

# **FCC TEST REPORT**

# Part 15 subpart C

**Client Information:** 

Applicant: Beedancing Electronics Co., Ltd.(Shanghai)

No.24-26, Gubo Rd., XinChang Industrial Park, Pudong New District,

Applicant add.: Shanghai China

**Product Information:** 

Product Name: Sports Timekeeping Reader

Model No.: STK-READER-ONE, STK-READER-PRO

Brand Name: N/A

FCC ID: 2AH4CSTK-READER-PRO

**Standards:** CFR 47 PART 15.209: 2016

Test procedure used: ANSI C63.10-2009

**Prepared By:** 

ATS Electronic Technology Co., Ltd.

Add.: 3/F, Building A, No. 1 Hedong Three Road, Jinxia Communityt, Changan Town, DongGuan City, GuangDong, P.R.China

Date of Receipt: Apr. 01, 2016 Date of Test: Apr. 01~ May 12, 2016

Date of Issue: May 14, 2016 Test Result: Pass

This device described above has been tested by ATS Electronic Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

\*This test report must not be used by the client to claim product endorsement by any agency of the U.S. government.

Reviewed by: Vera Wang Approved by: Simon Zergy

Phone: 86-769-3897 5958; Fax: 86-769-38975968 E-mail:ats@dgats.com

Report No.: ATSE160506786 2 / 49



# 1 Version

	Revision Record						
Version	Chapter	Date	Modifier	Remark			
00		2016-04-08					



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# 3 Test Summary

TEST	TEST REQUIREMENT	TEST METHOD	RESULT
Conduction Emissions	CCC DADT 15	ANSI C 63.10:	PASS
Conduction Emissions	FCC PART 15	Clasue 6.2	PASS
Dadiated Emission	CCC DART 15	ANSI C 63.10:	DACC
Radiated Emission	FCC PART 15	Clasue 6.4, 6.5	PASS

#### Remark:

N/A: not applicable. Refer to the relative section for the details.

Tx: In this whole report Tx (or tx) means Transmitter.
Rx: In this whole report Rx (or rx) means Receiver.
RF: In this whole report RF means Radio Frequency.

# 3.1 Measurement Uncertainty

All measurements involve certain levels of uncertainties, the maximum value of the uncertainty as below:

No.	Item	Uncertainty
1	Conducted Emission Test	1.20dB
2	Radiated Emission Test	3.30dB
3	RF power,conducted	0.16dB
4	RF power density,conducted	0.24dB
5	Spurious emissions,conducted	0.21dB
6	All emissions,radiated(<1G)	4.68dB
7	All emissions,radiated(>1G)	4.89dB



# **General Information**

# 4.1 General Description of EUT

Manufacturer:	Beedancing Electronics Co., Ltd.(Shanghai)
Manufacturer Address:	No.24-26,Gubo Rd., XinChang Industrial Park, Pudong New District, Shanghai China
EUT Name:	Sports Timekeeping Reader
Model No.:	STK-READER-ONE, STK-READER-PRO
Operation frequency:	125KHz
Number of channel:	1 channel
Modulation Type and	ASK
MIMO mode:	STK-READER-ONE: EUT supports the MIMO mode (2x2) STK-READER-PRO: EUT supports the MIMO mode (4x4)
Antenna Type:	wire antenna
Antenna Gain:	0 dBi
H/W No.:	V3
S/W No.:	V0
Power Supply Range:	Battery: 12V 7.2Ah sealed lead-acid battery, Adapter: INPUT: 100-240VAC max1.2A OUTPUT: 13.8VDC
Power Supply:	DC 12V from sealed lead-acid battery, AC 120V/60Hz for adapter, DC 13.8V from adapter DC 12V from external battery
Power Cord:	N/A
Signal Cable:	N/A
Model description:	According to the confirmation from the applicant, since the electrical circuit design, layout, components used and internal wiring were identical for the above items, only difference being the TX antenna numbers, RX module numbers and RX antenna numbers.  For more details, please refer to page 6.
USB port:	The USB port is only can be used to mintenance and technical updating, it can not be used for user.
Ethernet port:	The Ethernet port is only can be used to connect a a wireless network card, can not directly be used to connect a PC.

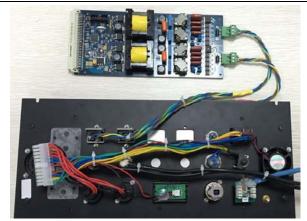


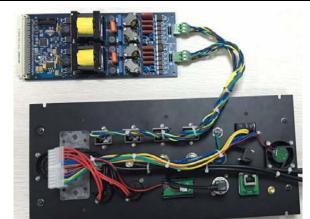
Model description:	
STK-READER-ONE	STK-READER-PRO
One Transmit module Board	One Transmit module Board
2 TX antennas & 2 interface TX antenna ports	4 TX antennas & 4 interface TX antenna ports
Transmit module Board has 2 TX ports, each TX port	Transmit module Board has 2 TX ports, each TX port
connect to one 3-pin interface antenna ports.	connect to two 3-pin interface antenna ports.
One Receiver module Board	Two Receiver module Boards
2 RX antennas & 2 interface RX antenna ports	4 RX antennas & 4 RX interface antenna ports
Receiver module Board has 2 RX ports, each RX port	Receiver module Board has 2 RX ports, each RX port
connect to one interface antenna ports.	connect to one interface antenna ports.

## Interface details

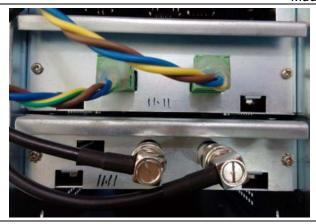








Mudule details







## 4.2 Test Location

All tests were performed at:

Dongguan Yaxu (AiT) Technology Limited

No.22, Jinqianling Third Street, Jitigang, Huangjiang, Dongguan, Guangdong, China

Tel.: +86.769.82020499 Fax.: +86.769.82020495

The FCC Registration No. of Dongguan Yaxu (AiT) Technology Limited is 248337.

