

APPLICATION FOR VERIFICATION
On Behalf of
Hornady Manufacturing Company

RAPiD Keypad GEN III
Model No.:HOM070

FCC ID: 2AFJZ-HOM070

Prepared for : Hornady Manufacturing Company
Address : 3625 Old Potash Hwy Grand Island, NE 68803
United States
Prepared by : Accurate Technology Co., Ltd.
Address : F1, Bldg. A&D, Changyuan New Material Port, Keyuan
Rd., Science & Industry Park, Nanshan District, Shenzhen
518057, P.R. China
Tel: +86-755-26503290
Fax: +86-755-26503396

Report No. : ATE20161724
Date of Test : August 15, 2016
Date of Report : August 18, 2016

TABLE OF CONTENTS

Description	Page
Test Report Declaration	
1. TEST RESULTS SUMMARY	4
2. GENERAL INFORMATION	5
2.1. Description of Device (EUT).....	5
2.2. Special Accessory and Auxiliary Equipment.....	5
2.3. Description of Test Facility	6
2.4. Measurement Uncertainty.....	6
3. POWER LINE CONDUCTED MEASUREMENT	7
3.1. For Power Line Conducted Emission.....	7
3.2. Power Line Conducted Emission Measurement Limits (Class B)	7
3.3. Manufacturer.....	7
3.4. Operating Condition of EUT	7
3.5. Test Procedure	8
3.6. Power Line Conducted Emission Measurement Results.....	9
4. RADIATED EMISSION MEASUREMENT	15
4.1. For Radiated Emission Measurement	15
4.2. TEST CONFIGURATION.....	15
4.3. Block Diagram of Test Setup	16
4.4. Radiated Emission Limit	16
4.5. EUT Configuration on Measurement	16
4.6. Operating Condition of EUT	17
4.7. Test Procedure	17
4.8. Radiated Emission Noise Measurement Result.....	17
5. ANTENNA REQUIREMENT.....	21
5.1. The Requirement	21
5.2. Antenna Construction.....	21

Test Report Declaration

Applicant& address : Hornady Manufacturing Company
3625 Old Potash Hwy Grand Island, NE 68803 United States

Manufacturer& address : Hornady Manufacturing Company
3625 Old Potash Hwy Grand Island, NE 68803 United States

Product : RAPiD Keypad GEN III

Model No. : HOM070

Trade name : N/A

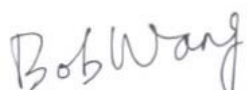
Measurement Procedure Used:


**FCC Rules and Regulations Part 15 Subpart C 15.207&15.209
ANSI C63.10: 2013**

The device described above is tested by Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits both radiated and conducted emissions. The measurement results are contained in this test report and Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Accurate Technology Co., Ltd.

Date of Test : August 15, 2016
Date of Report : August 18, 2016

Prepared by : 
(Bob Wang, Engineer)

Approved & Authorized Signer : 
(Sean Liu, Manager)

1. TEST RESULTS SUMMARY

Test Items	Test Standard	Test Results
Power Line Conducted Emission	FCC Part 15.207	Pass
Radiated Emission	FCC Part 15.209	Pass

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

The submitted sample is a RAPiD Keypad GEN III. The sample is powered by AC 120V.

		RAPiD Keypad GEN III
Frequency	:	125KHz
Number of Channels	:	1
Modulation Type	:	GFSK
Type of Antenna	:	Internal Antenna
Max antenna gain	:	3dBi
Power Supply	:	AC120V(Adapter)
Adapter	:	MODEL: PK-1201000 INPUT:100-240V~50/60Hz 0.6A OUTPUT:12V/1A

2.2. Special Accessory and Auxiliary Equipment

N/A

2.3. Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen, May 10, 2004

Listed by FCC
The Registration Number is 253065

Listed by FCC
The Registration Number is 752051

Listed by Industry Canada
The Registration Number is 5077A-1

Listed by Industry Canada
The Registration Number is 5077A-2

Accredited by China National Accreditation Committee for Laboratories
The Certificate Registration Number is L3193

Name of Firm : Accurate Technology Co., Ltd.
Site Location : F1, Bldg. A&D, Changyuan New Material Port, Keyuan Rd., Science & Industry Park, Nanshan District, Shenzhen 518057, P.R. China

2.4. Measurement Uncertainty

Conducted emission expanded uncertainty : U=2.23dB, k=2

Power disturbance expanded uncertainty : U=2.92dB, k=2

Radiated emission expanded uncertainty : U=3.08dB, k=2
(9kHz-30MHz)

Radiated emission expanded uncertainty : U=4.42dB, k=2
(30MHz-1000MHz)

Radiated emission expanded uncertainty : U=4.06dB, k=2
(Above 1GHz)

3. POWER LINE CONDUCTED MEASUREMENT

3.1. For Power Line Conducted Emission

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	100307	Jan. 9, 2016	1 Year
2.	L.I.S.N.	Schwarzbeck	NLSK8126	8126431	Jan. 9, 2016	1 Year
3.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100815	Jan. 9, 2016	1 Year
4.	50Ω Coaxial Switch	Anritsu Corp	MP59B	620028393 3	Jan. 9, 2016	1 Year

Expanded Uncertainty: U= 2.23dB, k=2

3.2. Power Line Conducted Emission Measurement Limits (Class B)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15—0.50	66—56*	56—46*
0.50—5.00	56	46
5.00—30.0	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.3.Manufacturer

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

3.3.1.Power bank (EUT)

Model Number: HOM070

Manufacturer: Hornady Manufacturing Company

3.4.Operating Condition of EUT

3.4.1.Setup the EUT and simulator as shown as Section 4.2.

