Model: BT2022 FCC ID: HSW-BT2022M

### 6.6 Spurious Emissions - FCC Section 15.247(c)

### 6.6.1 RF Conducted Spurious Emissions

The EUT was investigated for conducted spurious emissions from 30MHz to 25GHz, 10 times the highest fundamental frequency. For each measurement, the spectrum analyzer's VBW was set to 100kHz and the RBW was set to 1MHz.

#### 6.6.1.2 Test Results

**Result:** All emission found were greater than 20dB down from the fundamental carrier. The RF conducted spurious emissions found in the band of 30MHz to 25GHz are reported in Table 6.6.1.2 below. Plots were taken also and are filed separately with this filing in a file titled "03-0193 Data Plots A.doc". Each emission was compared to the fundamental reference level to determine if they were at least 20dB below the reference level.

**Table 6.6.1.2: RF Conducted Spurious Emissions** 

Frequency (MHz)	Level (dBm)	Peak Power (dBm)	Limit (dBm)	Margin (dB)	Final Result (Pass/Fail)					
High Channe	d:									
1012.8	-53.85			-49.16	Pass					
4960.3	-32.34			-27.65	Pass					
9922.2	-43.39	15.31	-4.69	-38.7	Pass					
12400	-57.63	13.51	-4.03	-52.94	Pass					
15000	-76.27			-71.58	Pass					
20000	-79.17			-74.48	Pass					
Mid Channel	Mid Channel:									
952.1	-60.68		-4.41	-56.27	Pass					
4882.2	-31.02			-26.61	Pass					
9766.6	-49.13	15.59		-44.72	Pass					
12205.5	-59.36	10.00		-54.95	Pass					
15000	-76.12			-71.71	Pass					
20000	-80.67			-76.26	Pass					
Low Channe	l:									
895.8	-55.02			-50.45	Pass					
4805.6	-32.04			-27.47	Pass					
9611.1	-56.54	15.43	-4.57	-51.97	Pass					
12011.1	-64.82	10.70	-4.51	-60.25	Pass					
15000	-76.81			-72.24	Pass					
20000	-78.53			-73.96	Pass					

#### 6.6.2 Radiated Spurious Emissions (Restricted Bands) - FCC Section 15.205

Radiated emissions tests were made over the frequency range of 30MHz to 25GHz, 10 times the highest fundamental frequency on each antenna given in section 1.2.3.

The EUT was rotated through 360° and the receive antenna height was varied from 1m to 4m so that the maximum radiated emissions level would be detected. For frequencies below 1000MHz, quasi-peak measurements were made using a resolution bandwidth (RBW) of 120 kHz and a video bandwidth (VBW) of 300 kHz. For frequencies above 1000MHz, average measurements were made using an RBW of 1MHz and a VBW of 10Hz and peak measurements were made with RBW of 1MHz and a VBW of 1MHz.

The EUT was caused to generate a carrier signal on the hopping channel.

### Model: BT2022

## **Data Plots**

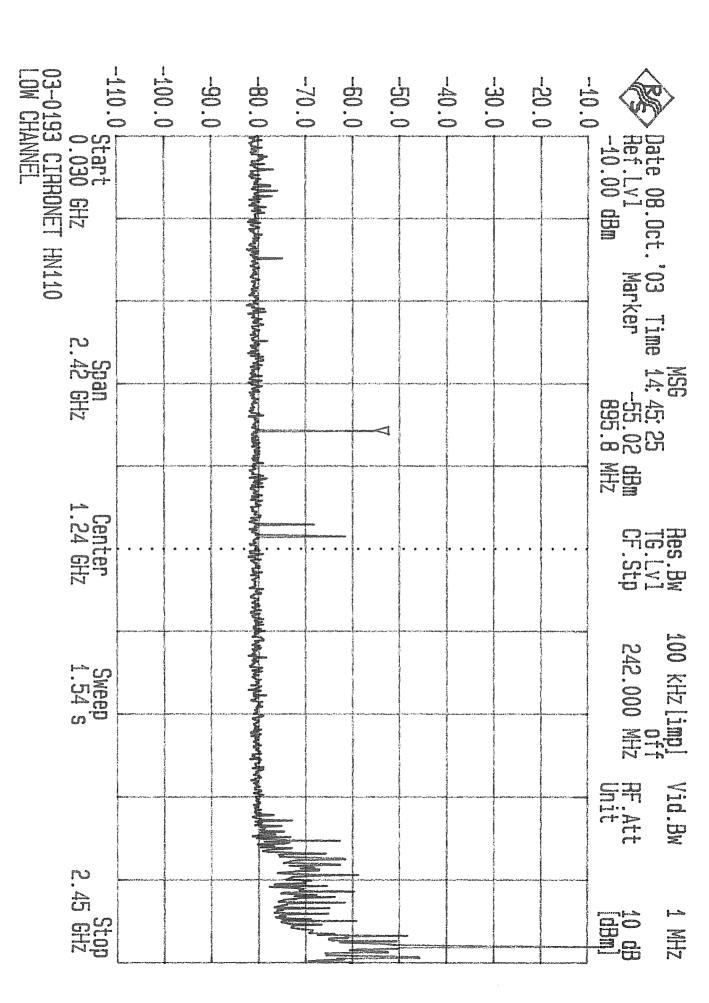
ACS Report Number: 03-0193-15B

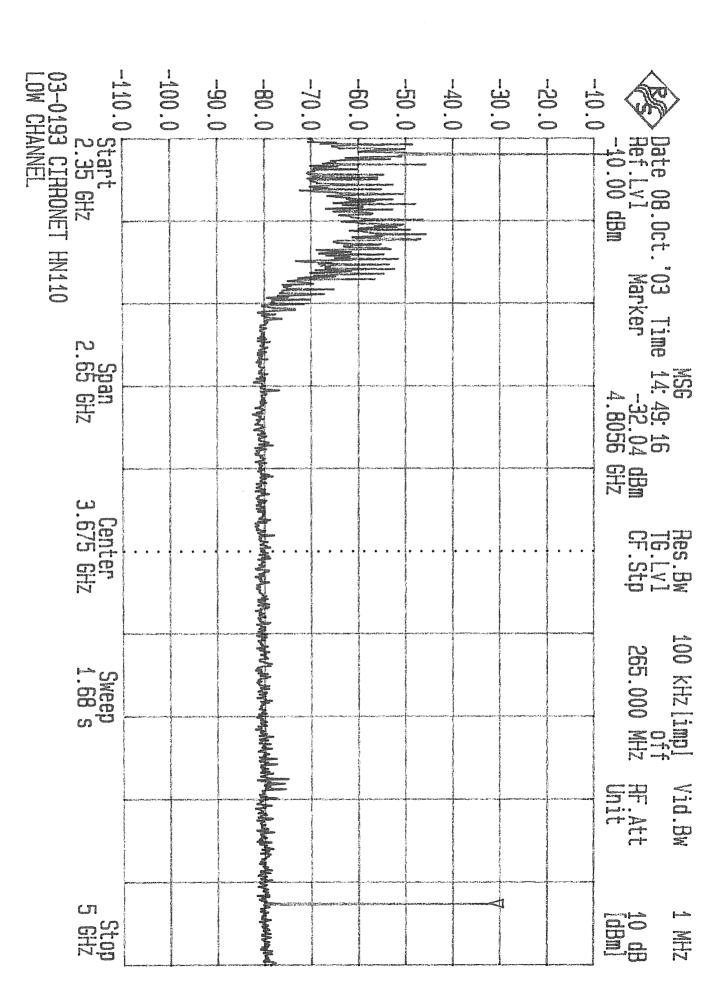
Manufacturer: Cirronet, Inc. Model: BT2022

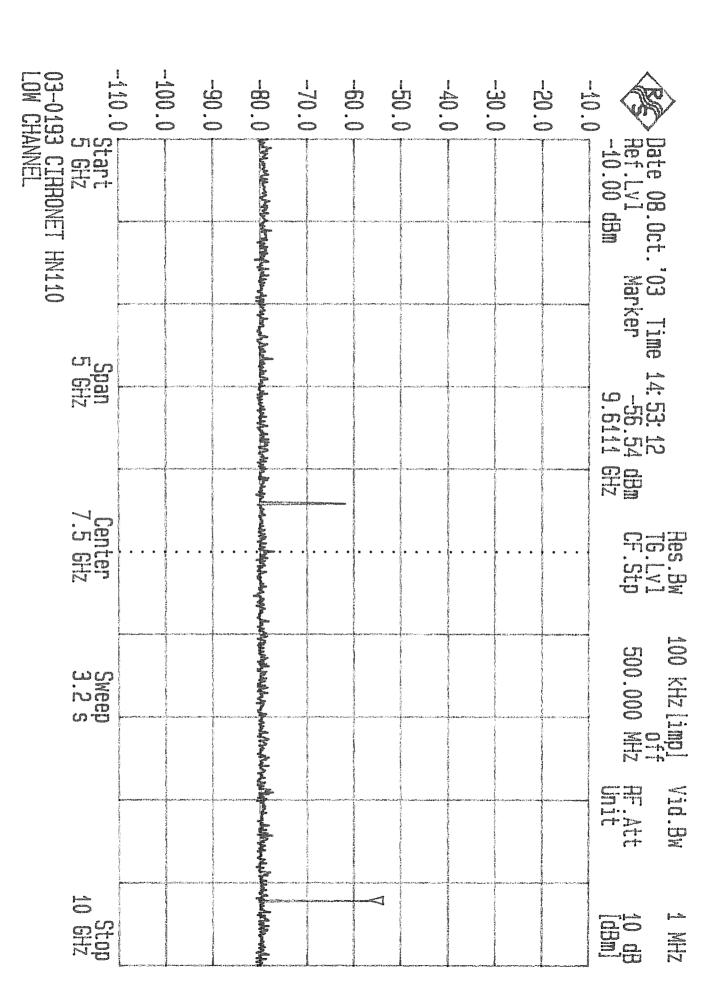
**Test: Conducted Spurious Emissions** 

Channel: Low

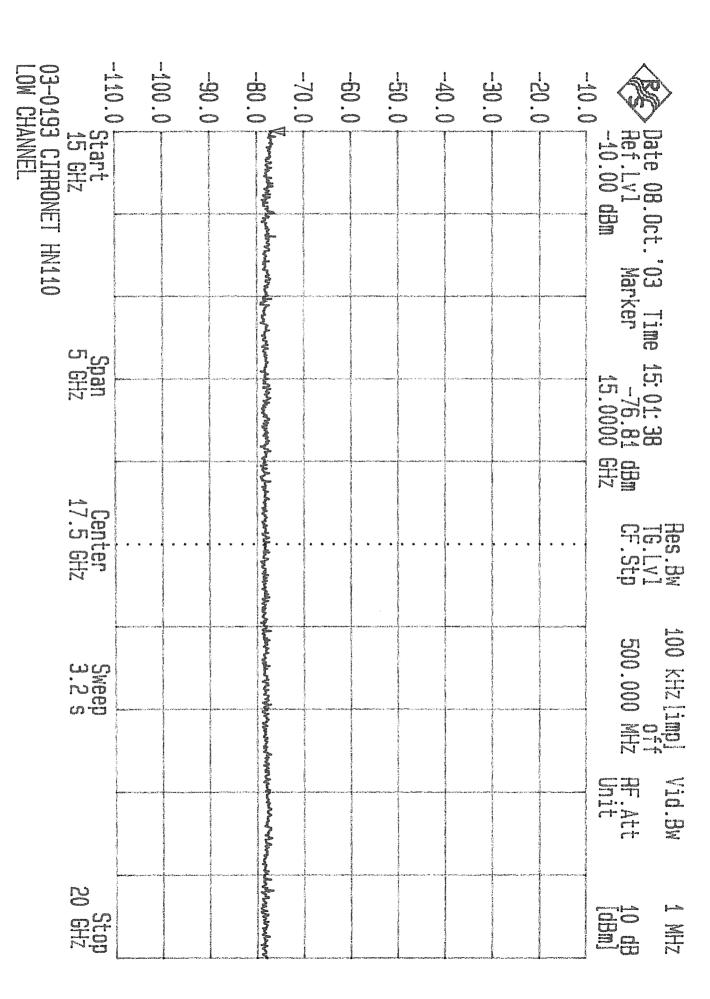
FCC ID: HSW-BT2022







man di



### Model: BT2022

## **Data Plots**

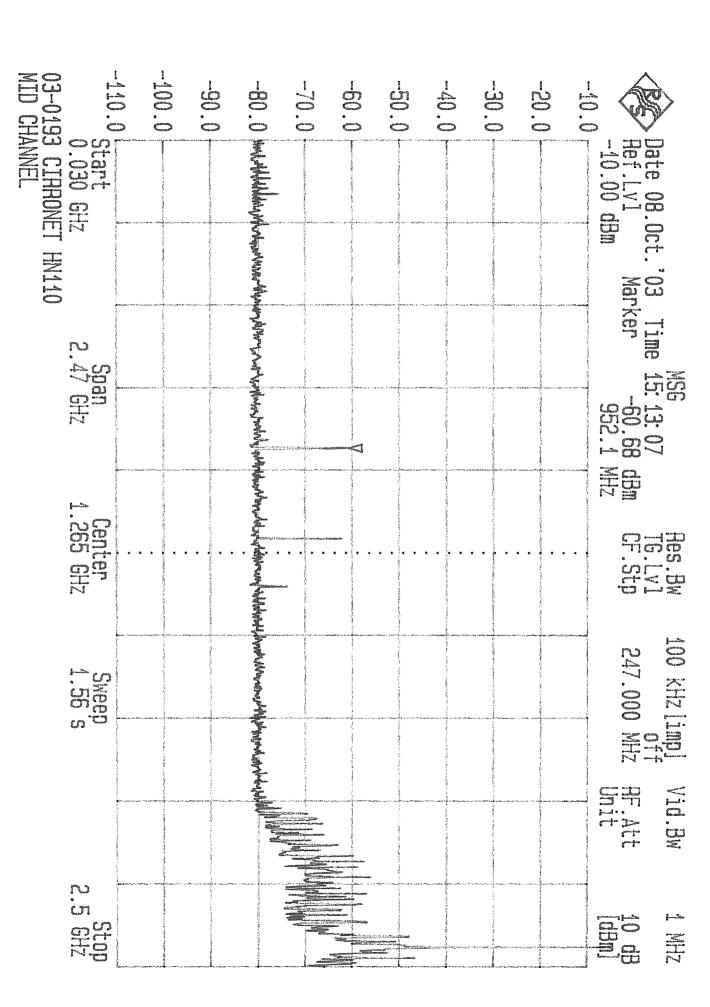
ACS Report Number: 03-0193-15B

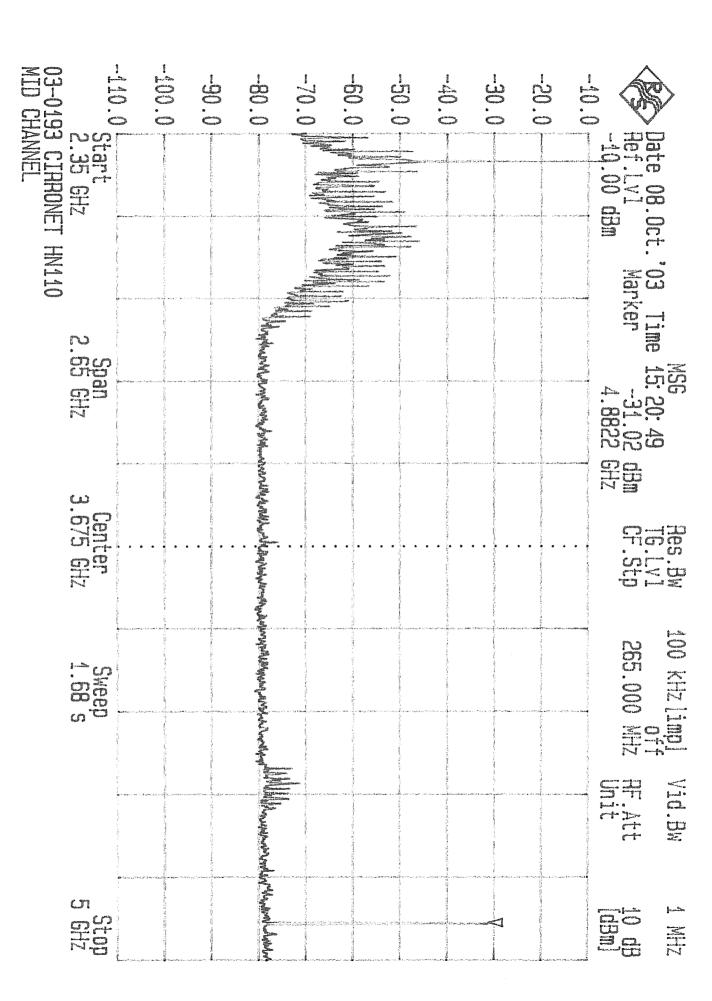
Manufacturer: Cirronet, Inc. Model: BT2022

**Test: Conducted Spurious Emissions** 

**Channel: Center** 

FCC ID: HSW-BT2022





03-0193 MID CHAN		-90.0 <del>-</del>		-70.0	-60.0		-F0 0 	-40.0	-30.0	_50.0	) <u> </u>		
Start 5 GHZ 03-0193 CIARONET HN110 MID CHANNEL			بالدارسة واسترياقه مسارية أأواده الإسسودا أويا المالم سهامة									Ref.Lvl —10.00 dBm	88
			حدامه المعاديد والمواجدة والمعادلة والمعاددة و									Marker	
Span 5 GHz			فالمقادات المعارض المعارض والمساورة والمعاودة المعارض المعارض والمعارض والمعارض والمعارض والمعارض والمعارض									-49.13 ( 9.7666 (	) 1 1 1 1 1 1 1
Center 7.5 GHz			المستورية المراجعة المستورية			- 						dBm CF.Stp GHZ	Res.Bw T6.lv1
Sweep 3.2 s			والمتعارف والمتع									500.000 MHz	100 kHz[imp] off
			والمرابط المساولة المرادعة الم									AF.Att Unit	Vid.Bw
Stop 10 GHZ			المستعدية مرائا المردوسي مرادول				7					10 dB [dBm]	1 MHz

03-0193 MID CHA	1440.0	- BO . O		100.0	n 0	150	-40.0	-30 0	- DO . C	
Start 10 GHz 03-0193 CIRRONET HN110		Santa philosopy dynthy by blych gapy								Date 08.Oct.'03 Time Ref.Lvl Marker -10.00 dBm
		Albarina and market designed by the library and the library an								.03 Time
Span 5 GHZ		ﻪﺭ ﺳﻮﻧﯘﺳﯘﻟﯘﻟﯘﺳﯘﻟﯘﻟﯘﺳﯘﻟﯘﻟﯘﺳﯘﻟﯘﺳﯘﻟﯘﺳﯘﻟﯘﺳﯘﻟﯘﺳﯘﻟﯘ								15: 33: 26 -59. 36 12. 2055
Center 12.5 GHz		 Hyprifor Hayding Low Charles			<b>∇</b>					Hes.bw TG.Lv1 dBm CF.Stp GHZ
Sweep 3.2 s		Why was the man was a second s	the second of th							100 KHZ[IMP] Off 500.000 MHZ
		Mary Company								VIU.BW RF.Att Unit
Stop 15 GHz		A all water and the property of the property o	oden M. A. Arma subd							1 MHZ 10 dB [dBm]

15 GHZ 03-0193 CIRRONET HN110 MID CHANNEL	-100.0	-90.0	-80.0	-70.0	-50 0	-4U.U	30.0	20.0	20 0	Date OB.Oct.'03 Time Ref.Lvl Marker -10.00 dBm
Span 5 GHz			والمراق والمراس والمراس والمراس والمراس والمراس والمراس والمراس والمراس والمراس والمرس							Time 15:41:56 rker -76.12 dBm 15.0000 GHz
Center 17.5 GHz			5							Res.Bw TG.Lvl CF.Stp
Sweep 3.2 s			شهرا الإسراء مرايب عائله الإدارات المساورة والمساورة والمراجعة والمراجعة والمراجعة والمستعددة والمتاوية والمعارفة وا							100 KHz[imp] Vid.Bw Off 500.000 MHz AF.Att Unit
Stop 20 GHz			والمراجعة والمعاولة							.Bw 1 MHz 10 dB [dBm]

03-0193 MID CH/	-100.0	-90.0	-80.01	-70 O	160.0 10.0	л Э	- /n . 0	0.02	130.0		
Start 20 GHz 03-0193 CIARONET HN110 MID CHANNEL			-80.0 General problem graph of 0.0							Hef.Lv1 Marker -80.67 dBm -10.00 dBm 20.0000 GHz	Date OR Ort 1
			4							Marker	교 클 클 프
Span 5 GHz			g Lipsign grid by January and the Comments of							-80.67 d 20.0000 G	ブ グ 20
Center 22.5 GHz			ana and and the state of the part of the p								Hes.Bw
H <sub>Z</sub>			May all all and the state of th								
Sweep 3.2 s			White the state of							500.000	100 kHz[imp]
			Margary Completed							MHZ RF.Att Unit	mp] Vid.Bw
			Montagando							Att	Bw
Stop 25 GHz			Aprophraga							10 dB [dBm]	1 MHZ

### Model: BT2022

# **Data Plots**

ACS Report Number: 03-0193-15B

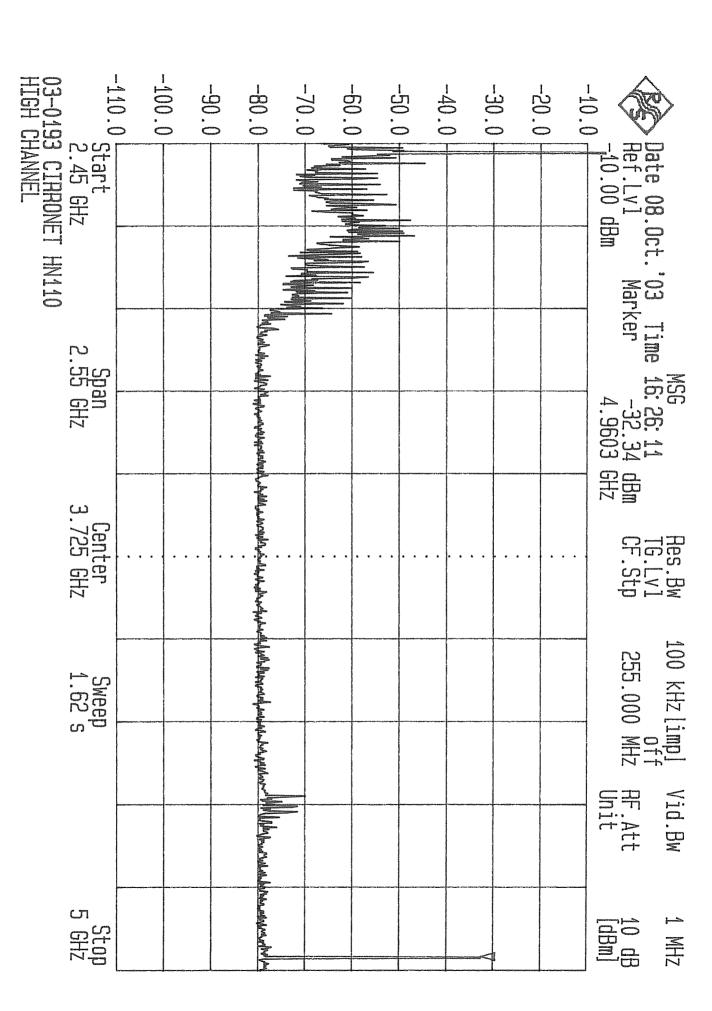
Manufacturer: Cirronet, Inc. Model: BT2022

**Test: Conducted Spurious Emissions** 

Channel: High

FCC ID: HSW-BT2022

03-019 HIGH CI	-100.0	-80.0 -90.0	-60.0 -70.0	-40.0 -50.0	-30.0	-20.0		
03-0193 CIARONET HN110 HIGH CHANNEL		-80.0 hhallahlahlah					Hef.Lvl -10.00 dBm	
HN110			_				Marker	3
Span 2.52 GHz		May Aughery Programme					(er	i i i
SHZ		Andred Hope Control		V			-53.85 d 1.0128 G	
1.00		Alphoracion forces					Bm tz	
Center 1.29 GHz		Andrea Maria Ma					CF.Stp	Hes.Bw
Sweep 1.60 s		الكالم والموادة والمو	TOTAL STATE OF THE				252.000 MHz	100 KHz
		والباطية					MHZ	
							AF.Att Unit	Vid.Bw
Stop 2.55 GHZ							10 [d	<b> </b>
HZ Hz				SOCIAL CENTRAL PROPERTIES AND				1 MHZ



-110.0 Start 5 GHz 03-0193 CIARONET HN110 HIGH CHANNEL	-100.0	-90.0		-50.0 -70 0	-50.0	-40.0	-30.0	-20.0	-10.0	Hef.Lvl Mar	
Span 5 GHz			many hy esterna de la proposition de la banda de la banda de la banda de la competition de la la la competiton							Marker 15:33:43 Marker -43.39 dBm 9.9222 GHz	
Center 7.5 GHz			aparahal lahanga gayanga disanga ga			,				CF.Stp	Hes.Bw
3,2 s			برائس يعترجه والمعالمة							500.000 MHz f	100 KHZ[imp] \
										AF. Att Unit	Vid.Bw
10 GHZ			المراطية المادية المراطية			<					1 MHZ

