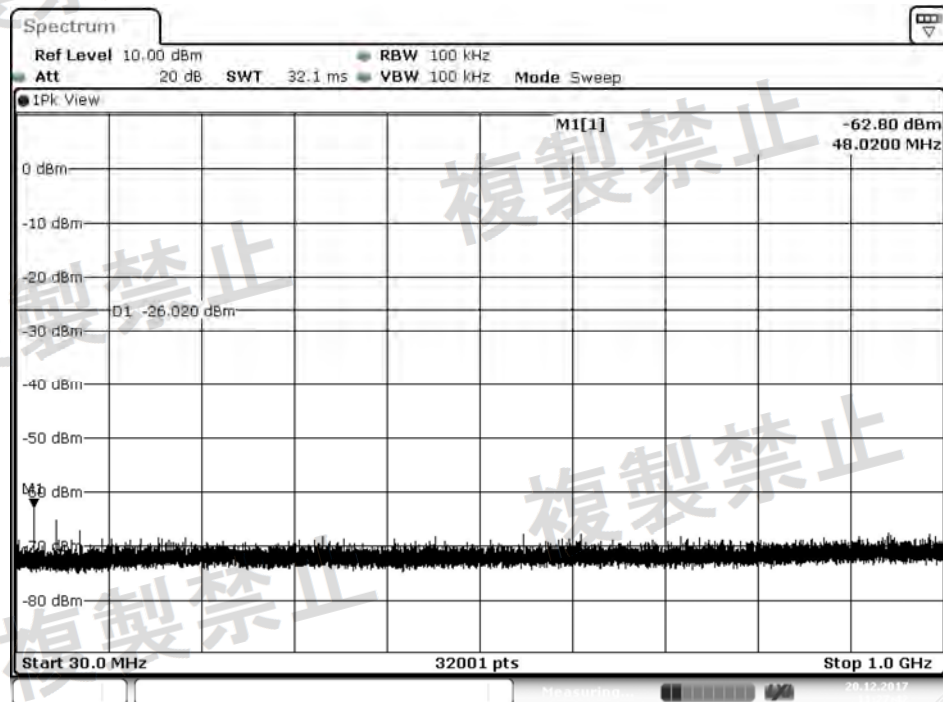
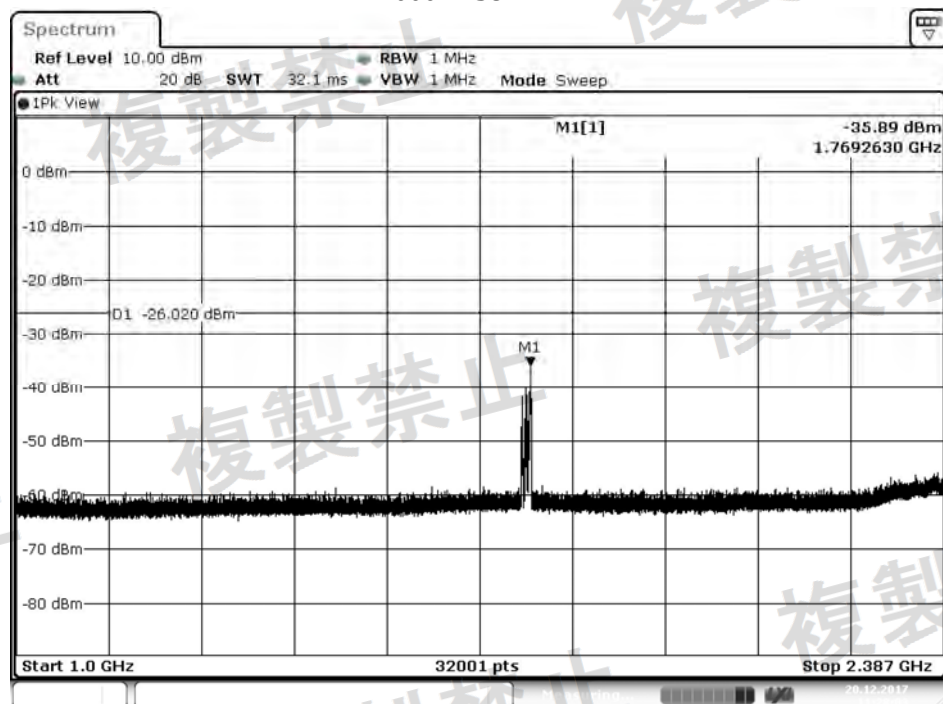


30-1000MHz



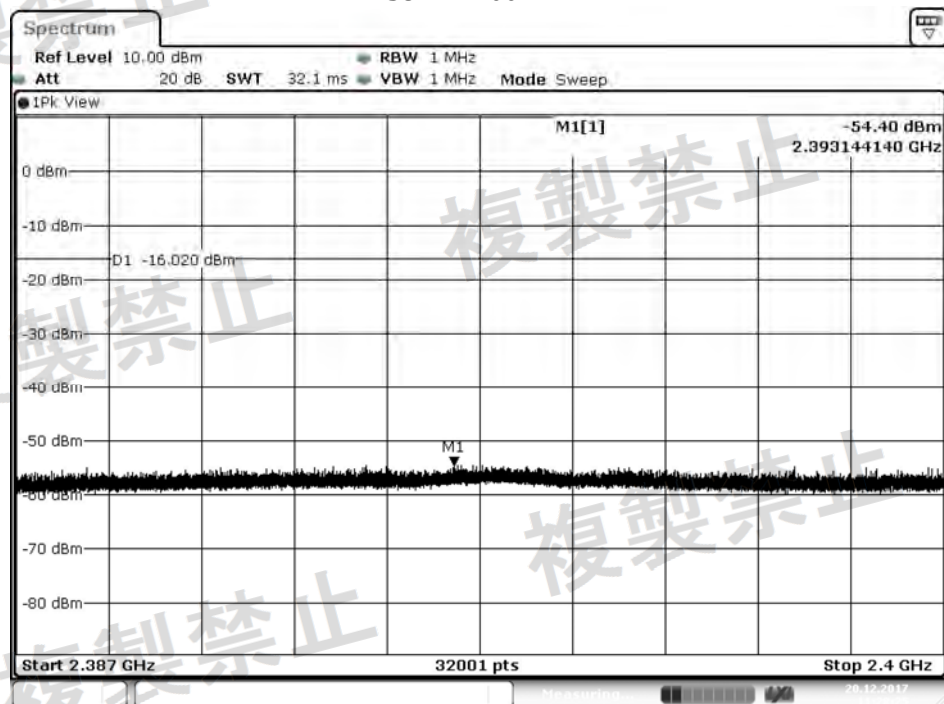
Date: 20.DEC.2017 11:27:42

1000- 2387MHz



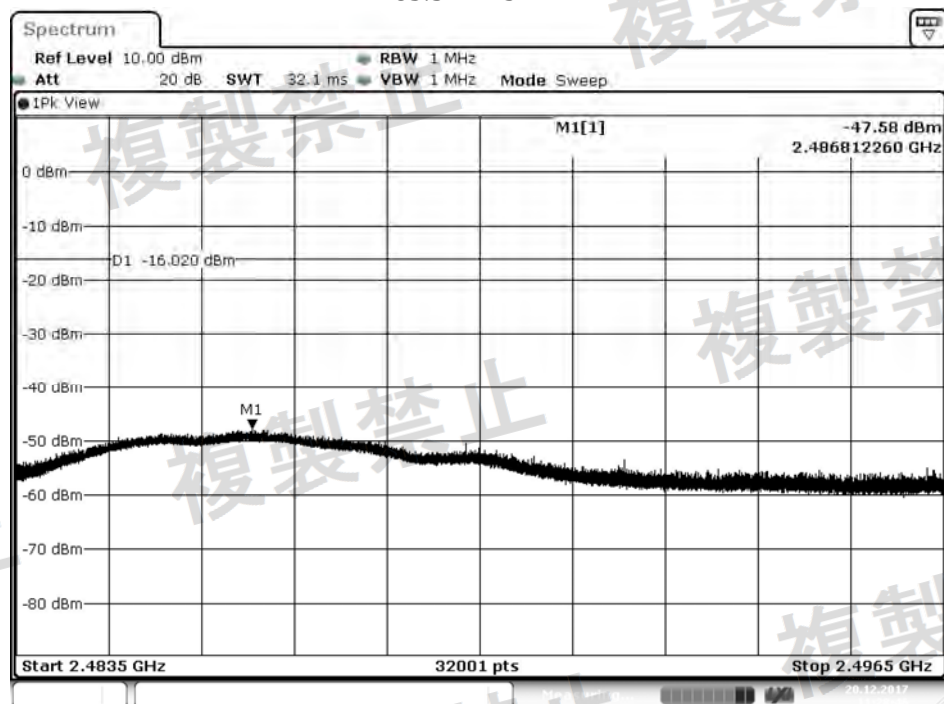
Date: 20.DEC.2017 11:28:04

2387 – 2400 MHz



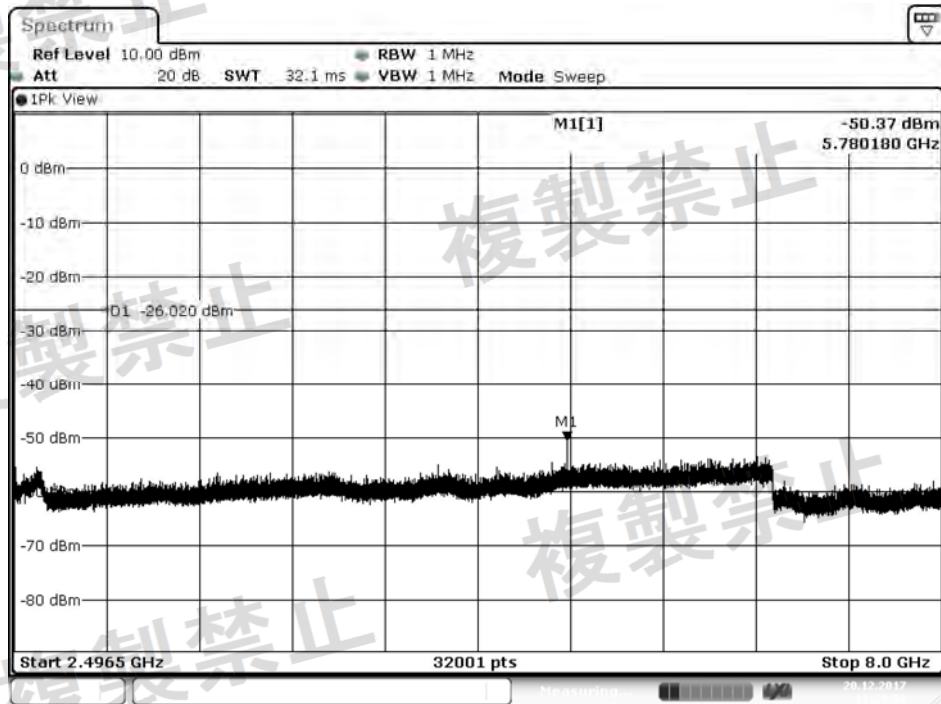
Date: 20.DEC.2017 11:28:25

2483.5 – 2497MHz



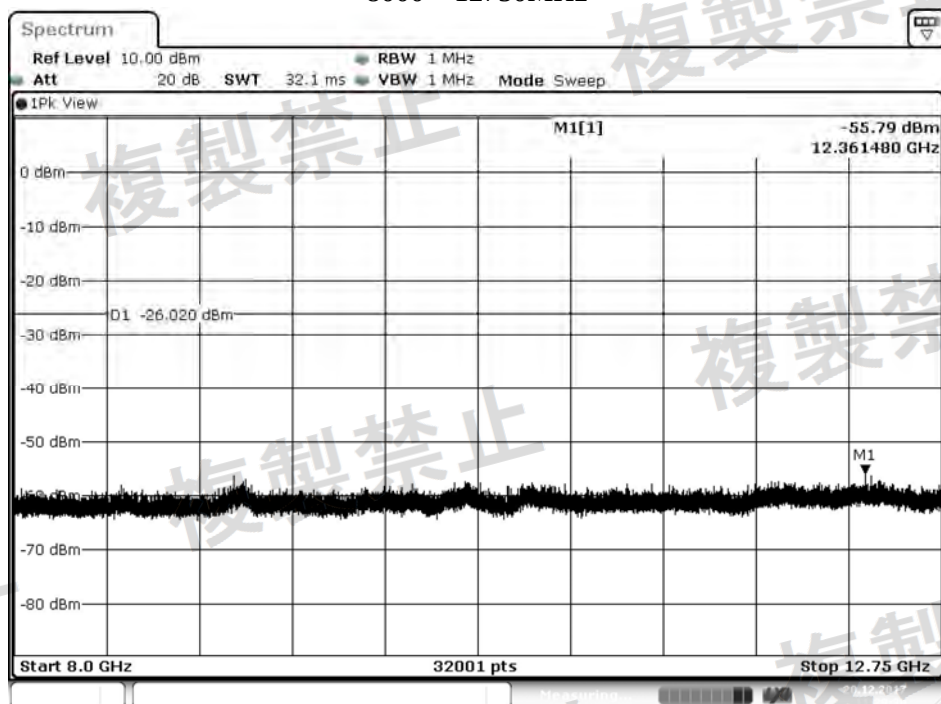
Date: 20.DEC.2017 11:28:47

2497 – 8000MHz



Date: 20.DEC.2017 11:29:08

8000 – 12750MHz

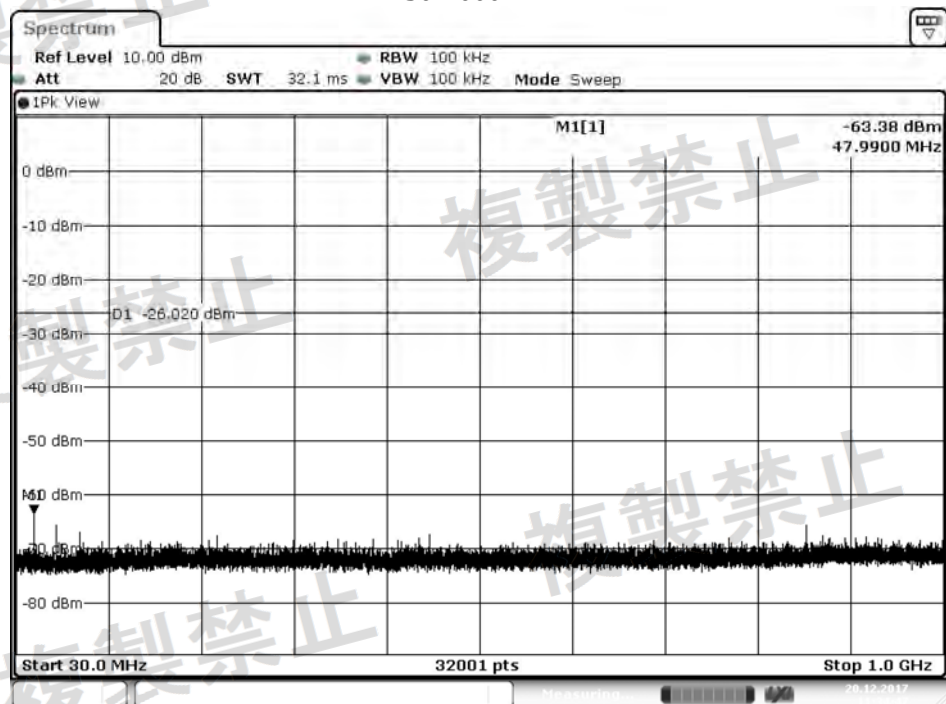


Date: 20.DEC.2017 11:29:30

Product : IMAGER-37 Sensor Mattress
Test Item : Transmitter Spurious Emissions
Test Mode : Mode 1: Transmitter (802.11n 7.2Mbps) 2412MHz

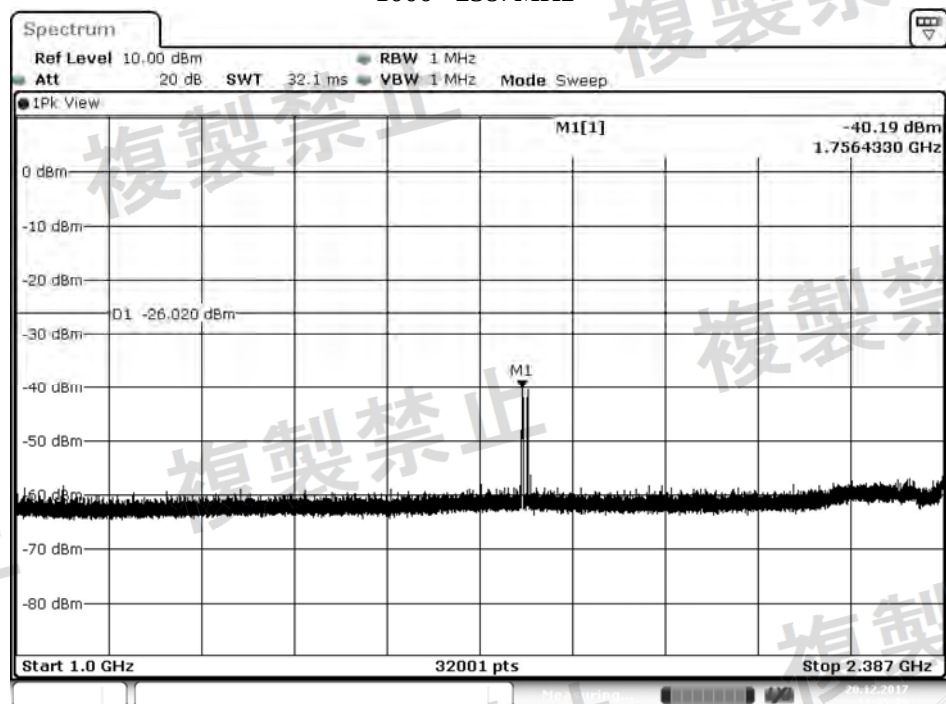
Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-63.38	-26 (2.5uW)
1000 – 2387	-40.19	-26 (2.5uW)
2387 – 2400	-49.94	-16 (25uW)
2483.5 – 2496.5	-54.98	-16 (25uW)
2496.5 – 8000	-52.82	-26 (2.5uW)
8000 – 12750	-55.78	-26 (2.5uW)

