHz	-26 01 aBm						30 0 30 c
CF Step 8.000000 MHz <u>Auto</u> Man	anterinina anticipation di antico a	ana ang ang ang ang ang ang ang ang ang	<u>•</u> 1	595-4409-478-699-4 ⁹⁹ -499-697-692	çəsən tellaqı sənərə on talışanış et	ewo ovo ovo data ana ana ana ana ana ana ana ana ana	40 0
Freq Offset 0 Hz							80 0
	Stop 2.09000 GHz	Swoon		200 1417*	#\//D\//	000 GHz	Start 2.01



Antenna 1 / High Edge ~ High Edge + 100 MHz / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM



Antenna 0 / High Edge + 100 MHz ~ 10 GHz / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM











Antenna 1 / 9 kHz ~ 150 kHz / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM



Antenna 0 / 150 kHz ~ 30 MHz / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM







Antenna 1 / 30 MHz ~ Low Edge - 100 MHz / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM

OURL RF 500 ALC CONTROL Center Freq 1.020000000 GHz PN0: Fast ----IFGain:Low 5 PM Nov 03, 202 Frequency Avg Type: RMS Avg|Hold: 10/10 ACE Trig: Free Run #Atten: 20 dB TYPE Auto Tune Mkr1 1.938 720 GHz -34.270 dBm 10 dB/div Ref 0.00 dBm **Center Freq** 1.020000000 GHz Start Freq 30.000000 MHz Stop Freq ALL AD DE LA DE ny vienty and the L. LILLING BUT IN 2.01000000 GHz CF Step 198.000000 MHz Auto Man Freq Offset 0 Hz Start 30.0 MHz #Res BW 1.0 MHz Stop 2.0100 GHz Sweep 2.67 ms (10001 pts) #VBW 3.0 MHz* **G**

Antenna 1 / Low Edge - 100 MHz ~ Low Edge / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 64QAM

Frequency	02:44:21 PMNov 03, 2021 TRACE 2 2 3 4 5 0 TYPE A WWWWW DET A N N N N N	Avg Type: RMS Avg Hold: 100/100	SENSE:INT	CORREC 0 GHz PNO: Fast	req 2.050000000	Center Fi
Auto Tune	2.020 32 GHz -37.977 dBm	Mkr	Pracent of the	IFGail.LOW	Ref 20.00 dBm	I0 dB/div
Center Freq 2.05000000 GHz						10 0
Start Freq 2.010000000 GHz						0.00 10.0
Stop Freq 2.090000000 GHz	-26 01 dBm					30.0
CF Step 8.000000 MHz <u>Auto</u> Man	nyayariyakawa kitika mahiku wak	lingering allow-pittel-staged (starlog)	ana majaranta Matantakak	addresidadalistaaqeena	1 ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	40 D
Freq Offset 0 Hz						60 0
						70 0
	Stop 2.09000 GHz 10.0 ms (2001 pts)	Sweep	300 kHz*	#VBW	000 GHz 100 kHz	Start 2.01 Res BW
		STATUS				ISG





Antenna 0 / High Edge ~ High Edge + 100 MHz / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM



Antenna 0 / High Edge + 100 MHz ~ 10 GHz / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK





Antenna 1 / 10 GHz ~ 26.5 GHz / 5G NR n66 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM





Antenna 1 / 9 kHz ~ 150 kHz / 5G NR n66 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM



Antenna 0 / 150 kHz ~ 30 MHz / 5G NR n66 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

ptor Frog 15 075000 M	CONNEC	-SCARE: NA	Ava Tu	ne: RMS	TRACE	100 03, 2021	Frequency
Inter Freq 15.075000 Mi	PNO: Fast	Trig: Free Run #Atten: 16 dB	Avg Ho	id: 10/10	TYPE	ANNNNN	
dB/div Ref 6.00 dBm					Mkr1 1 -44.06	50 kHz 2 dBm	Auto Tune
0							Center Freq 15.075000 MHz
ο σ							Start Freq 150.000 kHz
) 1 0						-36,01 mBm	Stop Freq 30.000000 MHz
o							CF Step 2.985000 MHz Auto Man
	delikis da anerala Pre osta integrativ	nan Kalenderska Nan Kalenderska		di ki se da da di a di Galeri e tang			Freq Offset 0 Hz
art 150 kHz es BW 10 kHz	#VBW	30 kHz*		Sweep	Stop 30	.00 MHz 001 pts)	





