

Test result and instruments about Type certificate

Specified low power radio equipment

1. General

Model name	HAT-S200	Date	2019/4/23
Serial number	1	Place	株式会社イーアンドエム
Class of emissions, Assigned frequency and Antenna power	F1D 429.8500MHz 0.01W	Remarks	種別：証明規則第2条1項第8号 試験方法：総務省告示88号別表第22第2

2. Measuring Instruments

Equipment type	Model number	Serial number	Manufacturer	Calibrated Date	Calibration Authority	Remarks
シグナルアナライザ	MS2830A	6201680058	アンリツ	2018/12/26	(株)宝永 二	
デジタルマルチメータ	AD7461A	662601170	アドバンテスト	2018/5/24	(株)宝永 二	

3. Test Result

Condition	Test Items #3	Unit	Normal Voltage +10% (DC26.4V)		Normal Voltage (DC24.0V)		Normal Voltage -10% (DC21.6V)		Judgment	Limit	Remarks
				429.8500		429.8500		429.8500			
Normal (25.8℃ 40%)	Frequency	MHz				429.850249			Pass		
		ppm				0.579				4ppm	
	Occupied Bandwidth	kHz				6.48			Pass	8.5kHz	
	Spurious	30～(fc-1) MHz	dBm			-76.59			Pass	-26dBm	
			MHz			171.9432					
		(fc-1)～(fc-0.0625) MHz	dBm			-61.14			Pass	-26dBm	
			MHz			429.7605					
		(fc+0.0625)～(fc+1) MHz	dBm			-56.97			Pass	-26dBm	
			MHz			429.9390					
		(fc+1)～1000MHz	dBm			-41.65			Pass	-26dBm	
			MHz			859.6900					
	fc:測定周波数 [MHz]	1～3GHz	dBm			-41.66			Pass	-26dBm	
			MHz			2149.19					
	Antenna Power	W				0.01026			Pass	0.01W	
		%				2.60%				+20 ~ -50%	
	Adjacent-channel leakage power	Upper	dBc			-47.16			Pass	-40dBc	
		Lower	dBc			-48.42					
	Secondary Radiated Emissions	below 1GHz	dBm			-75.24			Pass	-54dBm	
			MHz			429.4080					
		1GHz～1.5G	dBm			-74.85			Pass	-54dBm	
			MHz			1439.62					
	Restricting transmit ON time	Transmit ON time	sec			0.2			Pass	<40sec	
		Transmit OFF time	sec			2.1			Pass	>2sec	
	Carrier sensing function					OK			Pass		

Notes

※外部電源 DC 24V
電圧を21.6V～26.4Vに変化させた場合においても、系統図A2 (TA48L05F) によりEX140への供給電圧が変化しないことを右の通り確認しました。
よって、電圧変動によるデータ取得を省略いたします。

入力電圧 [V]	A2(TA48L05F) 出力電圧 [V]
21.6	5.05
24.0	5.05
26.4	5.05

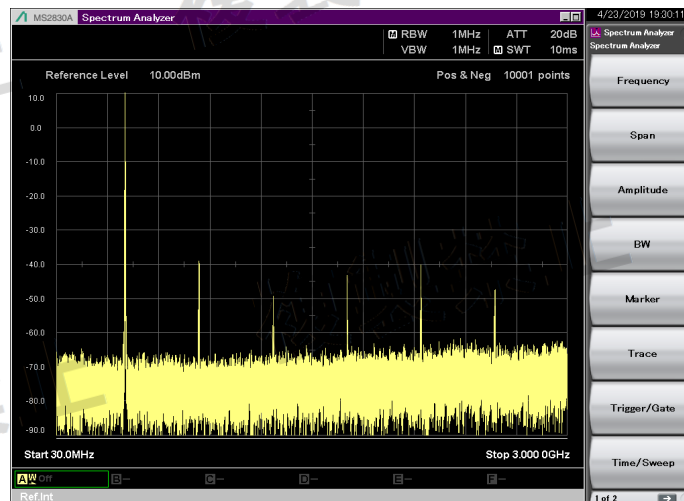
Screen Shot at normal voltage

Occupied Bandwidth

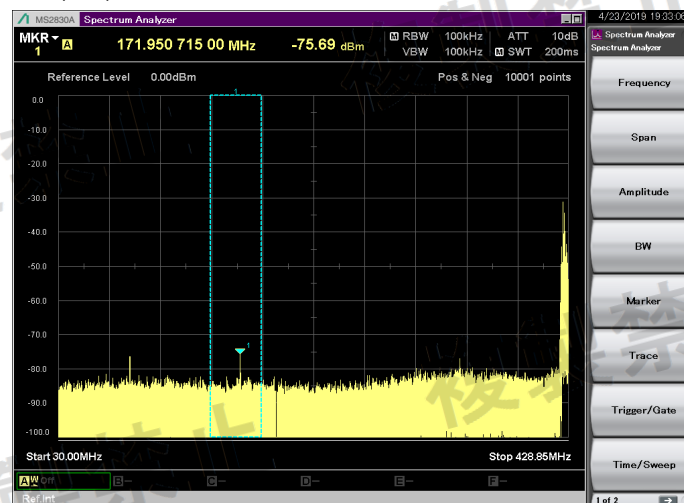


Spurious Emissions

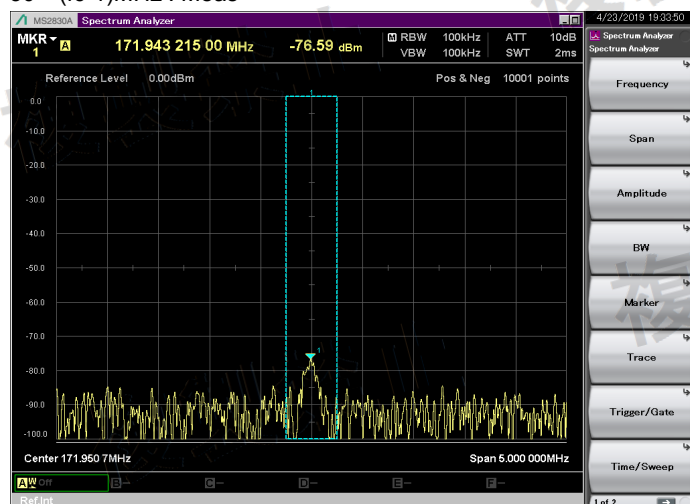
Entire 30M~3GHz



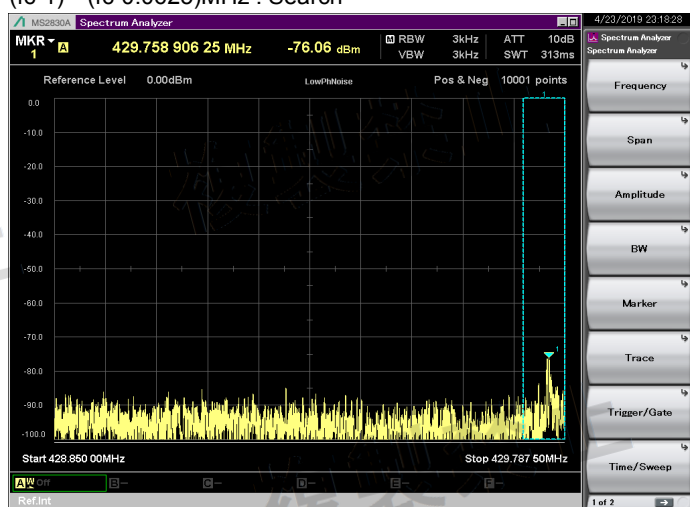