30-1000MHz



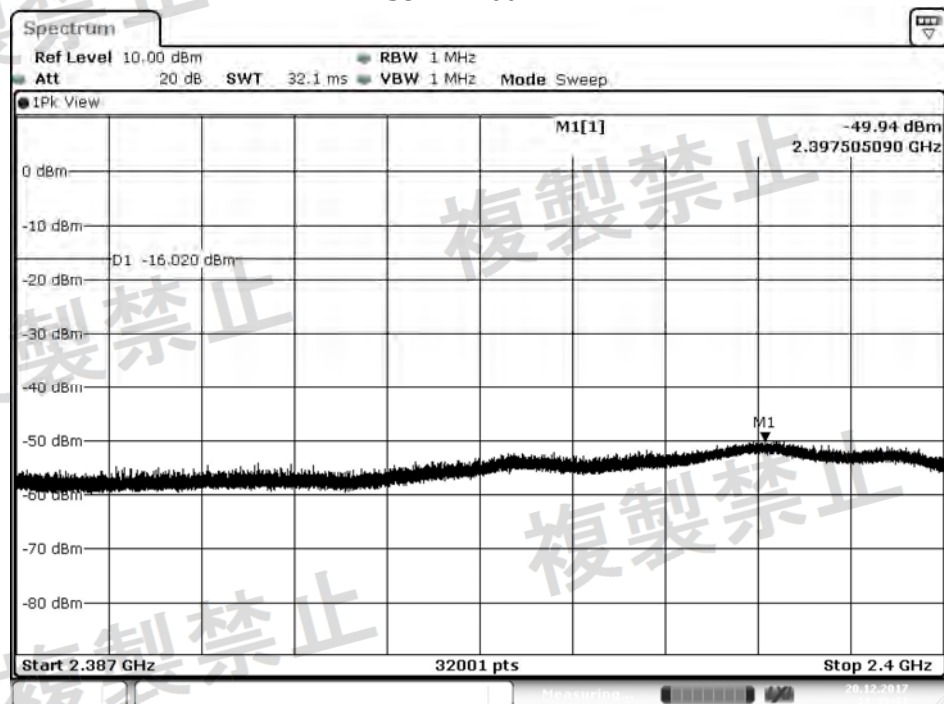
Date: 20.DEC.2017 11:34:48

1000- 2387MHz



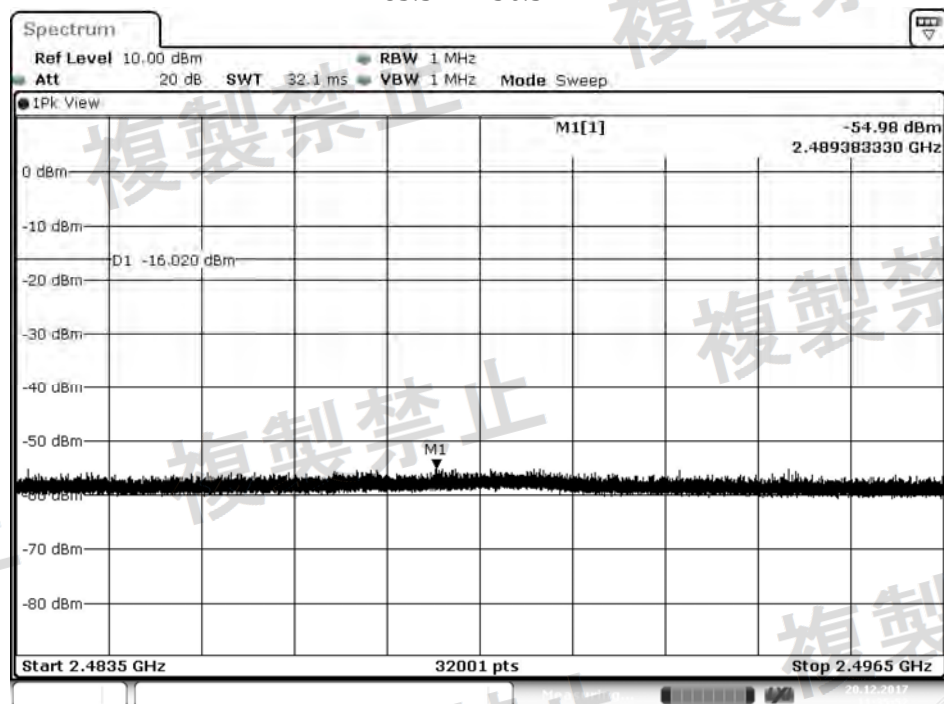
Date: 20.DEC.2017 11:35:09

2387 – 2400 MHz



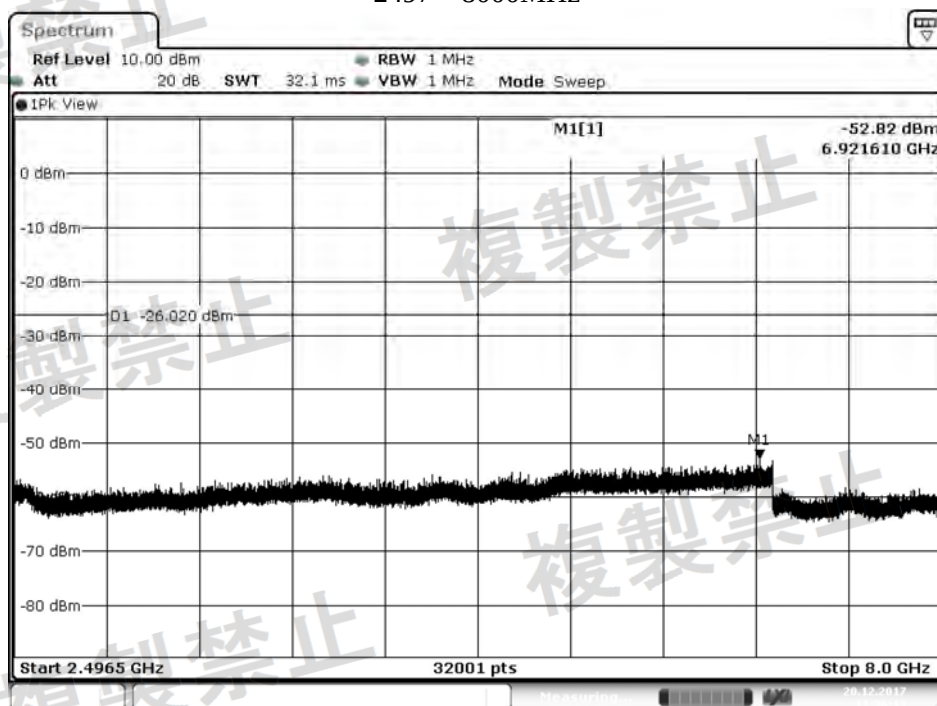
Date: 20.DEC.2017 11:35:31

2483.5 – 2496.5 MHz



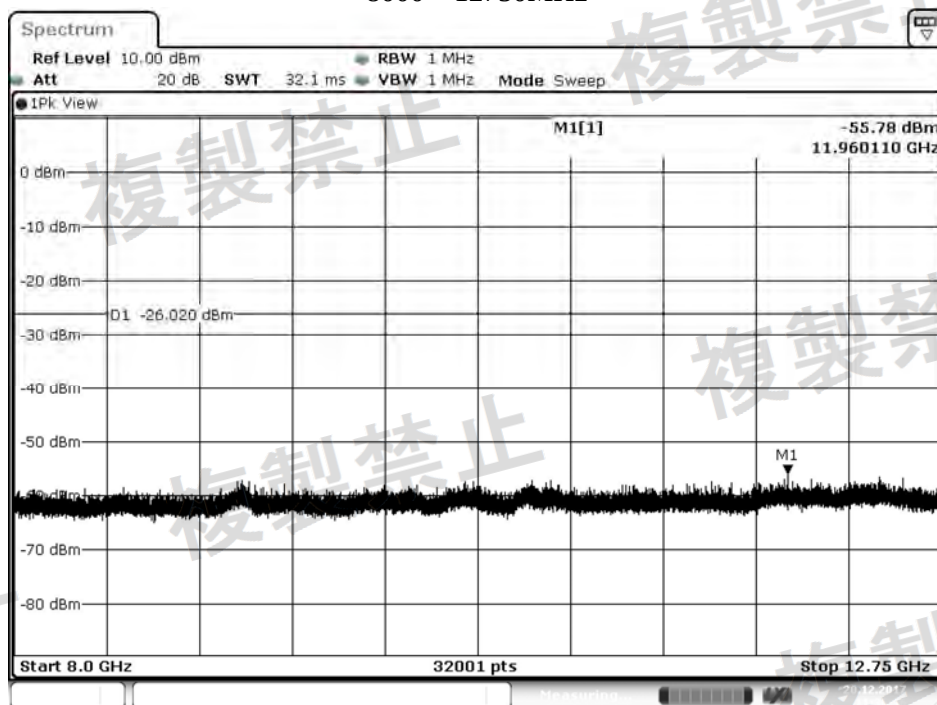
Date: 20.DEC.2017 11:35:52

2497 – 8000MHz



Date: 20.DEC.2017 11:36:14

8000 – 12750MHz

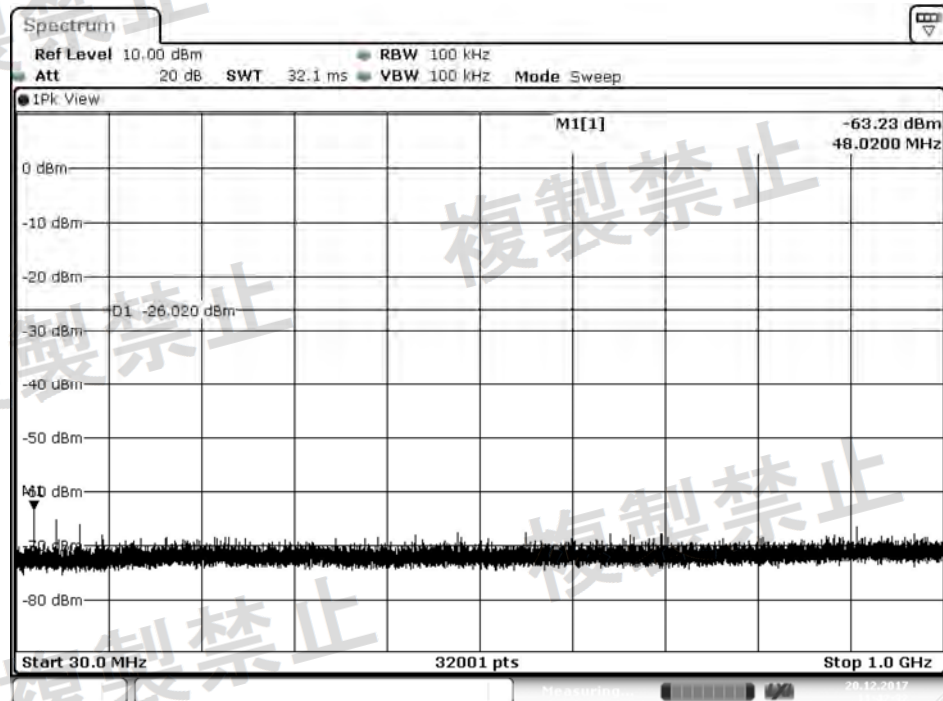


Date: 20.DEC.2017 11:36:35

Product : IMAGER-37 Sensor Mattress
Test Item : Transmitter Spurious Emissions
Test Mode : Mode 1: Transmitter (802.11n 7.2Mbps) 2442MHz

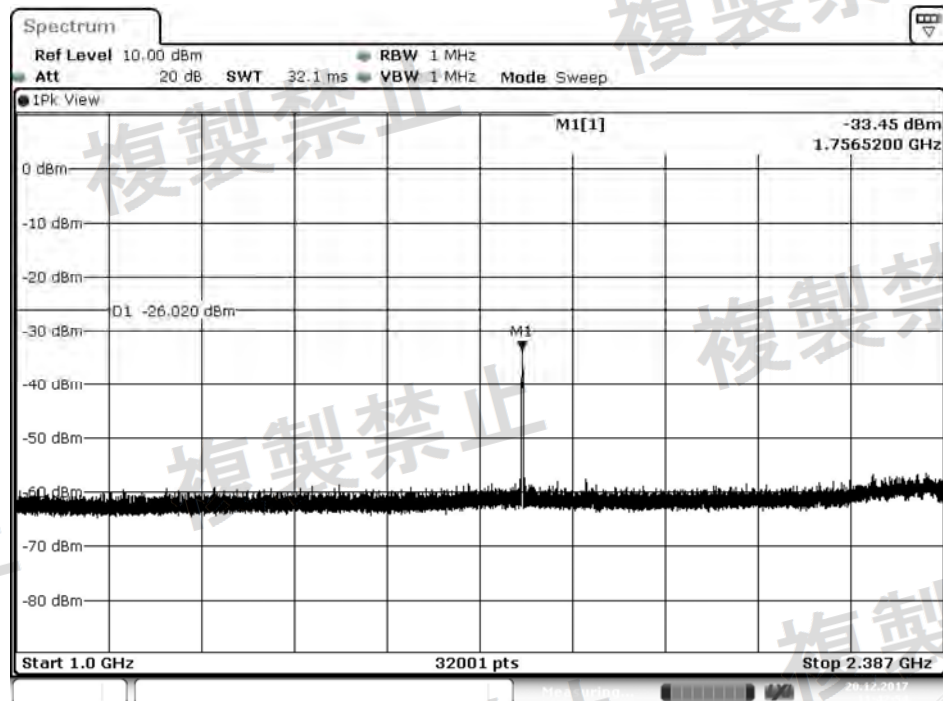
Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-63.23	-26 (2.5uW)
1000 – 2387	-33.45	-26 (2.5uW)
2387 – 2400	-55.18	-16 (25uW)
2483.5 – 2496.5	-55.49	-16 (25uW)
2496.5 – 8000	-55.48	-26 (2.5uW)
8000 – 12750	-56.51	-26 (2.5uW)

30-1000MHz



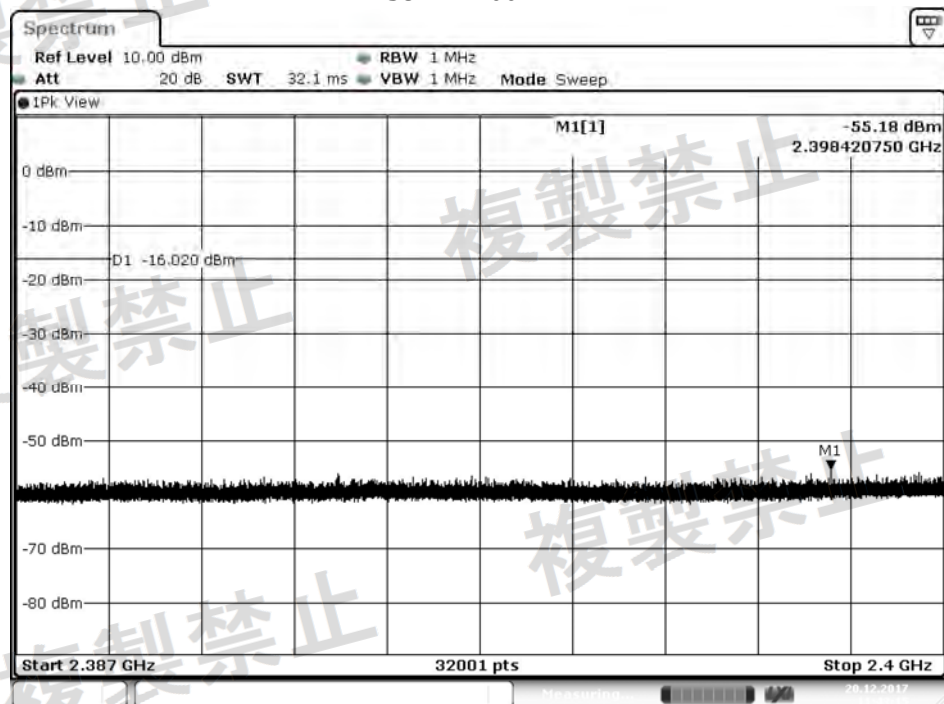
Date: 20.DEC.2017 11:42:32

1000- 2387MHz



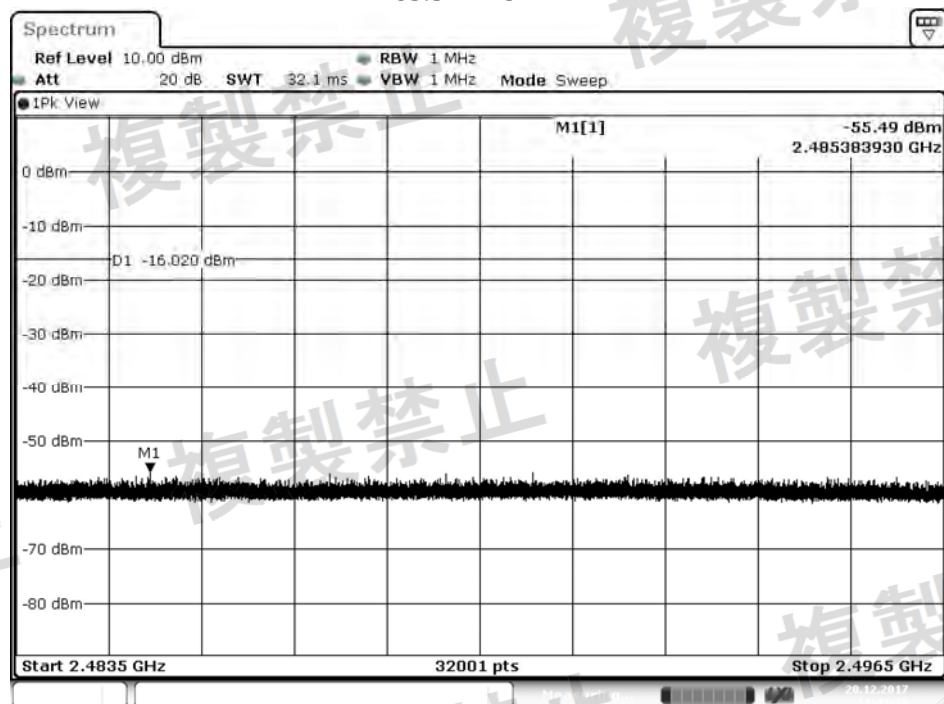
Date: 20.DEC.2017 11:42:54

2387 – 2400 MHz



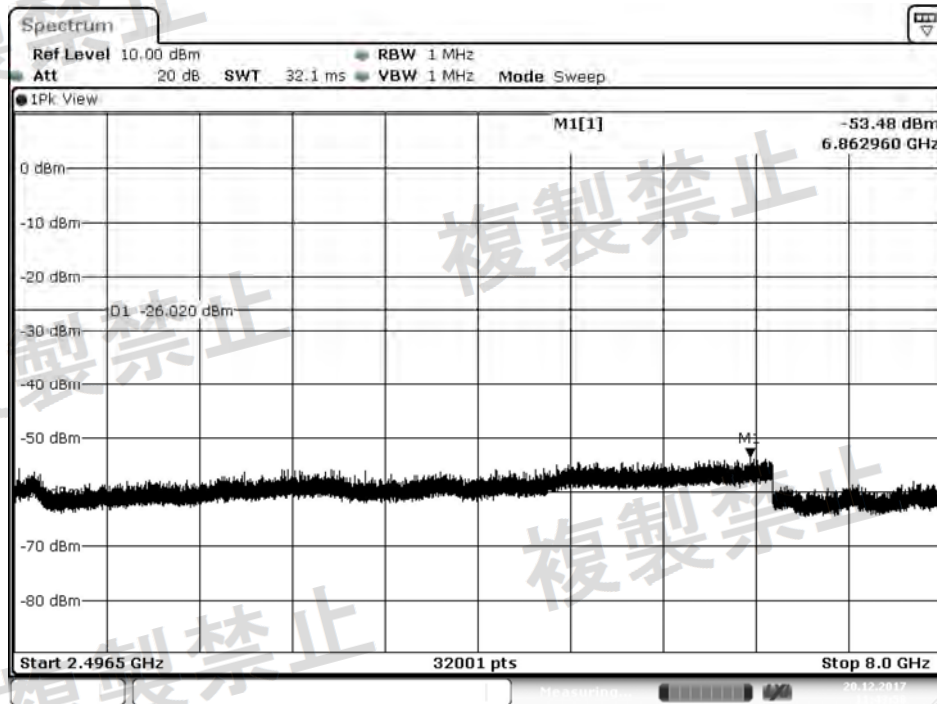
Date: 20.DEC.2017 11:43:15

2483.5 – 2497MHz



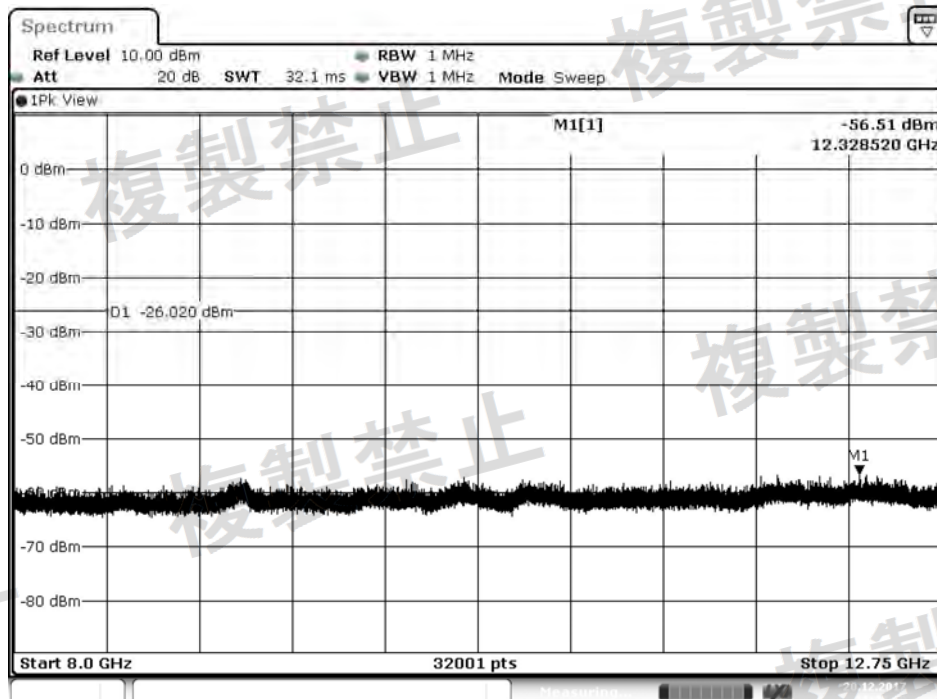
Date: 20.DEC.2017 11:43:37

2497 – 8000MHz



Date: 20.DEC.2017 11:43:58

8000 – 12750MHz

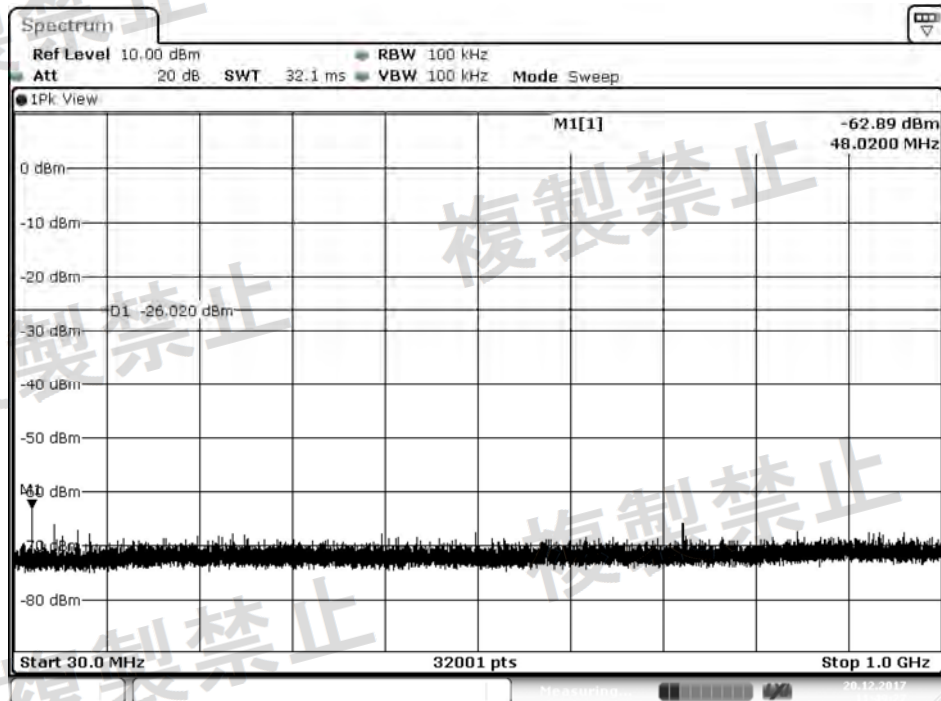


Date: 20.DEC.2017 11:44:20

Product : IMAGER-37 Sensor Mattress
Test Item : Transmitter Spurious Emissions
Test Mode : Mode 1: Transmitter (802.11n 7.2Mbps) 2472MHz

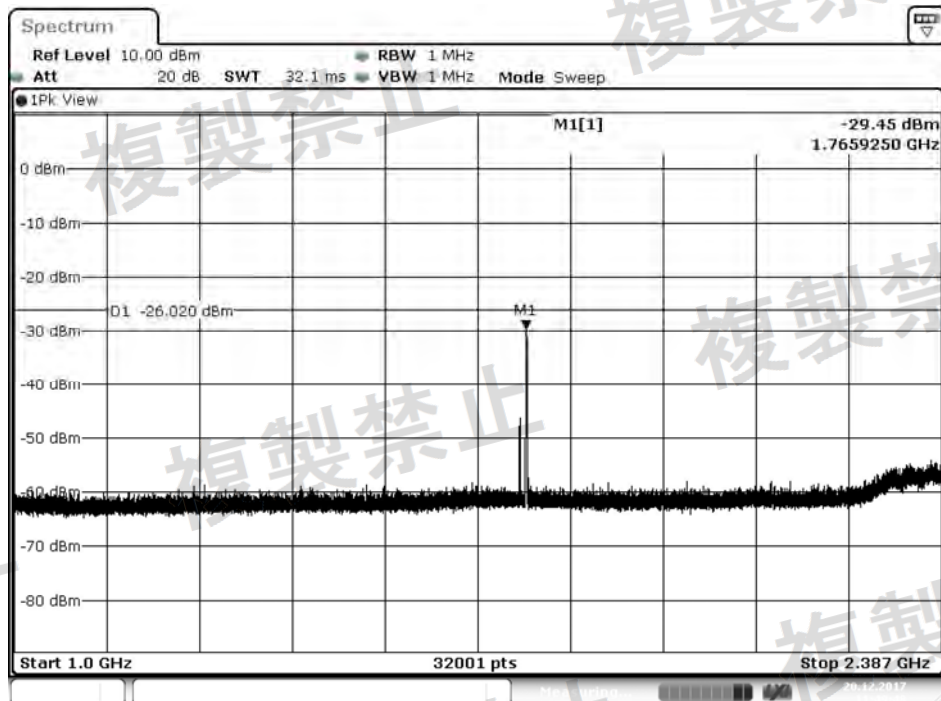
Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-62.89	-26 (2.5uW)
1000 – 2387	-59.45	-26 (2.5uW)
2387 – 2400	-51.65	-16 (25uW)
2483.5 – 2496.5	-24.26	-16 (25uW)
2496.5 – 8000	-42.61	-26 (2.5uW)
8000 – 12750	-56.26	-26 (2.5uW)

