

# FCC TEST REPORT

for

47 CFR Part 15, Subpart C

Equipment : TABLET  
Model No. : EASY PEN PRO USB  
FCC ID : FSUGTU504  
Filing Type : Original Grant  
Applicant : **KYE SYSTEMS CORP.**  
No. 492, Sec. 5, Chung Hsin Rd., San Chung,  
Taipei Hsien, 241, Taiwan, R.O.C.

- The test result refers exclusively to the test presented test model / sample.
- Without the written authorization of the test lab., the Test Report may not be copied.
- **Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsement by NVLAP or any agency of U.S. government.**

## ***SPORTON International Inc.***

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

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# **CERTIFICATE OF COMPLIANCE**

**for**

**47 CFR Part 15, Subpart C**

Equipment : TABLET  
Model No. : EASY PEN PRO USB  
FCC ID : FSUGTU504  
Applicant : **KYE SYSTEMS CORP.**  
No. 492, Sec. 5, Chung Hsin Rd., San Chung,  
Taipei Hsien, 241, Taiwan, R.O.C.

**I HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 - 1992** and the energy emitted by this equipment was **passed 47 CFR Part 15, Subpart C** emission limits. Testing was carried out on Sep. 21, 2000 at **SPORTON International Inc.** LAB. in Lin Kou.

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W. L. Huang  
General Manager

***SPORTON International Inc.***

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

**1. General Description of Equipment under Test**

**1.1. Applicant**

KYE SYSTEMS CORP.  
 No. 492, Sec. 5, Chung Hsin Rd., San Chung,  
 Taipei Hsien, 241, Taiwan, R.O.C.

**1.2. Manufacturer**

Same as 1.1.

**1.3. Basic Description of Equipment under Test**

Equipment : TABLET  
 Model No. : EASY PEN PRO USB  
 FCC ID : FSUGTU504  
 Trade Name : Genius  
 USB Cable : Braided-Shielded, 1.8m  
 Power Supply Type : From PC  
 Power Cord : N/A

**1.4. Feature of Equipment under Test**

Platform Support	PC
Hardware Interface	USB (Universal Serial Bus)
Software Driver	GeniTab III for Windows3.x, 95, 98, NT3.x, 4.x, OS 8.5
Resolution	Up to 2,540LPI
Accuracy	0.01 inch
Proximity	10 mm from surface of tablet
Working Area	Horizontal : 5 inches , Vertical : 3.75 inches
Transmission rate	Low speed 1.5Mbps
Report Rate	Up to 110 RPS for interrupt transmission
Protocol	USB spec v1.1 and HID spec v1.1
Power Source	USB (Universal Serial Bus)
Operation mode	Endpoint 0 for control, Endpoint1 for Stream mode.
Technology	Electromagnetic with cordless transaction
Cursor Support	S-09W Cordless pen

## **2. Test Configuration of Equipment under Test**

### **2.1. Test Manner**

- a. The EUT has been associated with personal computer and peripherals pursuant to ANSI C63.4-1992 and configuration operated in a manner which tended to maximize its emission characteristics in a typical application.
- b. The HITACHI Monitor, DELL PS/2 Keyboard, PRIMAX PS/2 Mouse, HP Printer, ACEEX Modem and EUT were connected to the FIC PC for EMI test.
- c. The emission is too low to be detected at 10m, so the test was carried out at 3m.

### **2.2. Description of Test System**

#### Support Unit 1. -- Monitor (HITACHI)

FCC ID	: N/A
Model No.	: CM753ET
Power Supply Type	: Switching
Power Cord	: Non-Shielded
Serial No.	: SP0176
Data Cable	: Shielded, 360 degree via metal backshells, 1.15m
Remark	: This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

#### Support Unit 2. -- PS/2 Keyboard (DELL)

FCC ID	: GYUM92SK
Model No.	: AT101(DE8M)
Serial No.	: SP0054
Data Cable	: Shielded, 360 degree via metal backshells, 1.9m

#### Support Unit 3. -- PS/2 Mouse (PRIMAX)

FCC ID	: EMJMU5JQ
Model No.	: MUS9J
Serial No.	: SP0045
Data Cable	: Shielded, 360 degree via metal backshells, 1.7m

## Support Unit 4. -- Printer (HP)

FCC ID : B94C2642X  
Model No. : DeskJet 400  
Power Supply Type : Linear  
Power Cord : Non-Shielded  
Serial No. : SP0048  
Data Cable : Braided-Shielded, 360 degree via metal backshells, 1.35m

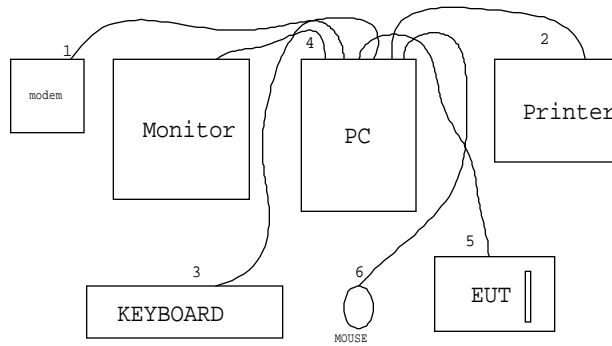
## Support Unit 5. -- Modem (ACEEX)

FCC ID : IFAXDM1414  
Model No. : DM1414  
Power Supply Type : Linear  
Power Cord : Non-Shielded  
Serial No. : SP0015  
Data Cable : Shielded, 360 degree via metal backshells, 1.15m

## Support Unit 6. -- Personal Computer (FIC)

FCC ID : N/A  
Model No. : P2L97  
Power Supply Type : Switching  
Power Cord : Non-Shielded  
Serial No. : SP0037  
Data Cable : Shielded, 360 degree via metal backshells  
Remark : This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

**2.3. Connection Diagram of Test System**



1. The I/O cable is connected to the support unit 5.
2. The I/O cable is connected to the support unit 4.
3. The I/O cable is connected to the support unit 2.
4. The I/O cable is connected to the support unit 1.
5. The I/O cable is connected to the EUT.
6. The I/O cable is connected to the support unit 3.

### **3. Test Software**

An executive program, EMITEST.EXE under WIN 98, which generates a complete line of continuously repeating " H" pattern was used as the test software.

The program was executed as follows :

- a. Turn on the power of all equipment.
- b. The PC reads the test program from the floppy disk drive and runs it.
- c. The PC sends " H" messages to the monitor, and the monitor displays " H" patterns on the screen.
- d. The PC sends " H" messages to the printer, then the printer prints them on the paper.
- e. The PC sends " H" messages to the modem.
- f. The PC sends " H" messages to the internal Hard Disk, and the Hard Disk reads and writes the message.
- g. Repeat the steps from b to f.

At the same time, "MS Paint" of Accessories under Win 98 was used as the test software.



## **4. General Information of Test**

### **4.1. Test Facility**

This test was carried out by SPORTON International Inc.

Test Site Location : No. 30-2, Lin 6, Diing-Fwu Tsuen, Lin-Kou-Hsiang,  
Taipei Hsien, Taiwan, R.O.C.

TEL : 886-2-2601-1640

FAX : 886-2-2601-1695

### **4.2. Standard for Methods of Measurement**

ANSI C63.4-1992

### **4.3. Test in Compliance with**

FCC Part 15 Subpart C

### **4.4. Frequency Range Investigated**

a. Radiation : from 0.345 MHz to 30 MHz

### **4.5. Test Distance**

The test distance of radiated emission from antenna to EUT is 3 M.

## 5. Test of Radiated Emission

Radiated emissions from 0.345 MHz to 30 MHz were measured with a bandwidth of 120 kHz according to the methods defines in ANSI C63.4-1992. The EUT was placed on a nonmetallic stand in the open-field site, 0.8 meter above the ground plane, as shown in section 5.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions.

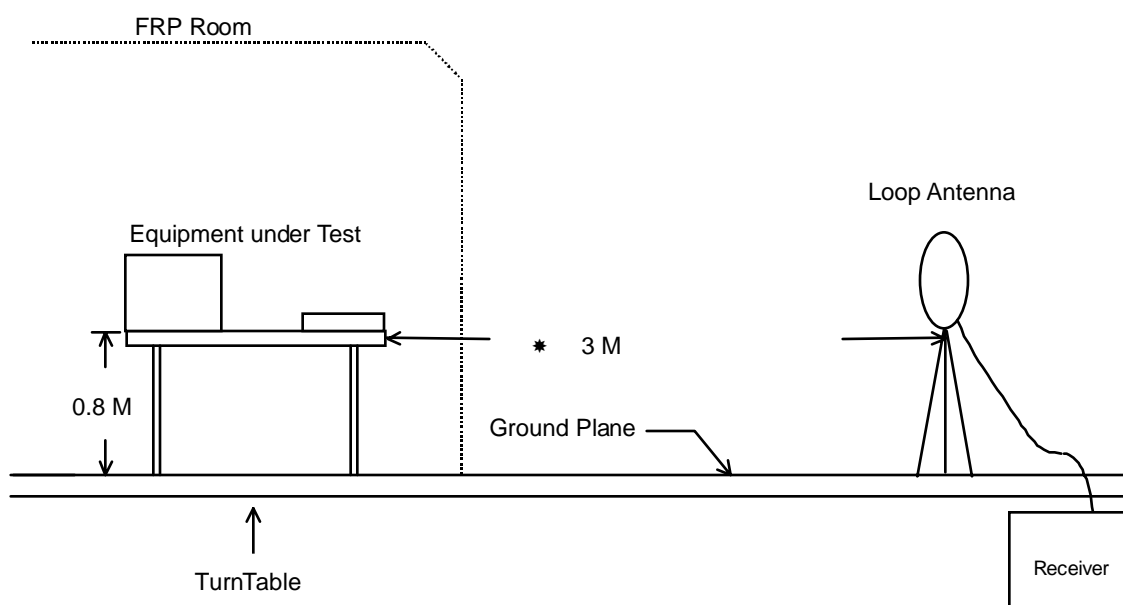
### 5.1. Major Measuring Instruments

Test Receiver	( R&S ESCS30 )
Resolution Bandwidth	120 KHz
Frequency Band	9 KHz to 2.75 GHz
Quasi-Peak Detector	ON for Quasi-Peak Mode OFF for Peak Mode

**5.2. Test Procedures**

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The loop antenna was oriented horizontally and vertically. Rotate the loop antenna 360 degrees on its vertical axis to find the maximum value of the field strength both horizontal polarization and vertical polarization.
- e. Set the test-receiver system to Peak Detect Function.