## 4.3 EUT Peripheral List

No.	Equipment	Manufactur er	EMC Compliance	Model No.	Serial No.	Power cord	signal cable
1	AC cable	N/A	N/A	N/A	N/A	2.0m/ unshielded	N/A
21	Adapter	MACSOT	N/A	Type 2040	N/A	1.8m/ unshielded/ undetachable	N/A
	Antenna	N/A	N/A	N/A	N/A	N/A	7.5m/ unshielded
3	2-TX & 2-RX antennas for STK-READER-ONE 4-TX & 4-RX antennas for STK-READER-PRO						

# 4.4 Test Peripheral List

No.	Equipment	Manufacturer	EMC Compliance	Model No.	Serial No.	Power cord	signal cable
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Phone: 86-769-3897 5958; Fax: 86-769-38975968 E-mail:ats@dgats.com



# 5 Equipment Used during Test

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	EMI Measuring Receiver	R&S	ESR	101660	2015.06.29	2016.06.28
2	Low Noise Pre Amplifier	Tsj	MLA-10K01-B01- 27	1205323	2015.06.29	2016.06.28
3	TRILOG Super Broadband test Antenna	SCHWARZBEC K	VULB9160	9160-3206	2015.06.29	2016.06.28
4	Loop Antenna	ETS	6512	00165355	2015.06.29	2016.06.28
5	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2015.06.29	2016.06.28
6	EMI Test Receiver	R&S	ESCI	100124	2015.06.29	2016.06.28
7	LISN	Kyoritsu	KNW-242	8-837-4	2015.06.29	2016.06.28
8	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2015.06.29	2016.06.28
9	Radiated Cable 1#	FUJIKURA	5D-2W	01	2015.12.25	2016.12.24
10	Conducted Cable 1#(9KHz-30MHz)	FUJIKURA	1D-2W	01	2015.12.25	2016.12.24

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Note: N/A



## 6 Test Results

#### 6.1 E.U.T. test conditions

Test Voltage: DC 12V from sealed lead-acid battery,

AC 120V/60Hz for adapter, DC 13.8V from adapter

DC 12V from external battery

Test mode: The EUT supports MIMO mode.

Pre-test EUT in MIMO and single ANT modes, find the worst case in

MIMO mode..

MIMO mode for STK-READER-ONE is MIMO(2x2); MIMO mode for STK-READER-PRO is MIMO(4x4).

Pre-test EUT in B/O & AC & external B/O modes, find the worst case

in AC mode.

B/O mode: EUT operate stand-alone & powered by internal 12V lead-

acid battery

AC mode: EUT operate & connect the adapter to the charger port to

charge the internal battery

External B/O mode: EUT operate stand-alone & powered by

external 12V lead-acid battery

Requirements: 15.31(e): For intentional radiators, measurements of the variation of

> the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery operated equipment, the

equipment tests shall be performed using a new battery.

**Operating Environment:** 

Temperature: 22-25.0 °C **Humidity:** 48-55% RH

Atmospheric Pressure: 1001-1010 mbar

Test frequencies and

According to the 15.31(m) Measurements on intentional radiators or

frequency range: receivers, other than TV broadcast receivers, shall be performed and, if required, reported for each band in which the device can be operated with the device operating at the number of frequencies in

each band specified in the following table:

According to the 15.33 (a) For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency

shown in the following table:



## Number of fundamental frequencies to be tested in EUT transmit band

Frequency range in which device operates	Number of frequencies	Location in frequency range of operation
1 MHz or less	1	Middle
1 MHz to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle and 1 near bottom

## Frequency range of radiated emission measurements

Lowest frequency generated in the device	Upper frequency range of measurement	
9 kHz to below 10 GHz	10th harmonic of highest fundamental frequency or to 40 GHz,	
9 KHZ to below 10 GHZ	whichever is lower	
At or above 10 GHz to below	5th harmonic of highest fundamental frequency or to 100 GHz,	
30 GHz	whichever is lower	
At or above 20 CHz	5th harmonic of highest fundamental frequency or to 200 GHz,	
At or above 30 GHz	whichever is lower, unless otherwise specified	

Remark:Test frequency is 125.0kHz.

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## 6.2 Antenna Requirement

### Standard requirement

15.203 requirement:

For intentional device. According to 15.203. an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### **EUT Antenna**

The TX antenna is equipped with the Hirschman ST 3-way connector. The best case gain of the antenna is 0 dBi.

Test result: The unit does meet the FCC requirements.



## 7 Conduction Emissions Measurement

## 7.1 Applied procedures / Limit

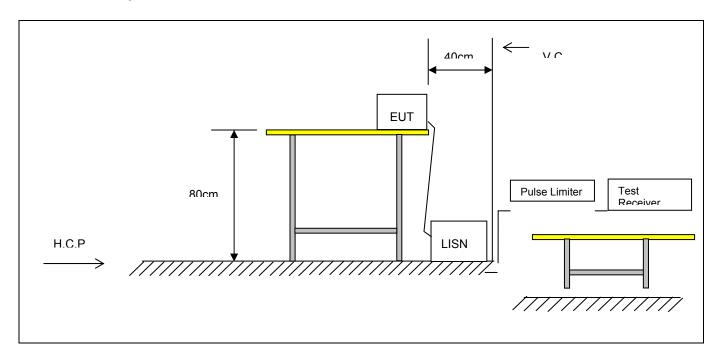
Frequency of Emission (MHz)	Conducted Limit (dBμV)		
	Quasi-peak	Average	
0.15-0.5 0.5-5 5-30	66 to 56 * 56 60	56 to 46 * 46 50	

Note: Decreases with the logarithm of the frequency.

### 7.2 Test procedure

EUT was placed upon a wooden test table 0.8m above the horizontal metal reference plane and 0.4m from the vertical ground plane, and it was connected to an AMN. The closest distance between the boundary of the EUT and the surface of the AMN is 0.8m. All peripherals were connected to another AMN, and placed at a distance of 10cm from each other. A spectrum and receiver was connected to the RF output port of the AMN. Both average and quasi-peak value were detected.

## 7.3 Test setup

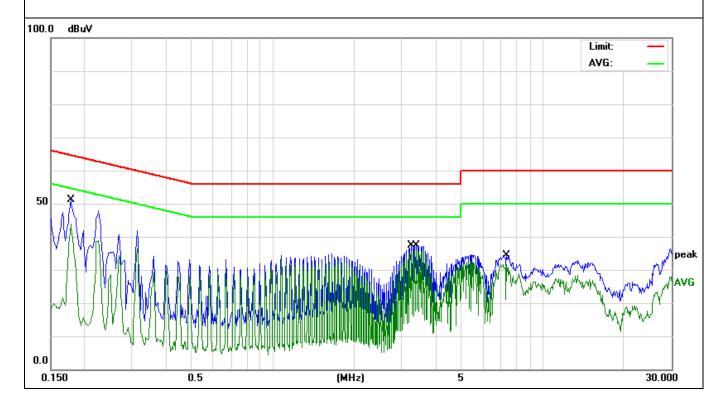




## 7.4 Test results

EUT:	Sports Timekeeping Reader	Model Name. :	STK-READER-ONE		
Temperature :	26 ℃	Relative Humidity :	54%		
Pressure:	1010hPa	Test Date :	2016-04-06		
Test Mode:	тх	Phase :	Line		
Test Voltage :	est Voltage : DC 12V from Adapter, AC 120V/60Hz for Adapter				