3.4.2.Turn on the power of all equipment.

3.4.3.Let the EUT work in test mode (TX) and measure it.

3.5. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2014 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

3.6. Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Test mode : TX (120V/60HZ)								
MEASUREMENT RESULT: "A-9103_fin"								
2016-8-15 9:20								
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE	
0.434000	35.50	11.4	57	21.7	QP	N	GND	
0.748000	30.30	11.5	56	25.7	QP	N	GND	
1.116000	33.90	11.6	56	22.1	QP	N	GND	
2.108000	31.40	11.7	56	24.6	QP	N	GND	
5.208500	31.60	11.8	60	28.4	QP	N	GND	
14.154500	28.20	11.9	60	31.8	QP	N	GND	
MEASUREMENT RESULT: "A-9103_fin2"								
2016-8-15 9:20								
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE	
0.434000	25.10	11.4	47	22.1	AV	N	GND	
0.748000	22.20	11.5	46	23.8	AV	N	GND	
1.116000	23.70	11.6	46	22.3	AV	N	GND	
2.108000	20.80	11.7	46	25.2	AV	N	GND	
5.208500	18.50	11.8	50	31.5	AV	N	GND	
14.154500	21.80	11.9	50	28.2	AV	N	GND	
MEASUREMENT RESULT: "A-9104_fin"								
2016-8-15 9:24								
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE	
0.434000	40.70	11.4	57	16.5	QP	L1	GND	
0.652000	34.50	11.5	56	21.5	QP	L1	GND	
1.280000	29.60	11.6	56	26.4	QP	L1	GND	
3.345500	36.40	11.7	56	19.6	QP	L1	GND	
9.668000	36.40	11.9	60	23.6	QP	L1	GND	
11.531000	36.30	11.9	60	23.7	QP	L1	GND	
MEASUREMENT RESULT: "A-9104_fin2"								
2016-8-15 9:24								
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE	
0.434000	33.50	11.4	47	13.7	AV	L1	GND	
0.652000	26.60	11.5	46	19.4	AV	L1	GND	
1.280000	22.60	11.6	46	23.4	AV	L1	GND	
3.345500	22.90	11.7	46	23.1	AV	L1	GND	
9.668000	22.30	11.9	50	27.7	AV	L1	GND	
11.531000	23.70	11.9	50	26.3	AV	L1	GND	

Test mode : TX (240V/60HZ)								
MEASUREMENT RESULT: "A-9102_fin"								
2016-8-15 9:17								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.376000	36.10	11.2	58	22.3	QP	N	GND	
0.434000	38.40	11.4	57	18.8	QP	N	GND	
0.746000	33.50	11.5	56	22.5	QP	N	GND	
2.112500	29.70	11.7	56	26.3	QP	N	GND	
5.213000	30.40	11.8	60	29.6	QP	N	GND	
9.555500	31.70	11.9	60	28.3	QP	N	GND	
MEASUREMENT RESULT: "A-9102_fin2"								
2016-8-15 9:17								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.376000	24.90	11.2	48	23.5	AV	N	GND	
0.434000	26.80	11.4	47	20.4	AV	N	GND	
0.746000	22.70	11.5	46	23.3	AV	N	GND	
2.112500	19.70	11.7	46	26.3	AV	N	GND	
5.213000	16.80	11.8	50	33.2	AV	N	GND	
9.555500	16.50	11.9	50	33.5	AV	N	GND	
MEASUREMENT RESULT: "A-9101_fin"								
2016-8-15 9:13								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.368000	41.50	11.2	59	17.0	QP	L1	GND	
0.436000	44.40	11.4	57	12.7	QP	L1	GND	
0.492000	39.30	11.5	56	16.8	QP	L1	GND	
1.260000	33.80	11.6	56	22.2	QP	L1	GND	
3.597500	38.30	11.7	56	17.7	QP	L1	GND	
9.317000	37.90	11.9	60	22.1	QP	L1	GND	
MEASUREMENT RESULT: "A-9101_fin2"								
2016-8-15 9:13								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.368000	33.60	11.2	49	14.9	AV	L1	GND	
0.434000	37.30	11.4	47	9.9	AV	L1	GND	
0.492000	32.10	11.5	46	14.0	AV	L1	GND	
1.260000	25.90	11.6	46	20.1	AV	L1	GND	
3.597500	27.90	11.7	46	18.1	AV	L1	GND	
9.317000	22.60	11.9	50	27.4	AV	L1	GND	

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectral diagrams are attached as below.

