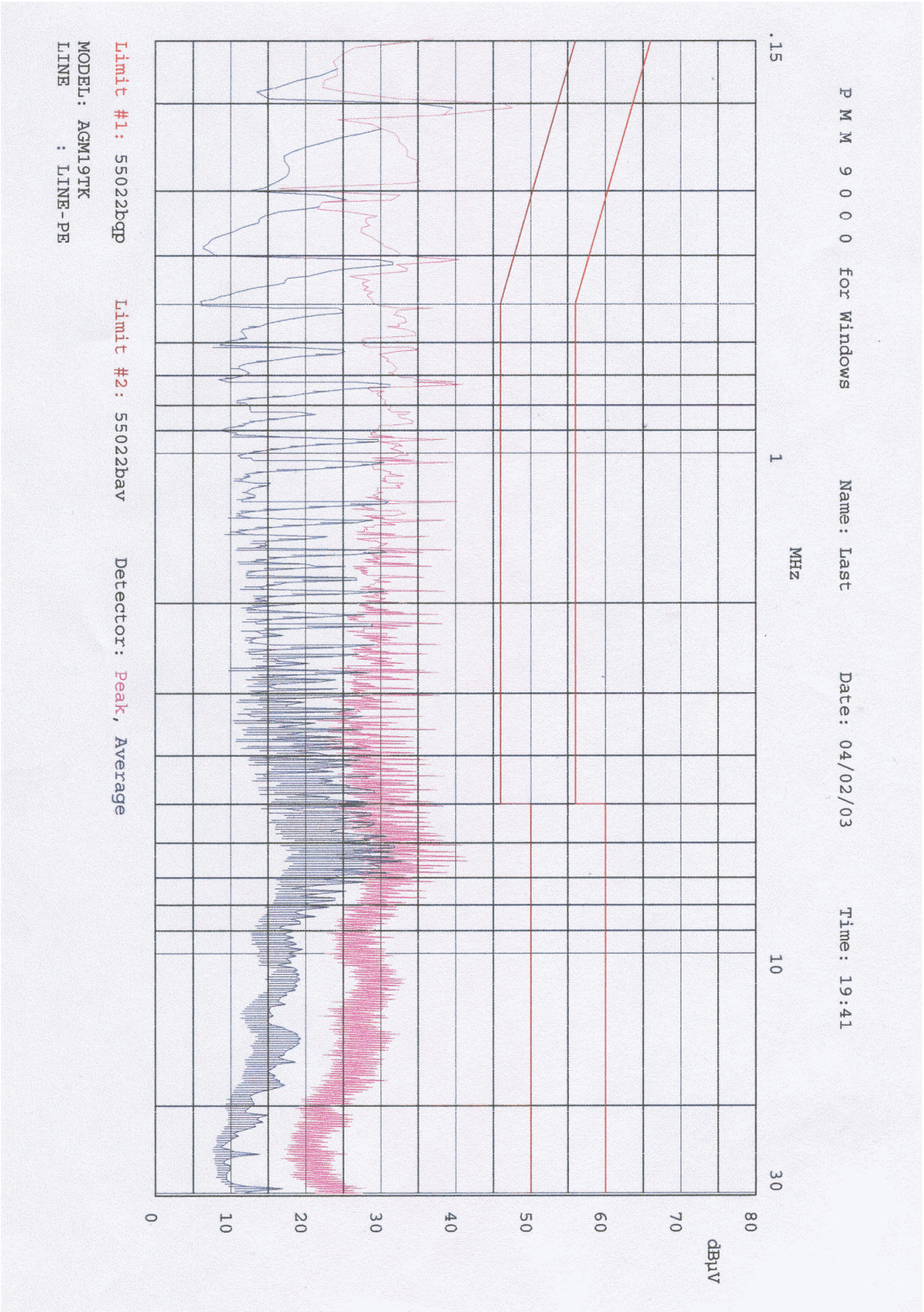


# PLOTS OF EMISSIONS

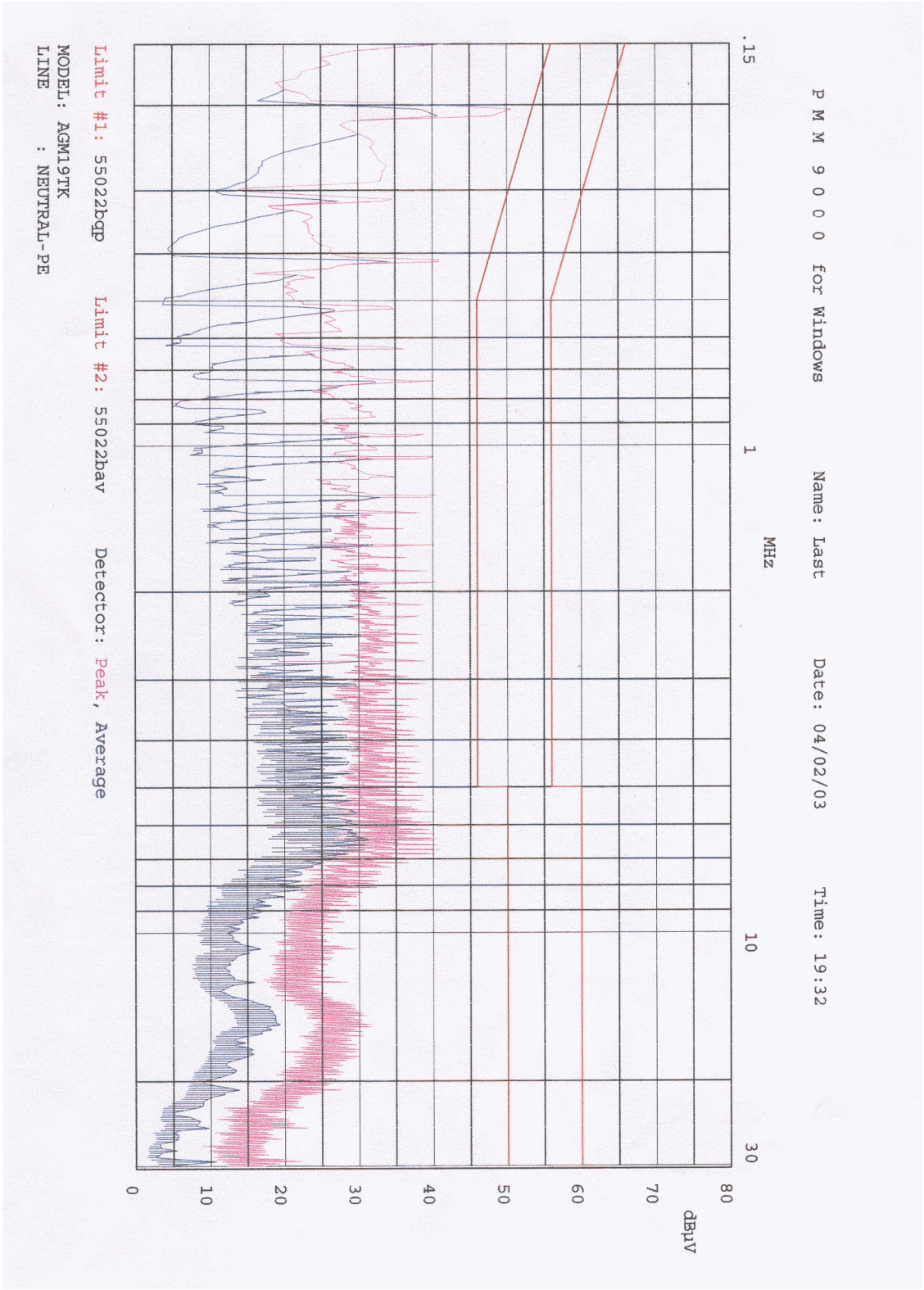
- Conducted Emission at the Mains port(Line, Analogue)





PLOTS OF EMISSIONS

- Conducted Emission at the Mains port(Neutral, Analogue)



## ***SAMPLE CALCULATIONS***

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$$\text{dB } \mu\text{V} = 20 \log_{10} (\mu\text{V}/\text{m})$$

$$\mu\text{V} = 10^{(\text{dB } \mu\text{V}/20)}$$

### **EX. 1.**

@57.7 MHz

Class B limit =  $100 \mu\text{V}/\text{m} = 40.0 \text{ dB } \mu\text{V}/\text{m}$

Reading =  $19.1 \text{ dB } \mu\text{V}$  (calibrated level)

Antenna factor + Cable Loss =  $10.12 \text{ dB}$

Total =  $29.22 \text{ dB } \mu\text{V}/\text{m}$

Margin =  $40.0 - 29.22 = 10.78$

**10.78 dB below the limit**

## ACCURACY OF MEASUREMENT

The Measurement Uncertainties stated were calculated in accordance with the requirements of NIST Technical Note 1297 with the confidence level of 95%

### 1. Radiation Uncertainty Calculation

<i>Contribution</i>	<i>Probability Distribution</i>	<i>Uncertainty(+/-dB)</i>
Antenna Factor	Normal (k=2)	$\pm 0.5$
Cable Loss	Normal (k=2)	$\pm 0.04$
Receiver Specification	Rectangular	$\pm 2.0$
Antenna directivity	Rectangular	$\pm 1.0$
Antenna Factor variation with Height		
Antenna Phase Center Variation		
Antenna Factor Frequency Interpolation		
Measurement Distance Variation		
Site Imperfections	Rectangular	$\pm 2.0$
Mismatch:Receiver VRC $r_i=0.3$ Antenna VRC $r_R=0.1(B_i)0.4(L_p)$ Uncertainty Limits $20\log(1+/-r_i r_R)$	U-Shaped	$+ 0.25 / - 0.26$
System Repeatability	Std.deviation	$\pm 0.05$
Repeatability of EUT	-	-
Combined Standard Uncertainty	Normal	$\pm 1.77$
Expanded Uncertainty U	Normal (k=2)	$\pm 3.5$

### 2. Conducted Uncertainty Calculation

<i>Contribution</i>	<i>Probability Distribution</i>	<i>Uncertainty(+/-dB)</i>
Receiver Specification	Normal (k=2)	$\pm 2.0$
LISN coupling spec.	Normal (k=2)	$\pm 0.4$
Cable and input attenuator cal.	Rectangular	$\pm 0.4$
Mismatch:Receiver VRC $r_i=0.3$ LISN vrc $r_g=0.1$ Uncertainty Limits $20\log(1+/-r_i r_R)$	U-Shaped	$\pm 0.26$
System Repeatability	Std.deviation	$\pm 0.68$
Repeatability of EUT	-	-
Combined Standard Uncertainty	Normal	$\pm 1.18$
Expanded Uncertainty U	Normal (k=2)	$\pm 2.4$

## **TEST EQUIPMENT**

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No.	Instrument	Manufacturer	Model	Calibration Date
1	*Test Receiver	R & S	ESCS 30	2002.09
2	*Test Receiver	PMM	PMM9000	2002.06
3	*Amplifier	HP	8447F	2002.09
4	*Amplifier	Agilent	8447F	2002.07
5	*Spectrum Analyzer	Advantest	R3265A	2002.03
6	*Logbicon Super Antenna	Schwarzbeck	VULB9166	2002.05
7	Log-Periodic Antenna	R & S	HL025	2003.01
8	Dipole Antenna	R & S	VHA9103	2002.05
9	Dipole Antenna	R & S	UHA9105	2002.05
11	Biconical Log Antenna	ARA	LPB-2520/A	2003.01
12	Absorbing Clamp	R & S	MDS21	2002.03
13	High Voltage Probe	R & S	ESH2-Z3	2002.09
14	Signal Generator	R & S	SMP02	2002.12
15	Matching Pad	R & S	RAM358.5414.02	2002.05
16	*LISN	R & S	ESH3-Z5	2002.10
17	*LISN	Kyoritsu	KNW-407	2002.04
18	LISN	Kyoritsu	KNW-408	2002.04
19	*Position Controller	EM Eng.	N/A	N/A
20	*Turn Table	EM Eng.	N/A	N/A
21	*Antenna Mast	EM Eng.	N/A	N/A
22	*Anechoic Chamber	EM Eng.	N/A	N/A
23	*Shielded Room	EM Eng.	N/A	N/A

\*) Test equipment used during the test

## ***RECOMMENDATION/CONCLUSION***

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The data collected shows that the **ADVAN International Corp.**

FCC ID : **QVXAGM19TK, LCD Monitor.** complies with § 15.107 ,15.109 of the FCC Rules.

The highest emission observed was at **0.71 MHz** for conducted emissions with a margin of **6.4 dB**, at **318.17 MHz** for radiated emissions with a margin of **6.2 dB**.

## ***APPENDIX B – CIRCUIT DIAGRAM***

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## ***APPENDIX E – USER’S MANUAL***

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## ***APPENDIX F – SCHEMATIC DIAGRAM***

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