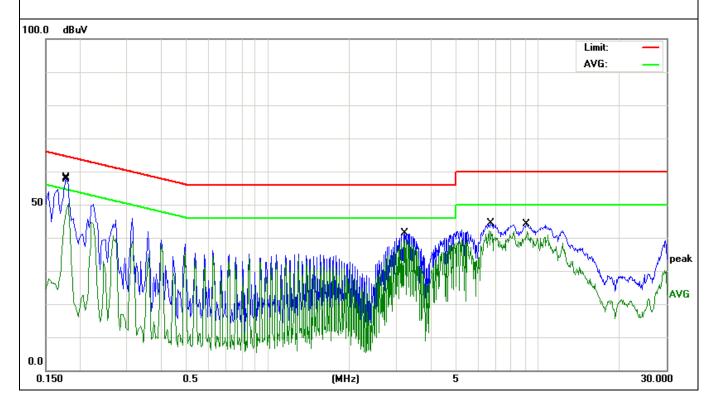
Frequency (MHz)	Meter Reading (dBµV)	Factor(dB)	Emission Level	Limits (dBµV)	Margin (dB)	Detector
(IVII IZ)	(аБру)		(аБру)			
0.1780	39.83	11.41	51.24	64.57	-13.33	Quasi-Peak
0.1780	32.43	11.41	43.84	54.57	-10.73	Average
3.2659	27.34	10.04	37.38	56.00	-18.62	Quasi-Peak
3.3980	25.94	10.03	35.97	46.00	-10.03	Average
7.3340	24.08	10.18	34.26	60.00	-25.74	Quasi-Peak
7.3340	21.46	10.18	31.64	50.00	-18.36	Average





EUT:	Sports Timekeeping Reader	Model Name. :	STK-READER-ONE		
Temperature :	26 ℃	Relative Humidity :	54%		
Pressure:	1010hPa	Test Date :	2016-04-06		
Test Mode:	TX	Phase :	Neutral		
Test Voltage :	est Voltage : DC 12V from Adapter, AC 120V/60Hz for Adapter				

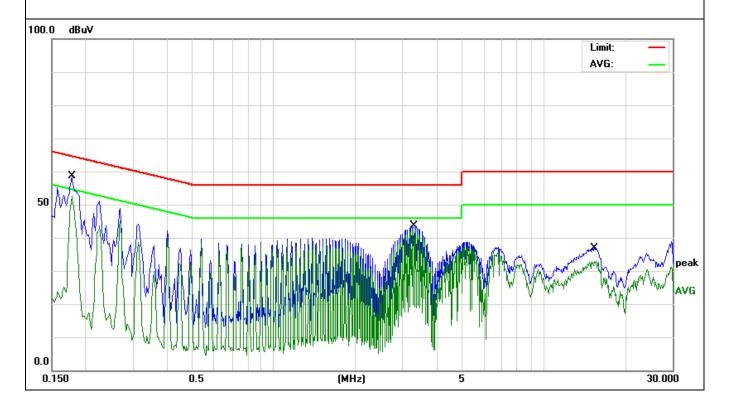
Frequency (MHz)	Meter Reading (dBμV)	Factor(dB)	Emission Level	Limits (dBµV)	Margin (dB)	Detector
0.1780	46.80	11.41	58.21	64.57	-6.36	Quasi-Peak
0.1819	39.07	11.36	50.43	54.39	-3.96	Average
3.2220	31.25	10.04	41.29	56.00	-14.71	Quasi-Peak
3.2220	29.22	10.04	39.26	46.00	-6.74	Average
6.6220	31.86	10.15	42.01	50.00	-7.99	Quasi-Peak
9.0820	33.99	10.21	44.20	60.00	-15.80	Average





EUT:	Sports Timekeeping Reader	Model Name. :	STK-READER-PRO		
Temperature :	<b>26</b> ℃	Relative Humidity :	54%		
Pressure:	1010hPa	Test Date :	2016-04-06		
Test Mode:	тх	Phase :	Line		
Test Voltage :	est Voltage : DC 12V from Adapter, AC 120V/60Hz for Adapter				

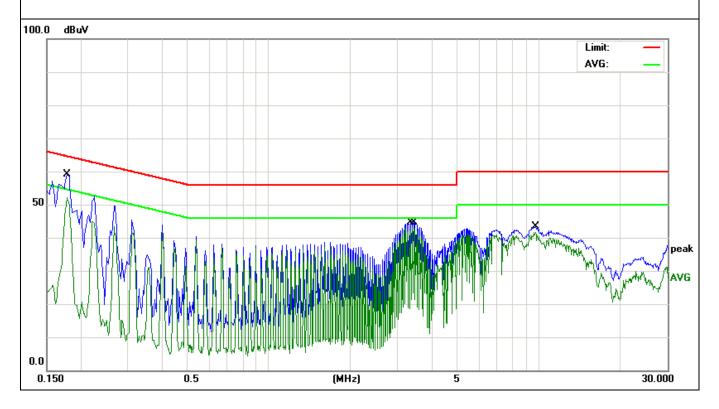
Frequency (MHz)	Meter Reading (dBμV)	Factor(dB)	Emission Level	Limits (dBµV)	Margin (dB)	Detector
0.1780	47.18	11.41	58.59	64.57	-5.98	Quasi-Peak
0.1780	38.59	11.41	50.00	54.57	-4.57	Average
3.3100	33.61	10.03	43.64	56.00	-12.36	Quasi-Peak
3.3100	32.84	10.03	42.87	46.00	-3.13	Average
15.4300	35.50	1.46	36.96	60.00	-23.04	Quasi-Peak
15.4300	31.46	1.46	32.92	50.00	-17.08	Average





EUT:	Sports Timekeeping Reader	Model Name. :	STK-READER-PRO	
Temperature :	<b>26</b> ℃	Relative Humidity :	54%	
Pressure :	1010hPa	Test Date :	2016-04-06	
Test Mode:	тх	Phase :	Neutral	
Test Voltage : DC 12V from Adapter, AC 120V/60Hz for Adapter				

Frequency (MHz)	Meter Reading (dBµV)	Factor(dB)	Emission Level	Limits (dBµV)	Margin (dB)	Detector
0.1780	47.77	11.41	59.18	64.57	-5.39	Quasi-Peak
0.1780	38.59	11.41	50.00	54.57	-4.57	Average
3.4420	34.62	10.04	44.66	56.00	-11.34	Quasi-Peak
3.3980	32.97	10.03	43.00	46.00	-3.00	Average
9.7460	33.09	10.23	43.32	60.00	-16.68	Quasi-Peak
9.7460	31.35	10.23	41.58	50.00	-8.42	Average





## 8 Radiated Emissions

Test Requirement: FCC Part 15 C

**Test Method:** ANSI C63.10: Clause 6.4, 6.5 and 6.6

Measurement Distance: 3 m (Semi-Anechoic Chamber)

**Test Status:** Test in transmitting mode.

#### Requirements:

the field strength of emissions from intentional radiators operated under this Section shall not exceed the following:

**15.209(a)**:The field strength of any emission within this band shall not exceed 10,000 microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in Section 15.35 for limiting peak emissions apply.