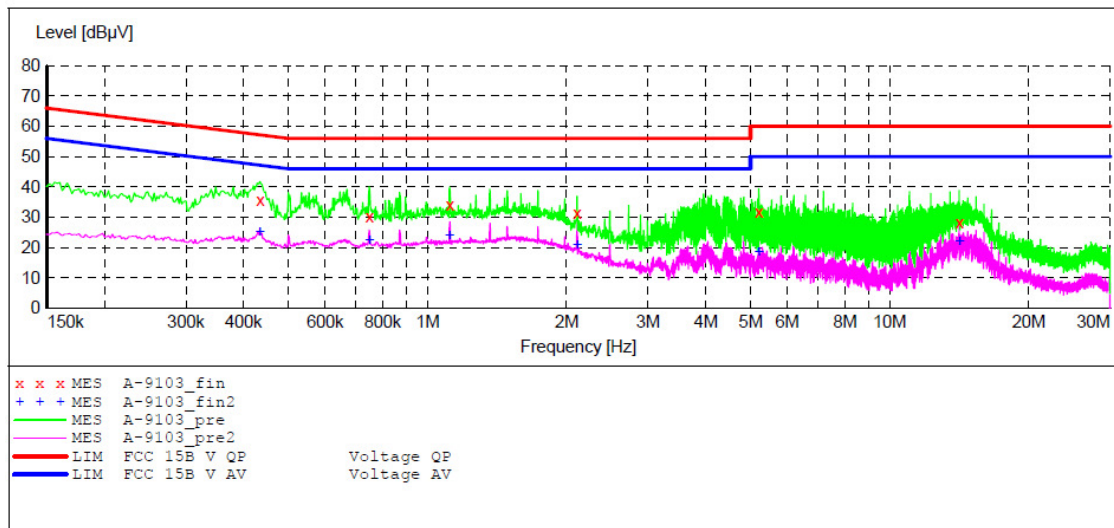
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: PAPID Keypad GEN III M/N:HOM070
 Manufacturer: Hornady
 Operating Condition: ON
 Test Site: 2#Shielding Room
 Operator: star
 Test Specification: N 120V/60Hz
 Comment: Report No.:ATE20161724
 Start of Test: 2016-8-15 / 9:18:07

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN(ESH3-Z5)
 Average



MEASUREMENT RESULT: "A-9103_fin"

2016-8-15 9:20

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.434000	35.50	11.4	57	21.7	QP	N	GND
0.748000	30.30	11.5	56	25.7	QP	N	GND
1.116000	33.90	11.6	56	22.1	QP	N	GND
2.108000	31.40	11.7	56	24.6	QP	N	GND
5.208500	31.60	11.8	60	28.4	QP	N	GND
14.154500	28.20	11.9	60	31.8	QP	N	GND

MEASUREMENT RESULT: "A-9103_fin2"

2016-8-15 9:20

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.434000	25.10	11.4	47	22.1	AV	N	GND
0.748000	22.20	11.5	46	23.8	AV	N	GND
1.116000	23.70	11.6	46	22.3	AV	N	GND
2.108000	20.80	11.7	46	25.2	AV	N	GND
5.208500	18.50	11.8	50	31.5	AV	N	GND
14.154500	21.80	11.9	50	28.2	AV	N	GND

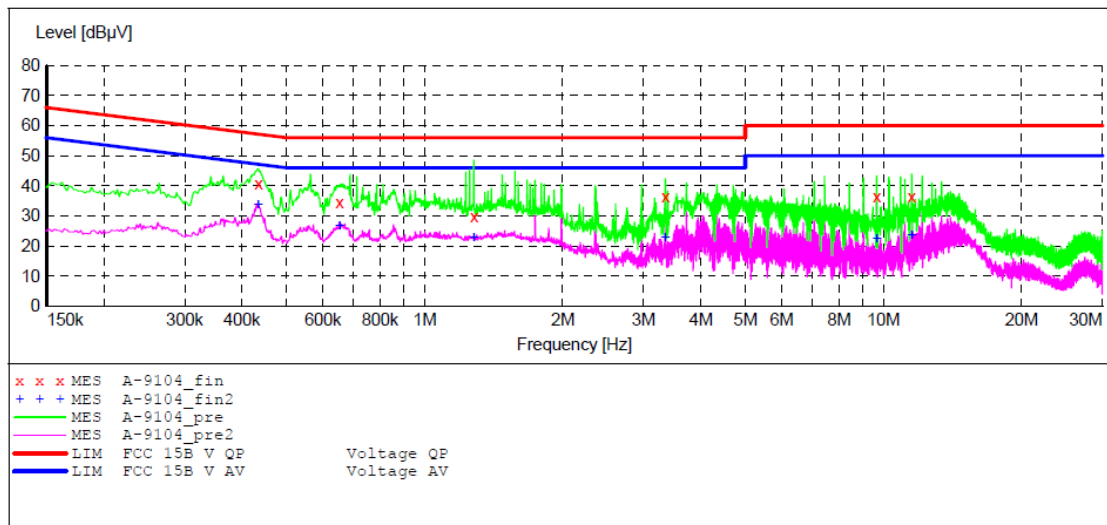
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: PAPID Keypad GEN III M/N:HOM070
 Manufacturer: Hornady
 Operating Condition: ON
 Test Site: 2#Shielding Room
 Operator: star
 Test Specification: L 120V/60Hz
 Comment: Report No.:ATE20161724
 Start of Test: 2016-8-15 / 9:21:05

