

Test result and instruments about Type certificate

1. General

Model name	HS-10, HS-10A	Date	25 August 2023
Serial number	2473FOXBLMP0400TS	Place	Karakaarenkuja 4, FI-02610 Espoo, Finland
Class of emissions, Assigned frequency and Antenna power	F1D, 2402-2480 MHz (2 MHz step 40 ch), 0.00251 W	Remarks	

2. Measuring Instruments

Equipment type	Model number	Serial number	Manufacturer	Calibrated Date	Calibration Authority	Remarks
Spectrum analyzer	FSV40	101068	Rohde & Schwarz	4 January 2023	Rohde & Schwarz (c)	
Multimeter	289	59090035	Fluke	29 November 2022	SGS (c)	

3. Test Result

Condition	Test Items		Unit	Normal Voltage + 10% (V)			Normal Voltage (230 V)			Normal Voltage - 10% (V)			Judgment	Limit	Remarks	
				2402MHz	2442MHz	2480MHz	2402MHz	2442MHz	2480MHz	2402MHz	2442MHz	2480MHz				
Normal (23 ° C, 53 %)	Frequency		MHz				2401.984	2441.984	2479.984				Pass			
			ppm				-6.661	-6.552	-6.452					50ppm		
	Occupied Bandwidth		MHz				1.070	1.070	1.072				Pass	26MHz		
	Spurious Emissions	30MHz-2387MHz	dBm				-48.90	-49.16	-48.42				Pass	-26dBm		
			MHz				2274.230	2331.500	2352.240							
		2387MHz-2400MHz	dBm				-27.15	-50.77	-49.44				Pass	-16dBm		
			MHz				2399.999	2394.821	2396.823							
		2483.5MHz-2496.5MHz	dBm				-49.23	-49.92	-39.55				Pass	-16dBm		
			MHz				2493.389	2485.669	2483.501							
		2496.5MHz-12.5GHz	dBm				-43.21	-43.40	-43.33				Pass	-26dBm		
			MHz				6974.10	6995.10	6918.10							
	Antenna Power		W				0.00193	0.00221	0.00218				Pass	0.01W		
			%				-23.1	-12.0	-13.1					+20 ~ -80%		
	Secondary Radiated Emissions	30MHz-1GHz	dBm				-77.27	-77.25	-76.89				Pass	-54dBm		
			MHz				802.867	878.326	934.774							
		1GHz-12.5GHz	dBm				-58.96	-59.08	-58.34				Pass	-47dBm		
			MHz				10346.80	10528.50	10611.30							
	Interference Prevention Function				Function was checked by obtaining the pairing address of the chip: E790D0755BE0											

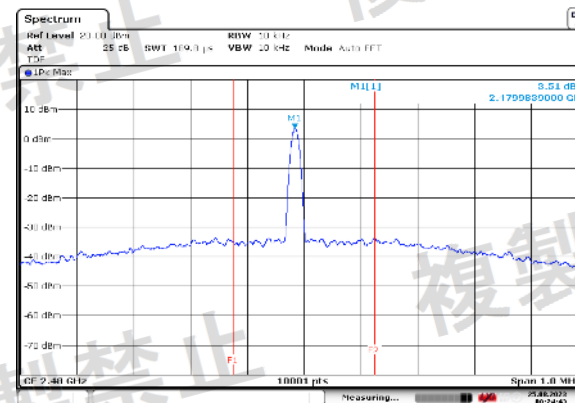
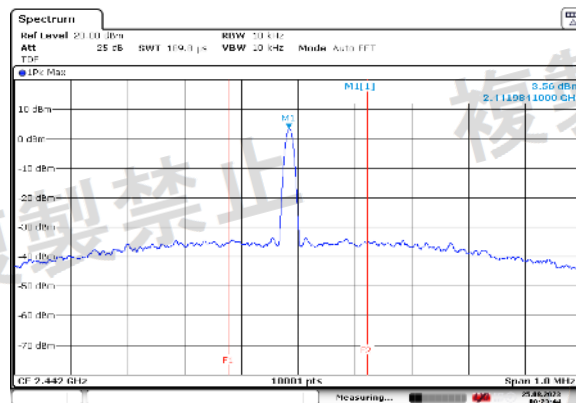
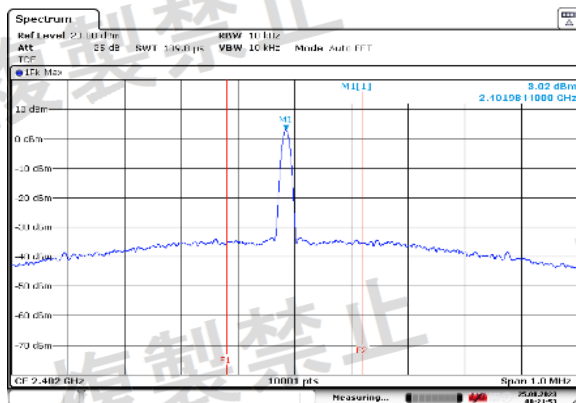
Note:

The RF section input voltage is within 1 %, when the EUT input voltage is varied ± 10 %. The RF section input voltage was measured with a multimeter.

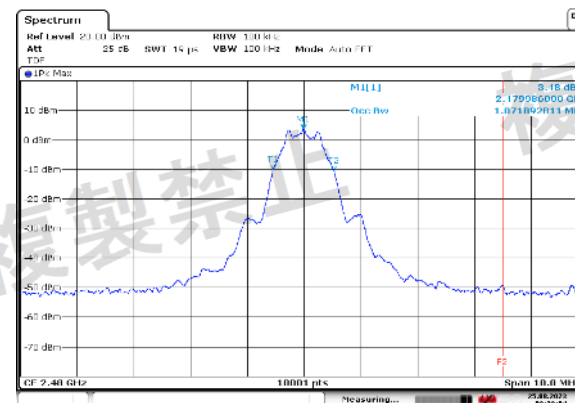
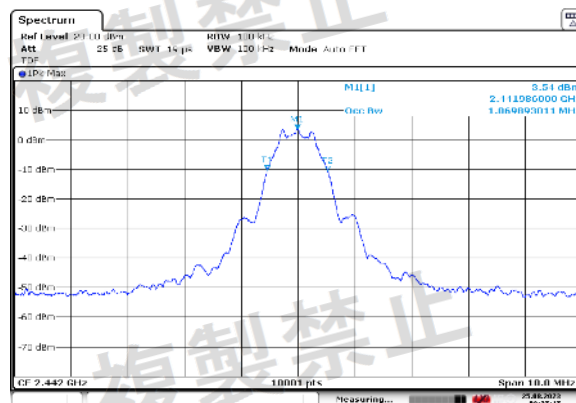
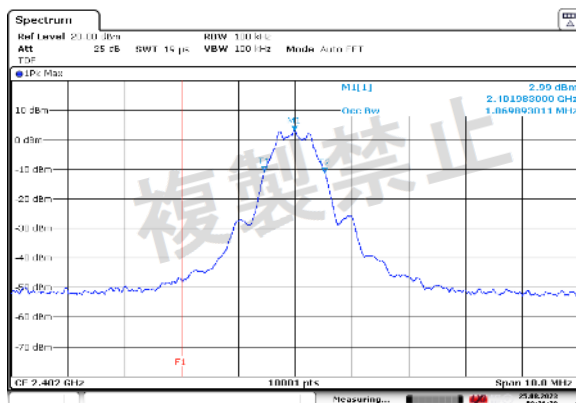
Input [V]	Regulated output [V]	Error [%]
90	1.7976	-0.006
100	1.7977	-
110	1.7976	-0.006
230	1.7977	0

The testing was performed with 230 V (AC mains voltage in Finland).