Antenna 1 / 30 MHz ~ Low Edge - 100 MHz / 5G NR n66 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 64QAM

Center Freq 1.020000000 GHz PN0: Fast ----IFGain:Low 1 PM Nov 03, 202 Frequency Avg Type: RMS Avg|Hold: 10/10 RACE Trig: Free Run #Atten: 20 dB TYPE Auto Tune Mkr1 1.953 372 GHz -33.869 dBm 10 dB/div Ref 0.00 dBm **Center Freq** 1.020000000 GHz Start Freq 30.000000 MHz Stop Freq an bailed the story of process a faith a A PLAN THE HEAT 2.01000000 GHz CF Step 198.000000 MHz ato Man Auto Freq Offset 0 Hz Start 30.0 MHz #Res BW 1.0 MHz Stop 2.0100 GHz Sweep 2.67 ms (10001 pts) #VBW 3.0 MHz* 5

Antenna 1 / Low Edge - 100 MHz ~ Low Edge / 5G NR n66 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM

enter Freq 2.05750000	PNO: Fast Trig: Free Run	Avg Type: RMS Avg Hold: 100/100	TRACE 2 3 4 5 0 TYPE A WARMAN DET A N N N N N	Frequency
o dB/div Ref 20.00 dBm	in Game Bar	Mkr1 :	2.013 277 5 GHz -37.909 dBm	Auto Tune
100				Center Freq 2.057500000 GHz
b.col				Start Freq 2.010000000 GHz
30.0 30.0			-25.01 dBm	Stop Freq 2.105000000 GHz
	and and any amount of the second s	พร้างกับระโฟล์ส่างใหญ่เขาะการกับระสาร	an ay na ga fa sa	CF Step 9.500000 MHz <u>Auto</u> Man
ao o				Freq Offset 0 Hz
10 0 itart 2.01000 GHz	#\/B\// 300 kH>*	Sween	Stop 2.10500 GHz	





Antenna 1 / High Edge ~ High Edge + 100 MHz / 5G NR n66 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK



Antenna 0 / High Edge + 100 MHz ~ 10 GHz / 5G NR n66 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

Frequency	04:37:43 PMNov 03, 2021 TRACE 2 3 4 5 C TYPE A WWWWW DET A N N N N N	e: RMS i: 10/10	Avg Avg t	Trig: Free Run #Atten: 20 dB	CORREC GHZ PNO: Fast	RF 500 AC	enter Fr
Auto Tune	9.972 980 GHz -27.048 dBm	Mkr1			. Gameon	tef 10.00 dBm	0 dB/div
Center Freq 6.140000000 GHz							0.00
Start Freq 2.280000000 GHz	-16.0) dEm						10.0
Stop Freq 10.000000000 GHz	al patricipation and a stand	all forest and	ndadia ya Wyfaranya	a dia minimpika kata di kata di Kata di kata di			30.0 40.0
CF Step 772.000000 MHz Auto Man							50 C
Freq Offset 0 Hz							70 0
	Stop 10.000 GHz					GHz	and
	3.3 ms (20001 pts)	Sweep 1		3.0 WH2*	#VBW	JIMHZ	Res BW









Antenna 0 / 9 kHz ~ 150 kHz / 5G NR n66 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 64QAM



Antenna 1 / 150 kHz ~ 30 MHz / 5G NR n66 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