### 5.3. Typical Test Setup Layout of Radiated Emission



**5.4. Test Result of Radiated Emission**

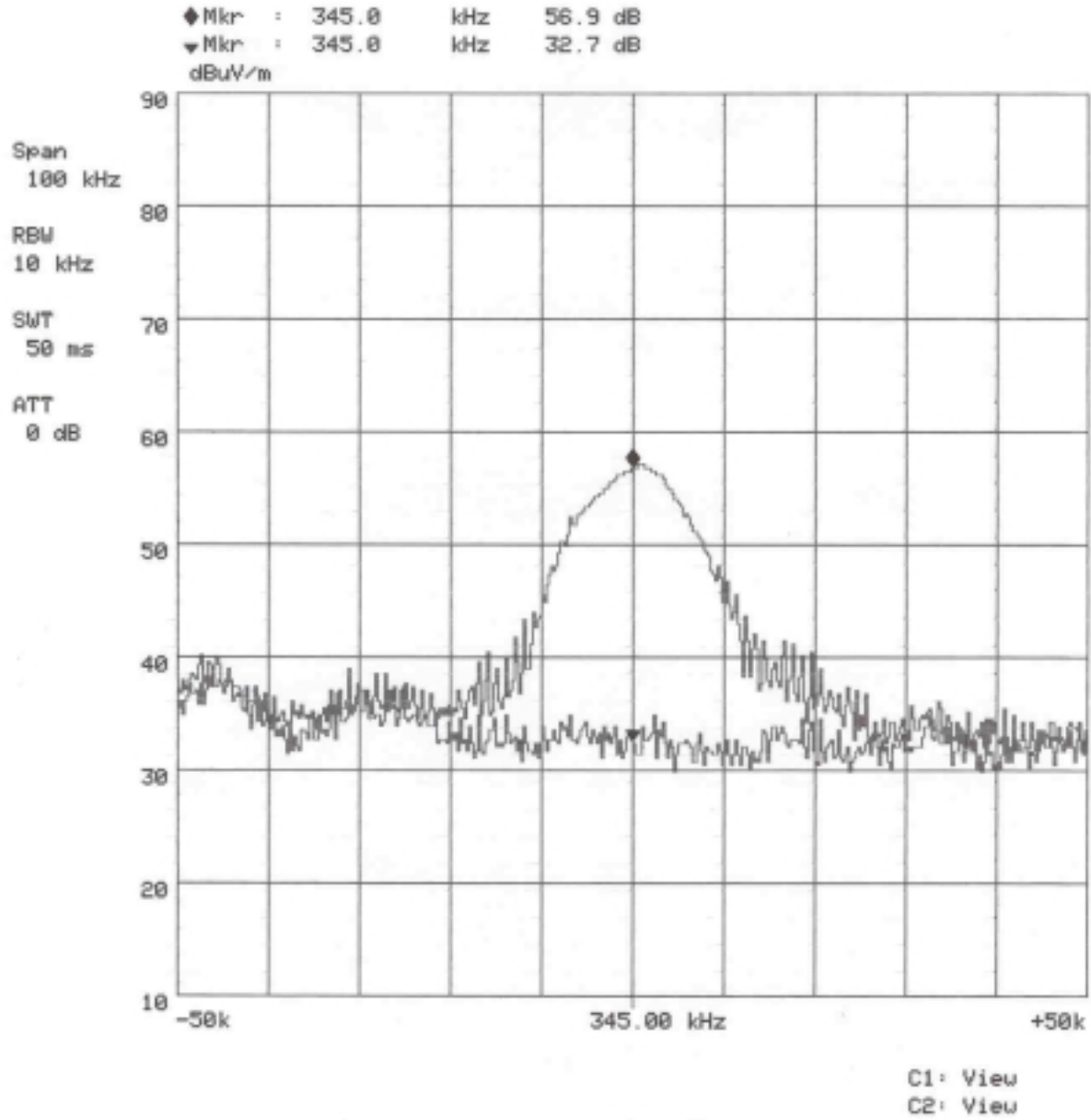
- Equipment meets the technical specifications of 15.209
- Frequency Range of Test : from 345KHz to 30 MHz
- Test Distance : 3 M (The emission is too low to be detected at 10m, so the test was carried out at 3m.)
- Temperature : 27
- Relative Humidity : 55% RH
- Test Date :Oct. 20, 2000
- Limits at 3 meters are calculated by following method:  
 for the limit at 345Khz per 15.209 is  $2400/345=6.957\mu\text{V/m}$  at 300m, To determine the level at the 3m test distance take  $20 \log (6.957)=16.85\text{dBuV/m}$  and then per 15.31 (f)(2) a 40dB/decade correction factor may be used below 30Mhz giving a 3m limit of 96.85dBuV/m. According to 15.35(b), the limit of peak detector mode is 20dB above the maximum permitted average limit. So the limit of 345KHz using peak detector function is 116.85 dBuV/m.
- Emission level (dBuV/m)= $20\log$  emission level ( $\mu\text{V/m}$ )
- Sample Calculation at 0.345MHz  
 Corrected Reading =  $0.1+75.4= 75.5$  (dBuV/m)
- Remark: The R&S test receiver will automatically offset the antenna factor, therefore, the reading value shown on the R&S test receiver is included receiving value added antenna factor.

Frequency ( MHz )	Polarity	Cable Loss ( dB )	Reading ( dBuV )	Limits		Emission Level		Margin ( dB )	Orthogonal
				(dBuV/m)	( $\mu\text{V/m}$ )	(dBuV/m)	( $\mu\text{V/m}$ )		
0.345	H	0.10	75.40	116.85	695825	75.50	5956.62	-41.35	X
0.345	H	0.10	72.60	116.85	695825	72.70	4315.19	-44.15	Y
0.345	H	0.10	71.60	116.85	695825	71.70	3845.92	-45.15	Z
0.345	V	0.10	72.30	116.85	695825	72.40	4168.69	-44.45	X
0.345	V	0.10	70.30	116.85	695825	70.40	3311.31	-46.45	Y
0.345	V	0.10	70.70	116.85	695825	70.80	3467.37	-46.05	Z

Remark:

1. Data shown in above three rows represents three orthogonal (X, Y, Z) .
2. Testing at Vertical Polarity, emission was too low to be detected.
3. This emission was base on measurements employing an peak detector

5.5. Occupied Bandwidth Plots



**5.6. The photographs show the configuration that generates the maximum emission.**

FRONT VIEW



REAR VIEW



**6. List of Measuring Equipments Used**

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date
Receiver	R&S	ESCS30	847793/003	9 K – 2.75 GHz	Dec. 16, 1999
Loop Antenna	R&S	HFH2-Z2	824132	10KHz - 30MHz	Dec. 18, 1999