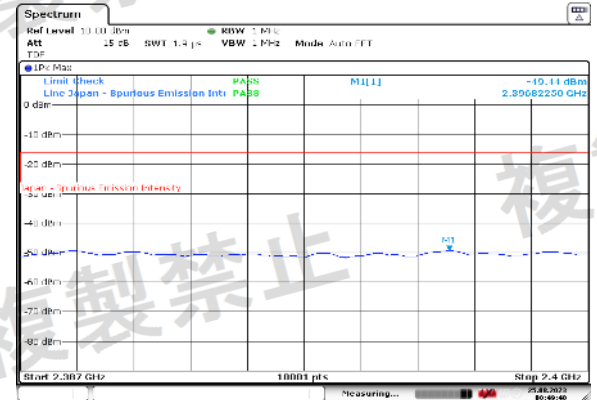
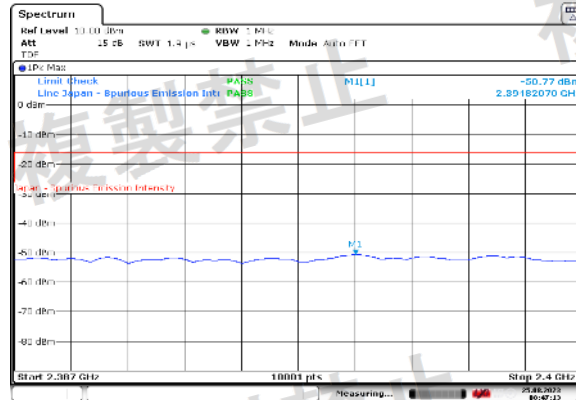
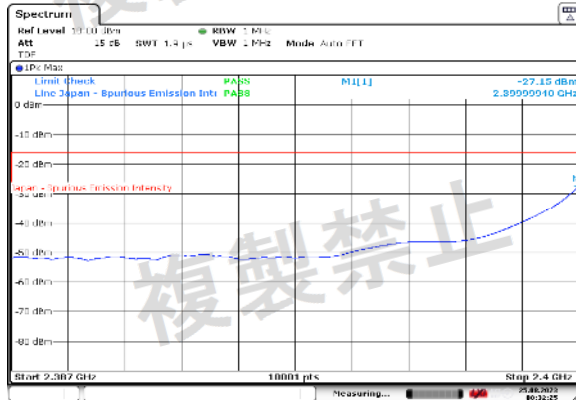
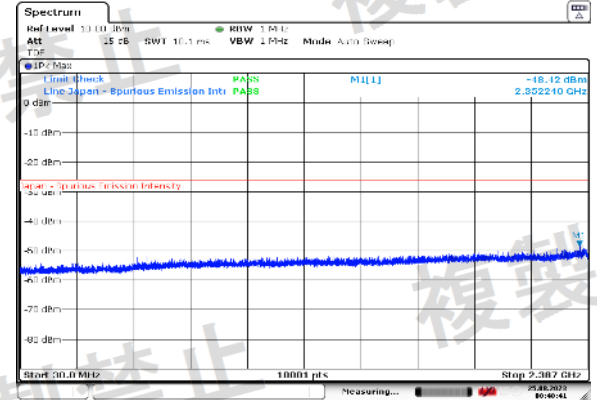
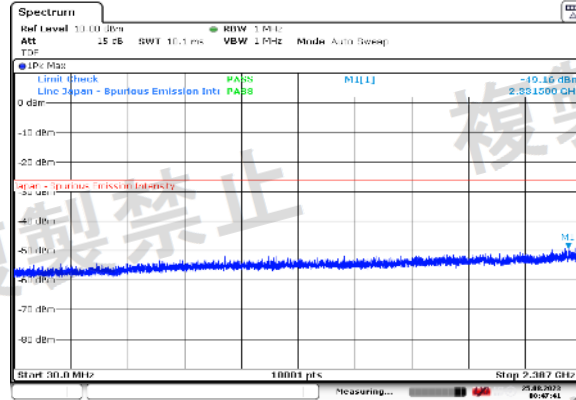
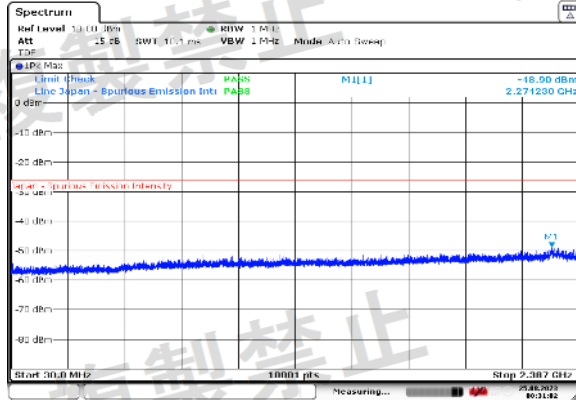
Frequency