**15.209(b)** :The field strength of any emissions which appear outside of this band shall not exceed the general radiated emission limits in Section 15.209.

Out of band emissions shall not exceed:

Frequency range(MHz)	Quasi-peak limits dB (μV/m)			
30 to 88	40			
88 to 216	43.5			
216 to 960	46			
Above 960	54			
At transitional frequencies the lower limit applies.				

#### **Test Procedure:**

#### 1) 9 kHz to 30 MHz emissions:

For testing performed with the loop antenna. The center of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specied distance from the EUT. During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane.

#### 2) 30 MHz to 1 GHz emissions:

For testing performed with the bi-log type antenna. The measurement is performed with the EUT rotated 360°, the antenna height scaned between 1m and 4m, and the antenna rotated to repeat the measurement for both the horizontal and vertical antenna polarizations.

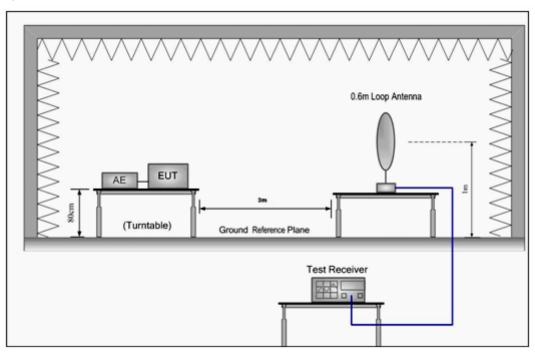
#### Detector:

Test Receiver test	Detector			
setup	Peak	Average		
RBW	120 kHz for f < 1 GHz	120 kHz for f < 1 GHz		
VBW	≥ RBW	≥ RBW		
Sweep	auto	auto		
Detector function	peak	AV		
Trace	max hold	max hold		

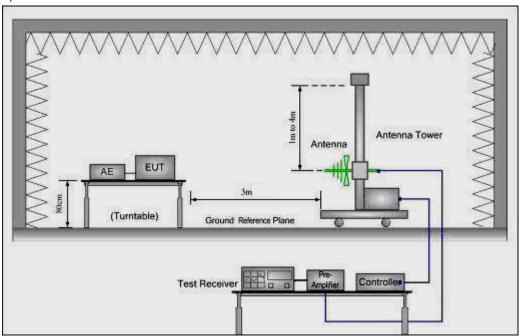


#### **Test Configuration:**

1) 9 kHz to 30 MHz emissions:



2) 30 MHz to 1 GHz emissions:





#### Model: STK-READER-ONE

## 9 kHz~30 MHz Field Strength of Unwanted Emissions Measurement

Antenna polarization: Vertical:							
Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark	
0.1250	83.25	19.26	102.51	105.59	-3.08	Peak	
0.0193	47.21	38.15	85.36	121.72	-36.36	Peak	
0.2673	39.46	25.16	64.62	99.03	-34.41	Peak	
1.1265	46.20	12.36	58.56	66.57	-8.01	Peak	
2.1017	56.43	4.17	60.60	69.50	-8.90	Peak	
8.8895	48.77	-10.02	38.75	69.50	-30.75	Peak	
17.7042	53.62	-15.31	38.31	69.50	-31.19	Peak	
Antenna pola	rization: Ho	rizontal:					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark	
0.1250	81.76	19.26	101.02	105.59	-4.57	Peak	
0.0555	34.45	36.21	70.66	112.60	-41.94	Peak	
0.2431	45.83	17.84	63.67	99.85	-36.18	Peak	
0.8668	52.76	10.06	62.82	68.85	-6.03	Peak	
2.7455	46.41	0.25	46.66	69.50	-22.84	Peak	
9.0661	46.22	-5.98	40.24	69.50	-29.26	Peak	
12.2993	46.45	-13.22	33.23	69.50	-36.27	Peak	



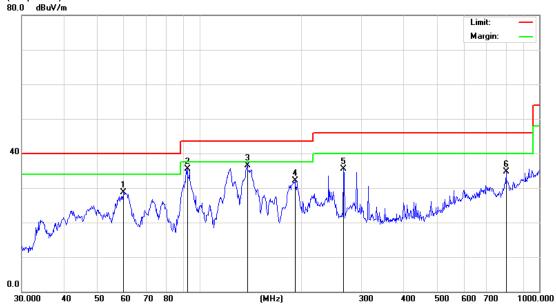
#### Model: STK-READER-ONE

## 30 MHz~1 GHz Field Strength of Unwanted Emissions.Quasi-Peak Measurement

Vertical:

Peak scan

Level (dBµV/m)



Quasi-peak measurement

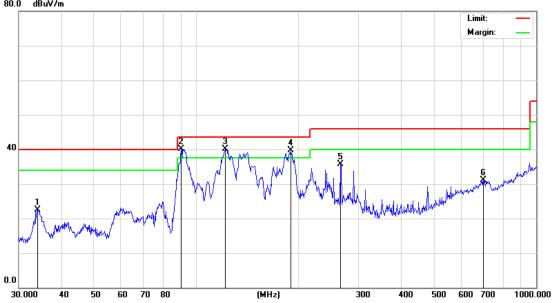
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		59.8588	48.16	-19.42	28.74	40.00	-11.26	QP
2		92.1388	53.53	-18.02	35.51	43.50	-7.99	QP
3	*	138.3873	51.34	-14.84	36.50	43.50	-7.00	QP
4		191.0738	46.68	-14.56	32.12	43.50	-11.38	QP
5		265.6757	46.65	-11.17	35.48	46.00	-10.52	QP
6		798.9797	31.30	3.44	34.74	46.00	-11.26	QP



Horizontal:

Peak scan

Level (dB $\mu$ V/m) 80.0 dB $\nu$ V/m



Quasi-peak measurement

No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		34.1561	37.39	-14.92	22.47	40.00	-17.53	QP
2	*	90.2205	56.92	-16.79	40.13	43.50	-3.37	QP
3	İ	121.5486	55.11	-14.98	40.13	43.50	-3.37	QP
4	İ	189.7385	52.48	-12.77	39.71	43.50	-3.79	QP
5		265.6757	46.88	-11.17	35.71	46.00	-10.29	QP
6		699.3046	30.69	0.44	31.13	46.00	-14.87	QP



#### Model: STK-READER-PRO

## 9 kHz~30 MHz Field Strength of Unwanted Emissions Measurement

Antenna polarization: Vertical:								
Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark		
0.1250	82.91	19.26	102.17	105.59	-3.42	Peak		
0.0167	47.86	38.15	86.01	121.72	-35.71	Peak		
0.2896	40.22	25.16	65.38	99.03	-33.65	Peak		
1.1789	46.74	12.36	59.10	66.57	-7.47	Peak		
2.1091	56.89	4.17	61.06	69.50	-8.44	Peak		
8.7656	48.13	-10.02	38.11	69.50	-31.39	Peak		
18.8791	53.09	-15.31	37.78	69.50	-31.72	Peak		
Antenna pola	rization: Ho	rizontal:						
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark		
0.1250	82.25	19.26	101.51	105.59	-4.08	Peak		
0.0512	34.87	36.21	71.08	112.60	-41.52	Peak		
0.2323	46.23	17.84	64.07	99.85	-35.78	Peak		
0.8901	52.15	10.06	62.21	68.85	-6.64	Peak		
2.7762	47.03	0.25	47.28	69.50	-22.22	Peak		
10.6743	46.54	-5.98	40.56	69.50	-28.94	Peak		
19.8965	45.89	-13.22	32.67	69.50	-36.83	Peak		



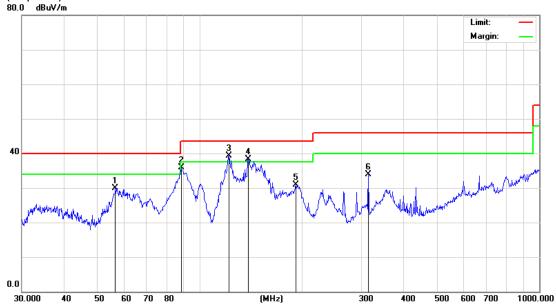
Model: STK-READER-PRO

## 30 MHz~1 GHz Field Strength of Unwanted Emissions.Quasi-Peak Measurement

Vertical:

Peak scan

Level (dBµV/m)



Quasi-peak measurement

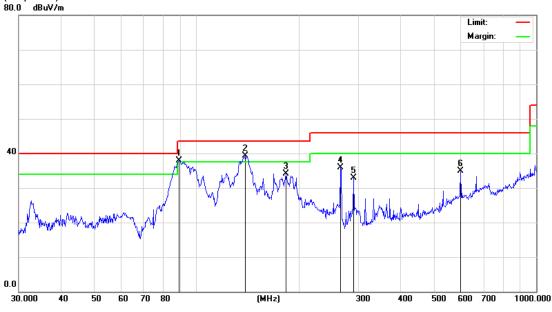
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		56.5929	49.91	-19.91	30.00	40.00	-10.00	QP
2		88.3421	54.44	-18.60	35.84	43.50	-7.66	QP
3	*	122.4039	54.29	-15.02	39.27	43.50	-4.23	QP
4	İ	139.3610	53.28	-14.88	38.40	43.50	-5.10	QP
5		192.4185	47.03	-16.12	30.91	43.50	-12.59	QP
6		314.3765	42.91	-9.03	33.88	46.00	-12.12	QP



Horizontal:

Peak scan

Level (dBµV/m)



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#### Quasi-peak measurement

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1	İ	88.9637	54.83	-17.01	37.82	43.50	-5.68	QP
2	*	139.3610	54.18	-14.88	39.30	43.50	-4.20	QP
3		183.2005	45.53	-11.34	34.19	43.50	-9.31	QP
4		265.6757	48.82	-12.88	35.94	46.00	-10.06	QP
5		290.0172	43.06	-10.18	32.88	46.00	-13.12	QP
6		599.3211	36.67	-1.73	34.94	46.00	-11.06	QP

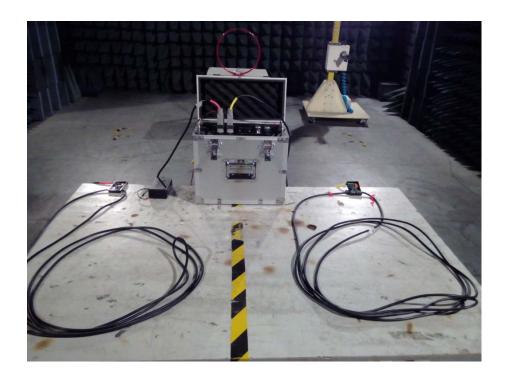
#### Remark:

According to 15.35 (b) When average radiated emission measurements are specified in the regulations, including emission measurements below 1000 MHz, there is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules, e.g., see Section 15.255.

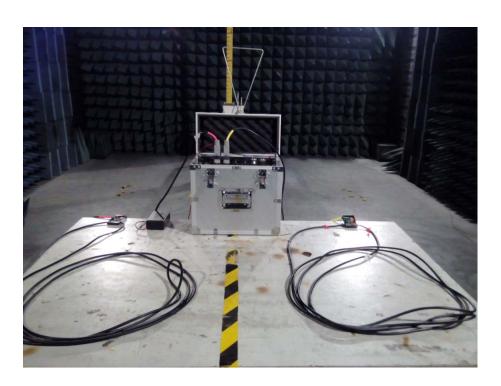


# 9 Photographs

# 9.1 Radiated Emission & Fundamental Emission (below 30 MHz)



# 9.2 Radiated Emission (30MHz-1GHz)



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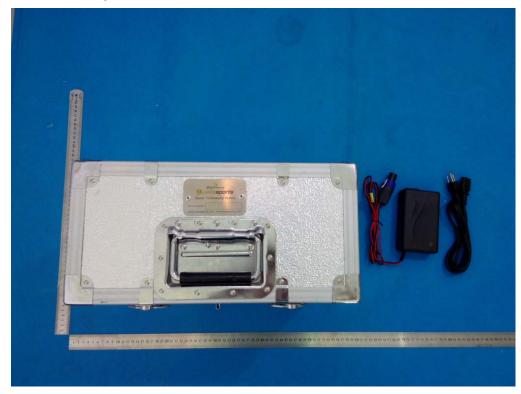
## 9.3 Conduction Emissions