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN (ESH3-Z5)
 Average



MEASUREMENT RESULT: "A-9104_fin"

2016-8-15 9:24

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.434000	40.70	11.4	57	16.5	QP	L1	GND
0.652000	34.50	11.5	56	21.5	QP	L1	GND
1.280000	29.60	11.6	56	26.4	QP	L1	GND
3.345500	36.40	11.7	56	19.6	QP	L1	GND
9.668000	36.40	11.9	60	23.6	QP	L1	GND
11.531000	36.30	11.9	60	23.7	QP	L1	GND

MEASUREMENT RESULT: "A-9104_fin2"

2016-8-15 9:24

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.434000	33.50	11.4	47	13.7	AV	L1	GND
0.652000	26.60	11.5	46	19.4	AV	L1	GND
1.280000	22.60	11.6	46	23.4	AV	L1	GND
3.345500	22.90	11.7	46	23.1	AV	L1	GND
9.668000	22.30	11.9	50	27.7	AV	L1	GND
11.531000	23.70	11.9	50	26.3	AV	L1	GND

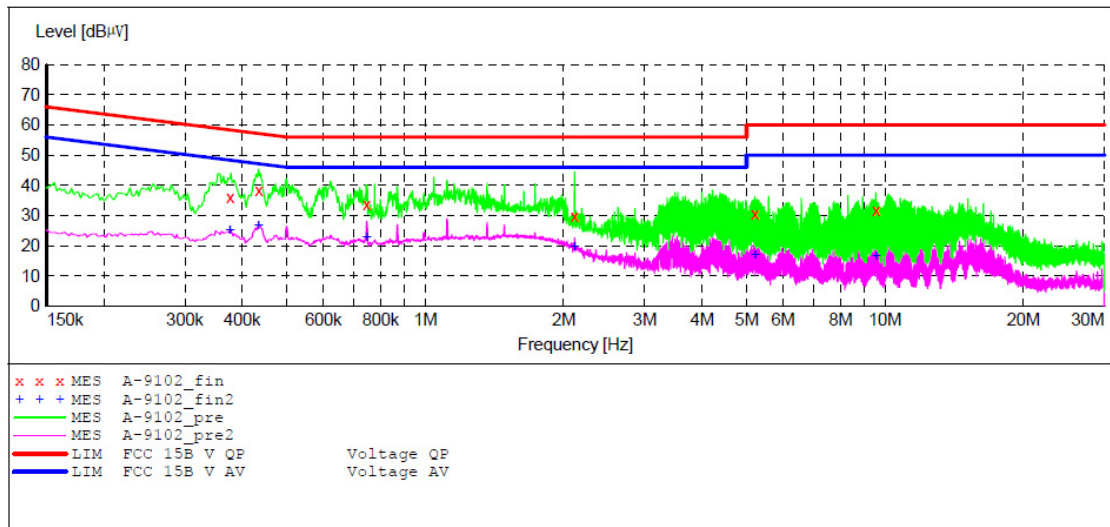
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: PAPId Keypad GEN III M/N:HOM070
 Manufacturer: Hornady
 Operating Condition: ON
 Test Site: 2#Shielding Room
 Operator: star
 Test Specification: N 240V/60Hz
 Comment: Report No.:ATE20161724
 Start of Test: 2016-8-15 / 9:14:32

SCAN TABLE: "V 150K-30MHz fin"

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	30.0 MHz	4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN (ESH3-Z5)
Average						



MEASUREMENT RESULT: "A-9102_fin"

2016-8-15 9:17

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.376000	36.10	11.2	58	22.3	QP	N	GND
0.434000	38.40	11.4	57	18.8	QP	N	GND
0.746000	33.50	11.5	56	22.5	QP	N	GND
2.112500	29.70	11.7	56	26.3	QP	N	GND
5.213000	30.40	11.8	60	29.6	QP	N	GND
9.555500	31.70	11.9	60	28.3	QP	N	GND

MEASUREMENT RESULT: "A-9102_fin2"

2016-8-15 9:17

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.376000	24.90	11.2	48	23.5	AV	N	GND
0.434000	26.80	11.4	47	20.4	AV	N	GND
0.746000	22.70	11.5	46	23.3	AV	N	GND
2.112500	19.70	11.7	46	26.3	AV	N	GND
5.213000	16.80	11.8	50	33.2	AV	N	GND
9.555500	16.50	11.9	50	33.5	AV	N	GND