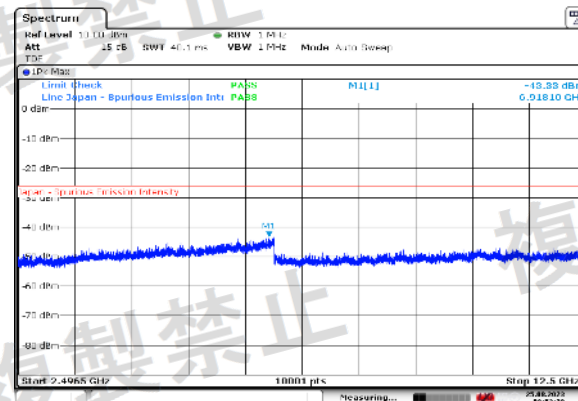
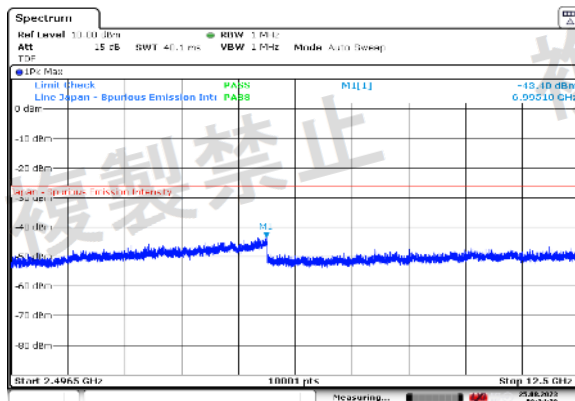
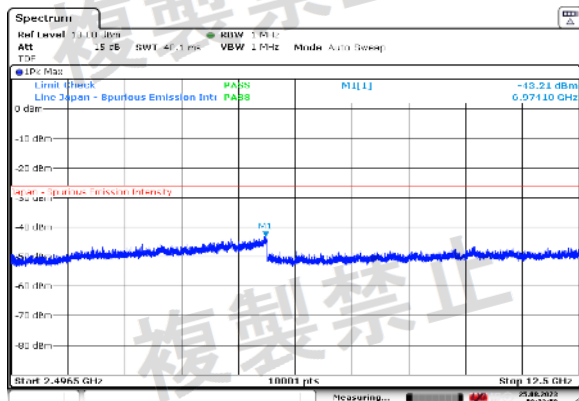
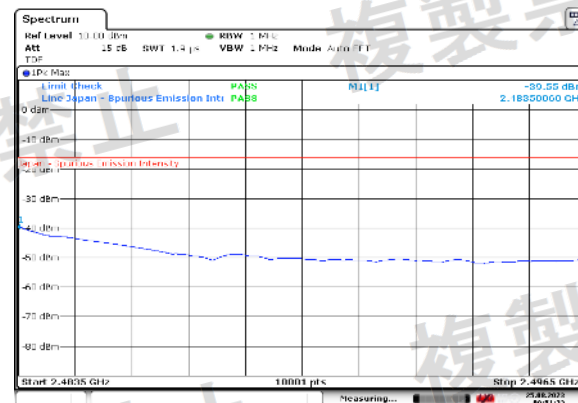
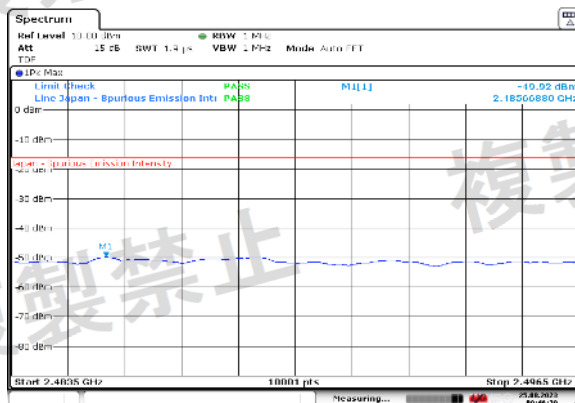
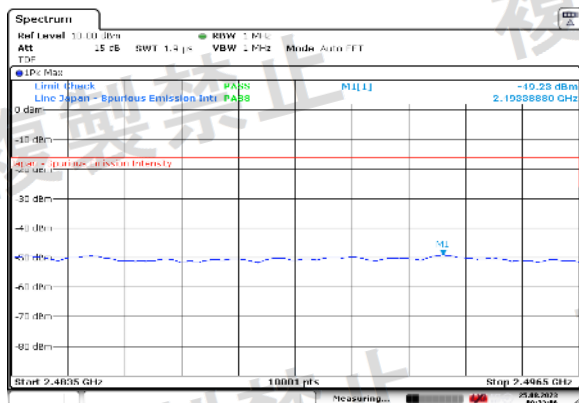