# 9.4 Photographs of the EUT

# External photos for STK-READER-PRO & STK-READER-one



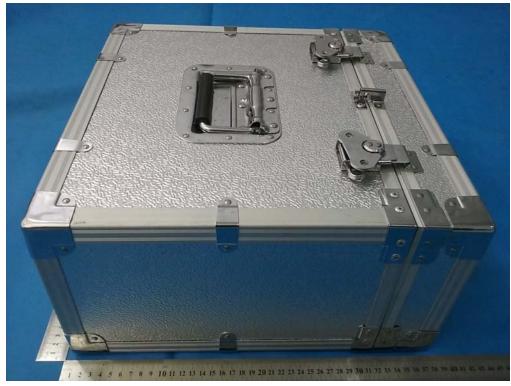




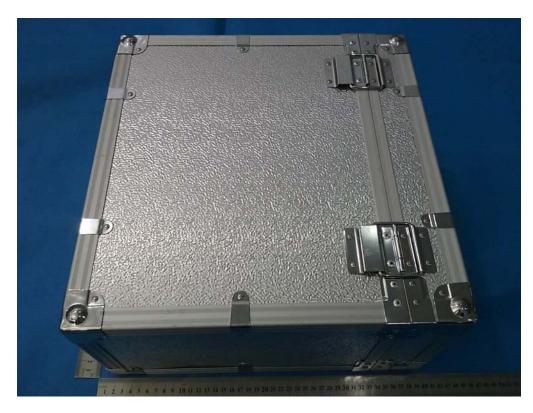












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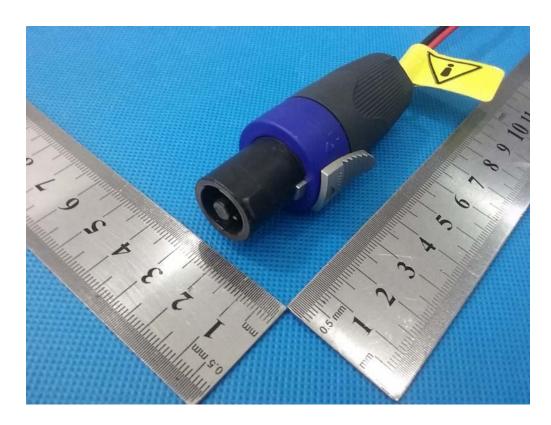








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# Interface photo for STK-READER-PRO



Interface photo for STK-READER-ONE



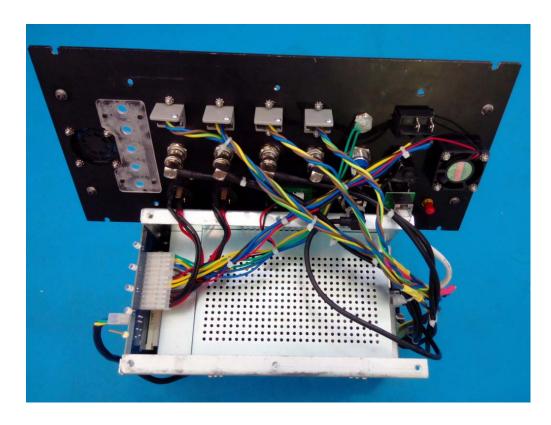


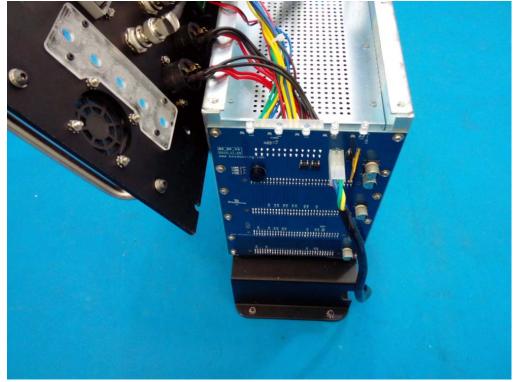
## Following photos are for Model: STK-READER-PRO





