

Test result and instruments about Type certificate

315MHz Telemeter (Specified low-power radio stations)

1. General

Model name	T305BR	Date	2019/12/24
Serial number	S00001	Place	株式会社イーアンドエム
Class of emissions, Assigned frequency and Antenna power	F 1 D 313.625MHz 0.00025W/EIRP	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	141100911	アドバンテスト	2019/5/17	(株)宝永 二	

3. Test Result

Condition	Test Items	Unit	Normal Voltage +10% (DC4.95V)		Normal Voltage (DC4.5V)		Normal Voltage -10% (DC4.05V)		Judgment	Limit	Remarks
			313.6400		313.6400		313.6400				
Normal (25.8° C, 48 %)	Frequency	Center			313.6419				pass	312-315.25MHz	
	Occupied Bandwidth **1	kHz			29				pass	1MHz	
		Upper			313.6564				pass	315.25MHz	
		Lower			313.6274				pass	312MHz	
	Spurious (EIRP)	30MHz-312MHz	dBm		-80.40				pass	-36dBm/100kHz	
			MHz		166.375						
		315.25MHz-1000MHz	dBm		-79.93				pass	-36dBm/100kHz	
			MHz		627.291						
		1000MHz-3GHz	dBm		-78.55				pass	-30dBm/1MHz	
			MHz		2397.400						
	Antenna Power (EIRP)		uW		22.96				pass	**2	
			%		-90.82					20%	
	Secondary Radiated Emissions (EIRP)	30MHz-1000MHz	dBm						pass	-54dBm/100kHz	
			MHz								
		1000MHz-3GHz	dBm						pass	-54dBm/1MHz	
			MHz								
	Transmission time	Transmission time	s						pass	**3	
		Suspension time	ms								

Notes
 外部電源 DC 4.5V (電池)
 電圧を4.05V～4.95Vに変化させた場合においても、系統図A101 (NIJ4184U3-25B) により、A1(CC1125RHBR)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]	A101 (NIJ4184U3-25B) 出力電圧 [V]
4.05	2.49
4.50	2.49
4.95	2.49

**1
Frequency

Occupied bandwidth must be within 312 - 315.25MHz.

**2
Antenna Power

Antenna power : EIRP
 Higher than 312 MHz and less than 315.05 MHz
 : less than 250 uW
 Higher than 315.05 MHz and less than 315.25 MHz
 : less than 25 uW

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Model name	T305BR	Date	2019/12/24
Serial number	S00001	Place	株式会社イーアンドエム
Class of emissions, Assigned frequency and Antenna power	F 1 D 313.625MHz 0.00025W/EIRP	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	1411100911	アドバンテスト	2019/5/17	(株)宝永 二	

3. Test Result

Condition	Test Items	Unit	Normal Voltage +10% (DC4.95V)		Normal Voltage (DC4.5V)		Normal Voltage -10% (DC4.05V)		Judgment	Limit	Remarks
			314.0000		314.0000		314.0000				
Normal (25.8° C, 48 %)	Frequency	Center			313.9995				pass	312-315.25MHz	
	Occupied Bandwidth **1	kHz			25.8				pass	1MHz	
		Upper			313.9866				pass	315.25MHz	
		Lower			314.0124				pass	312MHz	
	Spurious (EIRP)	30MHz-312MHz	dBm		-79.97				pass	-36dBm/100kHz	
					166.009						
		315.25MHz-1000MHz	dBm		-82.08				pass	-36dBm/100kHz	
					628.044						
		1000MHz-3GHz	dBm		-78.42				pass	-30dBm/1MHz	
					2459.600						
	Antenna Power (EIRP)		uW		22.65				pass	**2	
					-90.94					20%	
	Secondary Radiated Emissions (EIRP)	30MHz-1000MHz	dBm						pass	-54dBm/100kHz	
		1000MHz-3GHz	dBm						pass	-54dBm/1MHz	
	Transmission time	Transmission time	s						pass	**3	
		Suspension time	ms								

Notes
 外部電源 DC 4.5V (電池)
 電圧を4.05V～4.95Vに変化させた場合においても、系統図A101 (NJW4184U3-25B) により、A1(CC1125RHBR)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]	A101 (NJW4184U3-25B) 出力電圧 [V]
4.05	2.49
4.50	2.49
4.95	2.49

**1
Frequency

Occupied bandwidth must be within 312 - 315.25MHz.