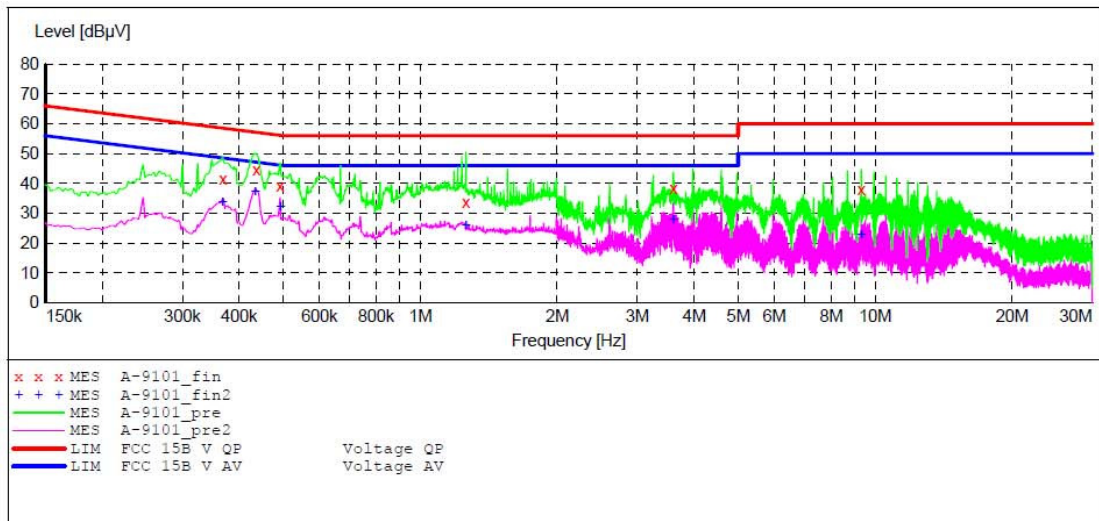
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: PAPId Keypad GEN III M/N:HOM070
 Manufacturer: Hornady
 Operating Condition: ON
 Test Site: 2#Shielding Room
 Operator: star
 Test Specification: L 240V/60Hz
 Comment: Report No.:ATE20161724
 Start of Test: 2016-8-15 / 9:11:17

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN (ESH3-Z5)
 Average



MEASUREMENT RESULT: "A-9101_fin"

2016-8-15 9:13

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.368000	41.50	11.2	59	17.0	QP	L1	GND
0.436000	44.40	11.4	57	12.7	QP	L1	GND
0.492000	39.30	11.5	56	16.8	QP	L1	GND
1.260000	33.80	11.6	56	22.2	QP	L1	GND
3.597500	38.30	11.7	56	17.7	QP	L1	GND
9.317000	37.90	11.9	60	22.1	QP	L1	GND

MEASUREMENT RESULT: "A-9101_fin2"

2016-8-15 9:13

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.368000	33.60	11.2	49	14.9	AV	L1	GND
0.434000	37.30	11.4	47	9.9	AV	L1	GND
0.492000	32.10	11.5	46	14.0	AV	L1	GND
1.260000	25.90	11.6	46	20.1	AV	L1	GND
3.597500	27.90	11.7	46	18.1	AV	L1	GND
9.317000	22.60	11.9	50	27.4	AV	L1	GND

4. RADIATED EMISSION MEASUREMENT

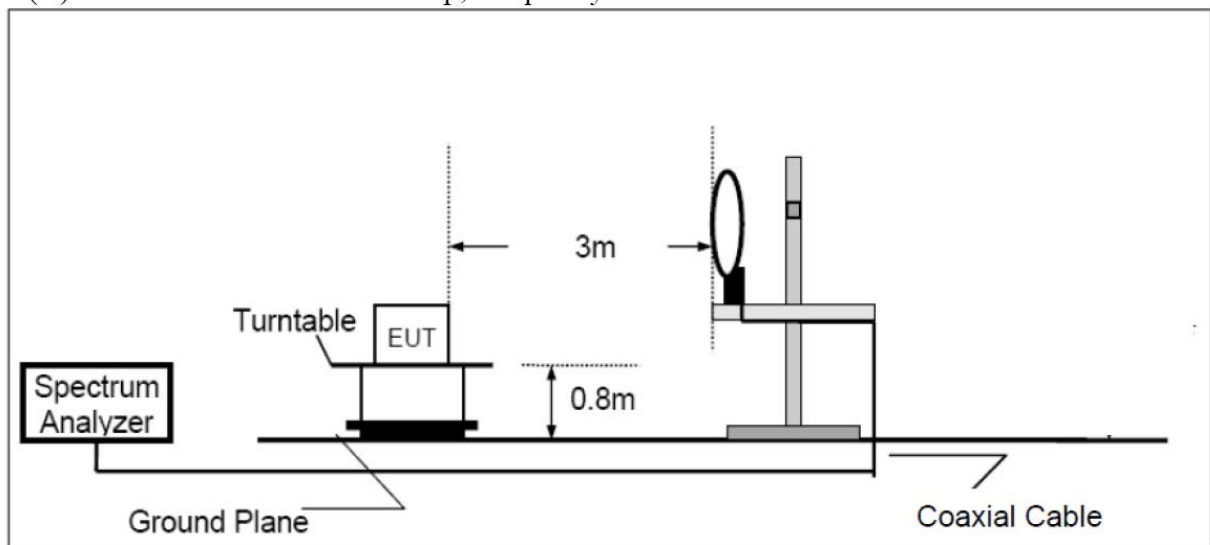
4.1. For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 9, 2016	1 Year
2.	Test Receiver	Rohde & Schwarz	ESCS30	100307	Jan. 9, 2016	1 Year
3.	Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 14, 2016	1 Year
4.	Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 14, 2016	1 Year
5.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 14, 2016	1 Year
6.	50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan. 9, 2016	1 Year
12.	Pre-Amplifier	Rohde & Schwarz	CBLU11835 40-01	3791	Jan. 9, 2016	1 Year