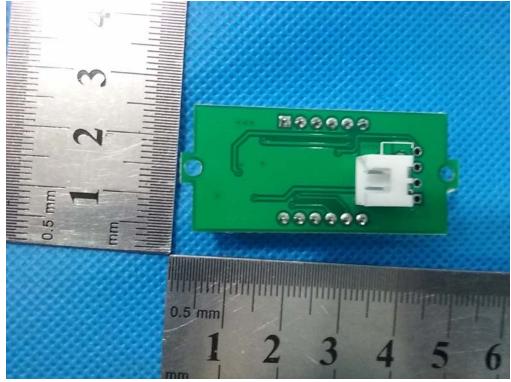




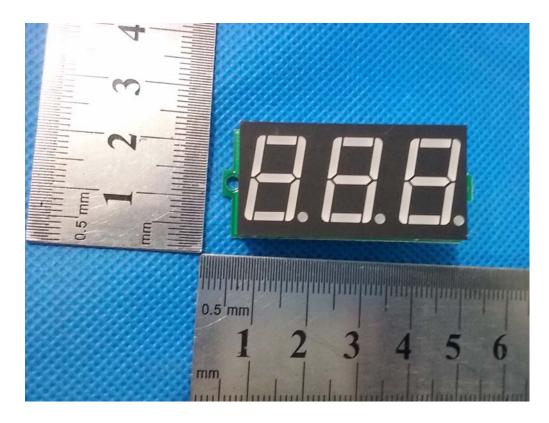


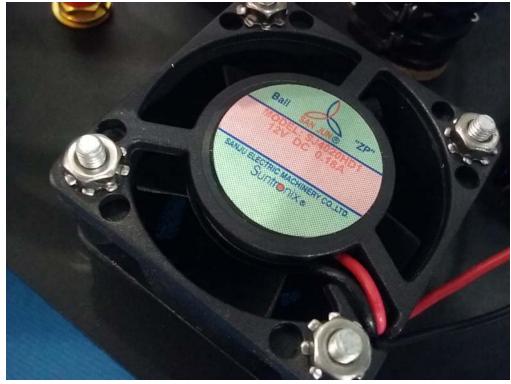




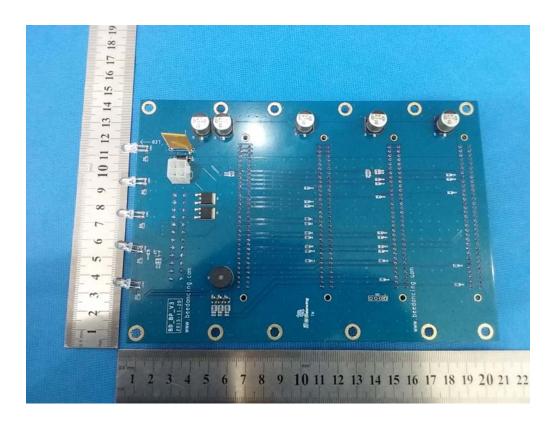


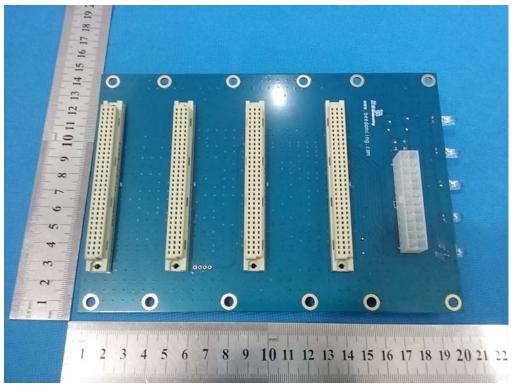






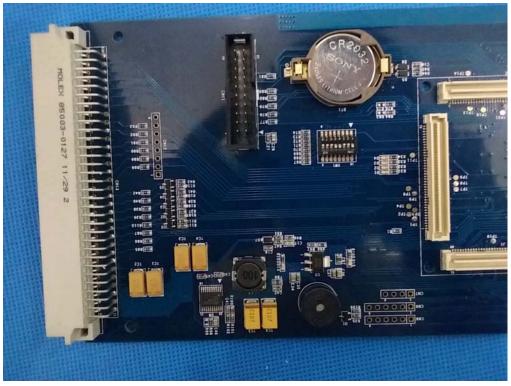








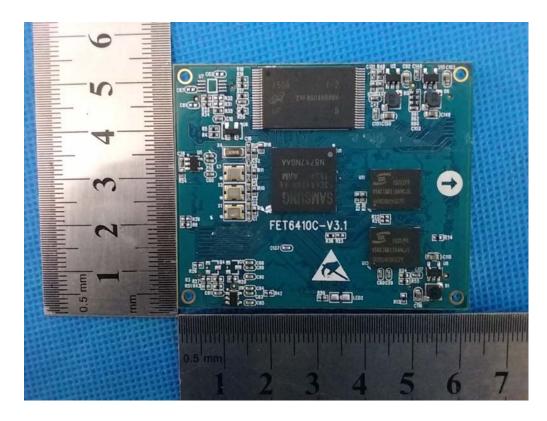


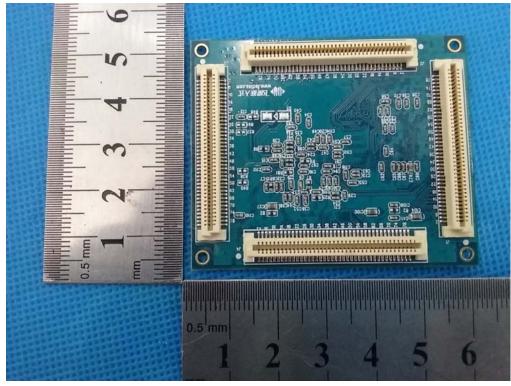


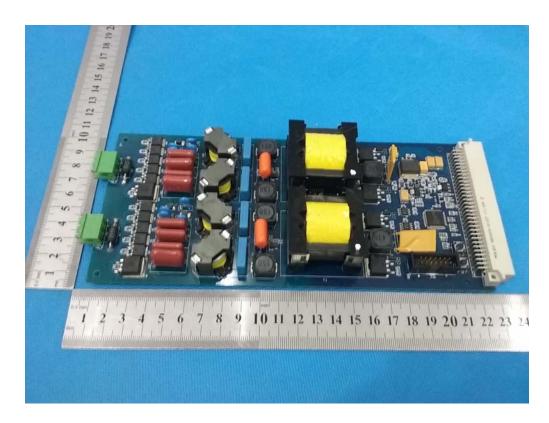


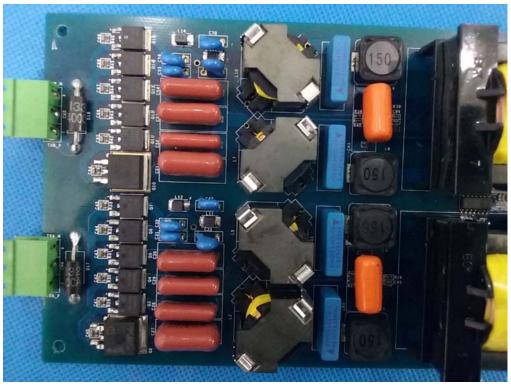




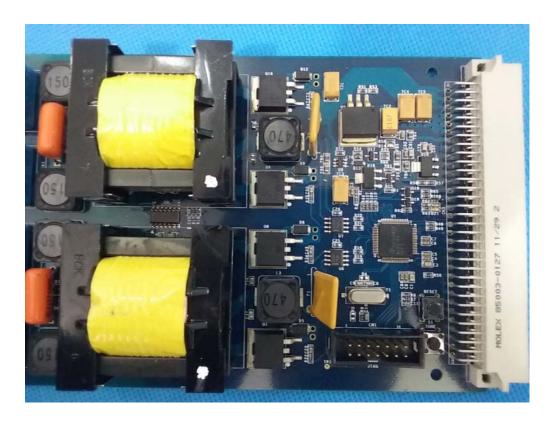


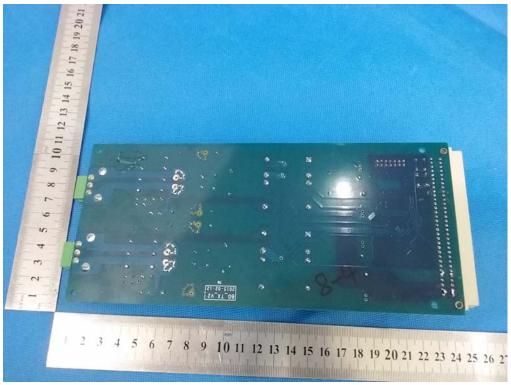




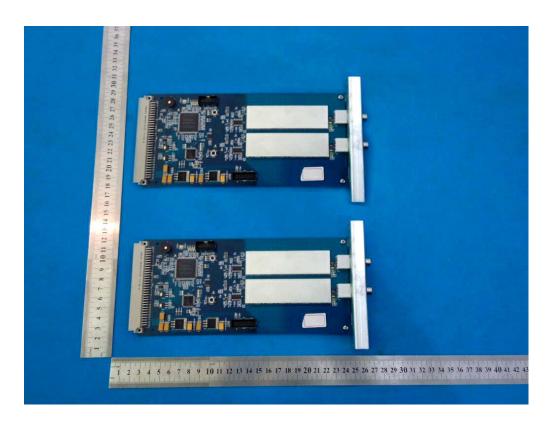


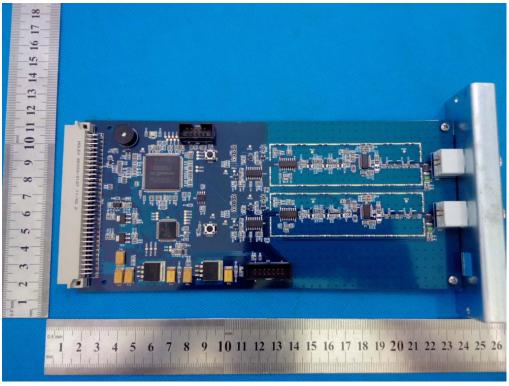
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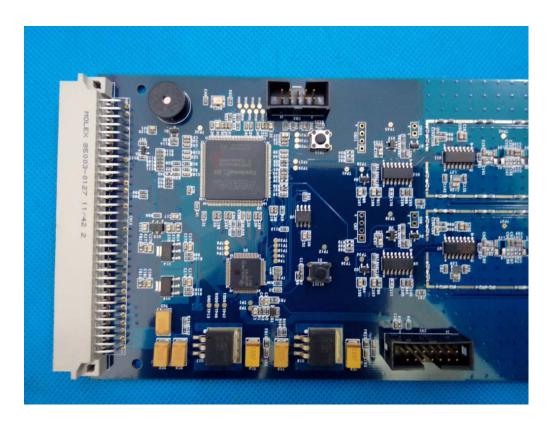


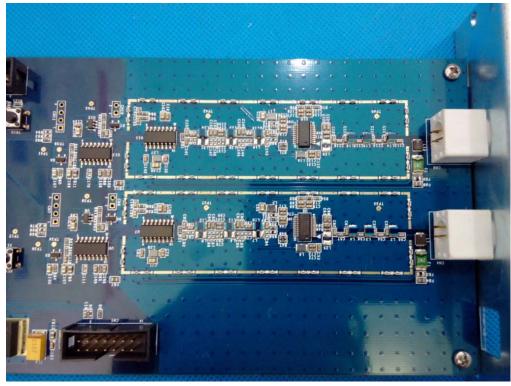




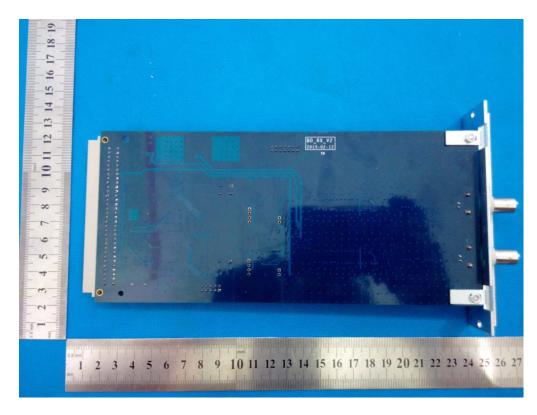


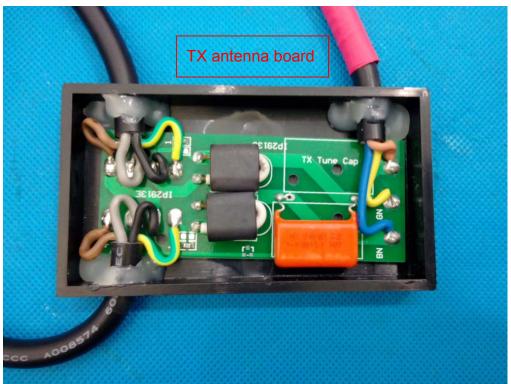




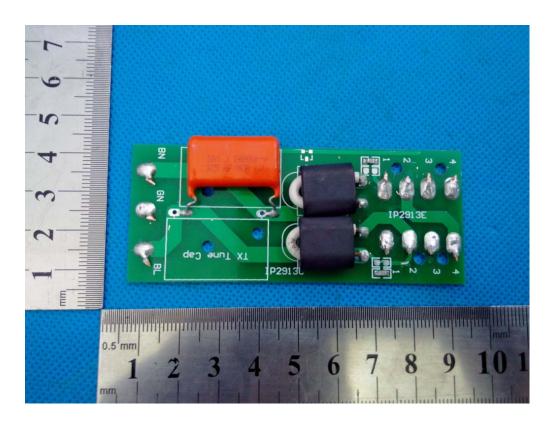


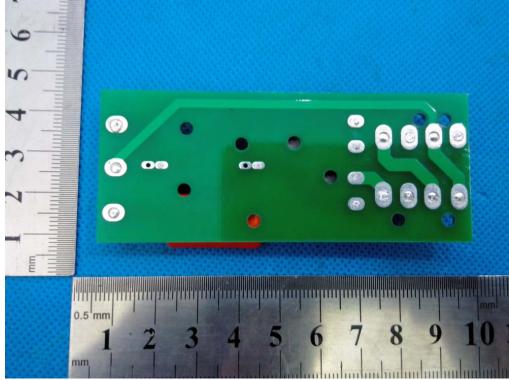




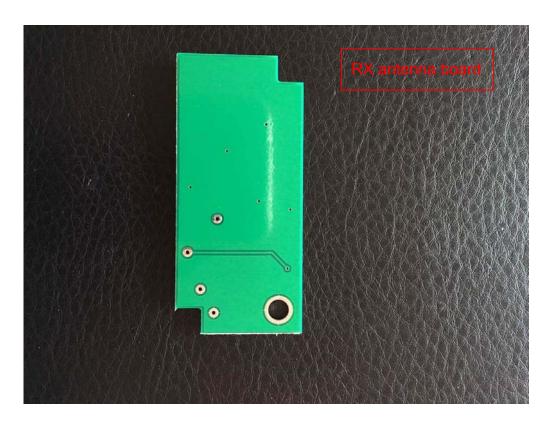


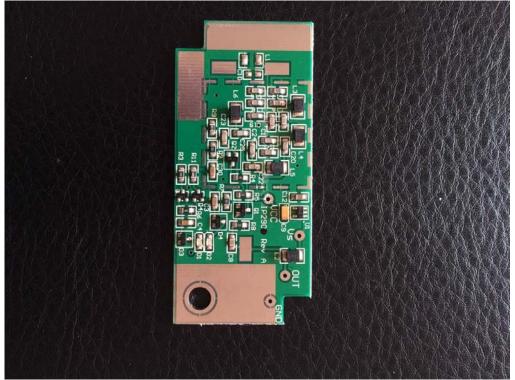












--The End of Report--