30-1000MHz



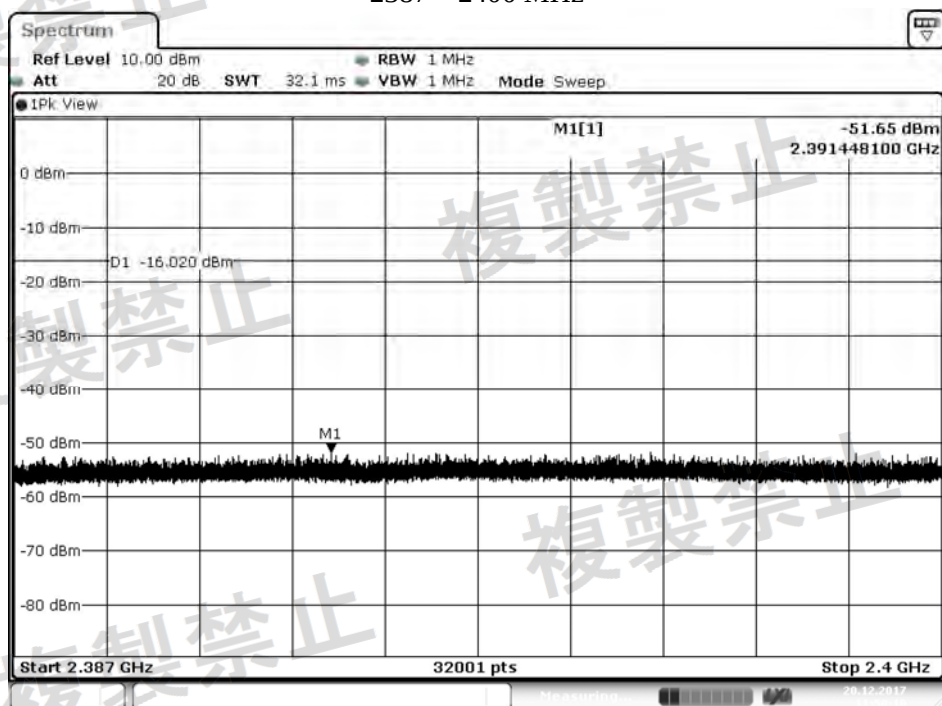
Date: 20.DEC.2017 11:49:28

1000- 2387MHz



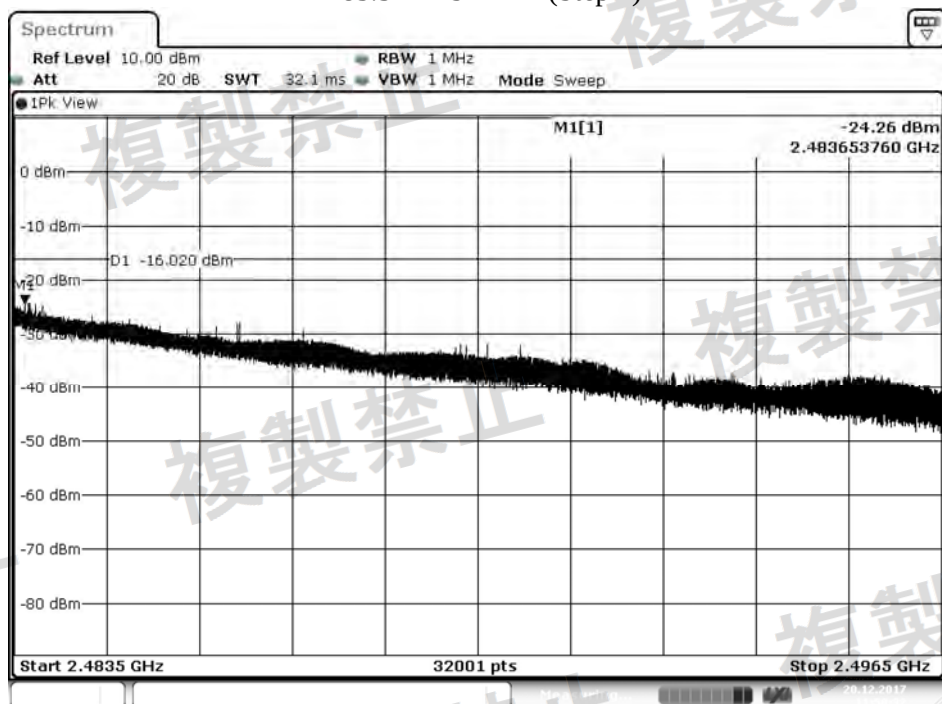
Date: 20.DEC.2017 11:49:49

2387 – 2400 MHz



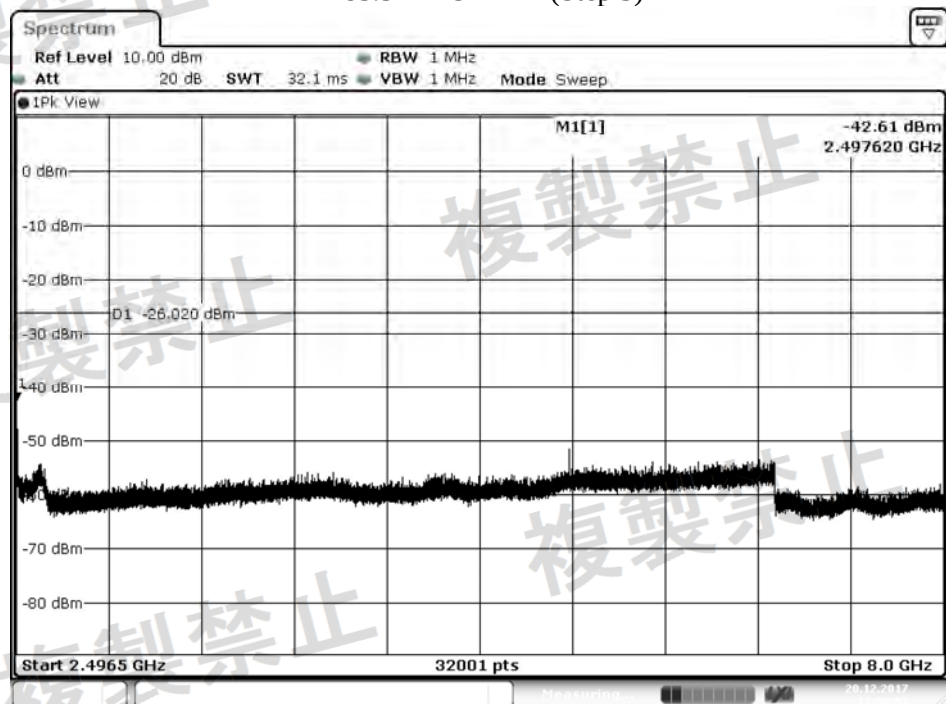
Date: 20.DEC.2017 11:50:11

2483.5 – 2497MHz (Step 1)



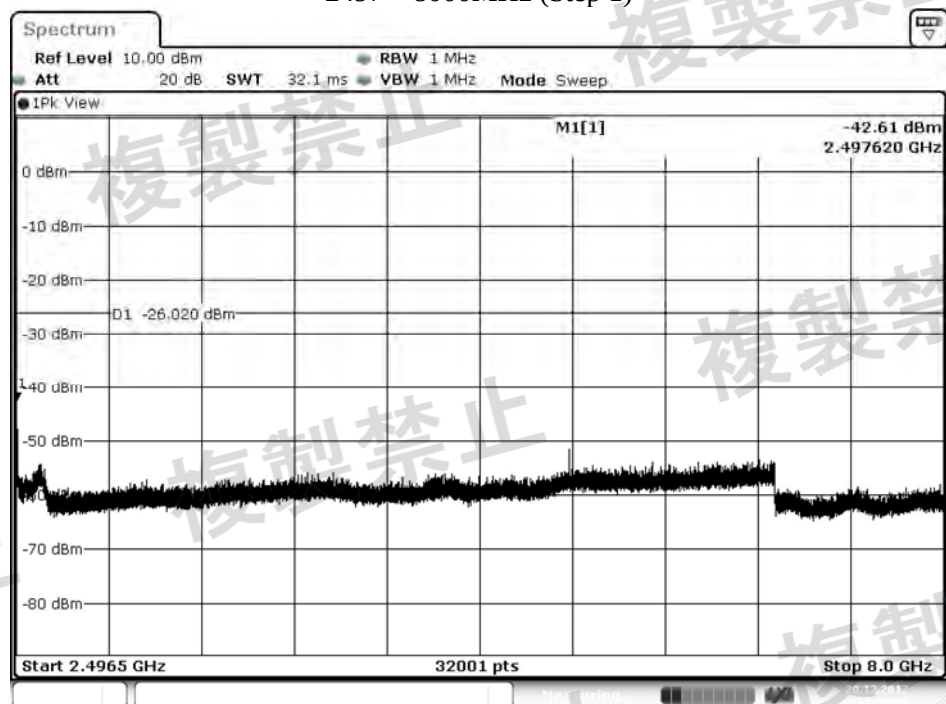
Date: 20.DEC.2017 11:50:32

2483.5 – 2497MHz (Step 3)



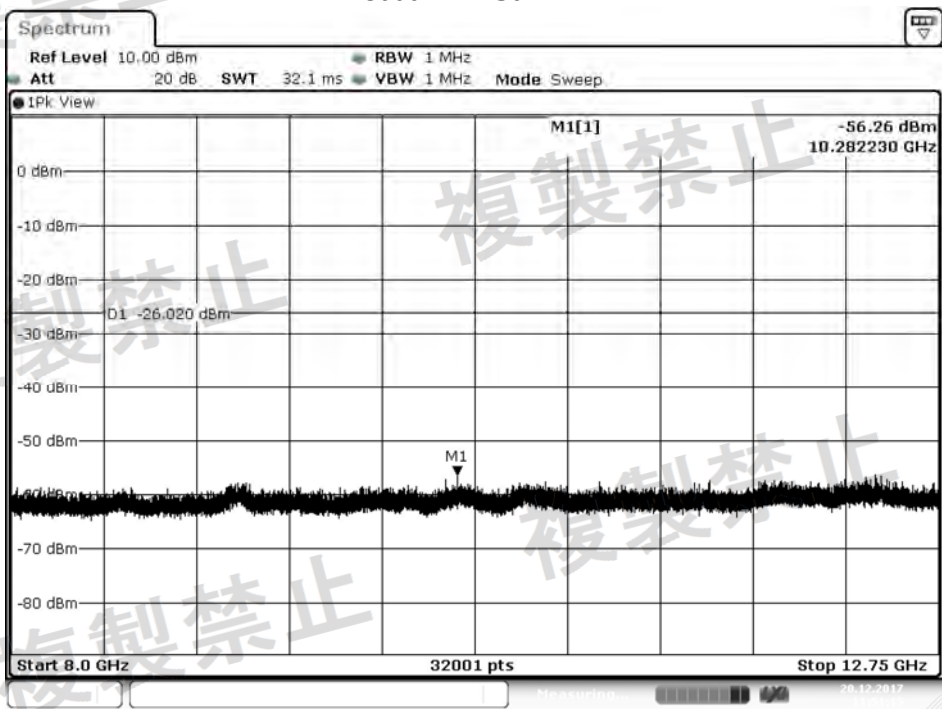
Date: 20.DEC.2017 11:50:54

2497 – 8000MHz (Step 1)



Date: 20.DEC.2017 11:50:54

8000 – 12750MHz



Date: 20.DEC.2017 11:51:15

Test Result	PASS
-------------	------

7. Receiver Suprious Emissions

7.1. Test Setup



7.2. Test Procedure

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

- (a) A positive peak detector function must be used.
- (b) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
- (c) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

7.3. Limits

- $\leq 4\text{nW}$ for 30-1000 MHz
- $\leq 20\text{nW}$ for 1000 – 3000 MHz
- $\leq 20\text{nW}$ for 3000 – 8000 MHz
- $\leq 20\text{nW}$ for 8000 – 12750 MHz

7.4. Uncertainty

$\pm 1.23\text{dB}$

7.5. Test Result of Receiver Spurious Emissions

Product : IMAGER-37 Sensor Mattress
Test Item : Receiver Spurious Emissions
Test Mode : Mode 2: Receiver (802.11b 1Mbps) 2412MHz

Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-64.64	-54 (4nW)
1000 – 3000	-85.61	-47 (20nW)
3000 – 8000	-73.18	-47 (20nW)
8000 – 12750	-77.10	-47 (20nW)

Spectrum
Ref Level -20.00 dBm
Att 0 dB SWT 32.1 ms RBW 100 kHz VBW 100 kHz Mode Sweep

● Ipk View

M1[1] -64.64 dBm
47.9900 MHz

D1 -53.980 dBm

Start 30.0 MHz 32001 pts Stop 1.0 GHz

Measuring 26.12.2017

Spectrum

Ref Level -20.00 dBm RBW 1 MHz

Att 0 dB SWT 32.1 ms VBW 1 MHz Mode Sweep

● 1Pk View

M1[1] -43.29 dBm
2.4385490 GHz

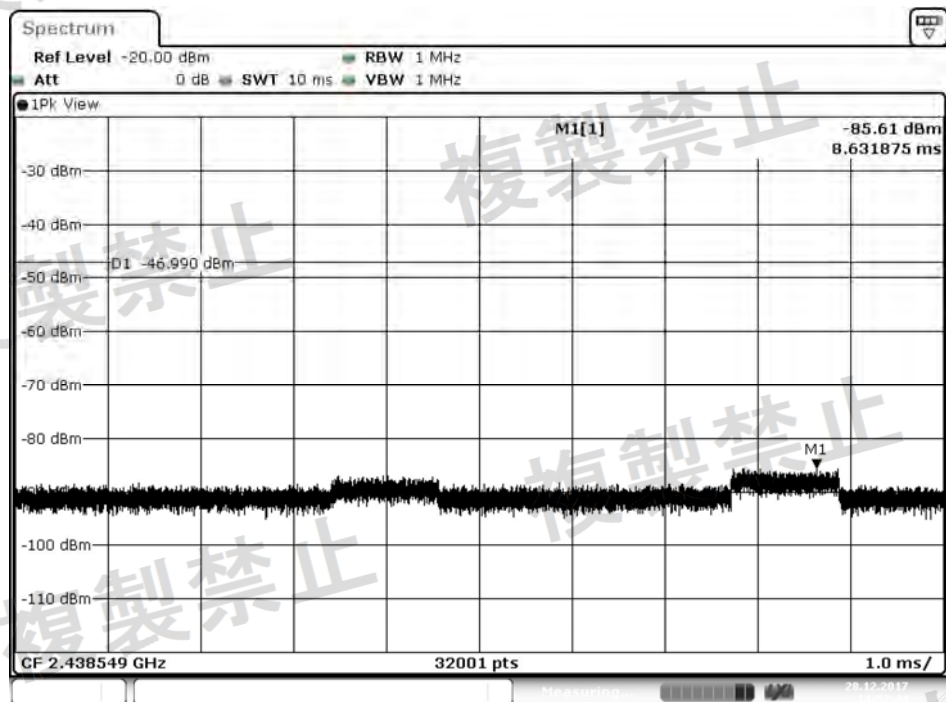
D1 -46.990 dBm

Start 1.0 GHz 32001 pts Stop 3.0 GHz

20.12.2017

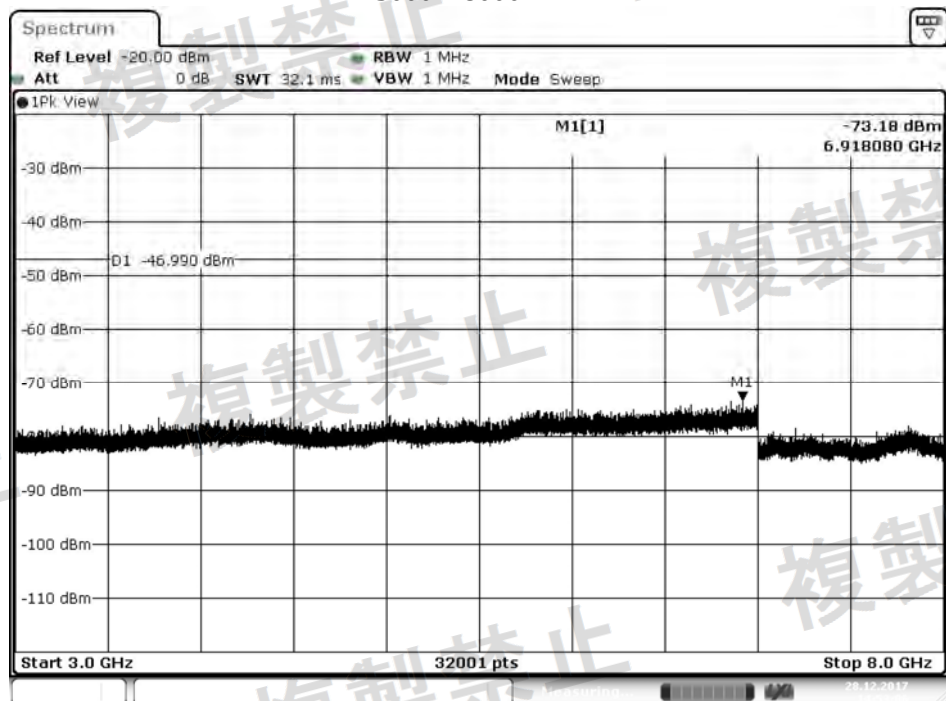
Page: 92 of 146

1000 – 3000MHz (Step 3)



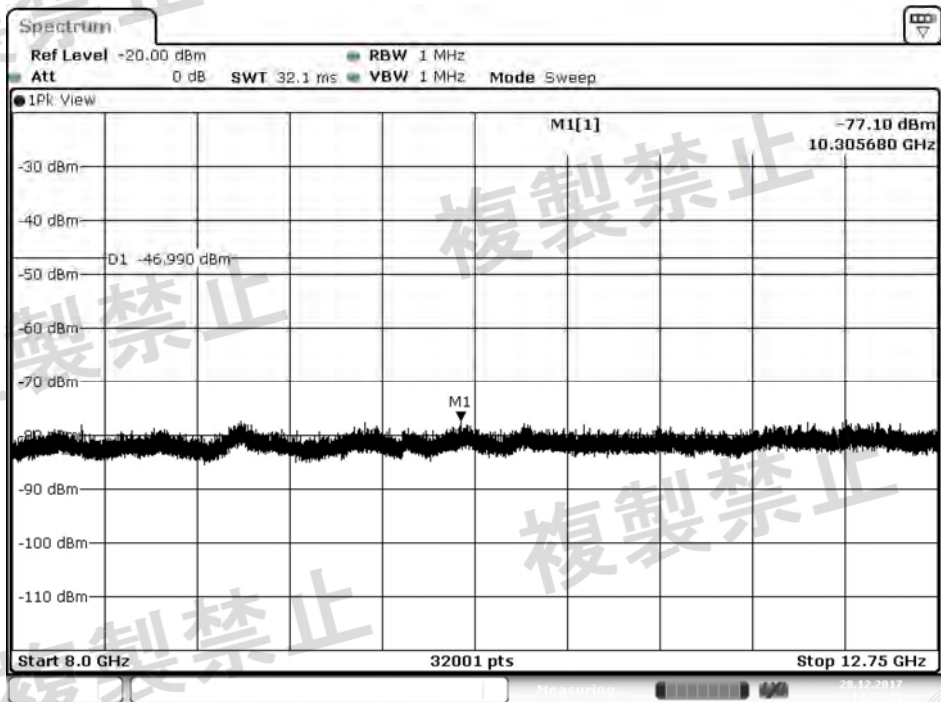
Date: 28.DEC.2017 14:52:45

3000 – 8000MHz



Date: 28.DEC.2017 14:53:06

8000 – 12750MHz

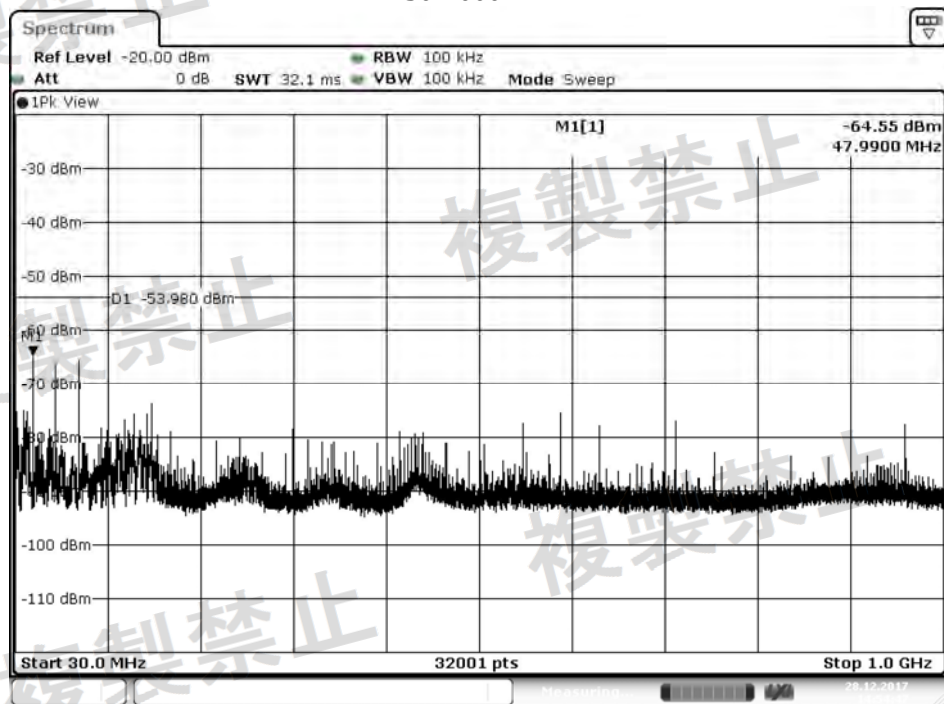


Date: 28.DEC.2017 14:53:28

Product : IMAGER-37 Sensor Mattress
Test Item : Receiver Spurious Emissions
Test Mode : Mode 2: Receiver (802.11b 1Mbps) 2442MHz

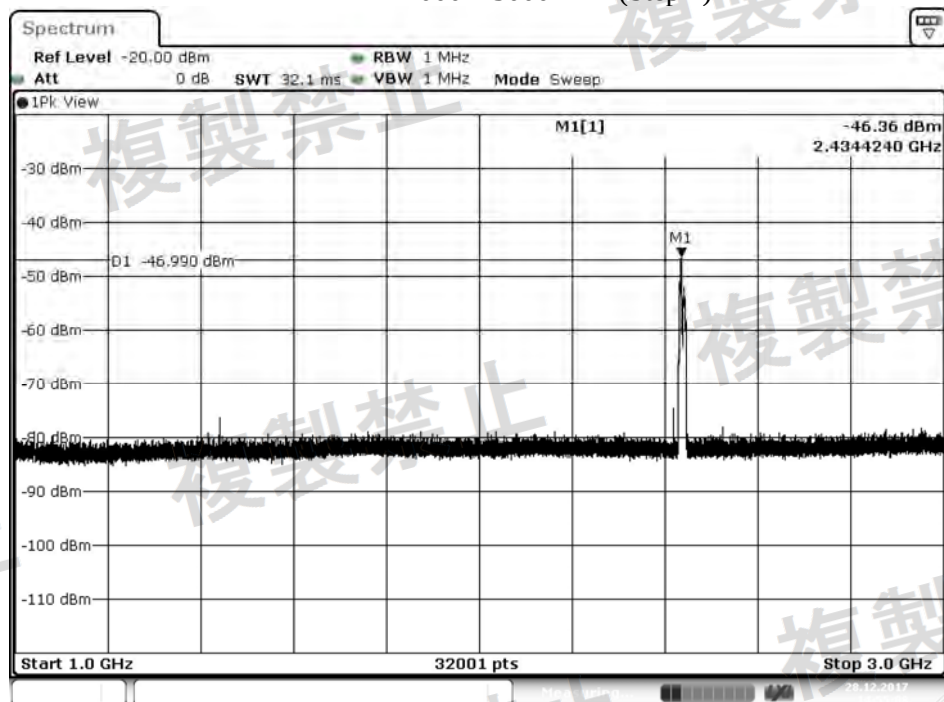
Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-64.55	-54 (4nW)
1000 – 3000	-84.58	-47 (20nW)
3000 – 8000	-73.36	-47 (20nW)
8000 – 12750	-76.81	-47 (20nW)

