Attachment 3: TEST REPORT

FG05_051EAL (PART 2)



No: #05-051E-RE (1 / 2)

RADIATED EMISSION MEASUREMENT (30MHz~1000MHz) — Quasi-Peak Mode —

EUT Name: Personal computer Type: T4020
S/N: Pre-production sample
Limit: CISPR22 Class B; Measurement distance is 10 m
Test date: 2005/05/20 Temp: 23 °C R/H: 40 %
Antenna: SME Bi-log VULB9160 S/N:3118 Receiver: HP 85422E S/N:3746A00242
Test site: 2nd semianchoic chamber
Assisted coffware: EMI measurement coffware of Version 1.3

Assisted software: EMI measurement software of Version 1.3

| | Meter | Corr. | Noise | | |
|-------|--|--|---|--|--|
| Pol. | Reading | Factor | Level | Limit | Margin |
| | (dBuV) | (dB) | (dBuV/m) | (dBuV/m) | (dB) |
| Vert | 8. 7 | 12. 9 | 21. 6 | 30.0 | 8. 4 |
| Horiz | 6. 5 | 14. 0 | 20. 5 | 30. 0 | 9.5 |
| Vert | 12. 6 | 13. 5 | 26. 1 | 30.0 | 3. 9 |
| Horiz | 13. 0 | 9. 6 | 22. 6 | 30.0 | 7. 4 |
| Vert | 16. 6 | 9. 6 | 26. 2 | 30.0 | 3.8 |
| Horiz | 4. 8 | 16.0 | 20. 8 | 30. 0 | 9. 2 |
| Horiz | 9. 5 | 14. 4 | 23. 9 | 30.0 | 6. 1 |
| Vert | 11.0 | 13. 4 | 24. 4 | 30. 0 | 5. 6 |
| Horiz | 6. 1 | 18. 4 | 24. 5 | 37. 0 | 12. 5 |
| Horiz | 6. 7 | 22. 0 | 28. 7 | 37. 0 | 8.3 |
| Horiz | 4. 9 | 23. 3 | 28. 2 | 37.0 | 8.8 |
| Vert | 8. 0 | 23. 3 | 31. 3 | 37. 0 | 5. 7 |
| Horiz | 4. 1 | 24. 6 | 28. 7 | 37. 0 | 8.3 |
| Vert | 7. 8 | 24. 6 | 32. 4 | 37. 0 | 4. 6 |
| Horiz | 2. 4 | 28. 9 | 31. 3 | 37. 0 | 5. 7 |
| Vert | 2. 1 | 28. 9 | 31. 0 | 37. 0 | 6. 0 |
| Horiz | -4 . 8 | 29. 6 | 24. 8 | 37. 0 | 12. 2 |
| Horiz | 1.8 | 30. 5 | 32. 3 | 37.0 | 4. 7 |
| Vert | 0. 5 | 30. 5 | 31. 0 | 37. 0 | 6. 0 |
| | Vert Horiz Vert Horiz Vert Horiz Horiz Vert Horiz Vert Horiz Horiz Horiz | (dBuV) Vert 8.7 Horiz 6.5 Vert 12.6 Horiz 13.0 Vert 16.6 Horiz 4.8 Horiz 9.5 Vert 11.0 Horiz 6.1 Horiz 6.7 Horiz 4.9 Vert 8.0 Horiz 4.1 Vert 7.8 Horiz 2.4 Vert 2.1 Horiz -4.8 Horiz 1.8 | Pol. Reading (dBuV) Factor (dB) Vert 8.7 12.9 Horiz 6.5 14.0 Vert 12.6 13.5 Horiz 13.0 9.6 Vert 16.6 9.6 Horiz 4.8 16.0 Horiz 9.5 14.4 Vert 11.0 13.4 Horiz 6.1 18.4 Horiz 6.7 22.0 Horiz 4.9 23.3 Vert 8.0 23.3 Horiz 4.1 24.6 Vert 7.8 24.6 Horiz 2.4 28.9 Vert 2.1 28.9 Horiz -4.8 29.6 Horiz 1.8 30.5 | Pol. Reading (dBuV) Factor (dB) Level (dBuV/m) Vert 8.7 12.9 21.6 Horiz 6.5 14.0 20.5 Vert 12.6 13.5 26.1 Horiz 13.0 9.6 22.6 Vert 16.6 9.6 26.2 Horiz 4.8 16.0 20.8 Horiz 9.5 14.4 23.9 Vert 11.0 13.4 24.4 Horiz 6.1 18.4 24.5 Horiz 6.7 22.0 28.7 Horiz 4.9 23.3 28.2 Vert 8.0 23.3 31.3 Horiz 4.1 24.6 28.7 Vert 7.8 24.6 32.4 Horiz 2.4 28.9 31.3 Vert 2.1 28.9 31.0 Horiz -4.8 29.6 24.8 Horiz 1.8 30.5 32.3 <td>Pol. Reading (dBuV) Factor (dBuV/m) Level (dBuV/m) Limit (dBuV/m) Vert 8.7 12.9 21.6 30.0 Horiz 6.5 14.0 20.5 30.0 Vert 12.6 13.5 26.1 30.0 Horiz 13.0 9.6 22.6 30.0 Vert 16.6 9.6 26.2 30.0 Horiz 4.8 16.0 20.8 30.0 Horiz 9.5 14.4 23.9 30.0 Vert 11.0 13.4 24.4 30.0 Horiz 6.1 18.4 24.5 37.0 Horiz 6.7 22.0 28.7 37.0 Horiz 4.9 23.3 28.2 37.0 Vert 8.0 23.3 31.3 37.0 Vert 7.8 24.6 28.7 37.0 Horiz 4.1 24.6 28.7 37.0 Horiz 2.4 28.9</td> | Pol. Reading (dBuV) Factor (dBuV/m) Level (dBuV/m) Limit (dBuV/m) Vert 8.7 12.9 21.6 30.0 Horiz 6.5 14.0 20.5 30.0 Vert 12.6 13.5 26.1 30.0 Horiz 13.0 9.6 22.6 30.0 Vert 16.6 9.6 26.2 30.0 Horiz 4.8 16.0 20.8 30.0 Horiz 9.5 14.4 23.9 30.0 Vert 11.0 13.4 24.4 30.0 Horiz 6.1 18.4 24.5 37.0 Horiz 6.7 22.0 28.7 37.0 Horiz 4.9 23.3 28.2 37.0 Vert 8.0 23.3 31.3 37.0 Vert 7.8 24.6 28.7 37.0 Horiz 4.1 24.6 28.7 37.0 Horiz 2.4 28.9 |

The emissions above 852.30 MHz were below - 20 dB from limits.

^{*} Corrected reading = meter reading + corr. factor (= antenna factor + cable loss - preamp gain)

^{*} The limit of CISPR 22 is applied for FCC Part-15.

^{*} Measurement uncertainty: \pm 3.3 dB (K = 2, 95 %)

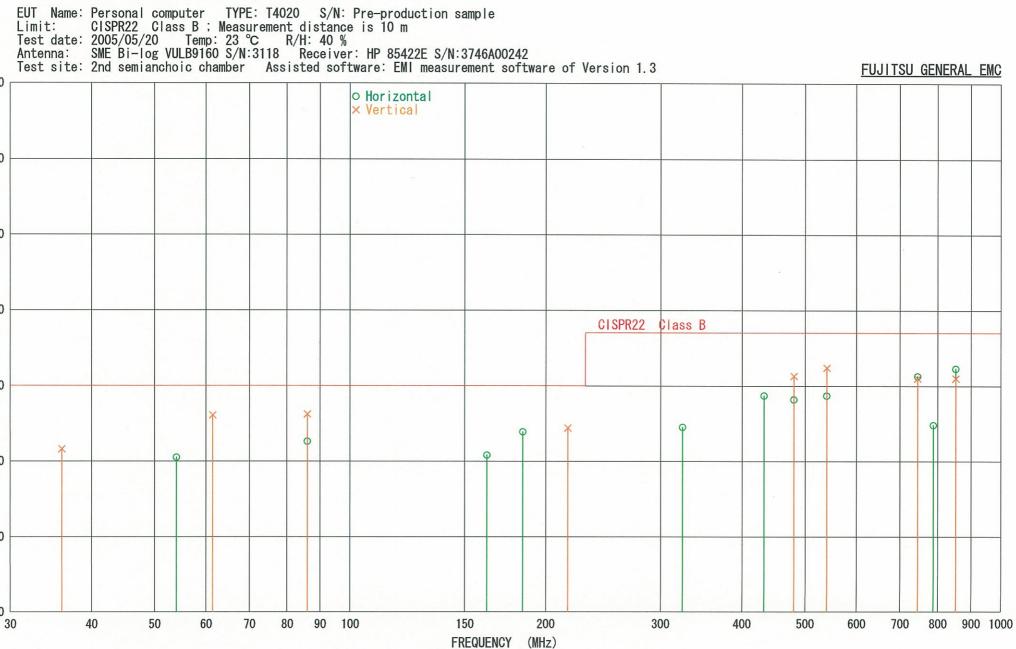
RADIATED EMISSION MEASUREMENT -- Quasi-Peak Mode --

No: #05-051E-RE (2 / 2)

50

NOISE LEVEL (dBuV/m)

10



RADIATED EMISSION MEASUREMENT (1GHz~12GHz)

EUT Name: Personal Computer Type: T4020 S/N: Pre-production sample

Limit : FCC Part-15 Class B ; Measurement distance is 3 m

Antenna : Schwarzbeck BBHA9120D S/N:136

Receiver: Spectrum analyzer: Advantest R3371A S/N:75060396

Test site: 2nd semi-anechoic chamber

| Freq. (GHz) | Pol. | Meter Reading (dBuV) | Corr. Factor (dB) | Noise Level (dBuV/m) | Limit Peak (dBuV | AV | Margin (dB) |
|----------------|------|----------------------------|-------------------------|----------------------------|------------------------|------|----------------|
| 1.0800 | Vert | 44.0 | -6.8 | 37.2 | 74.0 | 54.0 | 16.8 |
| 1.1900 | Vert | 47.0 | -6.2 | 40.8 | 74.0 | 54.0 | 13.2 |
| 1.2900 | Vert | 45.5 | -5.8 | 39.7 | 74.0 | 54.0 | 14.3 |
| 1.4000 | Vert | 45.0 | -5.2 | 39.8 | 74.0 | 54.0 | 14.2 |
| 1.5100 | Vert | 45.5 | -4.7 | 40.8 | 74.0 | 54.0 | 13.2 |
| 1.6200 | Vert | 51.8 | -3.5 | 48.3 | 74.0 | 54.0 | 5.7 |
| 1.7300 | Vert | 48.1 | -2.3 | 45.8 | 74.0 | 54.0 | 8.2 |
| 1.8300 | Vert | 50.4 | -1.2 | 49.1 | 74.0 | 54.0 | 4.9 |
| 1.9400 | Vert | 49.0 | -0.1 | 48.9 | 74.0 | 54.0 | 5.1 |
| 2.0490 | Vert | 41.7 | 0.3 | 42.0 | 74.0 | 54.0 | 12.0 |
| 2.1570 | Vert | 43.0 | -0.3 | 42.7 | 74.0 | 54.0 | 11,3 |
| 2.4800 | Vert | 47.0 | -2.2 | 44.8 | 74.0 | 54.0 | 9.2 |
| 2.5890 | Horz | 50.1 | -2.2 | 48.0 | 74.0 | 54.0 | 6.0 |
| 2,5890 | Vert | 52.1 | -2.2 | 50.0 | 74.0 | 54.0 | 4.0 |
| 2.6940 | Vert | 52.7 | -2.0 | 50.7 | 74.0 | 54.0 | 3,3 |
| 2.8030 | Vert | 44.5 | -1.8 | 42.7 | 74.0 | 54.0 | 11.3 |
| 3.1300 | Vert | 39.3 | -1. 7 | 37.6 | 74.0 | 54.0 | 16.4 |
| 3.6700 | Vert | 38.1 | -1.4 | 36.7 | 74.0 | 54.0 | 17.3 |
| 3.7800 | Vert | 40.6 | -1.0 | 39.6 | 74.0 | 54.0 | 14.4 |

The emissions above 3.7800 GHz were below -10 dB from limits.

* Corrected reading: = meter reading + corr. factor (= antenna factor + cable loss - preamp gain)

Tested by

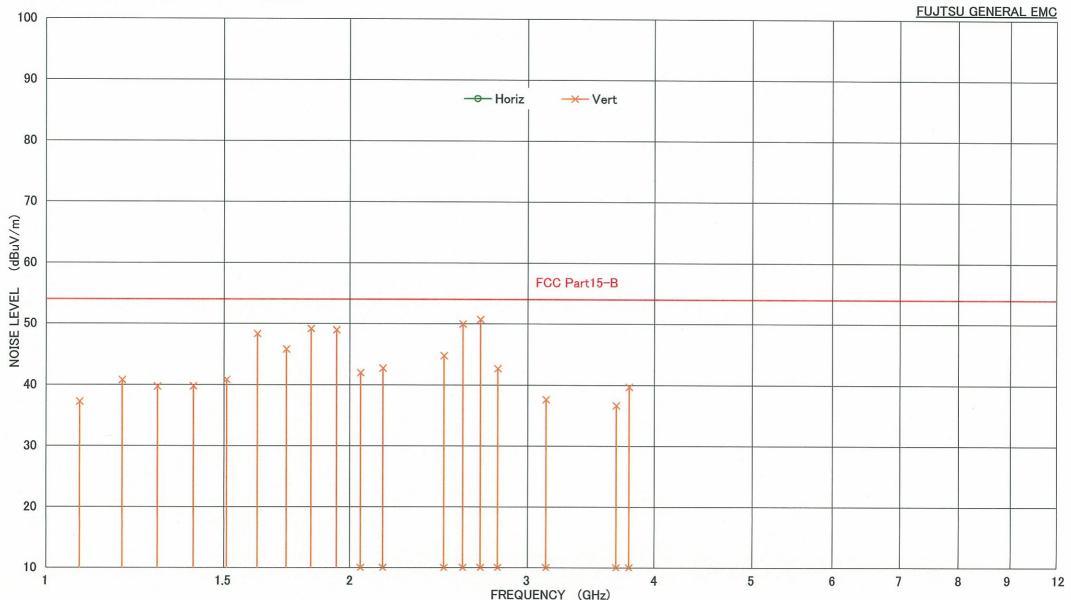
RADIATED EMISSION MEASUREMENT (1GHz - 12GHz)

EUT Name : Personal computer TYPE : T4020 S/N : Pre-production sample

LIMIT : FCC Part-15 class B ; Measurement distance is 3m Test date : 2005/05/16 Temp : 23 °C R/H : 35 %

Antenna : Schwarzbeck BBHA9120D S/N:136 Receiver : Advantest R3371A S/N:75060396

Test site: 2nd semianechoic chamber



No: #05-051E-GH (2/2)

No: #05-051E-CE1 (1/2)

POWER LINE CONDUCTED EMISSION MEASUREMENT — Quasi-Peak Mode --

Type: T4020 EUT Name: Personal computer

S/N: Pre-production sample
Limit: CISPR22 Class B Test voltage: 100 VAC, Single phase
Test date: 2005/05/20 Temp: 23 °C R/H: 40 %
AMN: Kyoritsu KNW-407 S/N:8-823-18 Receiver: HP 85422E S/N:3746A00242
Test site: 2nd semianchoic chamber

Assisted software: EMI measurement software of Version 1.3

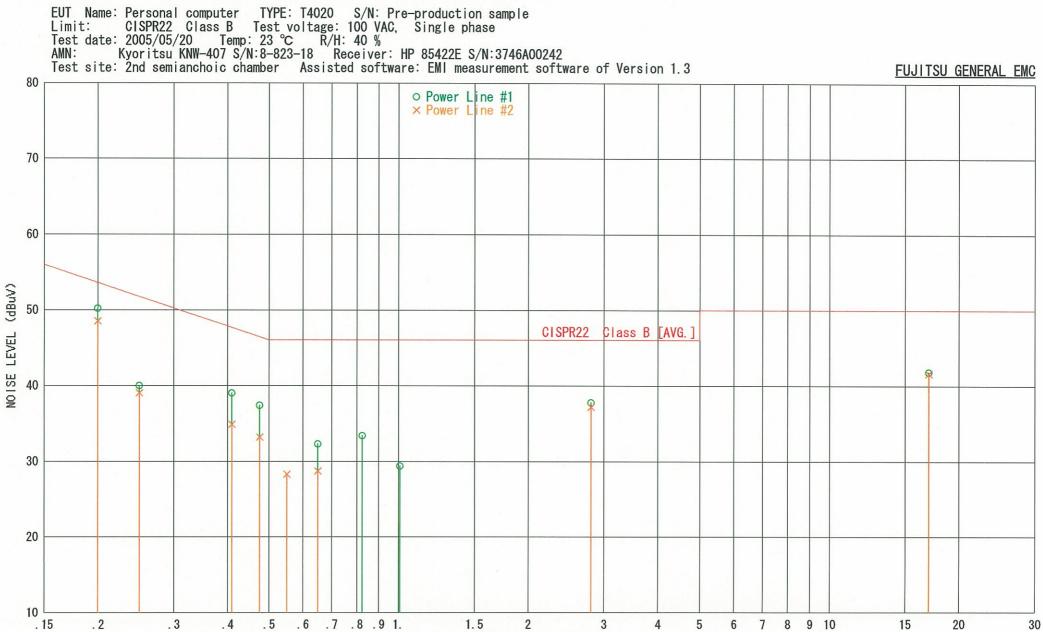
| | | Meter | Corr. | Noise | | |
|---|---|--|--|--|--|--|
| Freq. | Line | Reading | Factor | Level | Limit | Margin |
| (MHz) | | (dBuV) | (dB) | (dBuV) | (dBuV) | (dB) |
| 0. 2000 | # 1 | 43. 4 | 6. 8 | 50. 2 | 53. 6 | 3.4 |
| 0. 2000 | # 2 | 41.7 | 6.8 | 48. 5 | 53. 6 | 5. 1 |
| 0. 2500 | # 1 | 33. 4 | 6. 6 | 40. 0 | 51.8 | 11.8 |
| 0. 2500 | # 2 | 32. 4 | 6. 6 | 39. 0 | 51.8 | 12. 8 |
| 0. 4100 | # 1 | 32. 8 | 6. 2 | 39. 0 | 47. 7 | 8. 7 |
| 0. 4100 | # 2 | 28. 7 | 6. 2 | 34. 9 | 47. 7 | 12. 8 |
| 0. 4760 | # 1 | 31. 3 | 6. 1 | 37. 4 | 46. 4 | 9. 0 |
| 0. 4760 | # 2 | 27. 1 | 6. 1 | 33. 2 | 46. 4 | 13. 2 |
| 0. 5500 | # 2 | 22. 3 | 6. 0 | 28. 3 | 46.0 | 17. 7 |
| 0.6500 | # 1 | 26. 3 | 6. 0 | 32. 3 | 46.0 | 13. 7 |
| 0. 6500 | # 2 | 22. 7 | 6. 0 | 28. 7 | 46. 0 | 17. 3 |
| 0. 8250 | # 1 | 27. 3 | 6. 1 | 33. 4 | 46. 0 | 12.6 |
| 1.0090 | # 1 | 23. 3 | 6. 1 | 29. 4 | 46.0 | 16.6 |
| 2.8000 | # 1 | 31. 6 | 6. 2 | 37. 8 | 46. 0 | 8. 2 |
| 2. 8000 | # 2 | 31. 0 | 6. 2 | 37. 2 | 46. 0 | 8. 8 |
| 17. 0000 | # 1 | 35. 0 | 6.8 | 41. 8 | 50.0 | 8. 2 |
| 17. 0000 | # 2 | 34. 8 | 6. 8 | 41. 6 | 50. 0 | 8. 4 |
| 0. 4760 0. 4760 0. 5500 0. 6500 0. 6500 0. 8250 1. 0090 2. 8000 2. 8000 | # 1 2 2 # 1 2 1 1 1 1 2 1 # # # # # # # | 31. 3 27. 1 22. 3 26. 3 22. 7 27. 3 23. 3 31. 6 31. 0 35. 0 | 6. 1 6. 0 6. 0 6. 0 6. 1 6. 1 6. 2 6. 2 6. 8 | 37. 4 33. 2 28. 3 32. 3 28. 7 33. 4 29. 4 37. 8 37. 2 41. 8 | 46. 4 46. 0 46. 0 46. 0 46. 0 46. 0 46. 0 50. 0 | 9. 0 13. 2 17. 7 13. 7 17. 3 12. 6 16. 6 8. 2 8. 8 8. 2 |

The emissions above 17.0000 MHz were below - 20 dB from limits.

^{*} Corrected reading = meter reading + corr.factor (= AMN factor + 6-dB pad + cable loss)
* The limit of CISPR 22 is applied for FCC Part-15.
* Measurement uncertainty: \pm 2.5 dB (K = 2, 95 %)

POWER LINE CONDUCTED EMISSION MEASUREMENT -- Quasi-Peak Mode --

No: #05-051E-CE1 (2/2)



FREQUENCY (MHz)

No: #05-051E-CE2 (1 / 2)

POWER LINE CONDUCTED EMISSION MEASUREMENT -- Quasi-Peak Mode --

Type: T4020 EUT Name: Personal computer

S/N: Pre-production sample
Limit: CISPR22 Class B Test voltage: 100 VAC, Single phase
Test date: 2005/05/20 Temp: 23 °C R/H: 40 %
AMN: Kyoritsu KNW-407 S/N:8-823-18 Receiver: HP 85422E S/N:3746A00242
Test site: 2nd semianchoic chamber

Assisted software: EMI measurement software of Version 1.3

| | | Meter | Corr. | Noise | | |
|---------|------|---------|--------|--------|------------------|--------|
| Freq. | Line | Reading | Factor | Level | Limit | Margin |
| (MHz) | | (dBuV) | (dB) | (dBuV) | (dBuV) | (dB) |
| 0. 2000 | # 1 | 45. 4 | 6. 8 | 52. 2 | 63. 6 | 11. 4 |
| 0. 2000 | # 2 | 45. 8 | 6.8 | 52. 6 | 63. 6 | 11. 0 |
| 0. 2687 | # 1 | 40. 4 | 6. 6 | 47. 0 | 61.2 | 14. 2 |
| 0. 2687 | # 2 | 40. 9 | 6. 6 | 47. 5 | 61.2 | 13. 7 |
| 0. 3345 | # 2 | 36. 8 | 6.4 | 43. 2 | 59. 3 | 16. 1 |
| 0. 4000 | # 1 | 37. 0 | 6. 3 | 43. 3 | 57. 9 | 14. 6 |
| 0. 4000 | # 2 | 36. 8 | 6. 3 | 43. 1 | 57. 9 | 14. 8 |
| 0. 4680 | # 1 | 34. 5 | 6. 1 | 40. 6 | 56. 6 | 16.0 |
| 0. 4680 | # 2 | 34. 9 | 6. 1 | 41. 0 | 56. 6 | 15. 6 |
| 0. 5360 | # 1 | 35. 6 | 6. 0 | 41. 6 | 56. 0 | 14. 4 |
| 0. 5360 | # 2 | 35. 6 | 6. 0 | 41. 6 | 56. 0 | 14. 4 |
| 0.6000 | # 1 | 35. 0 | 6. 0 | 41. 0 | 56. 0 | 15. 0 |
| 0.6000 | # 2 | 34. 7 | 6. 0 | 40. 7 | 56. 0 | 15. 3 |
| 0. 6700 | # 1 | 37. 2 | 6. 0 | 43. 2 | 56.0 | 12. 8 |
| 0. 6700 | # 2 | 36. 5 | 6. 0 | 42. 5 | 56.0 | 13. 5 |
| 0. 7350 | # 2 | 32. 7 | 6. 0 | 38. 7 | 56. 0 | 17. 3 |
| 0.8000 | # 1 | 35. 2 | 6. 1 | 41.3 | 56. 0 | 14. 7 |
| 0.8000 | # 2 | 34. 9 | 6. 1 | 41.0 | 56.0 | 15. 0 |
| 8. 3600 | # 1 | 32. 7 | 6. 4 | 39. 1 | 60. 0 | 20. 9 |

The emissions above 8.3600 MHz were below - 20 dB from limits.

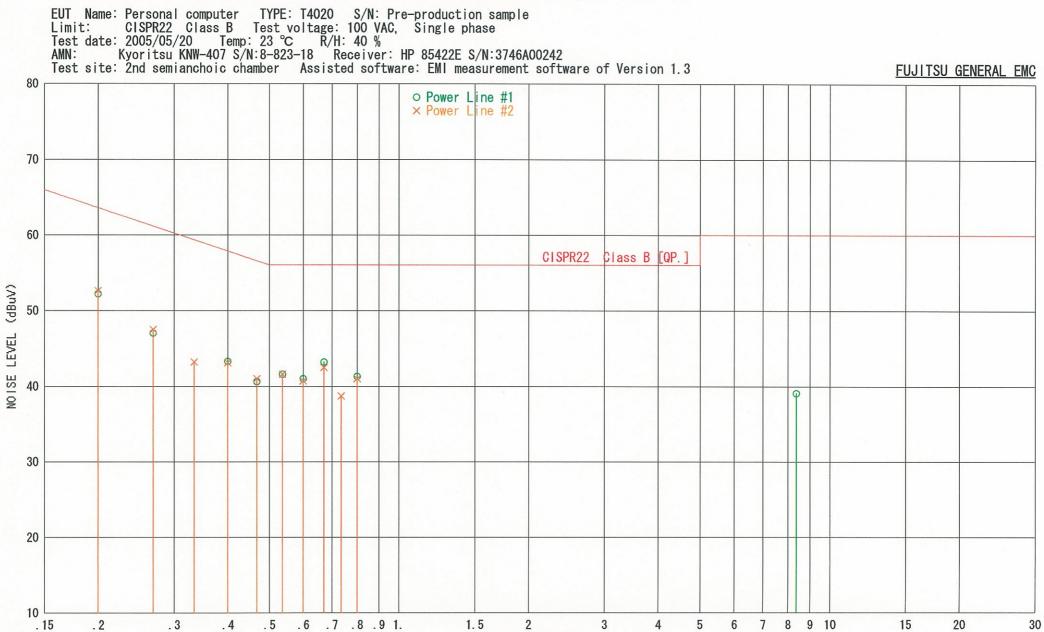
^{*} Corrected reading = meter reading + corr.factor(= AMN factor + 6-dB pad + cable loss)

* The limit of CISPR 22 is applied for FCC Part-15.

* Measurement uncertainty: ± 2.5 dB (K = 2, 95 %)

POWER LINE CONDUCTED EMISSION MEASUREMENT -- Quasi-Peak Mode --

No: #05-051E-CE2 (2/2)



FREQUENCY (MHz)

No: #05-051E-CE3 (1 / 2)

POWER LINE CONDUCTED EMISSION MEASUREMENT — AV Mode —

EUT Name: Personal computer Type: T4020 S/N: Pre-production sample
Limit: CISPR22 Class B Test voltage: 100 VAC, Single phase
Test date: 2005/05/20 Temp: 23 °C R/H: 40 %
AMN: Kyoritsu KNW-407 S/N:8-823-18 Receiver: HP 85422E S/N:3746A00242
Test site: 2nd semianchoic chamber
Assisted software: EMI measurement software of Version 1.3

| | | Meter | Corr. | Noise | | |
|---------|------|---------|--------|--------|--------|--------|
| Freq. | Line | Reading | Factor | Level | Limit | Margin |
| (MHz) | | (dBuV) | (dB) | (dBuV) | (dBuV) | (dB) |
| 0. 2000 | # 1 | 35. 8 | 6.8 | 42. 6 | 53. 6 | 11.0 |
| 0. 2000 | # 2 | 35. 9 | 6. 8 | 42. 7 | 53. 6 | 10. 9 |
| 0. 2687 | # 1 | 34. 1 | 6. 6 | 40. 7 | 51.2 | 10. 5 |
| 0. 2687 | # 2 | 34. 4 | 6. 6 | 41. 0 | 51. 2 | 10. 2 |
| 0. 3345 | # 2 | 30. 9 | 6. 4 | 37. 3 | 49.3 | 12. 0 |
| 0. 4000 | # 1 | 33. 9 | 6. 3 | 40. 2 | 47. 9 | 7. 7 |
| 0. 4000 | # 2 | 33. 6 | 6. 3 | 39. 9 | 47. 9 | 8. 0 |
| 0. 4680 | # 1 | 29. 1 | 6. 1 | 35. 2 | 46. 6 | 11. 4 |
| 0.4680 | # 2 | 29. 6 | 6. 1 | 35. 7 | 46.6 | 10. 9 |
| 0. 5360 | # 1 | 33. 0 | 6. 0 | 39. 0 | 46. 0 | 7. 0 |
| 0. 5360 | # 2 | 32. 3 | 6. 0 | 38. 3 | 46. 0 | 7. 7 |
| 0.6000 | # 1 | 28. 7 | 6. 0 | 34. 7 | 46. 0 | 11. 3 |
| 0.6000 | # 2 | 29. 1 | 6. 0 | 35. 1 | 46. 0 | 10. 9 |
| 0.6700 | # 1 | 32. 4 | 6. 0 | 38. 4 | 46. 0 | 7. 6 |
| 0.6700 | # 2 | 30. 8 | 6. 0 | 36. 8 | 46. 0 | 9. 2 |
| 0. 7325 | # 2 | 26. 8 | 6. 0 | 32. 8 | 46. 0 | 13. 2 |
| 0.8025 | # 1 | 30. 1 | 6. 1 | 36. 2 | 46. 0 | 9.8 |
| 0.8025 | # 2 | 29. 6 | 6. 1 | 35. 7 | 46.0 | 10. 3 |
| 8. 3637 | # 1 | 21. 3 | 6. 4 | 27. 7 | 50.0 | 22. 3 |

The emissions above 8.3637 MHz were below - 20 dB from limits.

^{*} Corrected reading = meter reading + corr.factor(= AMN factor + 6-dB pad + cable loss)
* The limit of CISPR 22 is applied for FCC Part-15.
* Measurement uncertainty: \pm 2.5 dB (K = 2, 95 %)

POWER LINE CONDUCTED EMISSION MEASUREMENT -- AV Mode --

No: #05-051E-CE3 (2/2)

EUT Name: Personal computer TYPE: T4020 S/N: Pre-production sample Limit: CISPR22 Class B Test voltage: 100 VAC, Single phase Test date: 2005/05/20 Temp: 23 °C R/H: 40 %