Occupied Bandwidth

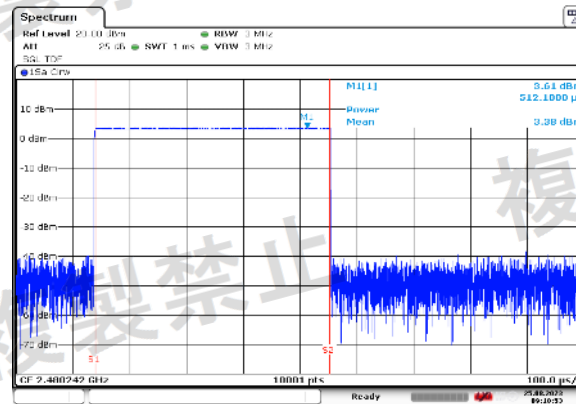
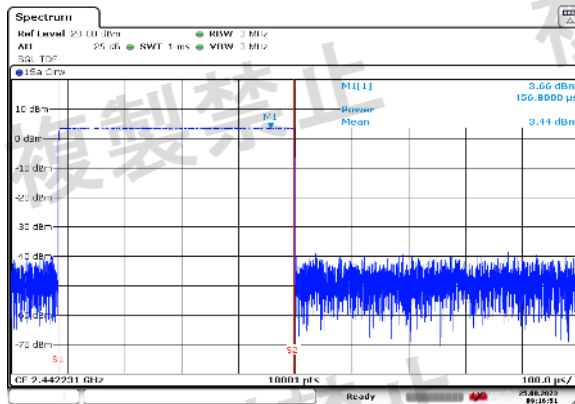
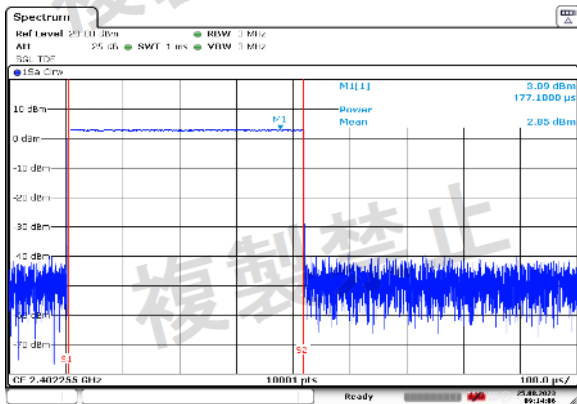
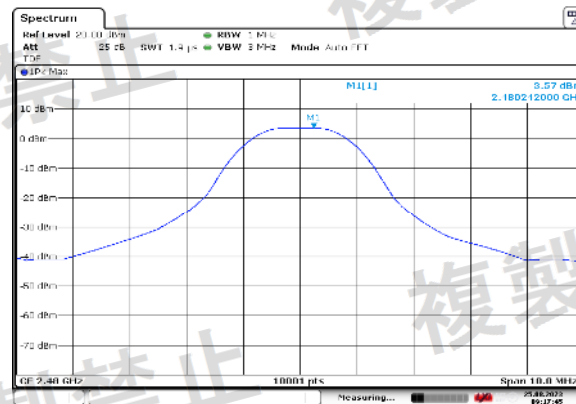
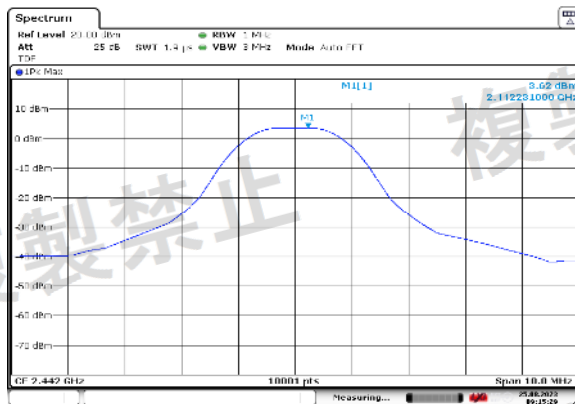
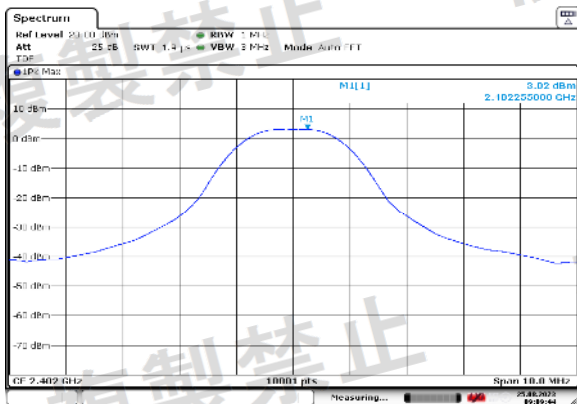