30-1000MHz



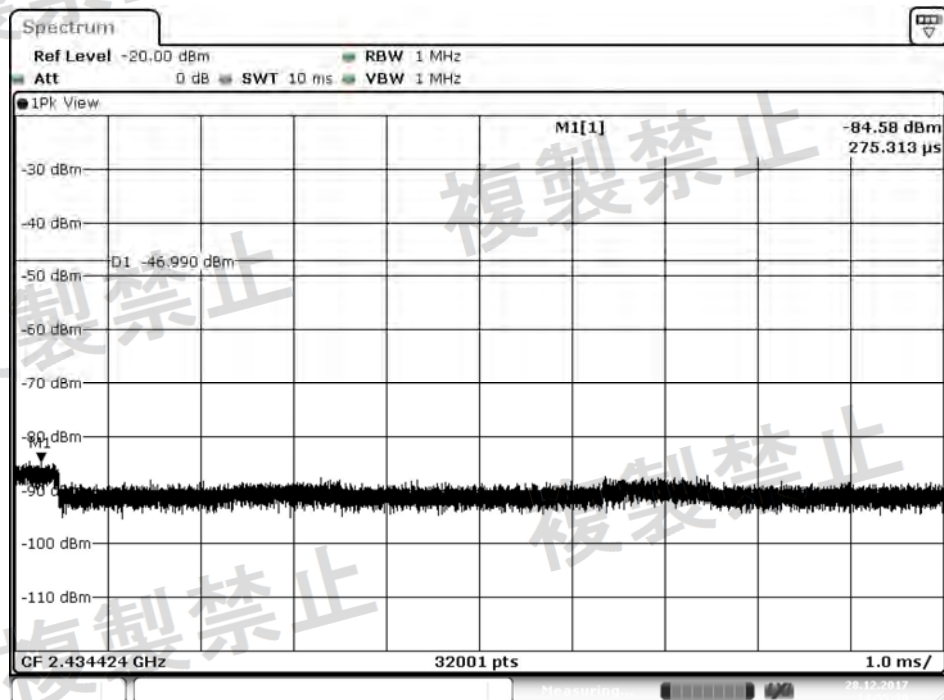
Date: 28.DEC.2017 14:54:48

1000 – 3000MHz (Step 1)



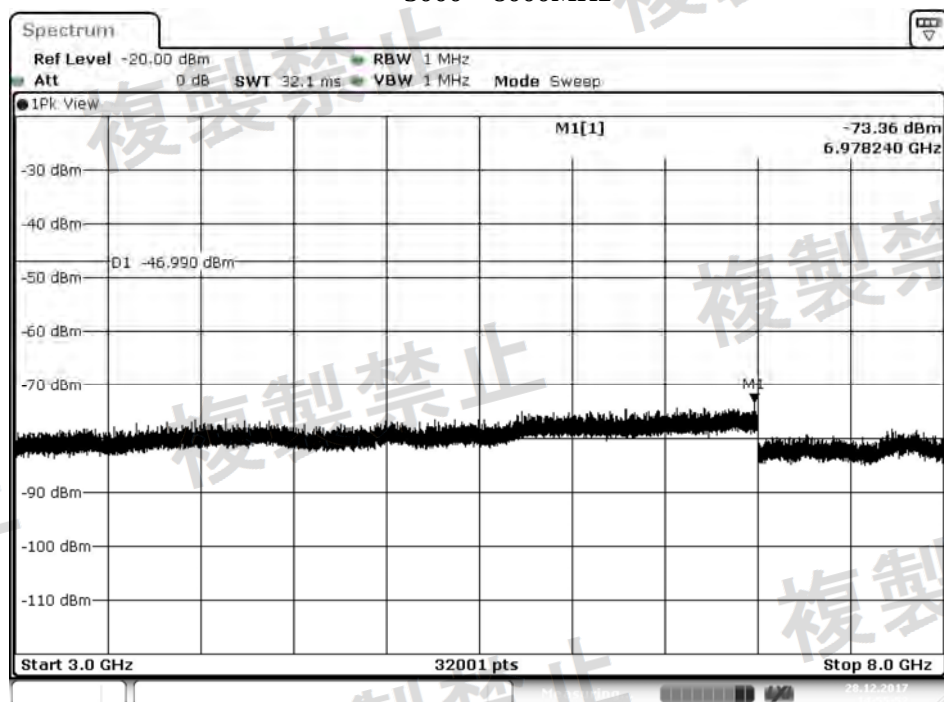
Date: 28.DEC.2017 14:55:09

1000 – 3000MHz (Step 3)



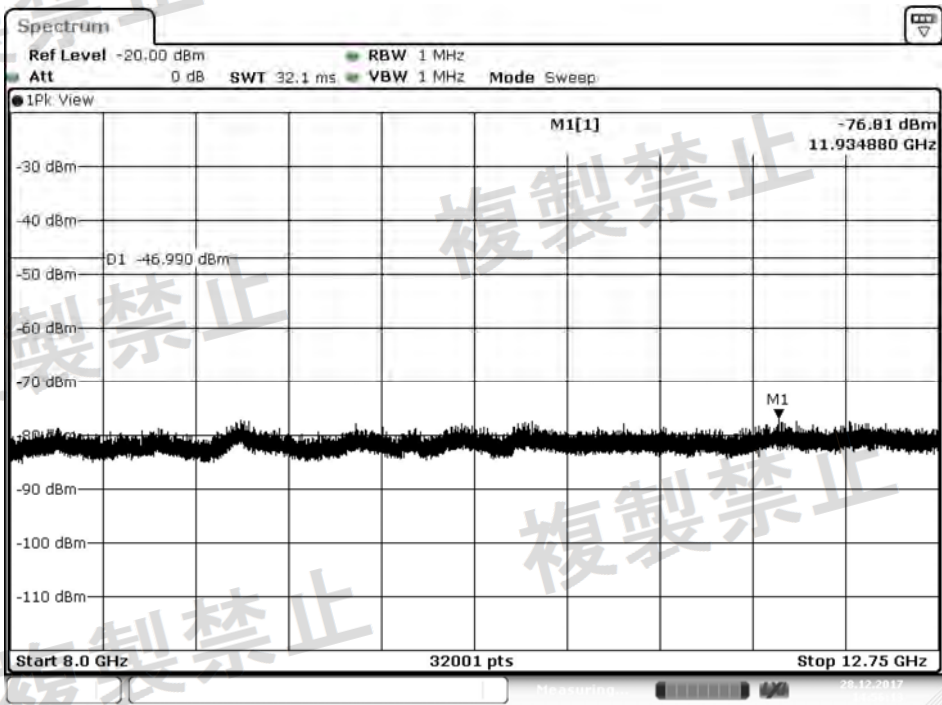
Date: 28.DEC.2017 14:55:30

3000 – 8000MHz



Date: 28.DEC.2017 14:55:52

8000 – 12750MHz

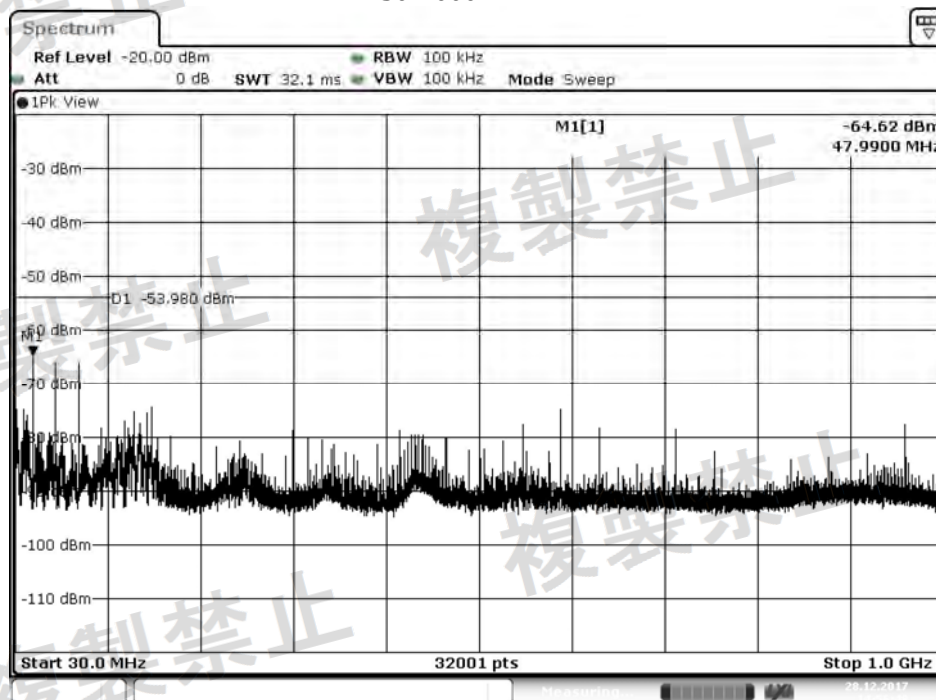


Date: 28.DEC.2017 14:56:13

Product : IMAGER-37 Sensor Mattress
Test Item : Receiver Spurious Emissions
Test Mode : Mode 2: Receiver (802.11b 1Mbps) 2472MHz

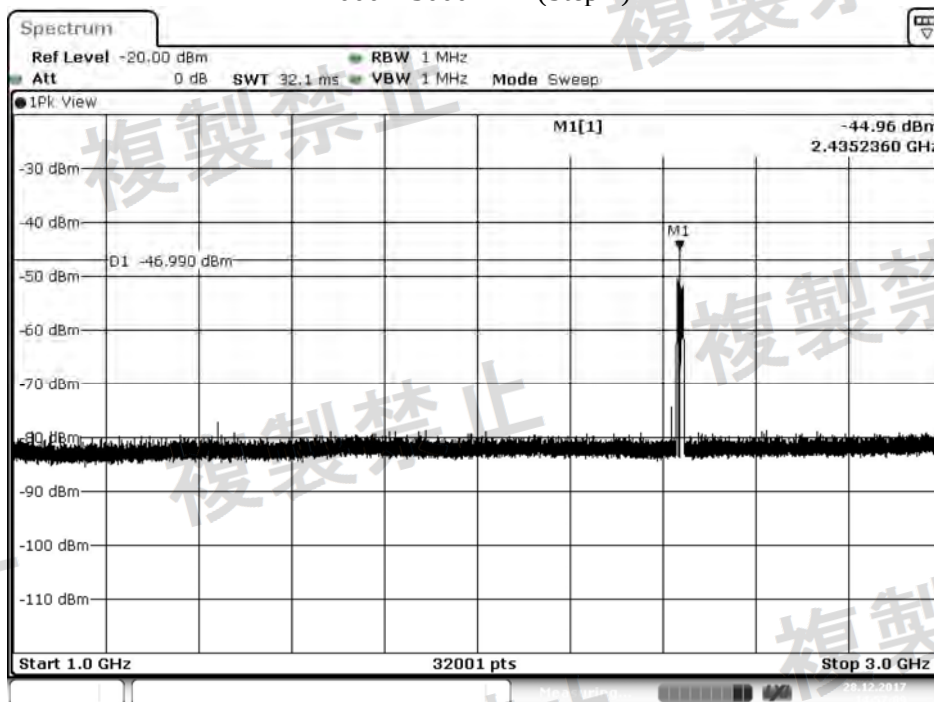
Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-64.62	-54 (4nW)
1000 – 3000	-87.45	-47 (20nW)
3000 – 8000	-73.63	-47 (20nW)
8000 – 12750	-77.1	-47 (20nW)

30-1000MHz



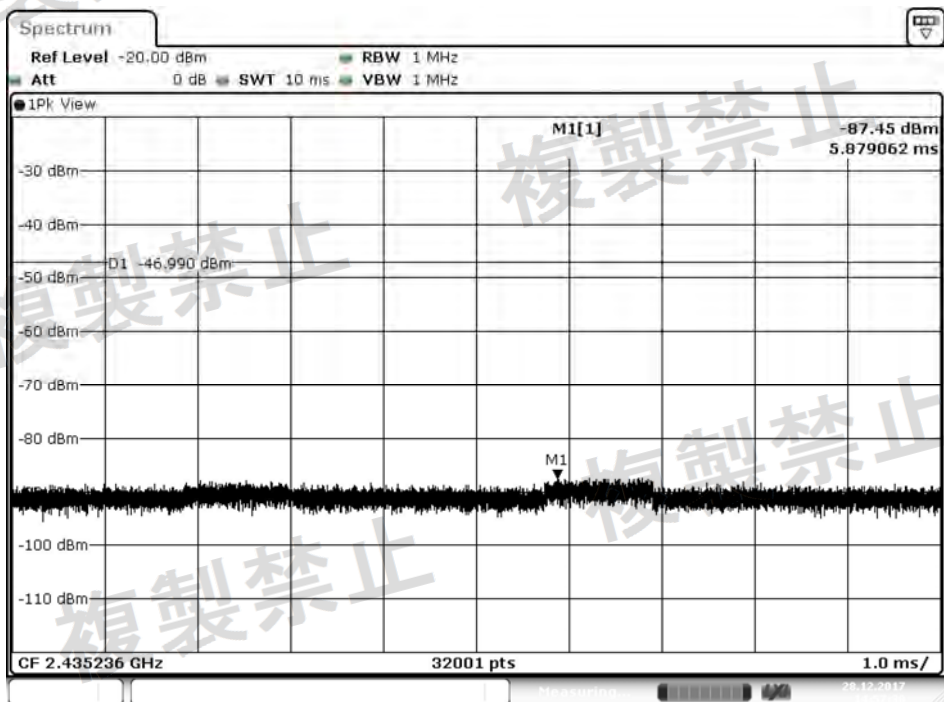
Date: 28.DEC.2017 14:56:48

1000 – 3000MHz (Step 1)



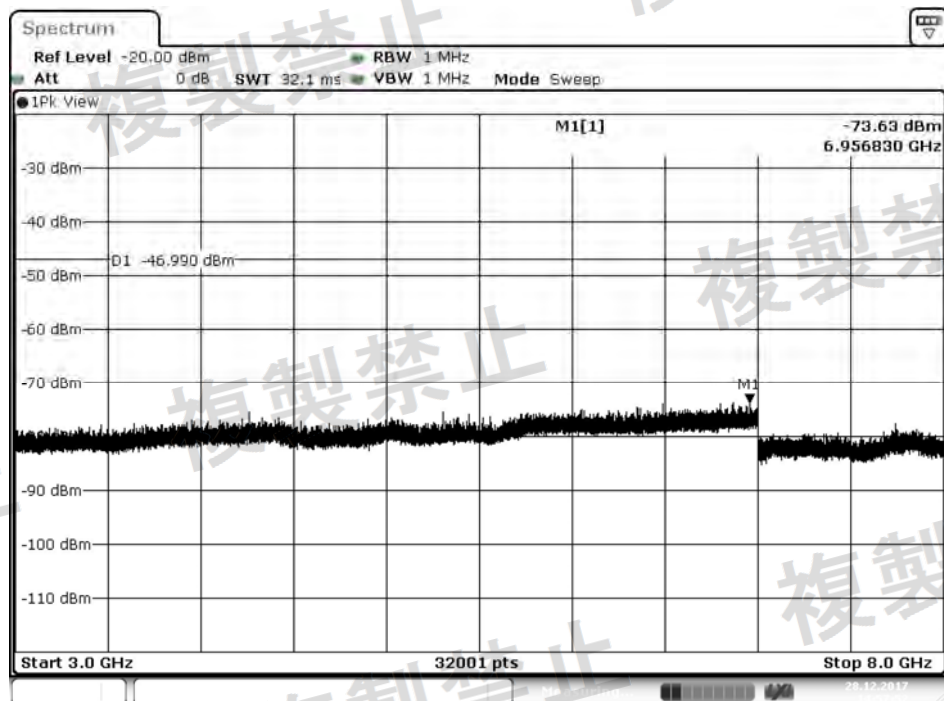
Date: 28.DEC.2017 14:57:10

1000 – 3000MHz (Step 3)



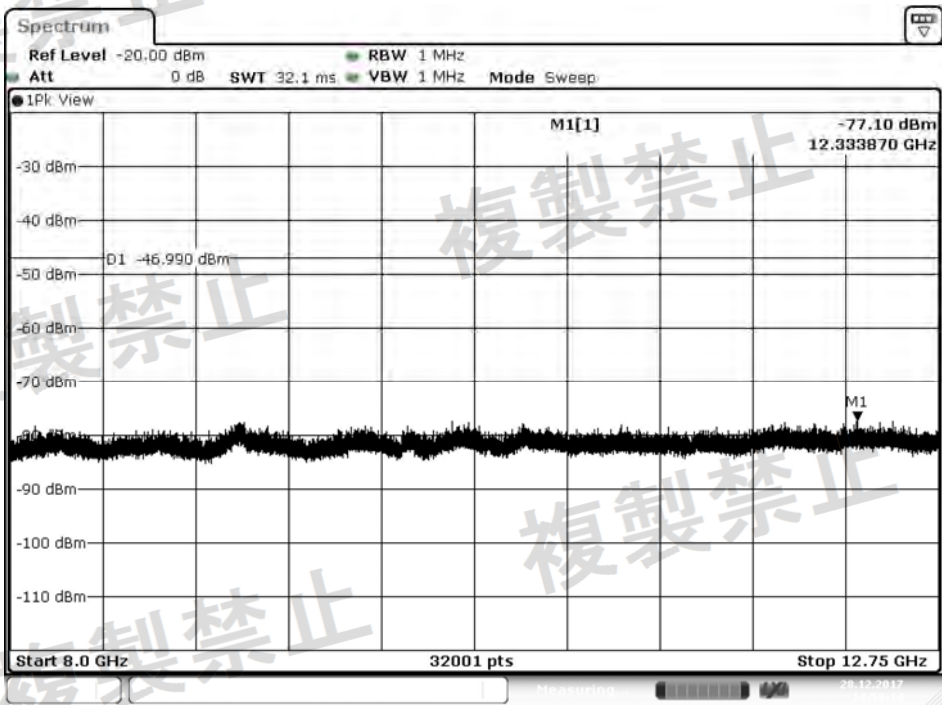
Date: 28.DEC.2017 14:57:31

3000 – 8000MHz



Date: 28.DEC.2017 14:57:52

8000 – 12750MHz

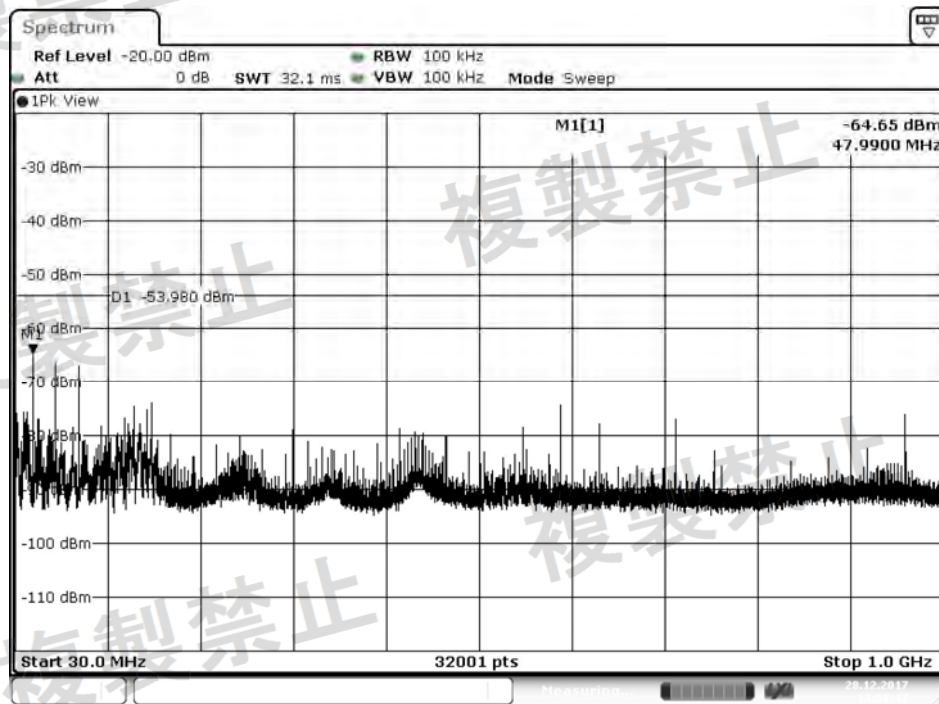


Date: 28.DEC.2017 14:58:14

Product : IMAGER-37 Sensor Mattress
Test Item : Receiver Spurious Emissions
Test Mode : Mode 2: Receiver (802.11g 6Mbps) 2412MHz

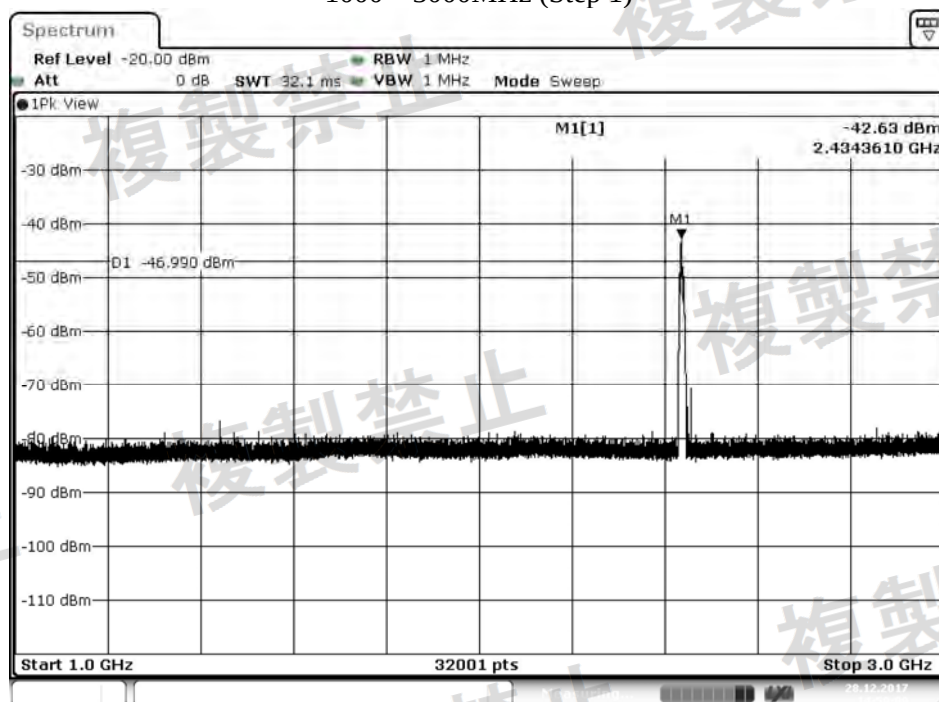
Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-64.65	-54 (4nW)
1000 – 3000	-85.83	-47 (20nW)
3000 – 8000	-73.83	-47 (20nW)
8000 – 12750	-76.54	-47 (20nW)

30-1000MHz



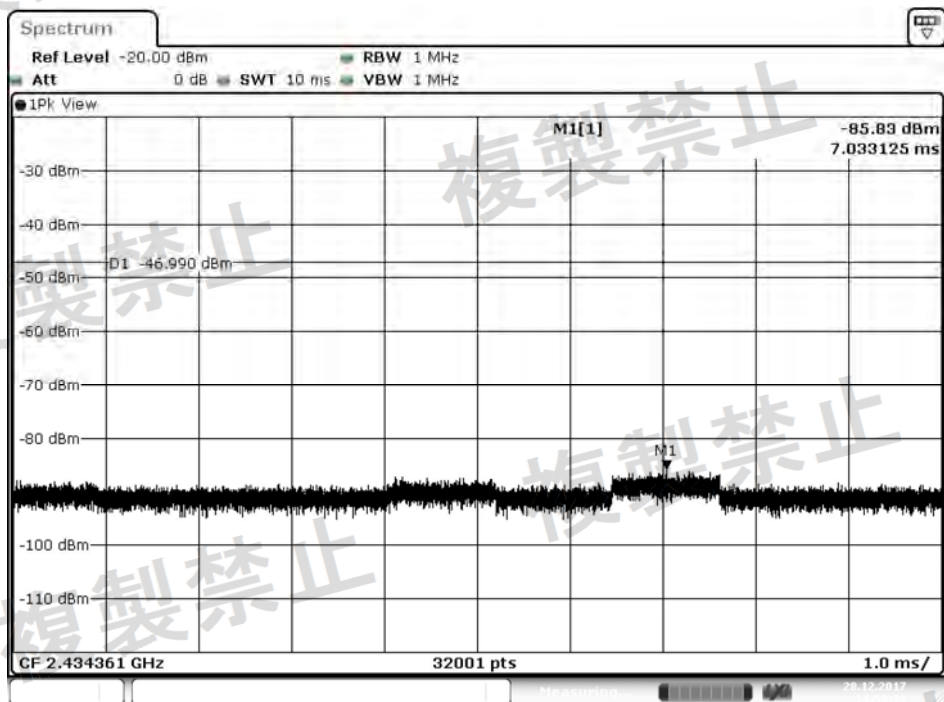
Date: 28.DEC.2017 14:58:47

1000 – 3000MHz (Step 1)