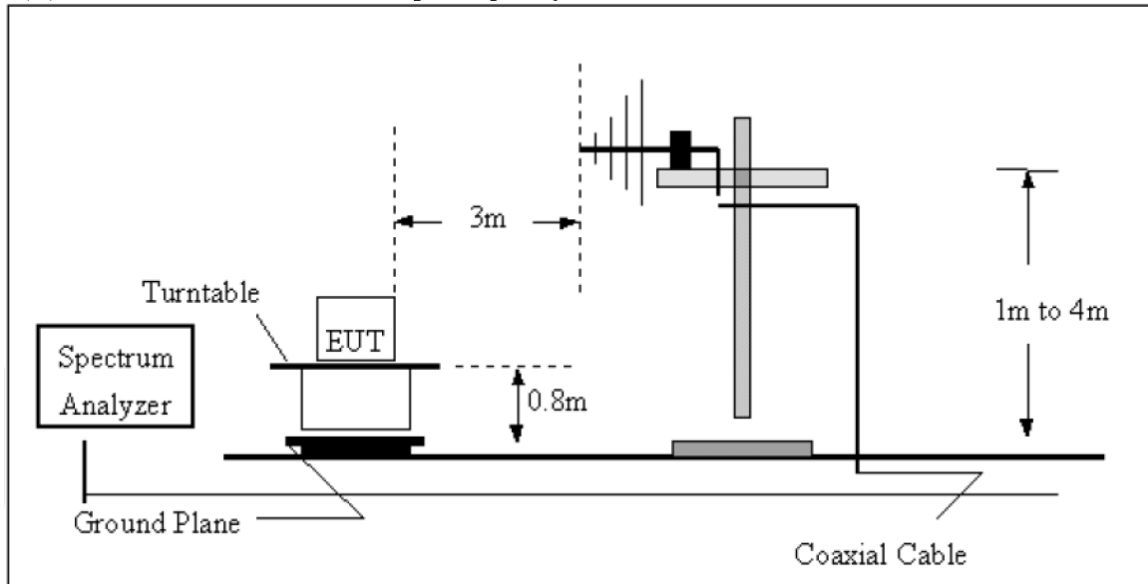
Expanded Uncertainty (9kHz-30MHz): U=3.08dB, k=2
 Expanded Uncertainty (30MHz-1000MHz): U=4.42dB, k=2
 Expanded Uncertainty (Above 1GHz): U=4.06dB, k=2

4.2. TEST CONFIGURATION

(A) Radiated Emission Test Set-Up, Frequency below 30MHz



(B) Radiated Emission Test Set-Up, Frequency 30-1000MHz



4.3. Block Diagram of Test Setup

4.3.1. Block diagram of connection between the EUT and simulators



4.4. Radiated Emission Limit

Frequency (MHz)	Field Strength Limitation		Field Strength Limitation at 3m Measurement Dist	
	(uV/m)	Dist	(uV/m)	(dBuV/m)
0.009 – 0.490	2400 / F(KHz)	300m	10000 * 2400/F(KHz)	20log 2400/F(KHz) + 80
0.490 – 1.705	24000 / F(KHz)	30m	100 * 24000/F(KHz)	20log 24000/F(KHz) + 40
1.705 – 30.00	30	30m	100 * 30	20log 30 + 40
30.0 – 88.0	100	3m	100	20log 100
88.0 – 216.0	150	3m	150	20log 150
216.0 – 960.0	200	3m	200	20log 200
Above 960.0	500	3m	500	20log 500

Limit: $2400/125=19.2\mu\text{V/m}@300\text{m}$

Distance Correction Factor= $40\log(\text{test distance}/\text{specific distance})$

4.5. EUT Configuration on Measurement

The equipment is installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.6. Operating Condition of EUT

4.6.1. Setup the EUT and simulator as shown as Section 4.2.

4.6.2. Turn on the power of all equipment.

4.6.3. Let the EUT work in test mode and measure it.

4.7. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2014 on radiated emission measurement.

From 9kHz to 30MHz at distance 3m The EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.

From 30MHz to 1000MHz at distance 3m The measuring antenna height varied between 1 and 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity. The measurements were performed for both vertical and horizontal antenna polarization.

The final measurement will be performed with an EMI Receiver set to Quasi Peak detector for the frequency bands 9kHz to 90kHz and 110 to 490 kHz where an average detector will be used according to Section 15.209(d)(2).

The final level, expressed in dBuV/m, is arrived at by taking the reading from the EMI receiver (Level dBuV) and adding the antenna correction factor and cable loss factor (Factor dB) to it. This result then has to be compared with the relevant FCC limit. The resolution bandwidth during the measurement is as follows:

9kHz – 150kHz: ResBW:200Hz

150kHz – 30MHz: ResBW:9kHz

The bandwidth of the EMI test receiver (R&S ESCS30) is set at 120kHz from 30MHz to 1000MHz.