Spurious Emissions

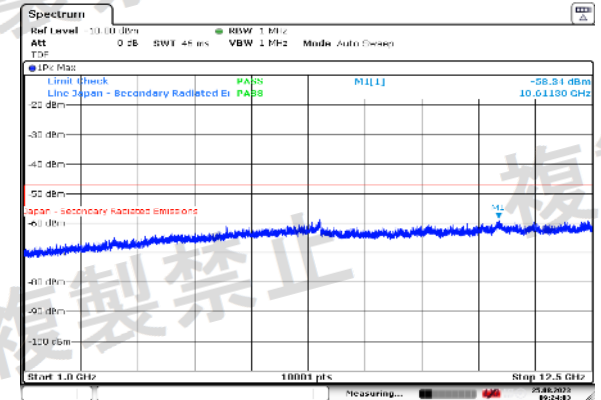
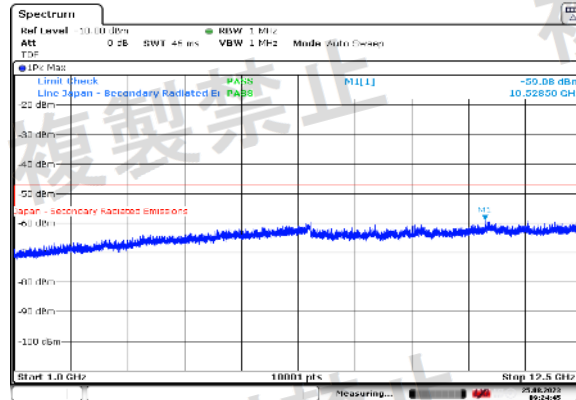
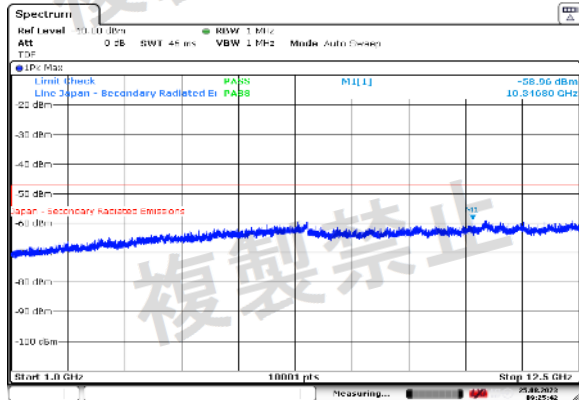
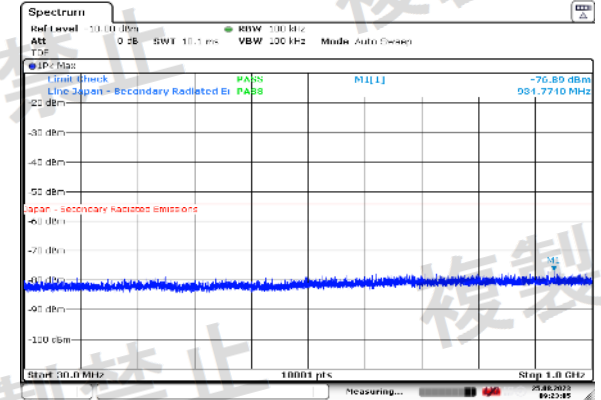
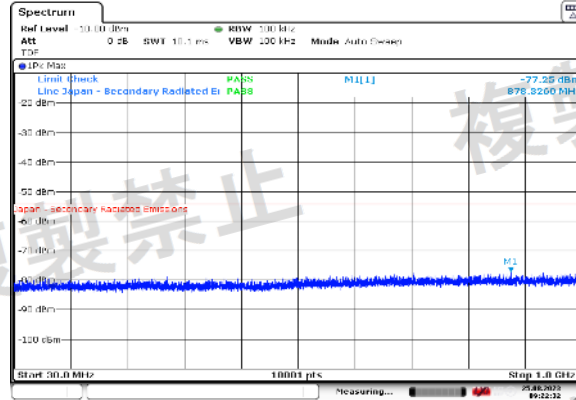
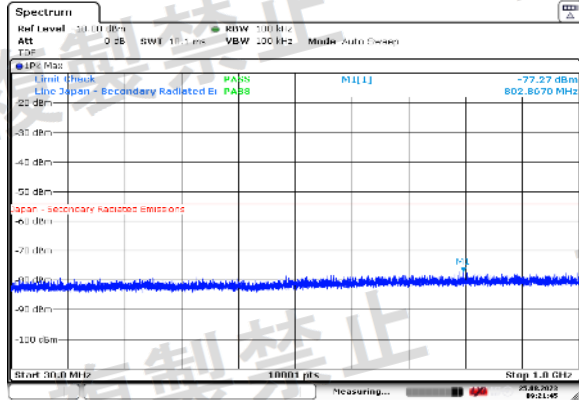




Antenna Power



Secondary Radiated Emissions



Interference Prevention Function

```
----- Device Descriptor -----
bLength          : 0x12 (18 bytes)
bDescriptorType   : 0x01 (Device Descriptor)
bcdUSB            : 0x200 (USB Version 2.00) -> wrong, device is Full-Speed only
bDeviceClass      : 0x00 (defined by the interface descriptors)
bDeviceSubClass   : 0x00
bDeviceProtocol   : 0x00
bMaxPacketSize0   : 0x40 (64 bytes)
idVendor          : 0x2F9A (Varjo Technologies)
idProduct         : 0x0315
bcdDevice        : 0x0100
iManufacturer     : 0x01 (String Descriptor 1)
  Language 0x0409 : "Varjo Technologies"
iProduct          : 0x02 (String Descriptor 2)
  Language 0x0409 : "DTM"
iSerialNumber     : 0x03 (String Descriptor 3)
  Language 0x0409 : "E790D0755BE0"
bNumConfigurations : 0x01 (1 Configuration)
Data (HexDump)    : 12 01 00 02 00 00 00 40 9A 2F 15 03 00 01 01 02 .....@./.....
                   : 03 01 ..
```

RF section voltage regulation