**2
Antenna Power

Antenna power : EIRP
 Higher than 312 MHz and less than 315.05 MHz
 : less than 250 uW
 Higher than 315.05 MHz and less than 315.25 MHz
 : less than 25 uW

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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	1411100911	アドバンテスト	2019/5/17	(株)宝永 二	

3. Test Result

Condition	Test Items		Unit	Normal Voltage +10% (DC4.95V)		Normal Voltage (DC4.5V)		Normal Voltage -10% (DC4.05V)		Judgment	Limit	Remarks
				314.3750		314.3750		314.3750				
Normal (25.8° C, 48 %)	Frequency		Center			314.3769				pass	312-315.25MHz	
	Occupied Bandwidth **1		kHz			29				pass	1MHz	
			Upper			314.3624				pass	315.25MHz	
			Lower			314.3914				pass	312MHz	
	Spurious (EIRP)	30MHz-312MHz	dBm			-79.70				pass	-36dBm/100kHz	
			MHz			165.614						
		315.25MHz-1000MHz	dBm			-82.09				pass	-36dBm/100kHz	
			MHz			628.797						
		1000MHz-3GHz	dBm			-76.98				pass	-30dBm/1MHz	
			MHz			2443.200						
	Antenna Power (EIRP)		uW			22.65				pass	**2	
			%			-90.94					20%	
	Secondary Radiated Emissions (EIRP)	30MHz-1000MHz	dBm							pass	-54dBm/100kHz	
			MHz									
		1000MHz-3GHz	dBm							pass	-54dBm/1MHz	
			MHz									
	Transmission time	Transmission time	s							pass	**3	
		Suspension time	ms									

Notes

外部電源 DC 4.5V (電池)
電圧を4.05V～4.95Vに変化させた場合においても、系統図A101 (NJW4184U3-25B) により、A1(CC1125RHBR)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]	A101 (NJW4184U3-25B) 出力電圧 [V]
4.05	2.49
4.50	2.49
4.95	2.49

**1
Frequency

Occupied bandwidth must be
within 312 - 315.25MHz.

**2
Antenna Power

Antenna power : EIRP
Higher than 312 MHz and less than 315.05 MHz
: less than 250 μW
Higher than 315.05 MHz and less than 315.25 MHz
: less than 25 μW

Screen Shot at normal voltage

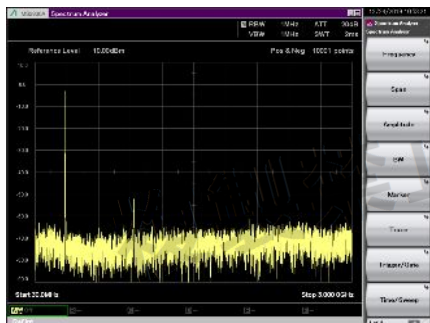
1ch 313.640MHz

Occupied Bandwidth

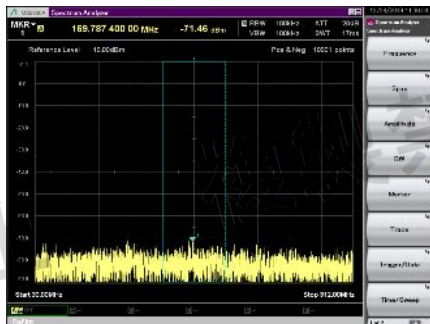


Spurious Emissions

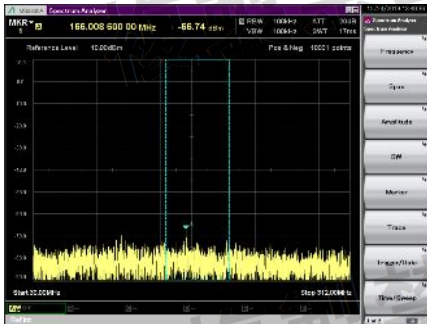
Entire



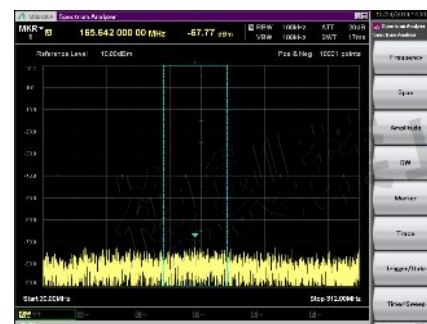
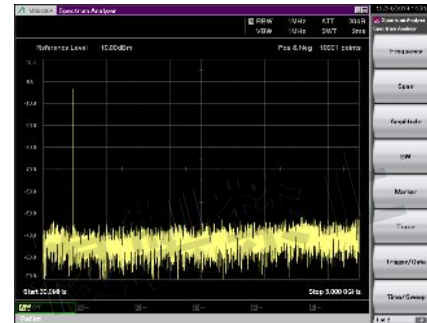
30MHz-312MHzMHz : Search