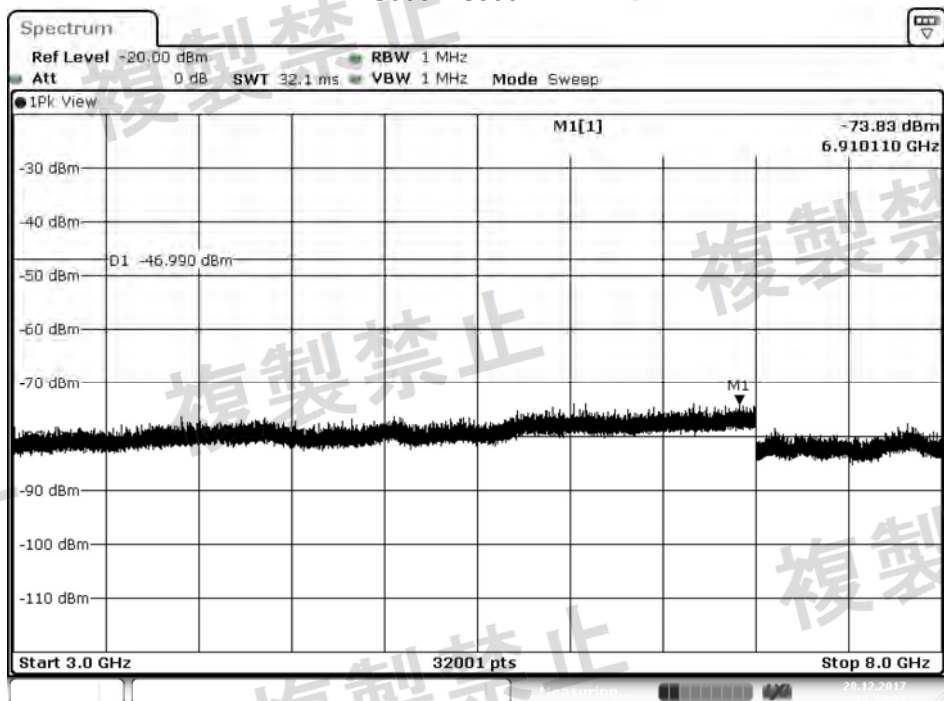
Date: 28.DEC.2017 14:59:09

1000 – 3000MHz (Step 3)



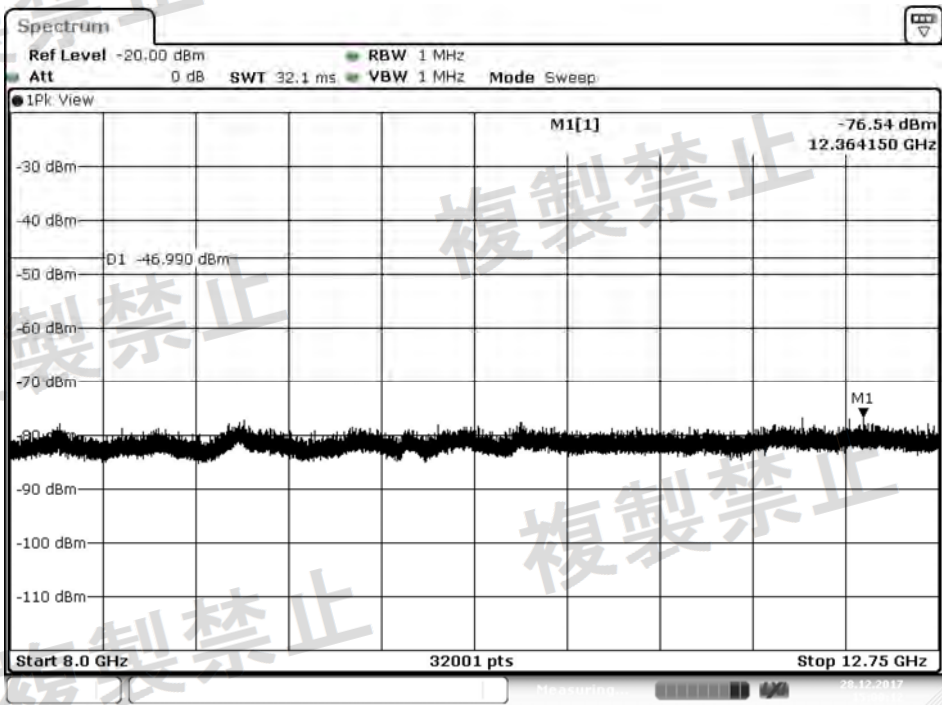
Date: 28.DEC.2017 14:59:30

3000 – 8000MHz



Date: 28.DEC.2017 14:59:51

8000 – 12750MHz

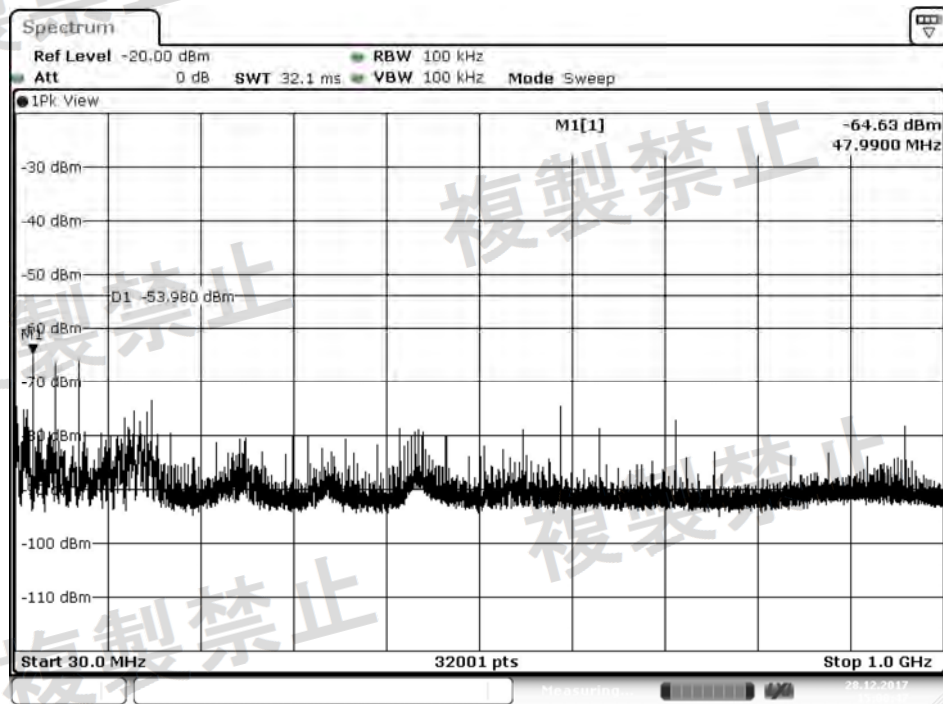


Date: 28.DEC.2017 15:00:13

Product : IMAGER-37 Sensor Mattress
Test Item : Receiver Spurious Emissions
Test Mode : Mode 2: Receiver (802.11g 6Mbps) 2442MHz

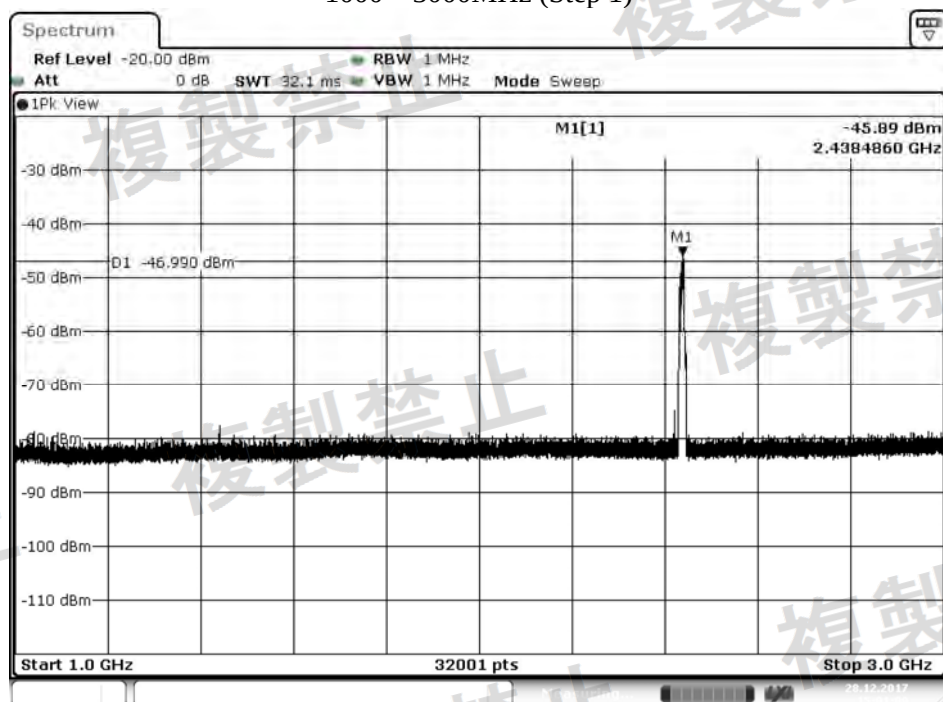
Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-64.63	-54 (4nW)
1000 – 3000	-84.93	-47 (20nW)
3000 – 8000	-73.02	-47 (20nW)
8000 – 12750	-77.27	-47 (20nW)

30-1000MHz



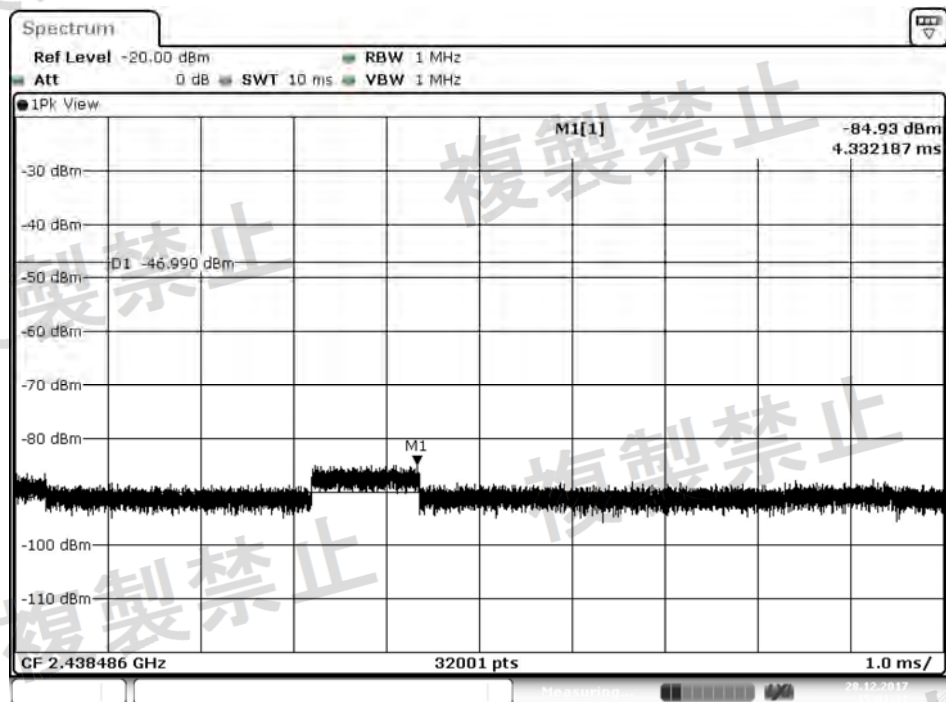
Date: 28.DEC.2017 15:00:48

1000 – 3000MHz (Step 1)



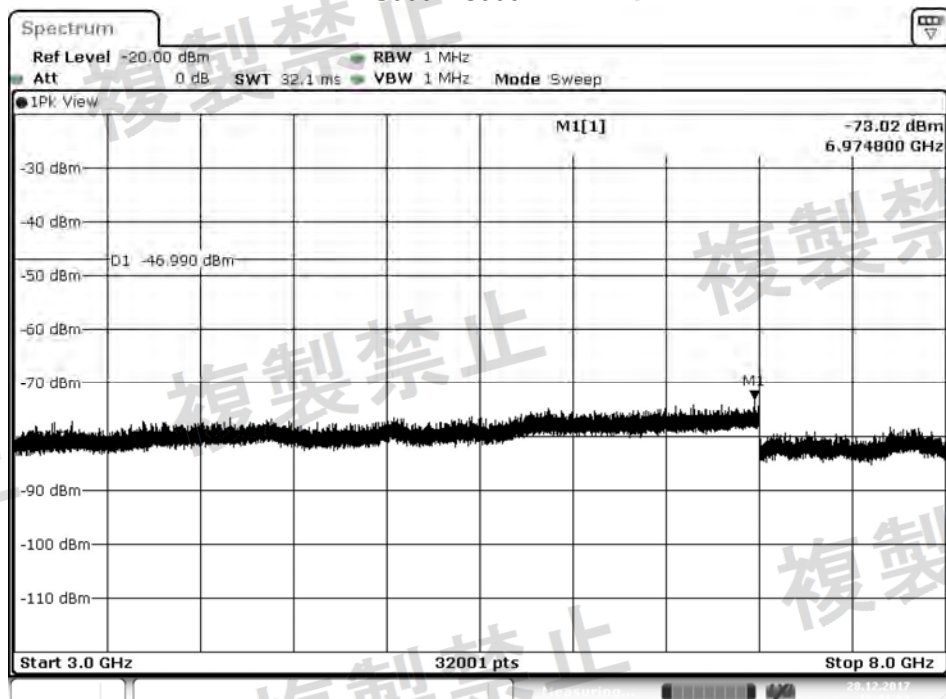
Date: 28.DEC.2017 15:01:09

1000 – 3000MHz (Step 3)



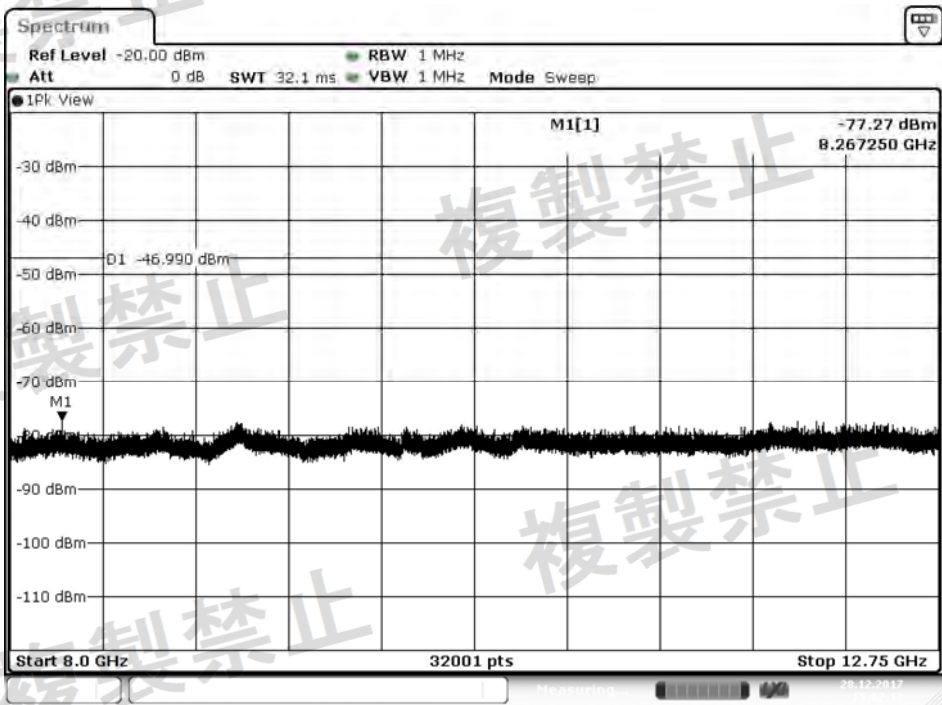
Date: 28.DEC.2017 15:01:31

3000 – 8000MHz



Date: 28.DEC.2017 15:01:52

8000 – 12750MHz

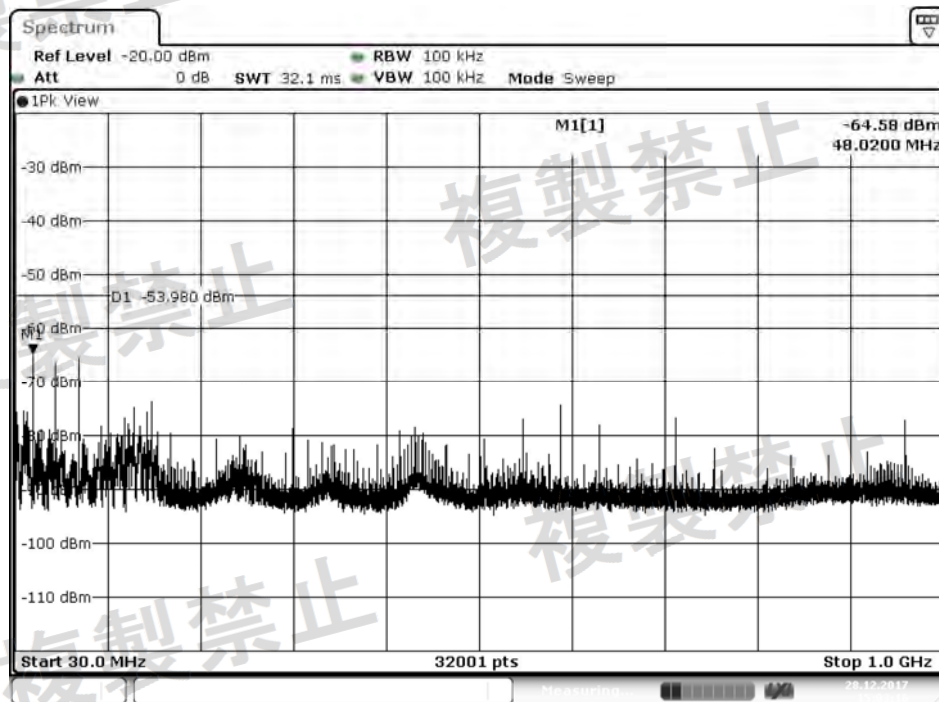


Date: 28.DEC.2017 15:02:14

Product : IMAGER-37 Sensor Mattress
Test Item : Receiver Spurious Emissions
Test Mode : Mode 2: Receiver (802.11g 6Mbps) 2472MHz

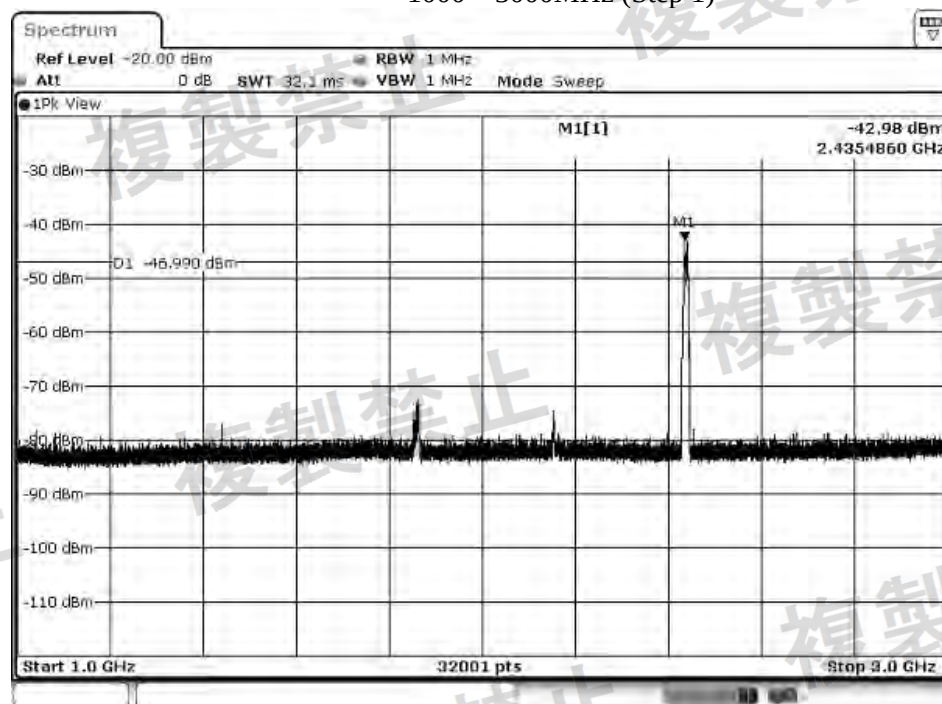
Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-64.58	-54 (4nW)
1000 – 3000	-85.75	-47 (20nW)
3000 – 8000	-73.73	-47 (20nW)
8000 – 12750	-76.57	-47 (20nW)

30-1000MHz



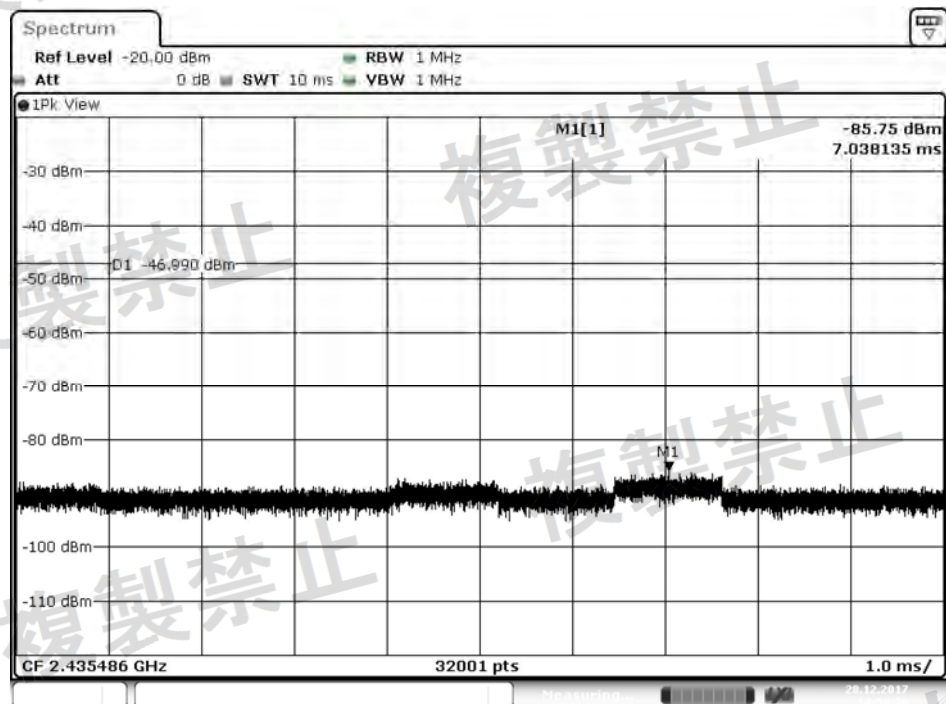
Date: 28.DEC.2017 15:03:17

1000 – 3000MHz (Step 1)