MSG		50-M112		The STATUS	DC Cou	inled	
Start 150 kHz #Res BIM 10 kHz	#\/B\M	30 kHz*		Sween	Stop 3	0.00 MHz	
-24 0							
							0 H
740	a) colore france in the	tim An part where the	the straticast	d de piller og b	and the property of the proper	AL CONTRACTOR	Freq Offse
454.0	arada shir anta sali na ma	a thilling the on-other states in	a ta an fai a la sua di da su sua dia 1869 1	in and i stands	about the according	teruskiline ter	Auto Mai
.54 0							CF Ster
-44 0							30.000000 MH
-34.0						-36.01 05m	Stop Fra
-24.0							150.000 kH
-14.0			_				Start Fra
-4,00							Center Free 15.075000 MH
10 dB/div Ref 6.00 dBm					-44.4	93 dBm	
	IFGain:Low	#Atten: 16 dB		1997 S.	D		Auto Tun
Center Freq 15.075000 I	MHz	Trig: Free Run	Avg Type: Avg Hold:	RMS	TRAC TY		Frequency
Agilent Spectrum Analyzer - Swept SA	CORREC	CEMEC/THT		LICALAUTO	00:22:06.4	MNov 05, 2021	





Antenna 0 / 30 MHz ~ Low Edge - 100 MHz / 5G NR n66 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK



Antenna 1 / Low Edge - 100 MHz ~ Low Edge / 5G NR n66 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM

PNO: Fast - T	rig: Free Run Atten: 30 dB	Avg Type: RMS Avg Hold: 100/100	TYPE A VANNAAV DET A NNNN	rrequency
I Gam.Low		Mk	r1 2.021 32 GHz -38.115 dBm	Auto Tune
				Center Freq 2.050000000 GHz
				Start Freq 2.010000000 GHz
			-25 01 dBm	Stop Freq 2.090000000 GHz
der Varden Stranger ander Stranger ander Stranger	gliftingelekter forsisterhen	1999-1997 (1997 (1998 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999	an ng kana ng katalan n	CF Step 8.000000 MHz <u>Auto</u> Man
				Freq Offset 0 Hz
#VBW 3	00 kHz*	Sween	Stop 2.09000 GHz	
	PN0: Fast	PN0: Fast Trig: Free Run IFGain:Low #Atten: 30 dB	PN0: Fast Trig: Free Run Avg Hold: 100/100 #Atten: 30 dB Mk	PN0: Fast Trig: Free Run Avg[Hold: 100/100 We cr Avenue #Atten: 30 dB Mkr1 2.021 32 GHz -38.115 dBm





Antenna 0 / High Edge ~ High Edge + 100 MHz / 5G NR n66 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK



Antenna 1 / High Edge + 100 MHz ~ 10 GHz / 5G NR n66 20 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM











Antenna 0 / 9 kHz ~ 150 kHz / 5G NR n66 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM



Antenna 1 / 150 kHz ~ 30 MHz / 5G NR n66 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM

#Res BW 10 kHz	#VBW	30 kHz*	Sweep	368 ms (6001 pts)	
Start 150 kHz				Stop 30.00 MHz	
.84.0					
					0 H
-74 D	denominal di dina di ang Malina	a del provide a fil esta del est	ter of a terrary life to a selection of the	trating algorith and the product balan	Freq Offse
-54.0	. I. the advised of the leaf	and test start of the local statutes the	The state of the state of the state	and a state of the	Auto Ma
354.0					CF Ster 2.985000 MH
-44 0					30.000000 MH
34.0				-36.01 dBm	Stop Free
-24.0					150.000 kH
-14.0					Start Free
-4.00					15.075000 MH
10 dB/div Ref 6.00 dBm			1	-43.091 dBm	Our days Free
	IFGain:Low	#Atten: 16 dB		Mkr1 150 kHz	Auto Tune
Center Freq 15.075000	PNO: Fast	Trig: Free Run	Avg Type: RMS Avg Hold: 10/10		Frequency
	C CORRECT	SENSE/INT	ALIGNALITO	02:44:42 PMNov 05, 2021	





Antenna 1 / 30 MHz ~ Low Edge - 100 MHz / 5G NR n66 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM

Center Freq 1.020000000 GHz PN0: Fast ----IFGain:Low 9 PMNov 05, 2021 Frequency Avg Type: RMS Avg|Hold: 10/10 RACE Trig: Free Run #Atten: 20 dB TYPE Auto Tune Mkr1 1.815 168 GHz -34.122 dBm 10 dB/div Ref 0.00 dBm **Center Freq** 1.020000000 GHz Start Freq 30.000000 MHz Stop Freq Anglident at interest W/ What 2.01000000 GHz CF Step 198.00000 MHz Auto Man Freq Offset 0 Hz Start 30.0 MHz #Res BW 1.0 MHz Stop 2.0100 GHz Sweep 2.67 ms (10001 pts) #VBW 3.0 MHz* **G**

Antenna 1 / Low Edge - 100 MHz ~ Low Edge / 5G NR n66 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM

	Stop 2.09000 GHz 10.0 ms (2001 <u>pts)</u>	Sweep	300 kHz*	#VBW	000 GHz 100 kHz	tart 2.01 Res BW
						/α ο
Freq Offset 0 Ha						au (c
CF Step 8.000000 MHz <u>Auto</u> Mar	artinet normality and a star of the star of the	nebsinsingda, Jay niedbi ya niedaise	*****	atoquesa (Telescottere)	ndendijskom Promiteljskom Mittillerinan og	40 0 ******** ***
2.09000000 GH2					▲ 1	90 C
Stop Fred	-26 01 dBm					10 0
Start Free 2.010000000 GHz						10.0
2.05000000 GHz						tō 0
Center Fre	1 2.025 04 GHz -38.152 dBm	Mkr			Ref 20.00 dBm	0 dB/div
Auto Tup	TYPE A WARMAN DET A NNNNN	Avg Hold: 100/100	Trig: Free Run #Atten: 30 dB	PNO: Fast	eq 2.050000000	enter Fr
Frequency	U2:44:36 PMI/00 03, 2021	ALIGNAUTO	SENSERNI	CORREC	KF SUS AL	RL





Antenna 1 / High Edge ~ High Edge + 100 MHz / 5G NR n66 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM



Antenna 1 / High Edge + 100 MHz ~ 10 GHz / 5G NR n66 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK





Antenna 1 / 10 GHz ~ 26.5 GHz / 5G NR n66 20 MHz 1 Carrier + B66 LTE 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM





Antenna 1 / 9 kHz ~ 150 kHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM



Antenna 1 / 150 kHz ~ 30 MHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM

Trig: Fre #Atten: 1	e Run 16 dB	Avg Type Avg Hold:	: RMS 10/10	Mkr1		Auto Tune
				Mkr1	150 kHz	Auto Tune
				-42.9	55 dBm	
						Center Freq 15.075000 MHz
						Start Freq 150.000 kHz
					-36.07 dBm	Stop Freq 30.000000 MHz
					e	CF Step 2.985000 MHz suto Man
			dest for syndrometry for the			Freq Offset 0 Hz
				Stop 3	80.00 MHz	
	W 30 kHz*	u başışı talışı başışı talışı başışı başı W 30 kHz*	W 30 kHz*	W 30 kHz*	W 30 kHz*	A Stop 30.00 MHz W 30 kHz*





Antenna 1 / 30 MHz ~ Low Edge - 100 MHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM

OURL RF 500 ALC CONTROL Center Freq 1.020000000 GHz PN0: Fast ----IFGain:Low 3 AMNov 05, 2021 Frequency Avg Type: RMS Avg|Hold: 10/10 RACE Trig: Free Run #Atten: 20 dB TYPE Auto Tune Mkr1 1.959 312 GHz -33.823 dBm 10 dB/div Ref 0.00 dBm **Center Freq** 1.020000000 GHz Start Freq 30.000000 MHz WILLIAM STREET, STREET Stop Freq 2.01000000 GHz CF Step 198.00000 MHz Auto Man Freq Offset 0 Hz Start 30.0 MHz #Res BW 1.0 MHz Stop 2.0100 GHz Sweep 2.67 ms (10001 pts) #VBW 3.0 MHz* í,

Antenna 1 / Low Edge - 100 MHz ~ Low Edge / B66 LTE 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK

Mkr1 2.031 24 GHz 38.066 dBm Center 2.0500000 Center 2.0500000 Start 2.0100000 Start 2.0100000 Start 2.0100000 Start 2.0900000 Start 2.0900000 Start 2.0900000 Start 2.0900000 Start 2.0900000 Start 2.0900000 Start 2.0900000 Start	Center Freq 2.0500000	05,2021 Frequency	11:00:10 AMNov 05, 2021 TRACE 2 2 3 4 5 0 TYPE A VINUMAN DET A N N N N N
100 Center 100 Start 100 Start 2.0500000 Start 2.01000000 Start 2.0500000	o dB/div Ref 20.00 dBm	GHz Auto Tur dBm	2.031 24 GHz -38.066 dBm
0.00 Start 100 Start 200 Stop 20000000 Stop	100	Center Fre 2.050000000 GF	
Image: Comparison of the comparison	100	Start Fre 2.010000000 GH	
	10 0	201 dbn 2.090000000 GH	-26.01 dBm
200 Freq C	ia a montheodrogeneorogeneologia	CF Ste 8.000000 MH <u>Auto</u> Ma	teologaetagaetagaet
	aci ĝ	Freq Offs 0 F	
Start 2.01000 GHz Stop 2.09000 GHz	700 Start 2.01000 GHz #Res BW 100 kHz	0 GHz	Stop 2.09000 GHz





Antenna 1 / High Edge ~ High Edge + 100 MHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK



Antenna 0 / High Edge + 100 MHz ~ 10 GHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK





Antenna 1 / 10 GHz ~ 26.5 GHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM





Antenna 0 / 9 kHz ~ 150 kHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM



Antenna 0 / 150 kHz ~ 30 MHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM

Agilent Spectrum Analyzer - S LNU RL RF 50	DC CORREC	SENSE:INT	ALIGNAUTO	03:54:45 PM Nov 05, 2021	-
Center Freq 15.07	5000 MHz PNO: Fast	Trig: Free Run #Atten: 16 dB	Avg Type: RMS Avg Hold: 10/10	TRACE 2345 TYPE A VRAMMAN DET A N N N N N	Frequency
10 dB/div Ref 6.00	dBm			Mkr1 150 kHz -44.476 dBm	Auto Tune
-4.00					Center Freq 15.075000 MHz
-14.0					Start Freq 150.000 kHz
-34.0 -44.0				-36.0f d£mj	Stop Freq 30.000000 MHz
-54.0		de la secola de la			CF Step 2.985000 MHz Auto Man
-74 D	n na an in 1990 ann an 1990 ann an 1990 An 1997 ann an 1990 ann an 1990 ann an 1990 An 1997 ann an 1997	Ny manana amin'ny fanisana amin'ny fanisa		nan fan seiser die stean f	Freq Offset 0 Hz
Start 150 kHz #Res BW 10 kHz	#VBW	30 kHz*	Sweep	Stop 30.00 MHz 368 ms (6001 pts)	
MSG			STATL	DC Coupled	





Antenna 0 / 30 MHz ~ Low Edge - 100 MHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / QPSK



Antenna 0 / Low Edge - 100 MHz ~ Low Edge / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 64QAM

Center Freq 2.05000000	GHz PNO: Fast	Trig: Free Run #Atten: 30 dB	Avg Type: RMS Avg Hold: 100/100	TRACE 2 3 4 5 TYPE A WWWWWW DET A NNNNN	Frequency
0 dB/div Ref 20.00 dBm	n dumeon		Mk	r1 2.053 72 GHz -37.869 dBm	Auto Tune
10.0					Center Freq 2.05000000 GHz
10.0					Start Freq 2.010000000 GHz
30.0				-26 01 dBm	Stop Freq 2.090000000 GHz
AQ Q Construction of the second se	whend participation of the second of	oweneweeheneweehened	nomenine deuter Patriel feborheiten feb	ՠֈՠֈ֎ՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠՠ	CF Step 8.000000 MHz <u>Auto</u> Man
80 0					Freq Offset 0 Hz
70 0 Start 2.01000 GHz #Res BW 100 kHz	#VBW	300 kHz*	Sween	Stop 2.09000 GHz	





Antenna 0 / High Edge ~ High Edge + 100 MHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 16QAM



Antenna 0 / High Edge + 100 MHz ~ 10 GHz / B66 LTE 20 MHz 1 Carrier + 5G NR n66 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 256QAM











5.6. RADIATED EMISSIONS

Test Requirements:

§ 2.1053 Measurements required: Field strength of spurious radiation.

- (a) Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of § 2.1049, as appropriate. For equipment operating on frequencies below 890 MHz, an open field test is normally required, with the measuring instrument antenna located in the far-field at all test frequencies. In the event it is either impractical or impossible to make open field measurements (e.g. a broadcast transmitter installed in a building) measurements will be accepted of the equipment as installed. Such measurements must be accompanied by a description of the site where the measurements were made showing the location of any possible source of reflections which might distort the field strength measurements. Information submitted shall include the relative radiated power of each spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from halfwave dipole antennas.
- (b) The measurements specified in paragraph (a) of this section shall be made for the following equipment:
 - (1) Those in which the spurious emissions are required to be 60 dB or more below the mean power of the transmitter.
 - (2) All equipment operating on frequencies higher than 25 MHz.
 - (3) All equipment where the antenna is an integral part of, and attached directly to the transmitter.
 - (4) Other types of equipment as required, when deemed necessary by the Commission.

§ 27.53 Emission limits.

- (c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:
 - (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
 - (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
 - (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;
 - (4) Omitted
 - (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;
 - (6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

Report No. HCT-RF-2111-FC093



- (f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.
- (h) AWS emission limits
 - General protection levels. Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.
 - (3) Measurement procedure.
 - (i) Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
 - (ii) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the licensee's frequency block edges, both upper and lower, as the design permits.
 - (iii) The measurements of emission power can be expressed in peak or average values, provided they are expressed in the same parameters as the transmitter power.

Test Procedures:

The measurement is performed in accordance with Section 5.5.3.2 of ANSI C63.26.

- a) Place the EUT in the center of the turntable. The EUT shall be configured to transmit into the standard non-radiating load (for measuring radiated spurious emissions), connected with cables of minimal length unless specified otherwise. If the EUT uses an adjustable antenna, the antenna shall be positioned to the length that produces the worst case emission at the fundamental operating frequency.
- b) Each emission under consideration shall be evaluated:
 - 1) Raise and lower the measurement antenna in accordance 5.5.2, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.
 - 2) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.
 - 3) Return the turntable to the azimuth where the highest emission amplitude level was observed.
 - 4) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.
 - 5) Record the measured emission amplitude level and frequency using the appropriate RBW.
- c) Repeat step b) for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.
- d) ~ j) Omitted



k) Provide the complete measurement results as a part of the test report.

Note:

- 1. The results of the Radiated Emissions test shown above are measured at maximum power, and data values are attached only in the worst case.
- 2. The amplitude of the spurious domain emission attenuated by more than 20 dB over the permissible value was not recorded according to ANSI C63.26, clause 5.1.1., c).
- 3. Measure distance = 3 m



Test Results:

B13 LTE 5 MHz 1 Carrier

Freq.(MHz)	Measured Level	Ant. Factor	A.G.+C.L.+H.P.F.	Pol.	Measured Power	Result		
	[dBuV]	[dB/m]	[dB]		[dBm]	[dBm/m]		
No Critical Peaks found								

* C.L.: Cable Loss / A.G.: Amp Gain / H.P.F.: High Pass Filter

B66 LTE 5 MHz 1 Carrier

Freq.(MHz)	Measured Level	Ant. Factor	A.G.+C.L.+H.P.F.	Pol.	Measured Power	Result
	[dBuV]	[dB/m]	[dB]		[dBm]	[dBm/m]
No Critical Peaks found						

* C.L.: Cable Loss / A.G.: Amp Gain / H.P.F.: High Pass Filter



Plot data of Radiated Emissions



Date: 1.JAN.2003 02:08:35







Date: 1.JAN.2003 00:27:08











5.7. FREQUENCY STABILITY

Test Requirements:

§ 2.1055 Measurements required: Frequency stability.

- (a) The frequency stability shall be measured with variation of ambient temperature as follows:
 - (1) From -30° to $+50^{\circ}$ centigrade for all equipment except that specified in paragraphs (a) (2) and (3) of this section.

§ 27.54 Frequency stability.

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

Test Procedures:

The measurement is performed in accordance with Section 5.6.3, 5.6.4 and 5.6.5 of ANSI C63.26.

5.6.3 Procedure for frequency stability testing

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at +20 °C and rated supply voltage.

The operating carrier frequency shall be set up in accordance with the manufacturer's published operation and instruction manual prior to the commencement of these tests. No adjustment of any frequency determining circuit element shall be made subsequent to this initial set-up. Frequency stability is tested:

- a) At 10 °C intervals of temperatures between -30 °C and +50 °C at the manufacturer's rated supply voltage, and
- b) At +20 °C temperature and $\pm 15\%$ supply voltage variations. If a product is specified to operate over a range of input voltage then the -15% variation is applied to the lowermost voltage and the +15% is applied to the uppermost voltage.

During the test all necessary settings, adjustments and control of the EUT have to be performed without disturbing the test environment, i.e., without opening the environmental chamber. The frequency stabilities can be maintained to a lesser temperature range provided that the transmitter is automatically inhibited from operating outside the lesser temperature range. For handheld equipment that is only capable of operating from internal batteries and the supply voltage cannot be varied, the frequency stability tests shall be performed at the nominal battery voltage and the battery end point voltage specified by the manufacturer. An external supply voltage can be used and set at the internal battery nominal voltage, and again at the battery operating end point voltage which shall be specified by the equipment manufacturer. If an unmodulated carrier is not available, the mean frequency of a modulated carrier can be obtained by using a frequency counter with gating time set to an appropriately large multiple of bit periods (gating time depending on the required accuracy). Full details on the choice of values shall be included in the test report.



5.6.4 Frequency stability over variations in temperature

- a) Supply the EUT with a nominal 60 Hz ac voltage, dc voltage, or install a new or fully charged battery in the EUT.
- b) If possible a dummy load should be connected to the EUT because an antenna near the metallic walls of an environmental test chamber could affect the output frequency of the EUT. If the EUT is equipped with a permanently attached, adjustablelength antenna, the EUT should be placed in the center of the chamber with the antenna adjusted to the shortest length possible.
- c) Turn on the EUT, and tune it to the center frequency of the operating band.
- d) Couple the transmitter output to the measuring instrument through a suitable attenuator and coaxial cable. If connection to the EUT output is not possible, make the measurement by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away).
 NOTE—An instrument that has an adequate level of accuracy as specified by the procuring or regulatory authority is the recommended measuring instrument.
- e) Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument, but is strong enough to allow measurement of the operating or fundamental frequency of the EUT). Adjust the detector bandwidth and span settings to achieve a resolution capable of accurate frequency measurements over the applicable frequency stability limits.
- f) Turn the EUT off, and place it inside the environmental temperature chamber. For devices that have oscillator heaters, energize only the heater circuit.
- g) Set the temperature control on the chamber to the Highest temperature specified in the regulatory requirements for the type of device, and allow the oscillator heater and the chamber temperature to stabilize. Unless otherwise instructed by the regulatory authority, this temperature should be 50 °C.
- h) While maintaining a constant temperature inside the environmental chamber, turn on the EUT and allow sufficient time for the EUT temperature to stabilize.
- i) Measure the frequency.
- j) Switch off the EUT, but do not switch off the oscillator heater.
- k) Lower the chamber temperature to the next level that is required by the standard and allow the temperature inside the chamber to stabilize. Unless otherwise instructed by the regulators, this temperature step should be 10 °C.
- l) Repeat step h) through step k) down to the lowest specified temperature. Unless otherwise instructed by the regulators, this temperature should be -30 °C. When the frequency stability limit is stated as being sufficient such that the fundamental emissions stay within the authorized bands of operation, a reference point shall be established at the applicable unwanted emissions limit using a RBW equal to the RBW required by the unwanted emissions specification of the applicable regulatory standard. These reference points measured using the lowest and Highest channel of operation shall be identified as f_L and f_H respectively. The worst-case frequency offset determined in the above methods shall be added or subtracted from the values of f_L and f_H and the resulting frequencies must remain within the band.
- m) Omitted