4.8. Radiated Emission Noise Measurement Result

PASS.

From 9 kHz to 30MHz

Frequency (MHz)	Quasi Peak (dB μ V/m)	Azimuth	Polarity (H/V)	Factors (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
0.125	72.58	147	H	-56.36	105.7	-33.12
2.02	38.74	34	H	-54.15	69.5	-30.76
14.25	39.25	210	H	-53.01	69.5	-30.25
0.125	74.44	220	V	-56.36	105.7	-31.26
3.68	43.51	320	V	-51.27	69.5	-25.99
17.35	34.77	54	V	-51.25	69.5	-34.73

Part 15 Section 15.31(f)(2) (9kHz-30MHz)

Limit at 3m=Limit at 300m-40*log(300(m)/3(m))

Limit at 3m=Limit at 30m-40*log(30(m)/3(m))



ACCURATE TECHNOLOGY CO., LTD.

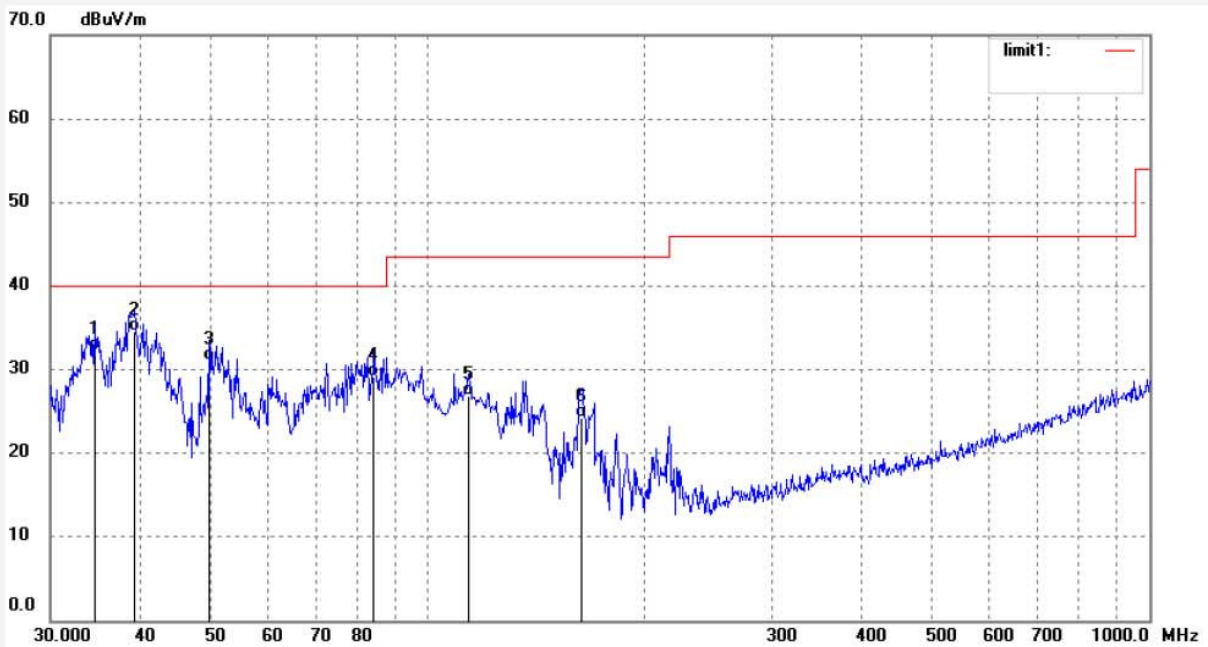
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR2016 #1731
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: PAPID Keypad GEN III
Mode: TX
Model: HOM070
Manufacturer: Hornady

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 16/08/15/
Time: 9/14/33
Engineer Signature: star
Distance: 3m

Note: Report No.:ATE20161724



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	34.5270	49.67	-17.43	32.24	40.00	-7.76	QP			
2	39.3204	53.51	-18.88	34.63	40.00	-5.37	QP			
3	49.7571	51.74	-20.65	31.09	40.00	-8.91	QP			
4	84.2839	51.66	-22.48	29.18	40.00	-10.82	QP			
5	114.0184	48.06	-21.16	26.90	43.50	-16.60	QP			
6	163.7366	45.22	-20.95	24.27	43.50	-19.23	QP			



ACCURATE TECHNOLOGY CO., LTD.