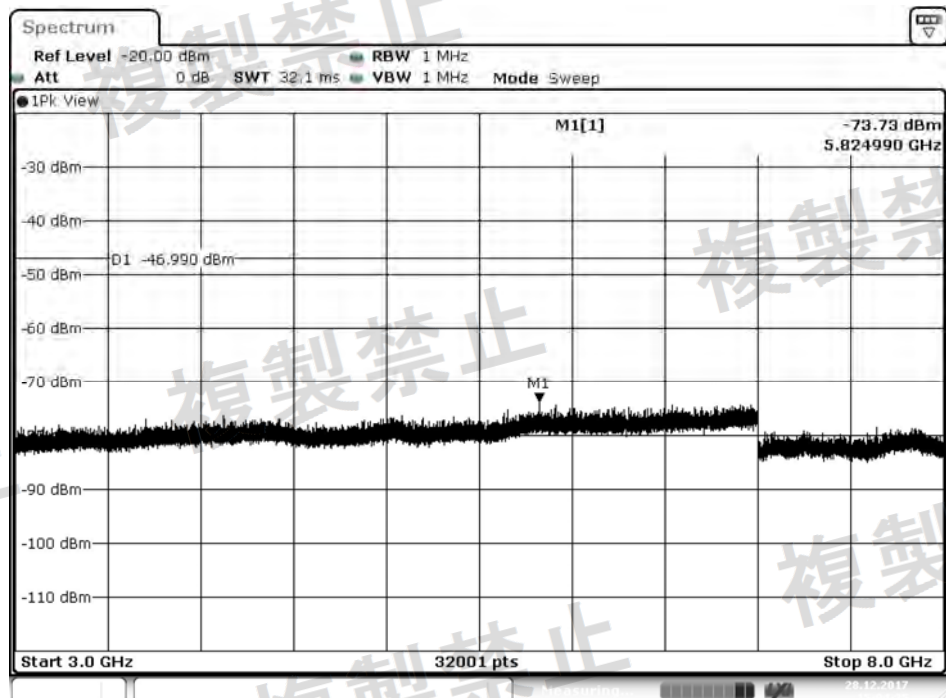
Date: 28.DEC.2017 15:23:08

1000 – 3000MHz (Step 3)



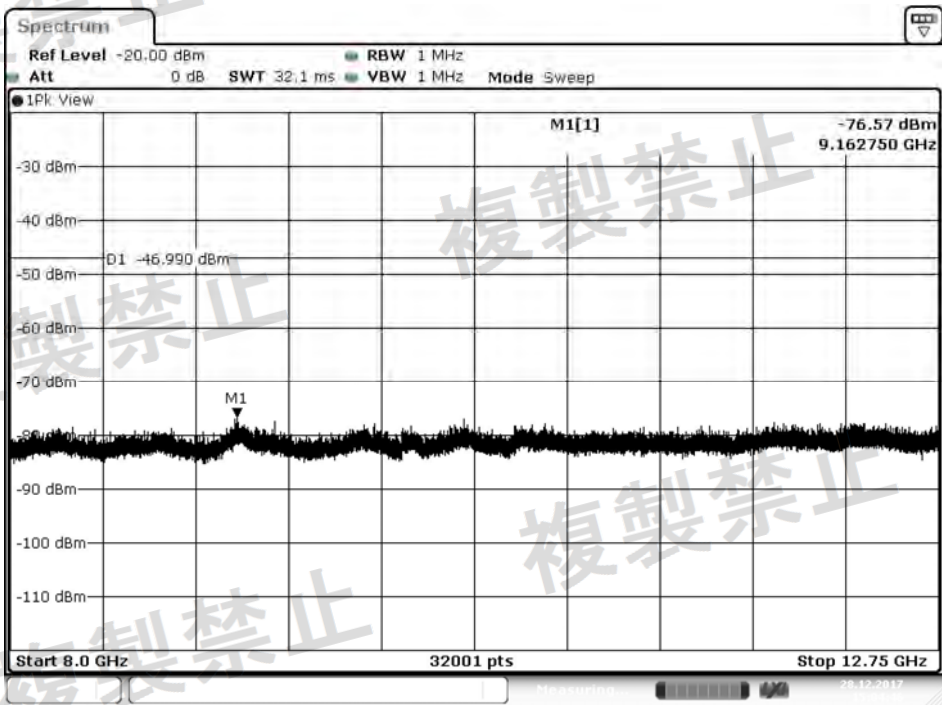
Date: 28.DEC.2017 14:59:30

3000 – 8000MHz



Date: 28.DEC.2017 15:04:25

8000 – 12750MHz

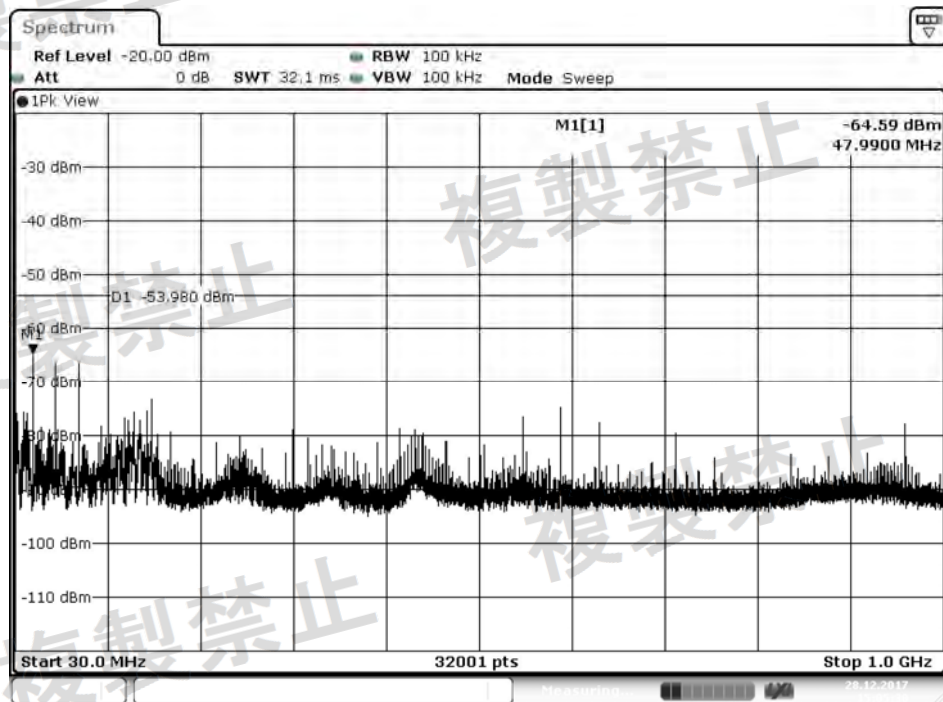


Date: 28.DEC.2017 15:04:46

Product : IMAGER-37 Sensor Mattress
Test Item : Receiver Spurious Emissions
Test Mode : Mode 2: Receiver (802.11n 7.2Mbps) 2412MHz

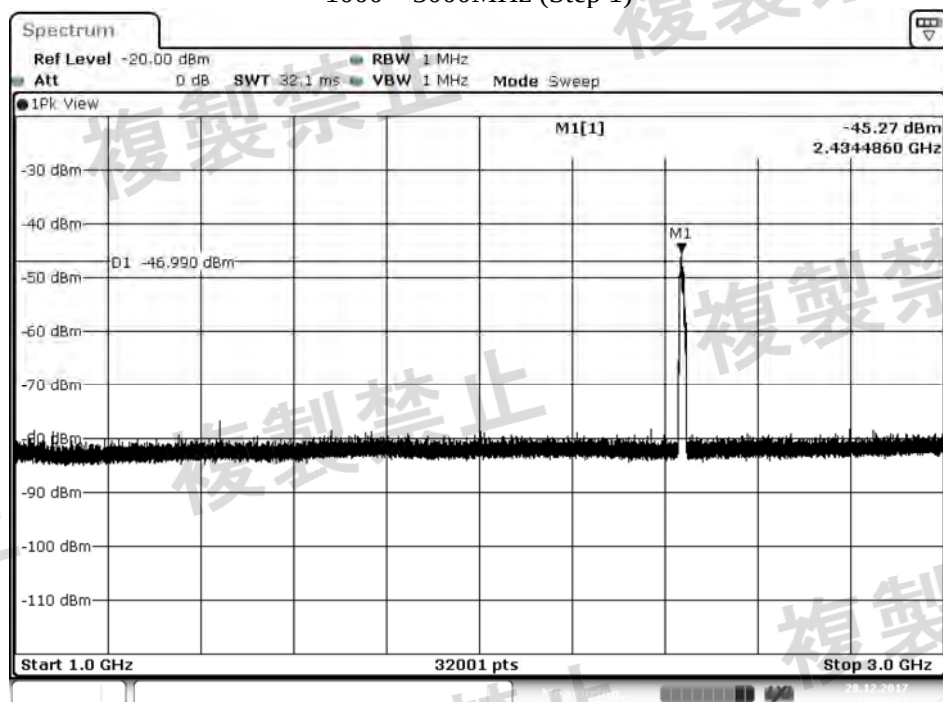
Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-64.59	-54 (4nW)
1000 – 3000	-84.95	-47 (20nW)
3000 – 8000	-73.69	-47 (20nW)
8000 – 12750	-77.18	-47 (20nW)

30-1000MHz



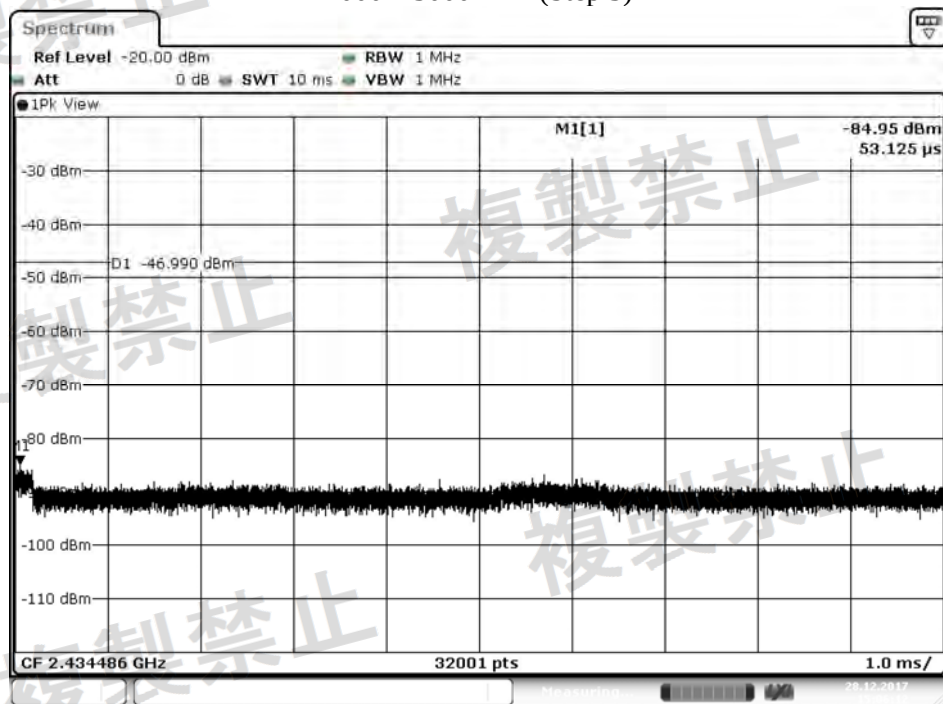
Date: 28.DEC.2017 15:05:30

1000 – 3000MHz (Step 1)



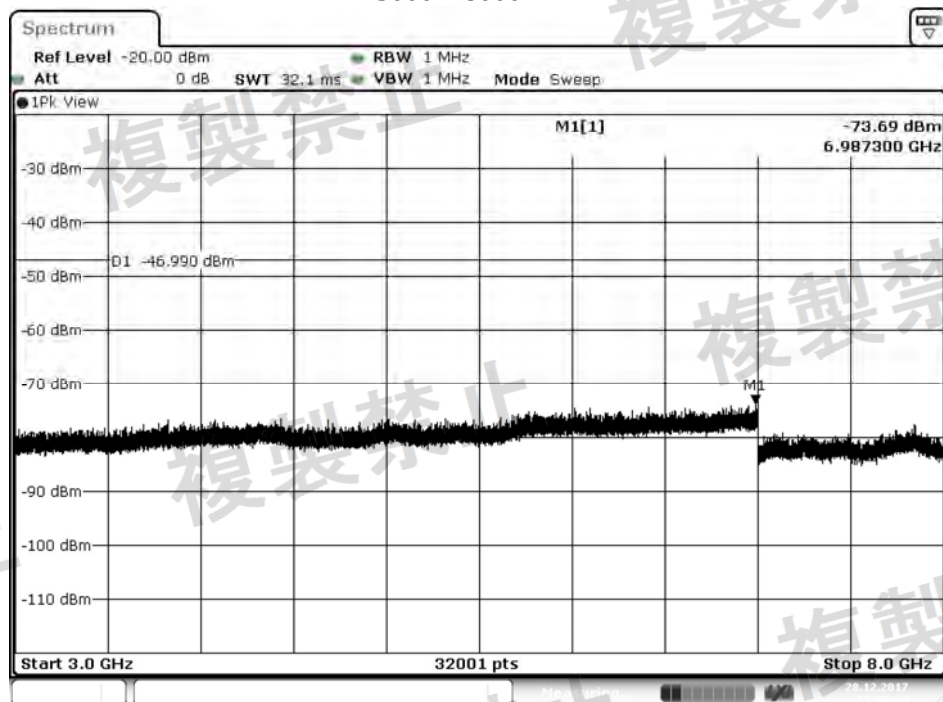
Date: 28.DEC.2017 15:05:52

1000 – 3000MHz (Step 3)



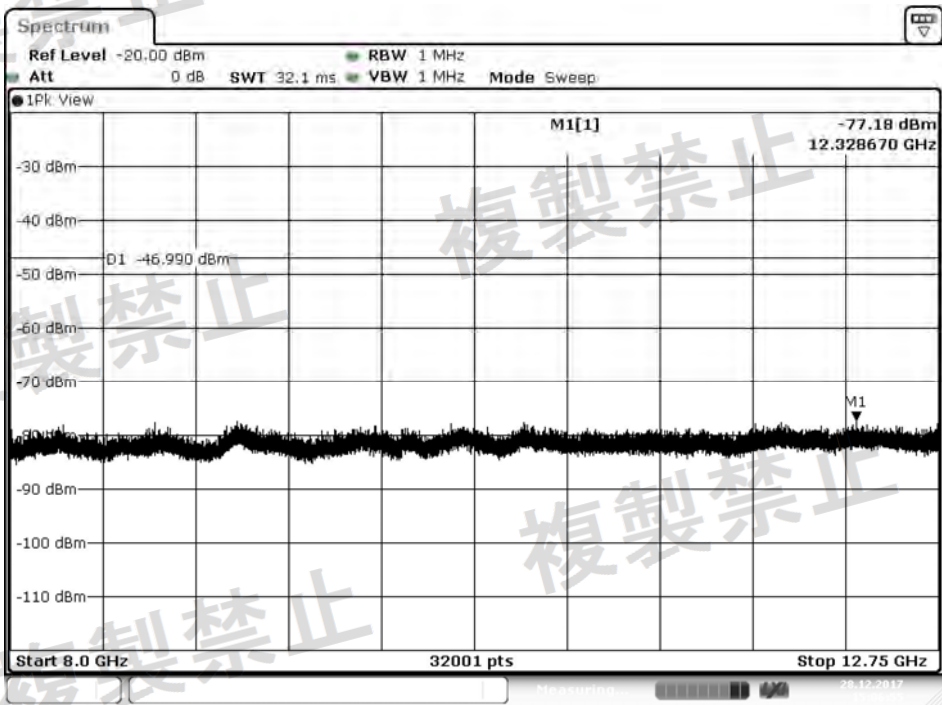
Date: 28.DEC.2017 15:06:13

3000 – 8000MHz



Date: 28.DEC.2017 15:06:34

8000 – 12750MHz

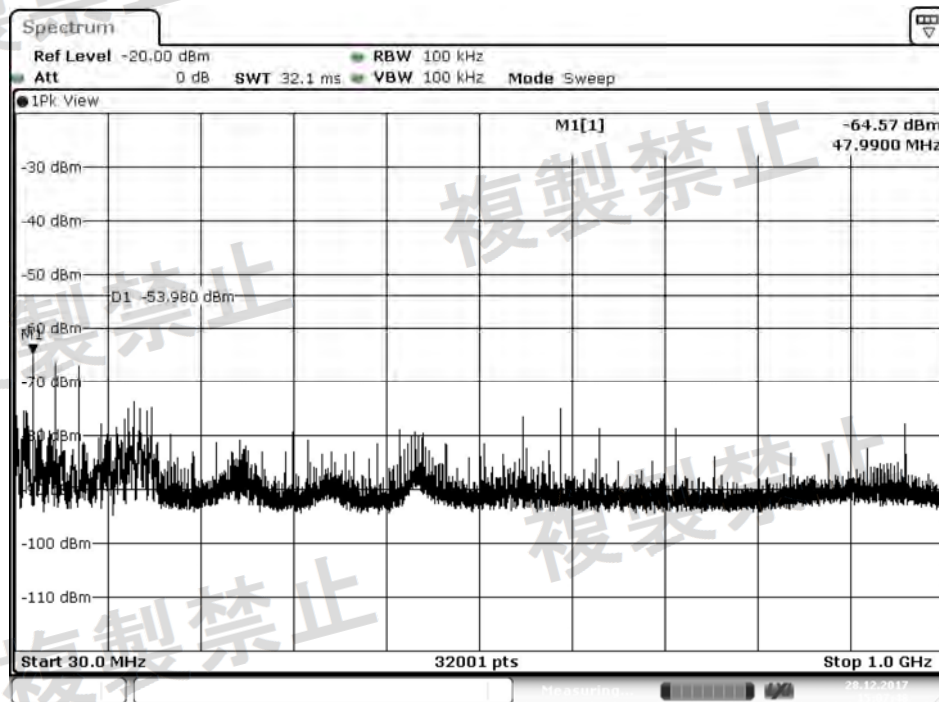


Date: 28.DEC.2017 15:06:56

Product : IMAGER-37 Sensor Mattress
Test Item : Receiver Spurious Emissions
Test Mode : Mode 2: Receiver (802.11n 7.2Mbps) 2442MHz

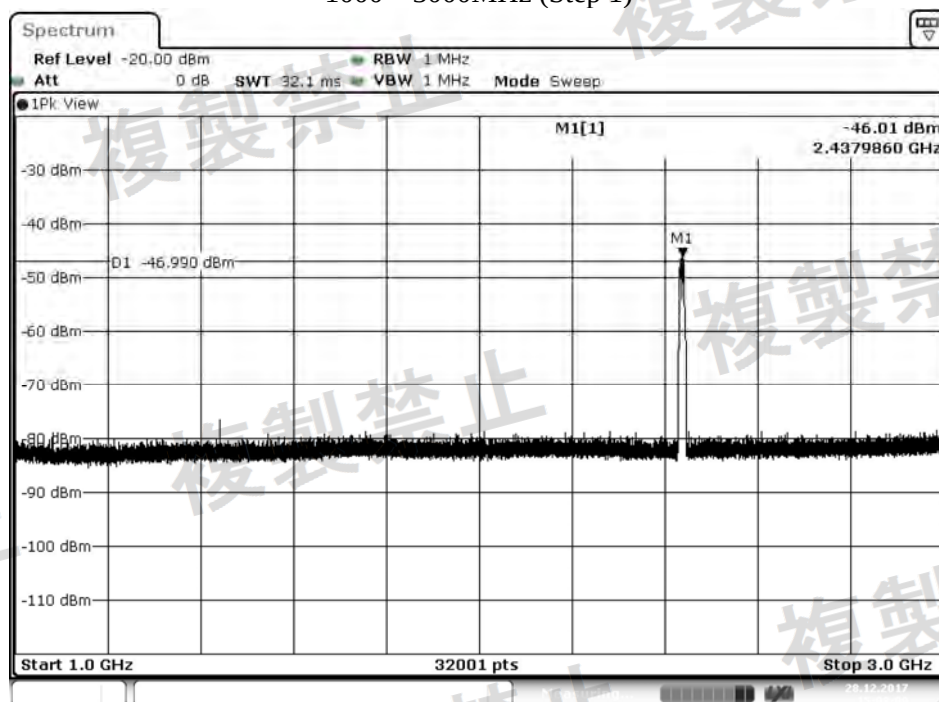
Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-64.57	-54 (4nW)
1000 – 3000	-85.52	-47 (20nW)
3000 – 8000	-73.63	-47 (20nW)
8000 – 12750	-76.84	-47 (20nW)

30-1000MHz



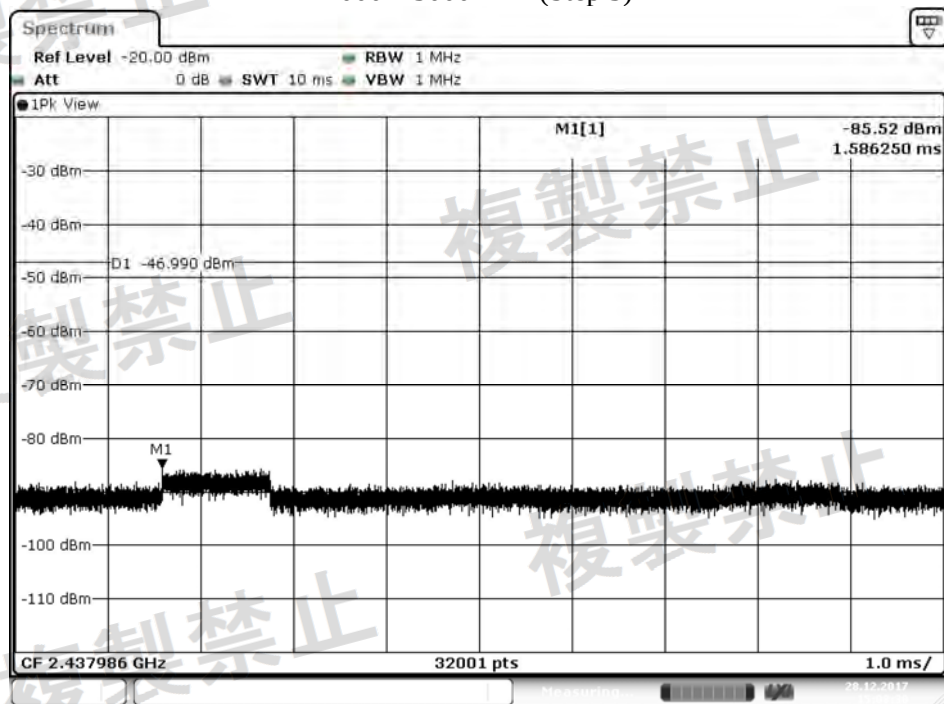
Date: 28.DEC.2017 15:07:48

1000 – 3000MHz (Step 1)



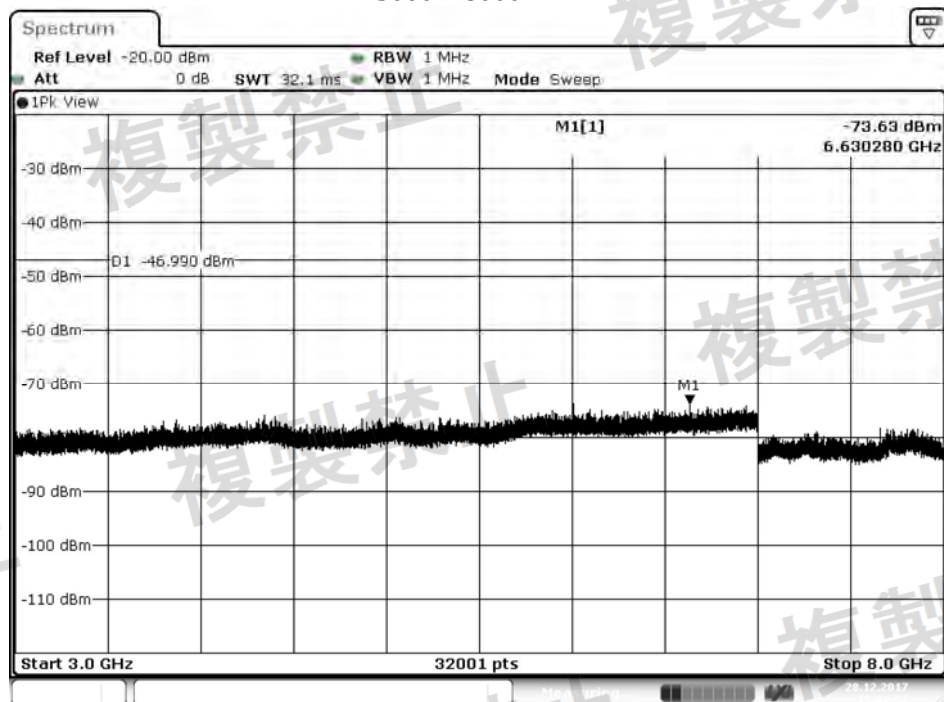
Date: 28.DEC.2017 15:08:09

1000 – 3000MHz (Step 3)



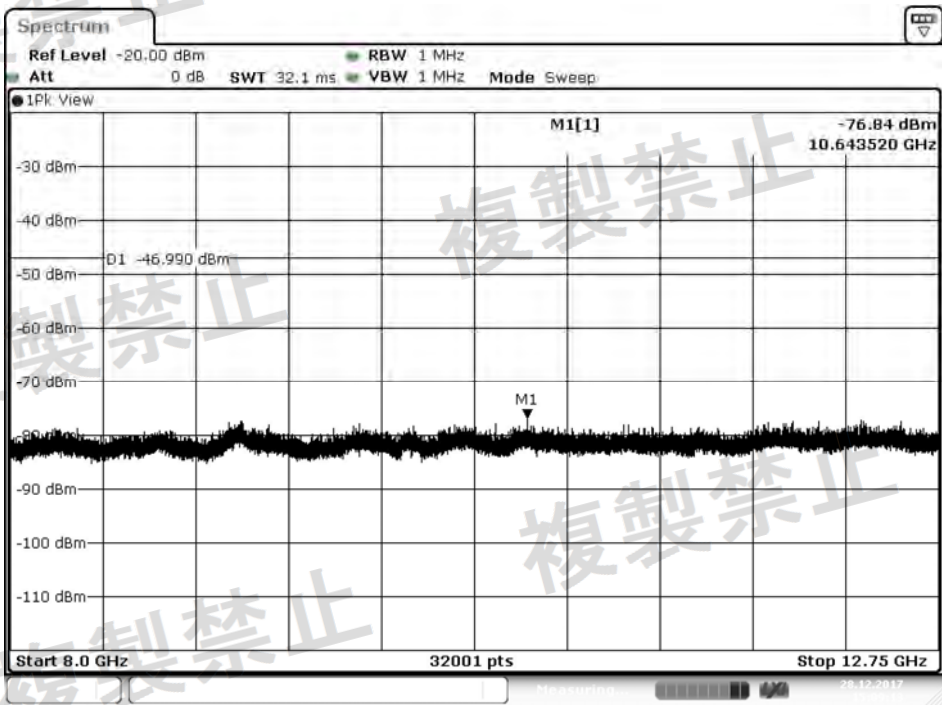
Date: 28.DEC.2017 15:08:30

3000 – 8000MHz



Date: 28.DEC.2017 15:08:52

8000 – 12750MHz

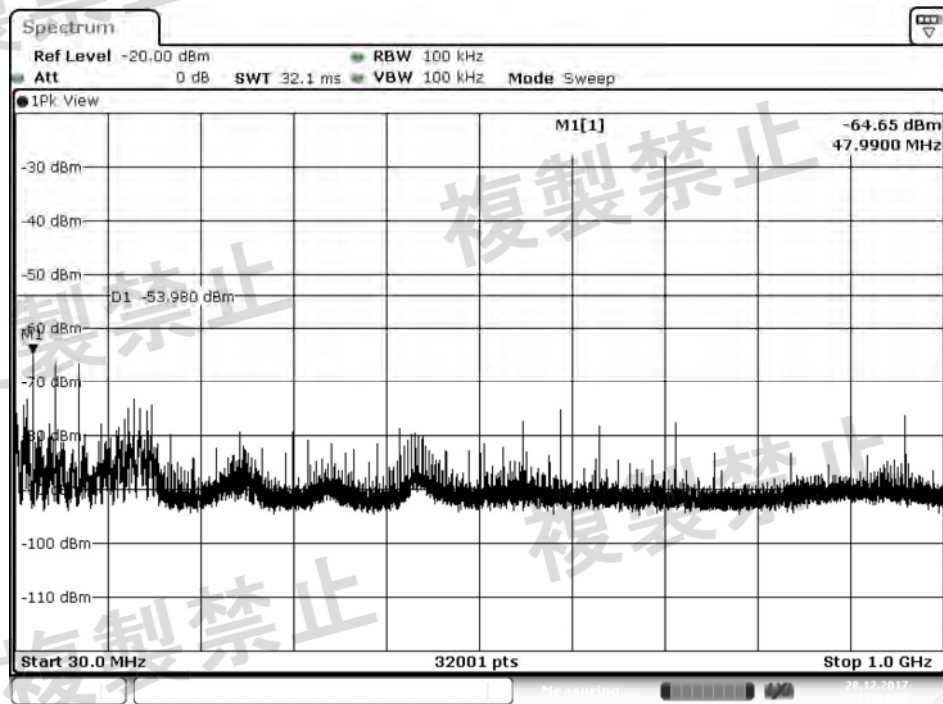


Date: 28.DEC.2017 15:09:13

Product : IMAGER-37 Sensor Mattress
Test Item : Receiver Spurious Emissions
Test Mode : Mode 2: Receiver (802.11n 7.2Mbps) 2472MHz

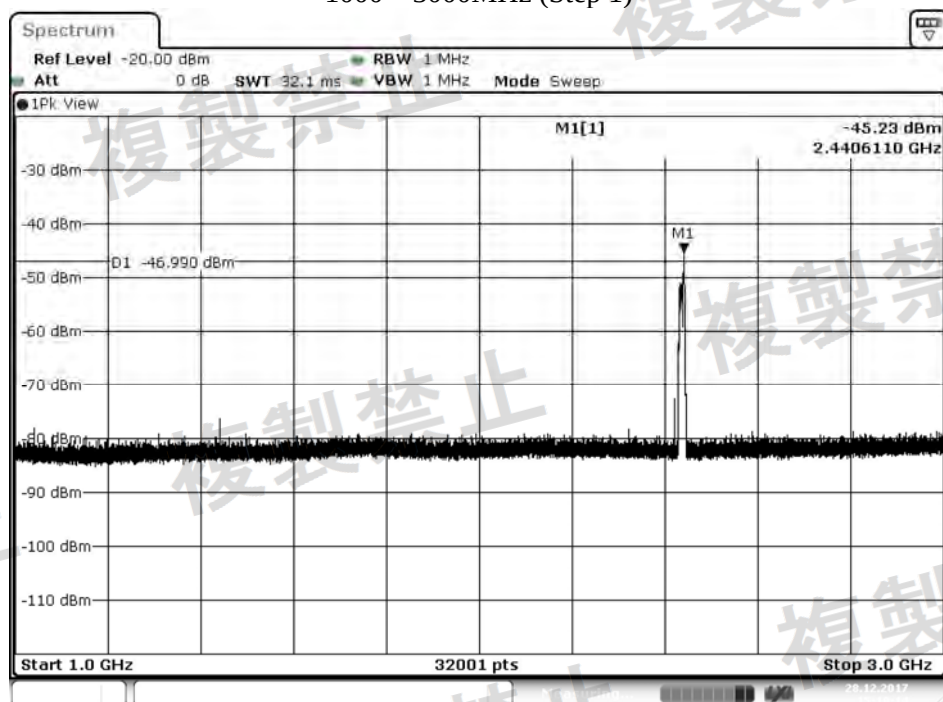
Frequency Range (MHz)	Reading Value (dBm)	Limit (dBm)
30-1000	-64.65	-54 (4nW)
1000 – 3000	-84.16	-47 (20nW)
3000 – 8000	-74.02	-47 (20nW)
8000 – 12750	-76.77	-47 (20nW)

30-1000MHz



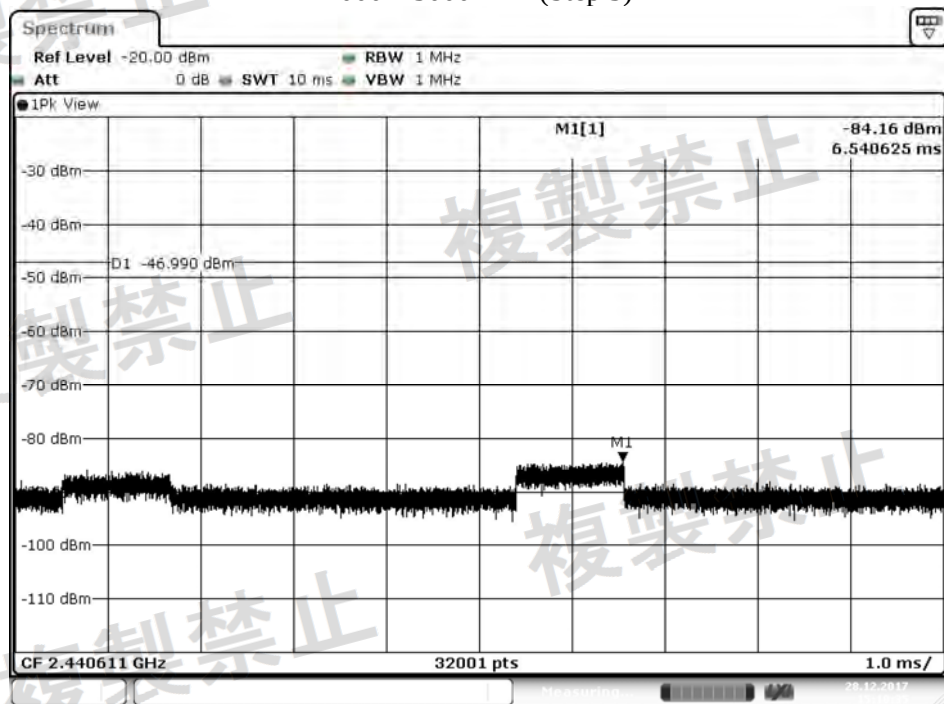
Date: 28.DEC.2017 15:09:52

1000 – 3000MHz (Step 1)



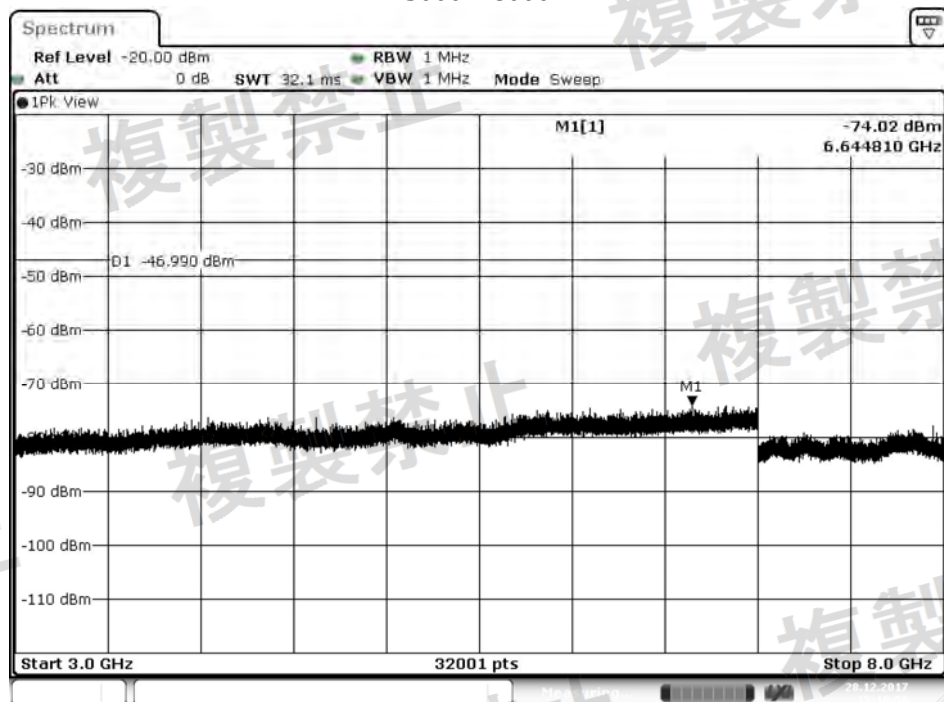
Date: 28.DEC.2017 15:10:14

1000 – 3000MHz (Step 3)



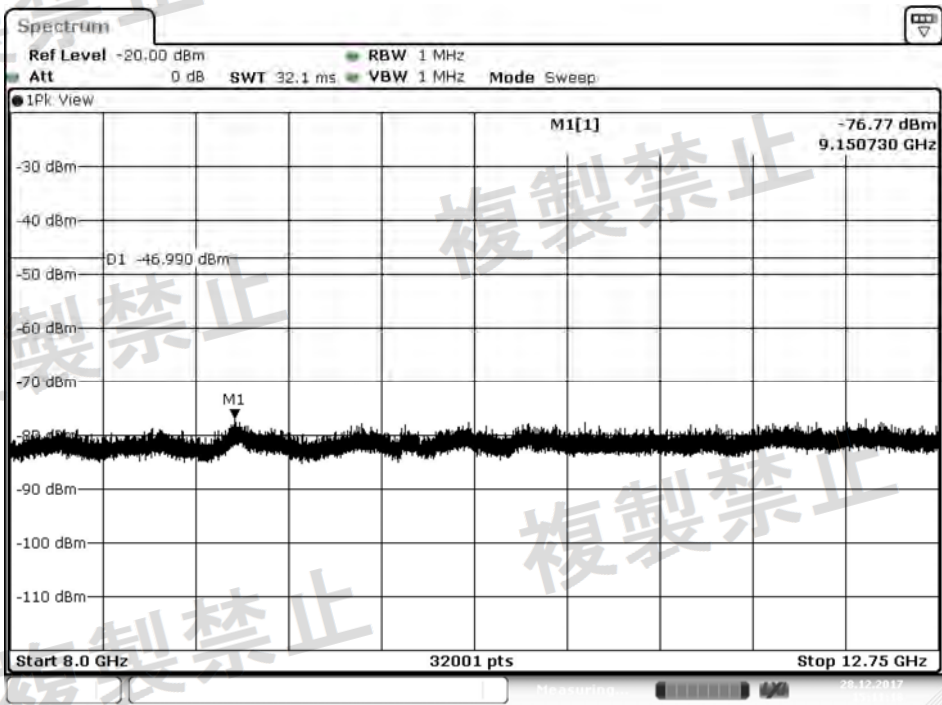
Date: 28.DEC.2017 15:10:35

3000 – 8000MHz



Date: 28.DEC.2017 15:10:57

8000 – 12750MHz

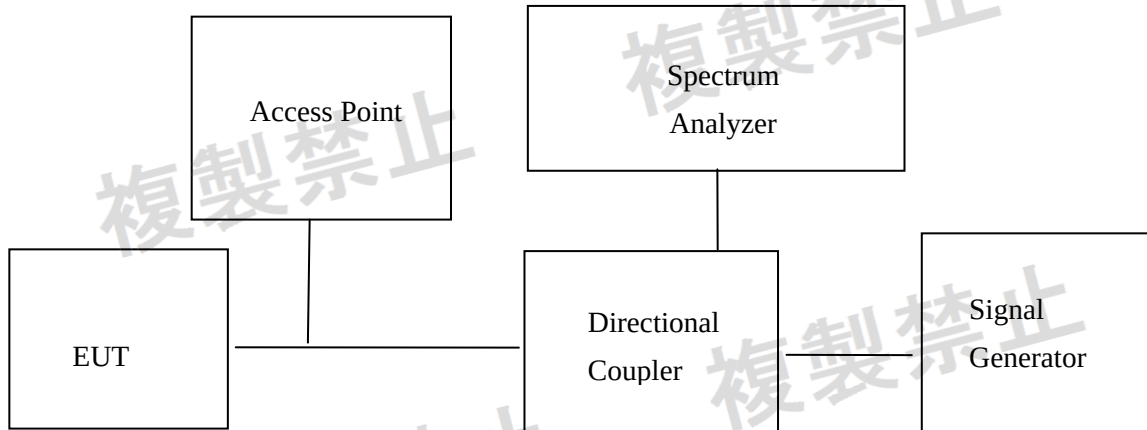


Date: 28.DEC.2017 15:11:18

Test Result	PASS
-------------	------

8. Carrier Sensing

8.1. Test Setup



8.2. Test Procedure

- Link EUT and Access Point to Directional Coupler input port.
- Link Signal Generator and Spectrum Analyzer to test port and output port in the Directional Coupler separately.
- A positive Peak Detector function in Spectrum Analyzer must be used.
- Set the Span to Zero.
- Press the Signal Generator on and it will output the Carrier Signal. When the Link breaks off, wait a minute and press the Signal Generator off. After a while, reset the Link and done the test.

8.3. Limits

Stop transmission while Carrier detecting.

8.4. Uncertainty

$\pm 1.23\text{dB}$

8.5. Test Result of Carrier Sensing

This device does not support 802.11n(40M-BW) technology, this test item is not performed.

9. EMI Reduction Method During Compliance Testing

No modification was made during testing.

Attachment

➤ EUT Test Photographs

Spectrum Measurement



Power Meter Measurement



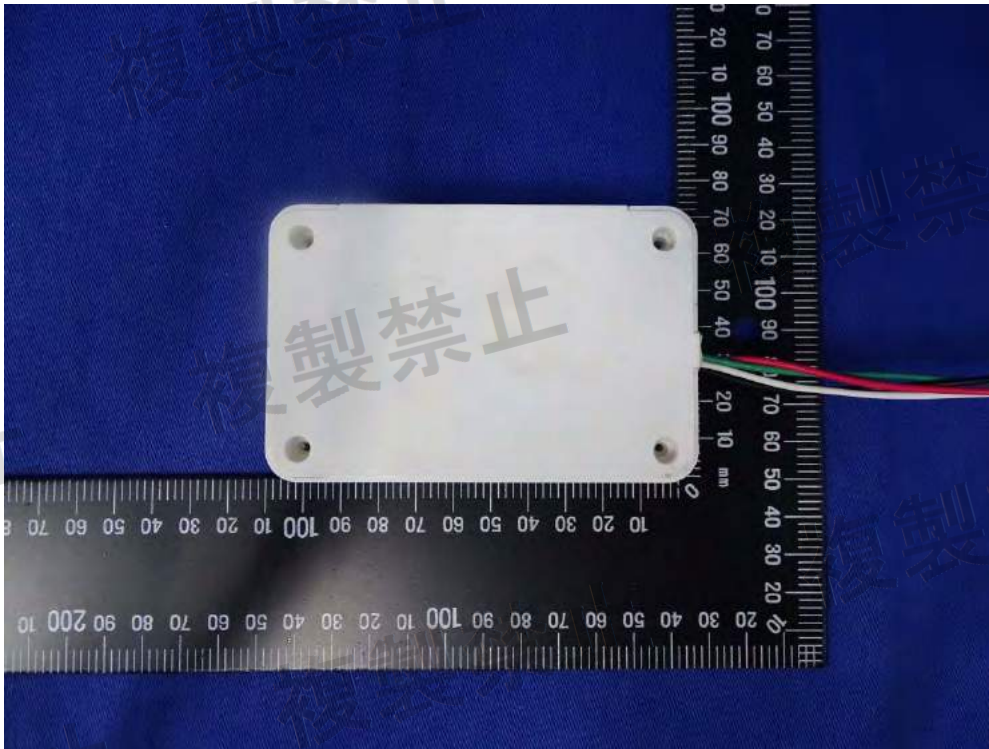
Attachment

➤ EUT Photographs

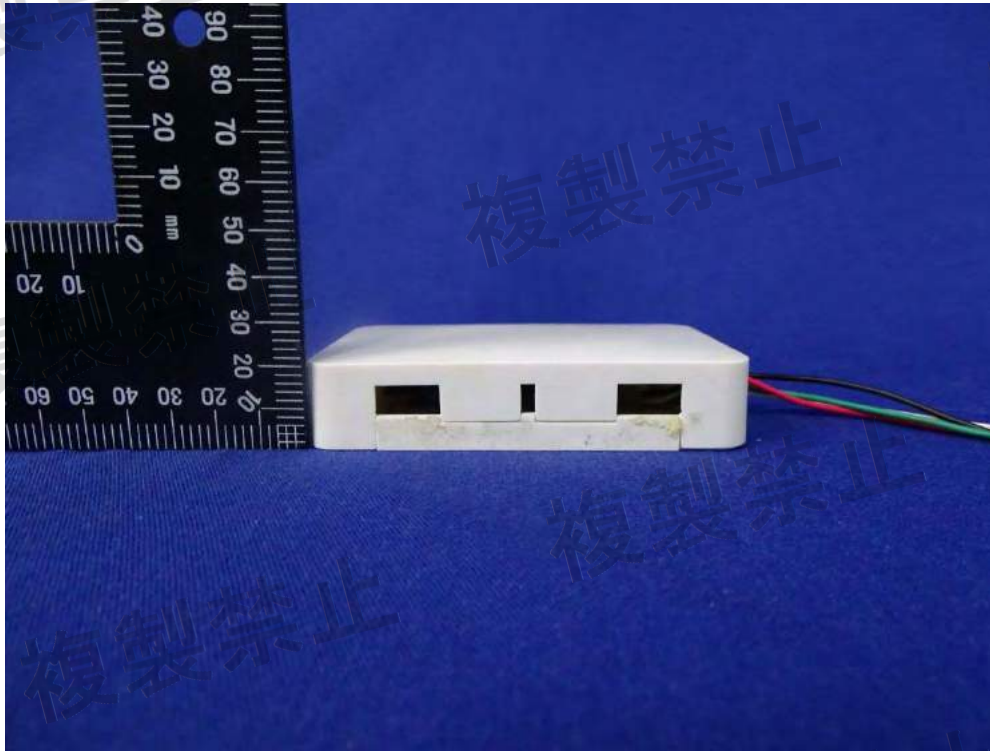
(1) EUT Photo



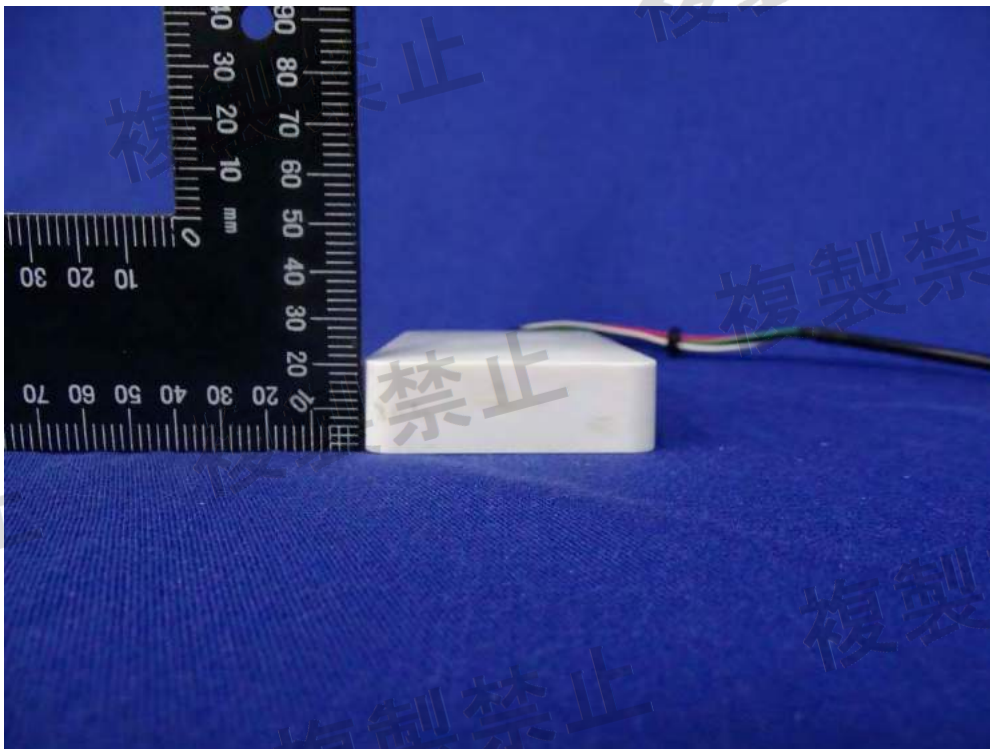
(2) EUT Photo



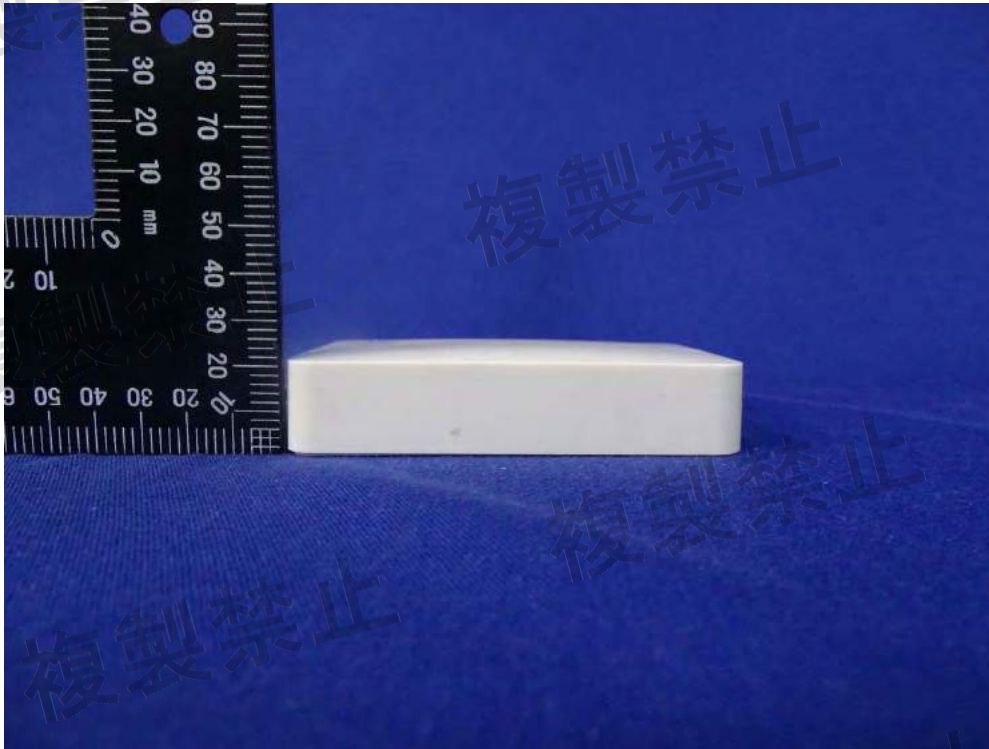
(3) EUT Photo



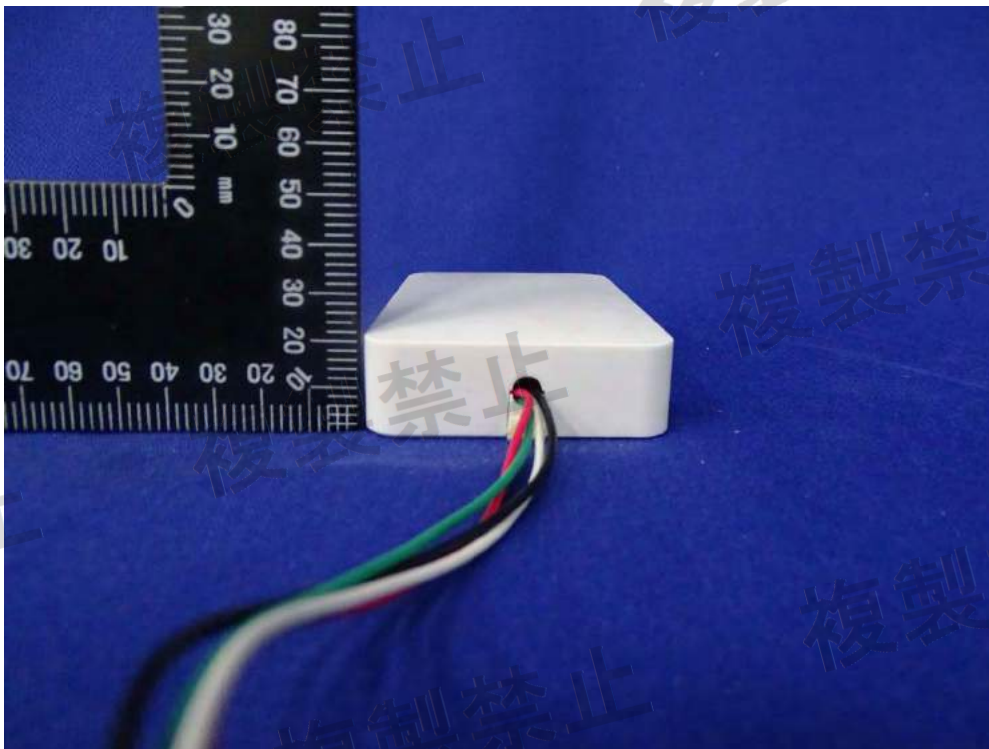
(4) EUT Photo



(5) EUT Photo



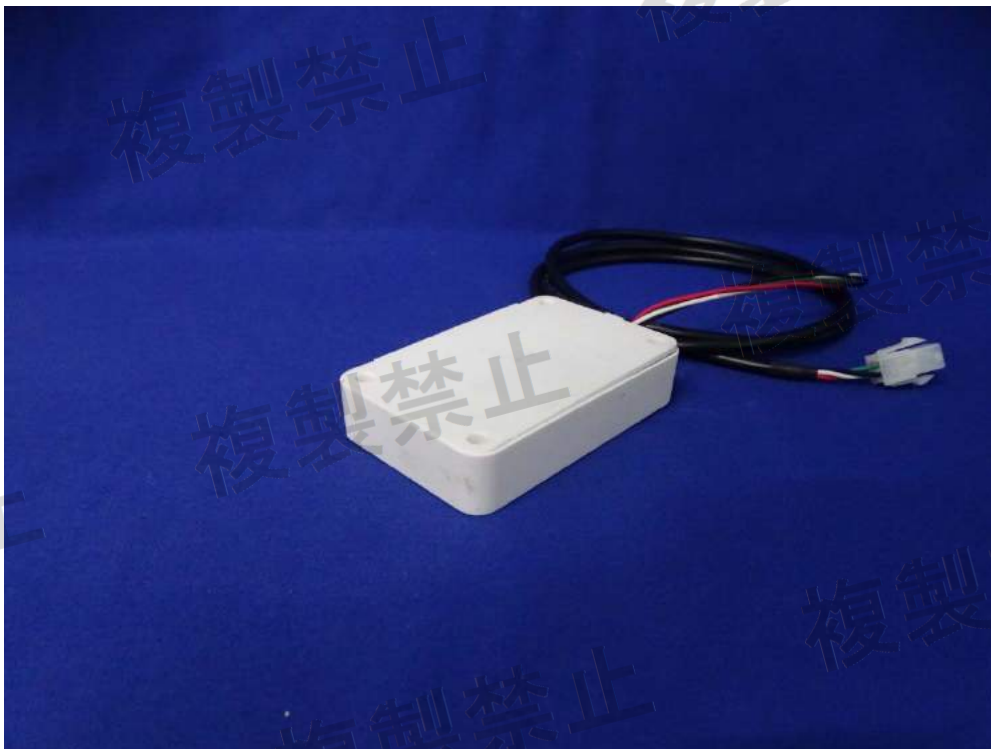
(6) EUT Photo



(7) EUT Photo



(8) EUT Photo



(9) EUT Photo



(10) EUT Photo



(11) EUT Photo



(12) EUT Photo



(13) EUT Photo



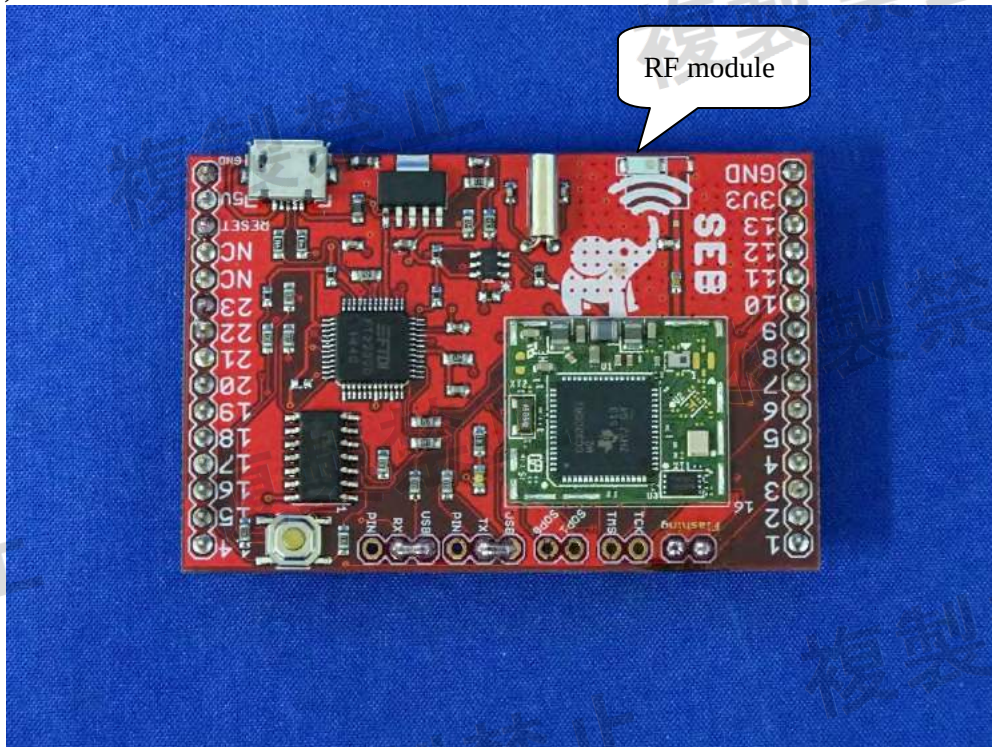
(14) EUT Photo



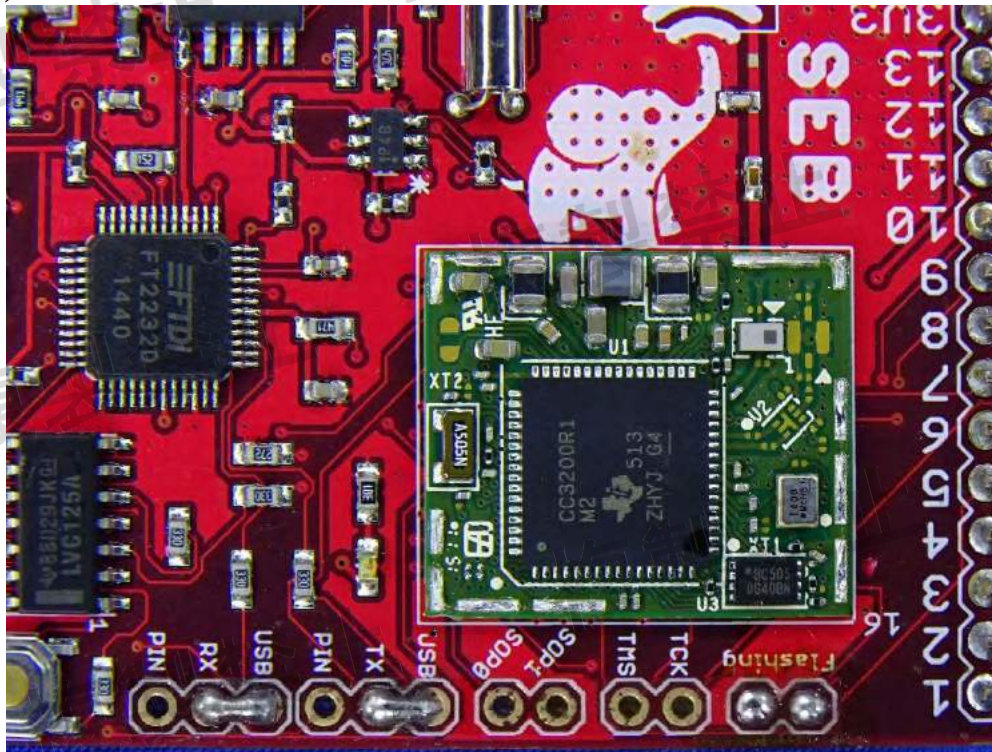
(15) EUT Photo



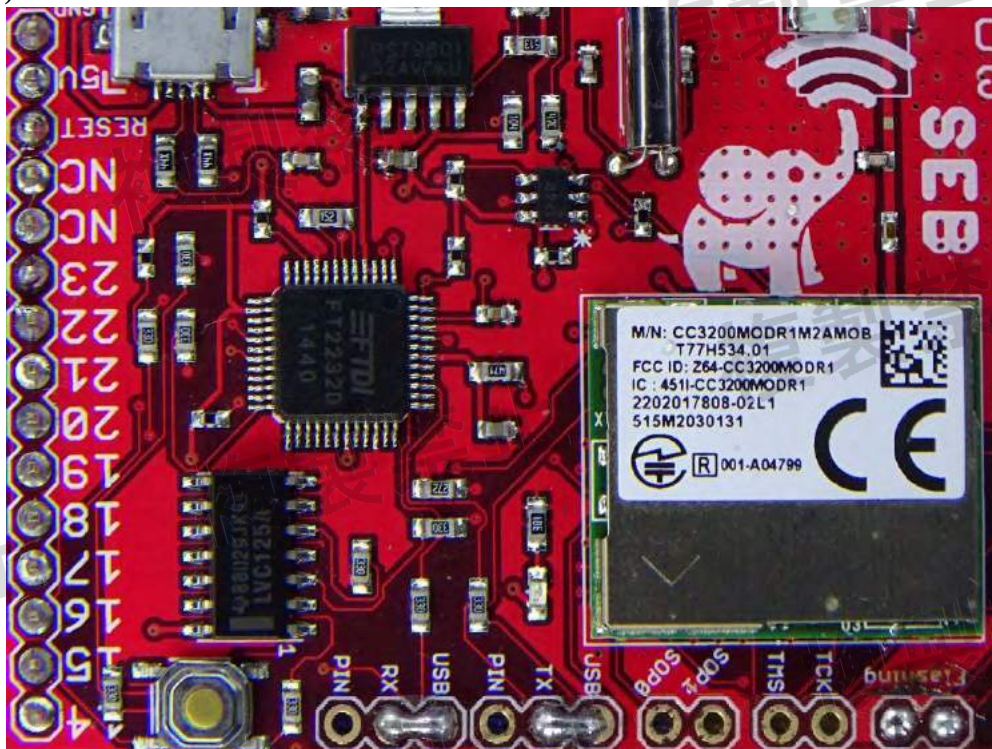
(16) EUT Photo



(17) EUT Photo



(18) EUT Photo



(19) EUT Photo



(20) EUT Photo



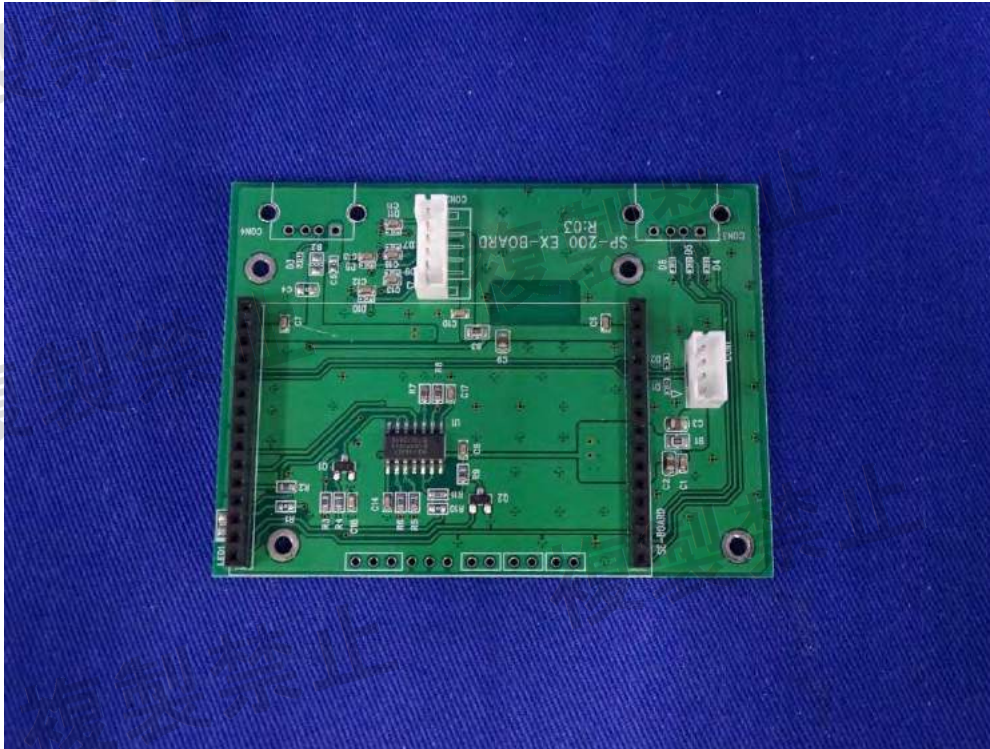
(21) EUT Photo



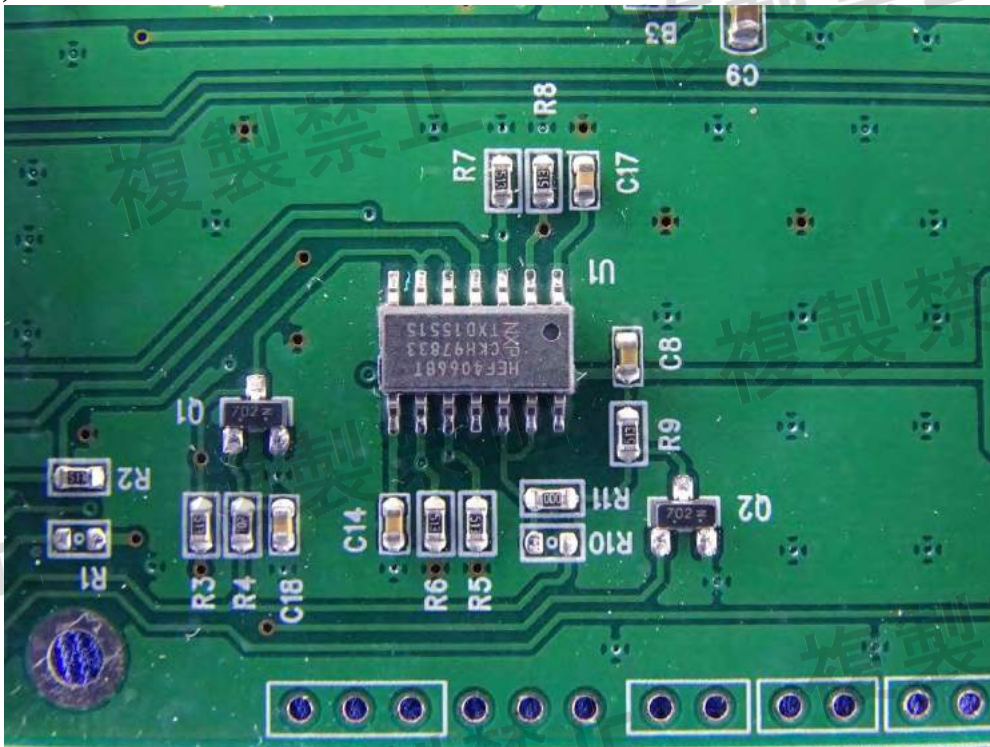
(22) EUT Photo



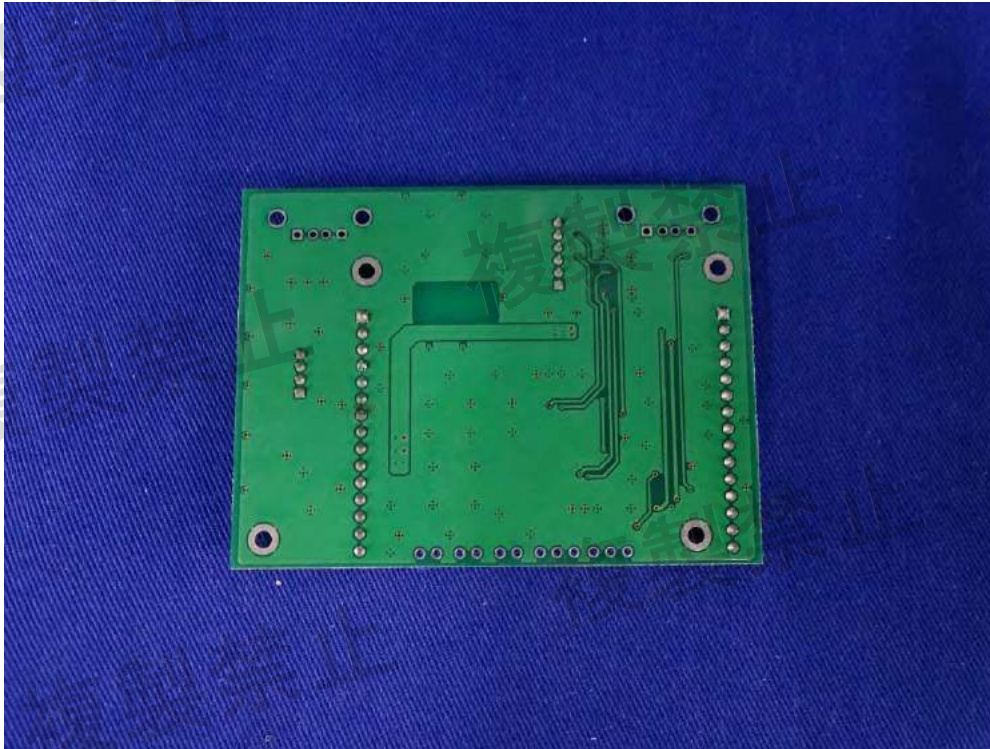
(23) EUT Photo



(24) EUT Photo



(25) EUT Photo



(26) EUT Photo



(27) EUT Photo



(28) EUT Photo



(29) EUT Photo