5.6.5 Frequency stability when varying supply voltage

- a) Couple the transmitter output to the measuring instrument through a suitable attenuator and coaxial cable. If connection to the EUT output is not possible make the measurement by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away)
- b) Supply the EUT with nominal ac or dc voltage. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided. Effects on frequency of transmitter keying (except for broadcast transmitters) and any heating element cycling at the nominal supply voltage and at each extreme also shall be shown.
- c) Turn on the EUT, and couple its output to a frequency counter or other frequency-measuring instrument.
- d) Tune the EUT to the center frequency of the operating band. Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument, but is strong enough to allow measurement of the operating or fundamental frequency of the EUT). Adjust the detector bandwidth and span settings to achieve a resolution capable of accurate frequency measurements over the applicable frequency stability limits.

NOTE—An instrument that has an adequate level of accuracy as specified by the procuring or regulatory authority is the recommended measuring instrument.

- e) Measure the frequency.
- f) Unless otherwise specified, vary primary supply voltage from 85% to 115% of the nominal value for other than hand carried battery equipment.
- g) For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
- h) Repeat the frequency measurement.

NOTE—For band-edge compliance, it can be required to make these measurements at the low and High channel of the operating band.

Note:

1. The results of the frequency stability test shown above the frequency deviation measured values are very small and similar trend for each port, so we are attached only the worst case data.

2. This test was performed From -20° to $+50^{\circ}$ centigrade according to the operational description.



Test Results:

AWS

Reference: - 48 Vdc at 20°C Freq. = 2,145,000,000 Hz						
Voltage	Temp.	Frequency	Frequency	Deviation		
(%)	(°C)	(Hz)	Error (Hz)	(Hz)	ppm	
	+20(Ref)	2145 000 001	1.156	0.000	0.00000	
	-20	2145 000 004	3.715	2.560	0.00119	
	-10	2145 000 002	1.955	0.799	0.00037	
1000/	0	2145 000 010	9.830	8.674	0.00404	
100%	+10	2145 000 003	3.052	1.896	0.00088	
	+30	2145 000 008	8.477	7.321	0.00341	
	+40	2145 000 008	7.940	6.784	0.00316	
	+50	2145 000 003	3.259	2.104	0.00098	
115%	+20	2145 000 006	6.143	4.988	0.00233	
85%	+20	2145 000 003	3.052	1.897	0.00088	

Note: The results of the frequency stability test shown above the frequency deviation measured values are very small and similer trend for each port, so attached datas were only the port 0.



Upper 700 MHz

	Reference: - 48 Vdc at 20°C Freq. = 751,000,000 Hz				
Voltage	Temp. Frequency		Frequency	Deviation	
(%)	(°C)	(Hz)	Error (Hz)	(Hz)	ррт
	+20(Ref)	751 000 009	9.427	0.000	0.00000
	-20	751 000 006	5.764	-3.663	-0.00488
	-10	751 000 001	1.205	-8.223	-0.01095
1000/	0	751 000 003	3.000	-6.427	-0.00856
100%	+10	751 000 000	0.440	-8.987	-0.01197
	+30	751 000 004	4.268	-5.160	-0.00687
	+40	751 000 009	8.969	-0.458	-0.00061
	+50	751 000 008	7.925	-1.503	-0.00200
115%	+20	751 000 009	8.763	-0.664	-0.00088
85%	+20	751 000 008	8.077	-1.350	-0.00180

Note: The results of the frequency stability test shown above the frequency deviation measured values are very small and similer trend for each port, so attached datas were only the port 0.



6. Annex B_EUT AND TEST SETUP PHOTO

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

No.	Description
1	HCT-RF-2111-FC093-P