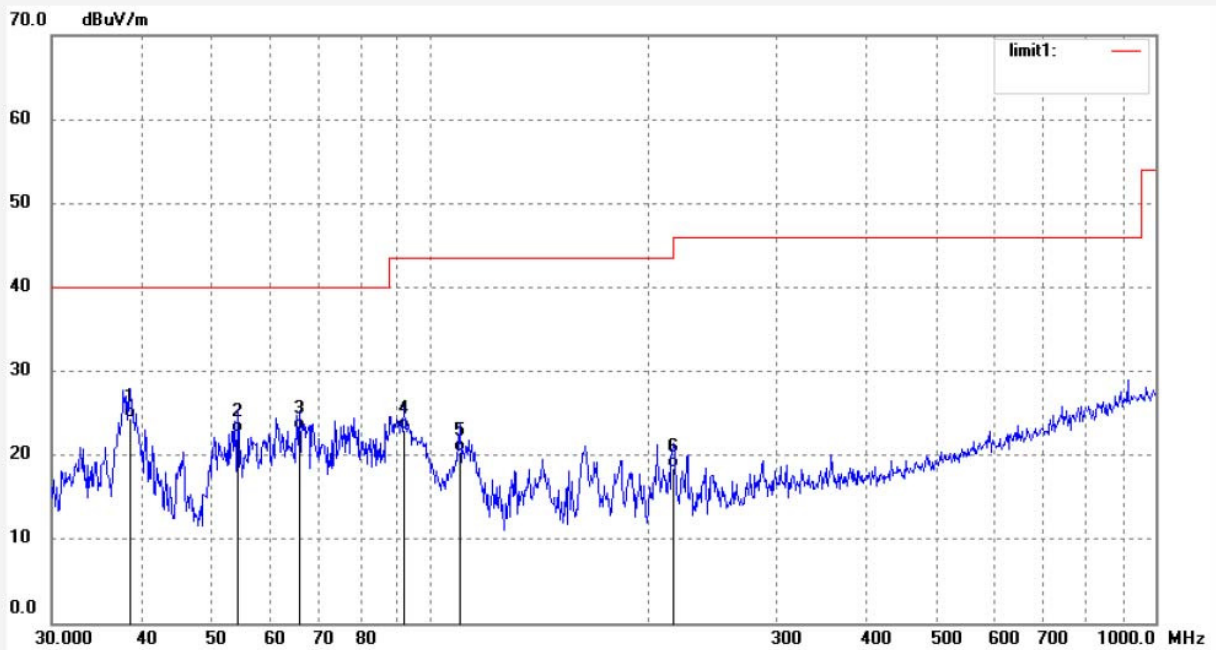
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR2016 #1732
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: PAPID Keypad GEN III
Mode: TX
Model: HOM070
Manufacturer: Hornady

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 16/08/15/
Time: 9/18/55
Engineer Signature: star
Distance: 3m

Note: Report No.:ATE20161724



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	38.5001	43.10	-18.63	24.47	40.00	-15.53	QP			
2	54.1349	43.58	-20.89	22.69	40.00	-17.31	QP			
3	65.9067	45.74	-22.71	23.03	40.00	-16.97	QP			
4	92.0223	44.69	-21.75	22.94	43.50	-20.56	QP			
5	109.6957	41.55	-21.10	20.45	43.50	-23.05	QP			
6	216.1197	36.84	-18.42	18.42	46.00	-27.58	QP			

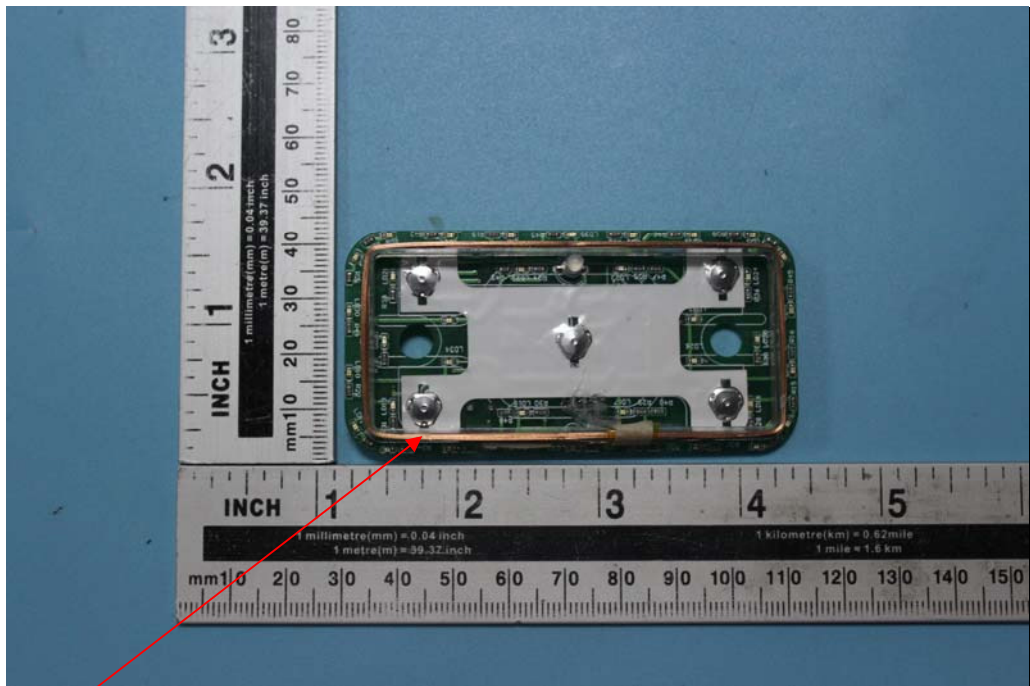
5. ANTENNA REQUIREMENT

5.1.The Requirement

According to Section 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.

5.2.Antenna Construction

Device is equipped with permanent attached antenna, which isn't displaced by other antenna. The Antenna gain of EUT is 3dBi. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna