



Conducted Emission Setup Overview



Photo of setup during Conducted Emission testing, showing the X-Box and the Base Unit, along with the Game Controller for normal duplex operation.

The AC mains supply was varied $\pm 15\%$ of nominal, and no change in performance or anomalies were observed. The data presented below is from measurements at mid channel.

	<u>-15%</u>	<u>VNom</u>	<u>+15%</u>
	102VAC	120VAC	138VAC
Channel 6	89.9dB μ V/m	89.6dB μ V/m	89.8dB μ V/m

No spurious Anomalies were observed .

Additional Equipment Used:

Asset #	Manufacturer	Model #	Serial #	Description	Date
EE960054	HP	971A	JP40011152	Multimeter (to verify settings)	07-24-03
EE960070	Cal. Instruments	1251RP	N/A	Power Supply (AC)	10-02-02
CC000219C	HP	6201B	1145A04094	Variable Power Supply (DC)	N/A

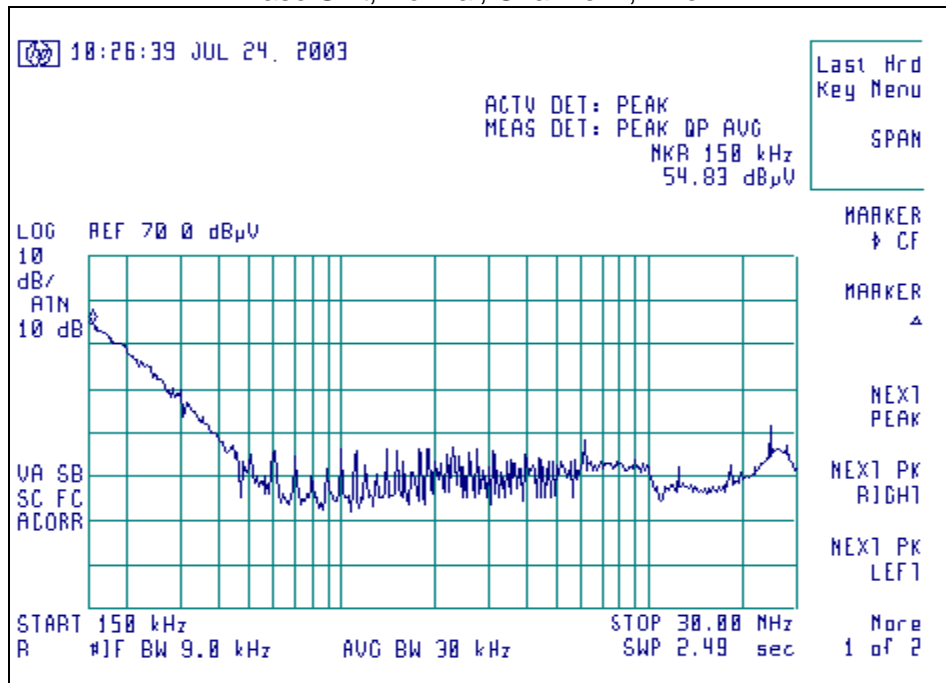
Conducted RF measurements at AC mains (X-Box).

The units were placed in “normal operation” mode, and the emissions were investigated on low, mid, and high channels, and found to be similar.

Data and signature scans presented here are from the mid band – Channel 6, and are typical of all channels investigated.

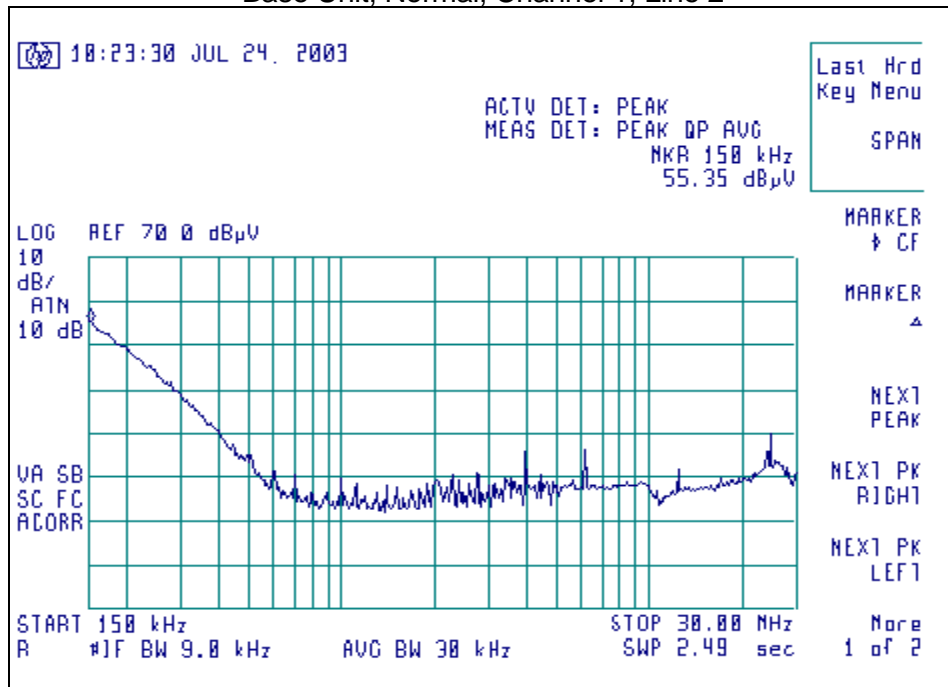
Frequency (MHz)	Q-Peak (dBµV)	Average (dBµV)	15.107 FCC Limit (dBµV)		Margin (dB)	
			Q-Peak	Average	Q-Peak	Average
0.18 MHz	45.1	18.0	64.5	54.5	19.4	36.5
0.6 MHz	24.9	24.0	56	46	31.1	22.0
1.40 MHz	26.2	25.0	56	46	29.8	21.0
4.0 MHz	31.2	29.9	56	46	24.8	16.1
24.5 MHz	29.8	28.8	60	50	30.2	21.2

Signature Scan of Conducted Emissions
Base Unit, Normal, Channel 1, Line 1



Frequency (MHz)	Q-Peak (dBμV)	Average (dBμV)	15.107 FCC Limit (dBμV)		Margin (dB)	
			Q-Peak	Average	Q-Peak	Average
0.16	47.3	19.3	65.5	55.5	18.2	36.2
4.0	30.9	29.5	56	46	25.1	25.5
6.1	25.5	21.9	60	50	34.5	28.1
24.6	29.5	28.5	60	50	30.5	21.5

Signature Scan of Conducted Emissions
Base Unit, Normal, Channel 1, Line 2



Investigated Channel 1 and Channel 12 – Symetric Performance,
only Screen Captures on Channel 1, Full Duplex Communication