

### **3.0 Test Results**

#### **3.1 Emission**

##### **3.1.1 Radiated Emissions**

Test Requirement:	FCC 47CFR PART 15.239 & 15.209
Test Method:	ANSI C63.4:1992
Test Date:	2000-06-10

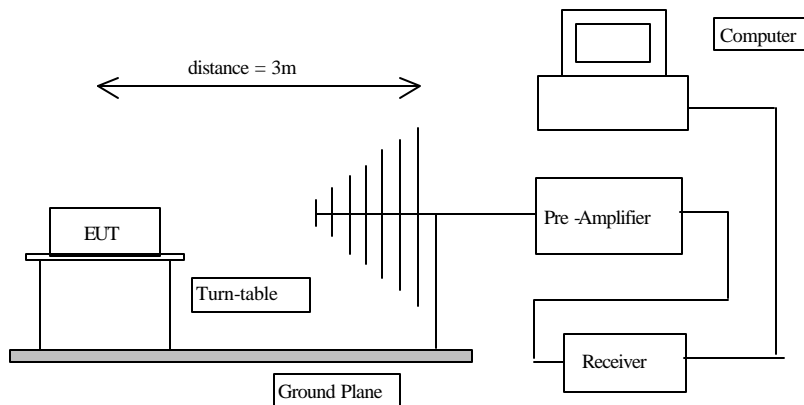
##### **Test site facility:**

Open field test site located at Taipo (Hong Kong) with a metal ground plane on filed with the FCC pursuant to section 2.948 of the FCC rules

##### **Test Method:**

The sample was placed 0.8m above the groundplane. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigate all operating mode ,rotated about all 3 axis(X,Y & Z) to obtain worse position, and manipulating interconnecting cables, rotating turntable and varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The worst-case emissions are shown in Test Results.

##### **Test Setup:**



**Limits for Field Strength of Fundamental Emission(FCC 47 CFR 15.239):**

Frequency Range	Peak Limits	Average Limits
[MHz]	[ $\mu\text{V/m}$ ]	[ $\mu\text{V/m}$ ]
88-108	2500	250

**Results:****#Peak Value**

Frequency MHz	Level @3m $\text{dB}\mu\text{V/m}$	Correcti on Factor $\text{dB/m}$	Field Strength $\text{dB}\mu\text{V/m}$	Field Strength $\mu\text{V/m}$	Limit @3m $\mu\text{V/m}$	Antenna Polarity
105.9	40.2	12.3	52.5	421.7	2500.0	Vertical

Frequency MHz	Level @3m $\text{dB}\mu\text{V/m}$	Correcti on Factor $\text{dB/m}$	Field Strength $\text{dB}\mu\text{V/m}$	Field Strength $\mu\text{V/m}$	Limit @3m $\mu\text{V/m}$	Antenna Polarity
106.6	34.5	12.3	46.8	218.8	2500.0	Vertical

Frequency MHz	Level @3m $\text{dB}\mu\text{V/m}$	Correcti on Factor $\text{dB/m}$	Field Strength $\text{dB}\mu\text{V/m}$	Field Strength $\mu\text{V/m}$	Limit @3m $\mu\text{V/m}$	Antenna Polarity
97.4	31.7	11.8	43.5	149.6	2500.0	Vertical

**Results:****\*\*Average Value**

Frequency MHz	Level @3m $\text{dB}\mu\text{V/m}$	Correcti on Factor $\text{dB/m}$	Field Strength $\text{dB}\mu\text{V/m}$	Field Strength $\mu\text{V/m}$	Limit @3m $\mu\text{V/m}$	Antenna Polarity
105.9	30.4	12.3	42.7	136.5	250.0	Vertical

Frequency MHz	Level @3m dBμV/m	Correcti on Factor dB/m	Field Strength dBμV/m	Field Strength μV/m	Limit @3m μV/m	Antenna Polarity
106.6	25.3	12.3	37.6	75.9	250.0	Vertical

Frequency MHz	Level @3m dBμV/m	Correcti on Factor dB/m	Field Strength dBμV/m	Field Strength μV/m	Limit @3m μV/m	Antenna Polarity
97.4	20.8	11.8	32.6	42.7	250.0	Vertical

Remarks:

Correction Factor included Antenna Factor and Cable Attenuation

Calculated measurement uncertainty = 30MHz to 300MHz ±3.7dB  
300MHz to 1GHz +3.0dB / - 2.7dB

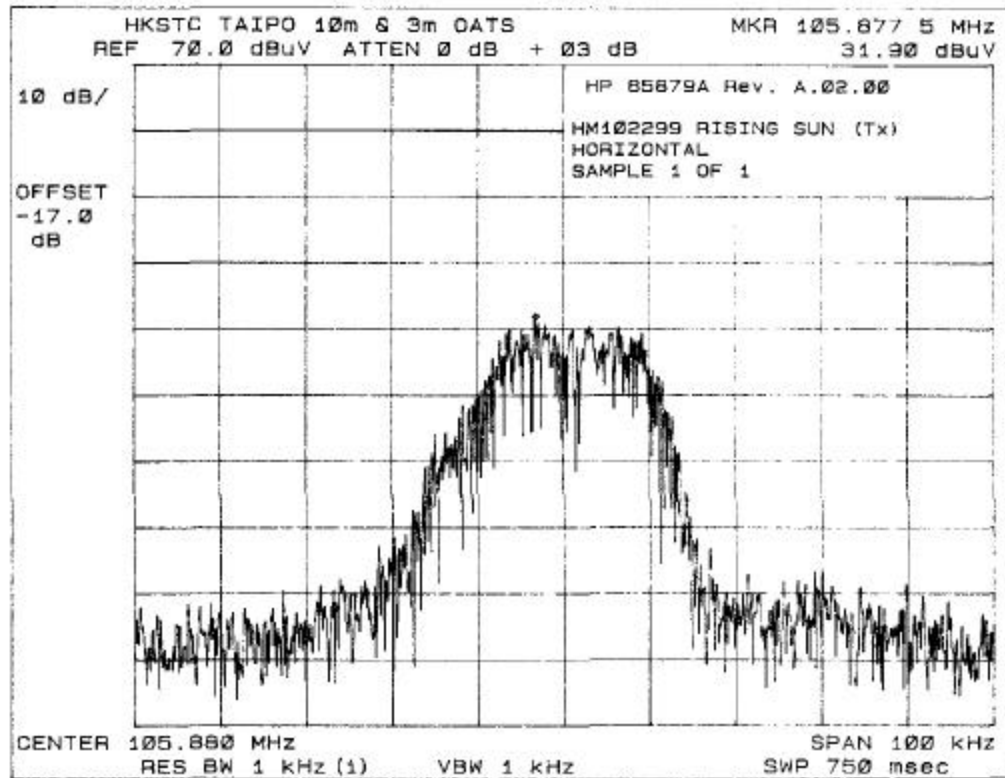
#FCC 47CFR15.35 there is also a limit on the radio frequency emission, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

\*\* For effective averaging, the bandwidth of the video filter must be smaller than the resolution bandwidth. The higher the ratio of resolution bandwidth to video bandwidth, the greater the averaging will be. Below setting for HP8572A EMI Receiver.

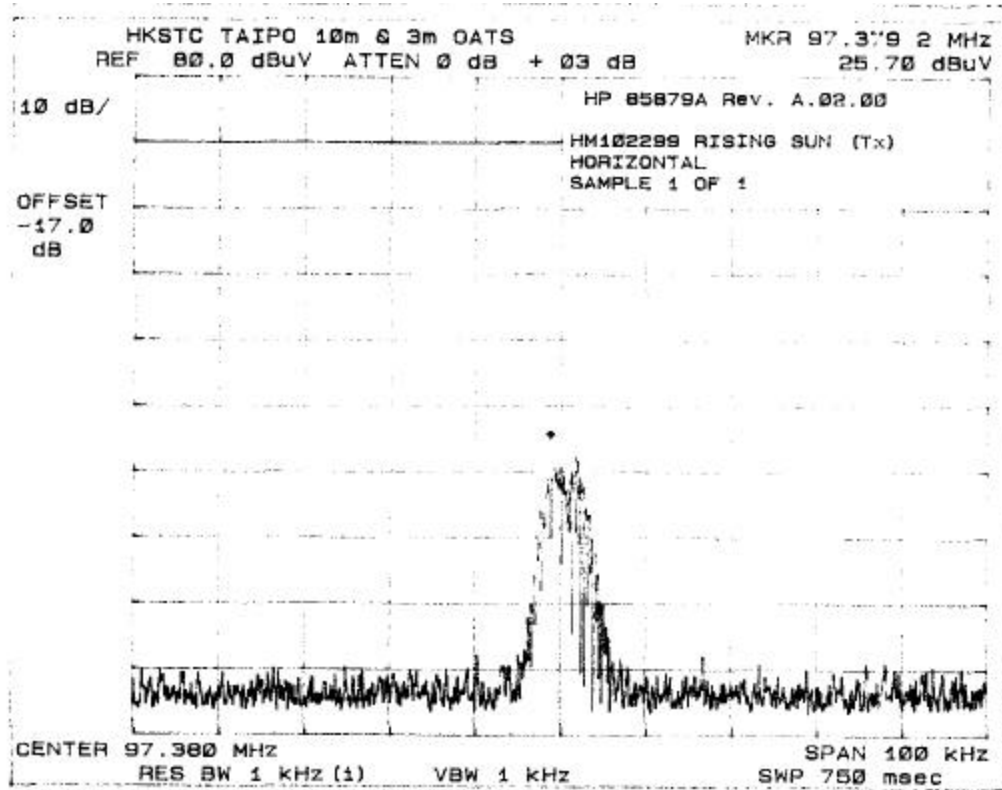
Resolution Bandwidth =3MHz  
Video Bandwidth =1Hz

## 26dB Bandwidth of Fundamental Emission

105.877MHz



97.379Mhz



106.645Mhz