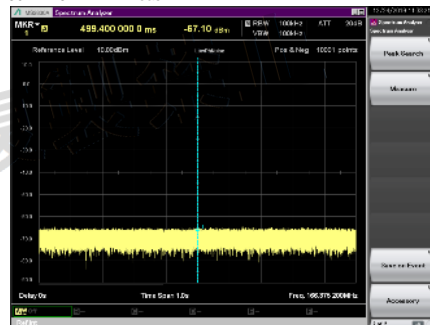
25ch 314.000MHz



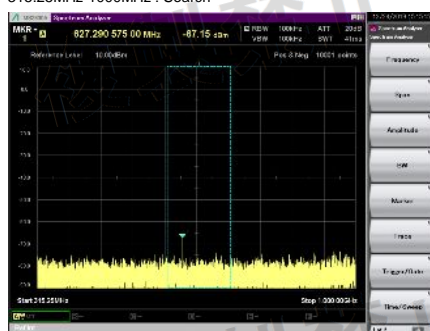
50ch 314.375MHz



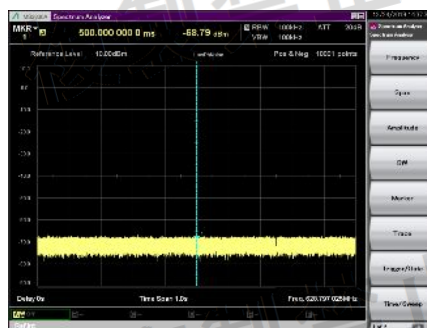
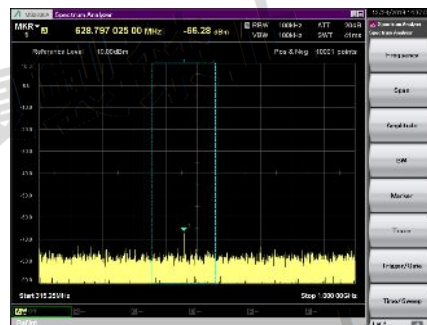
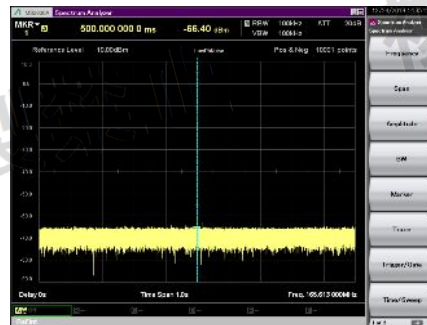
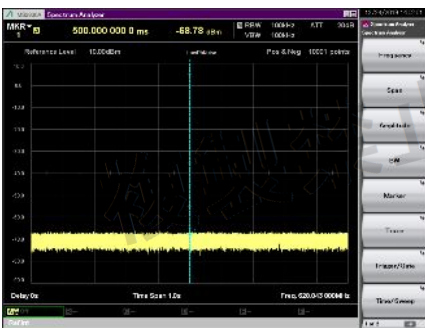
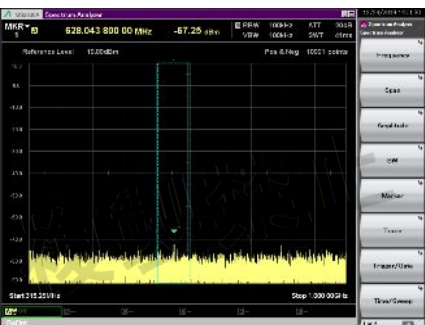
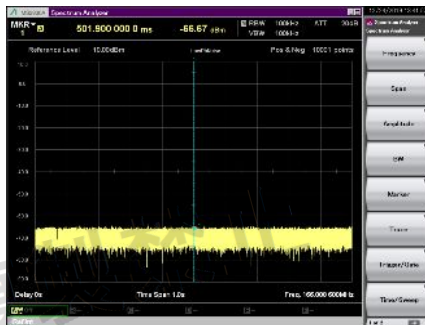
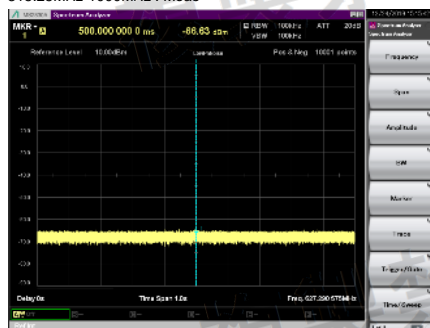
30MHz-312MHz : Meas



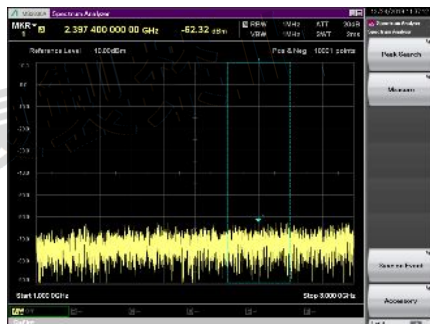
315.25MHz-1000MHz : Search



315.25MHz-1000MHz : Meas



1000MHz-3GHz : Search



1000MHz-3GHz : Meas