30~(fc-1)MHz : Search



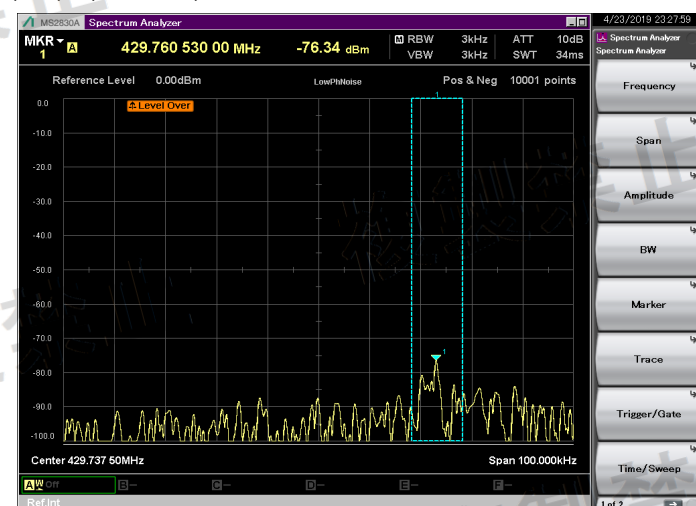
30~(fc-1)MHz : Meas



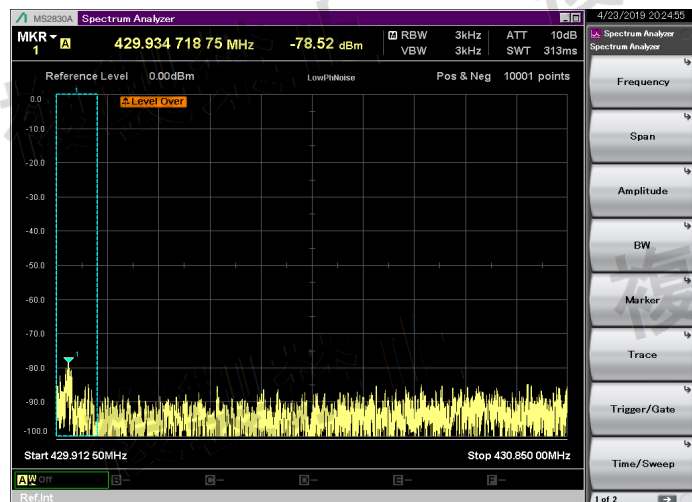
(fc-1)~(fc-0.0625)MHz : Search



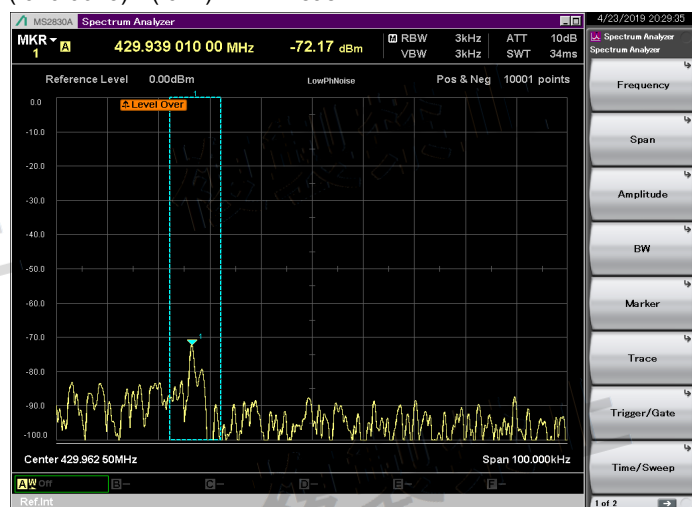
(fc-1)~(fc-0.0625)MHz : Meas



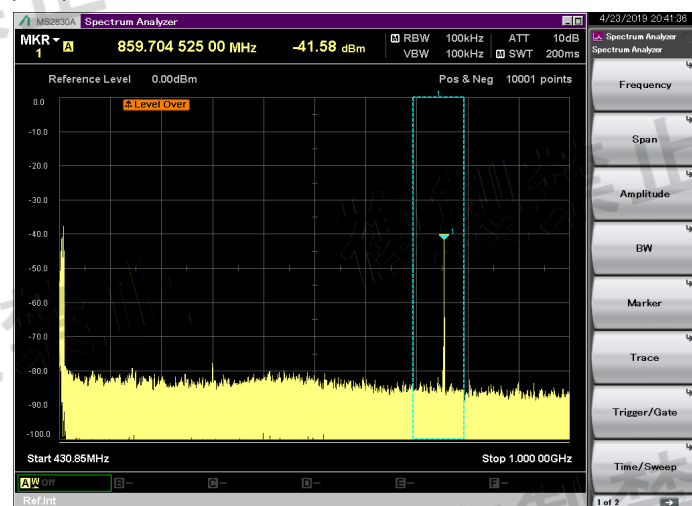
(fc+0.0625)~(fc+1)MHz : Search



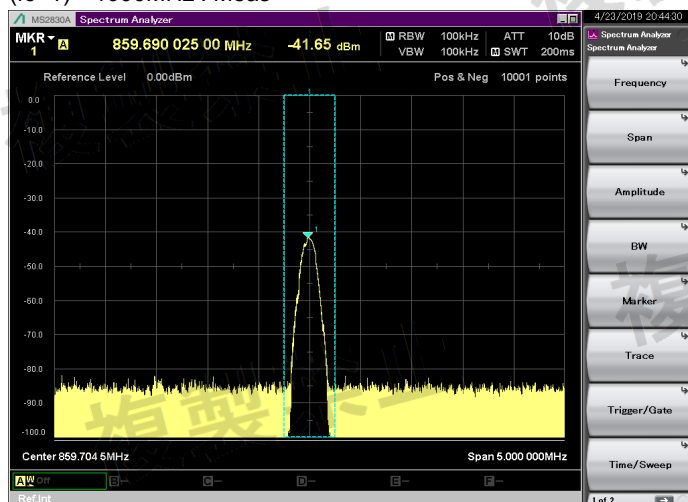
(fc+0.0625)~(fc+1)MHz : Meas



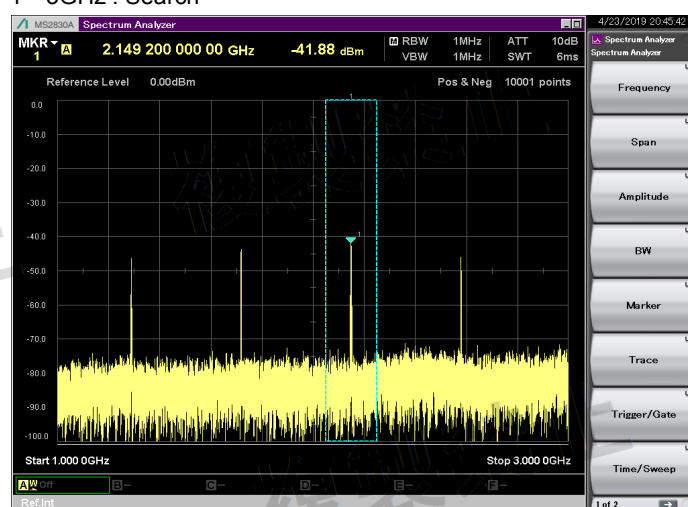
(fc+1)~1000MHz : Search



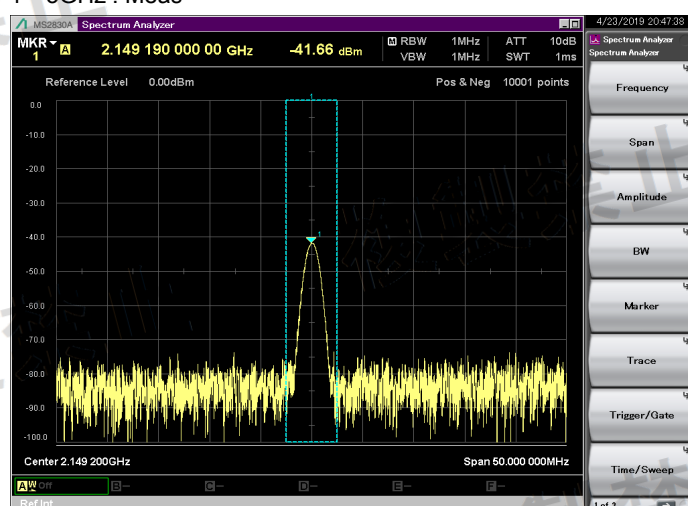
(fc+1)~1000MHz : Meas



1~3GHz : Search



1~3GHz : Meas



Adjacent channel leakage power

