

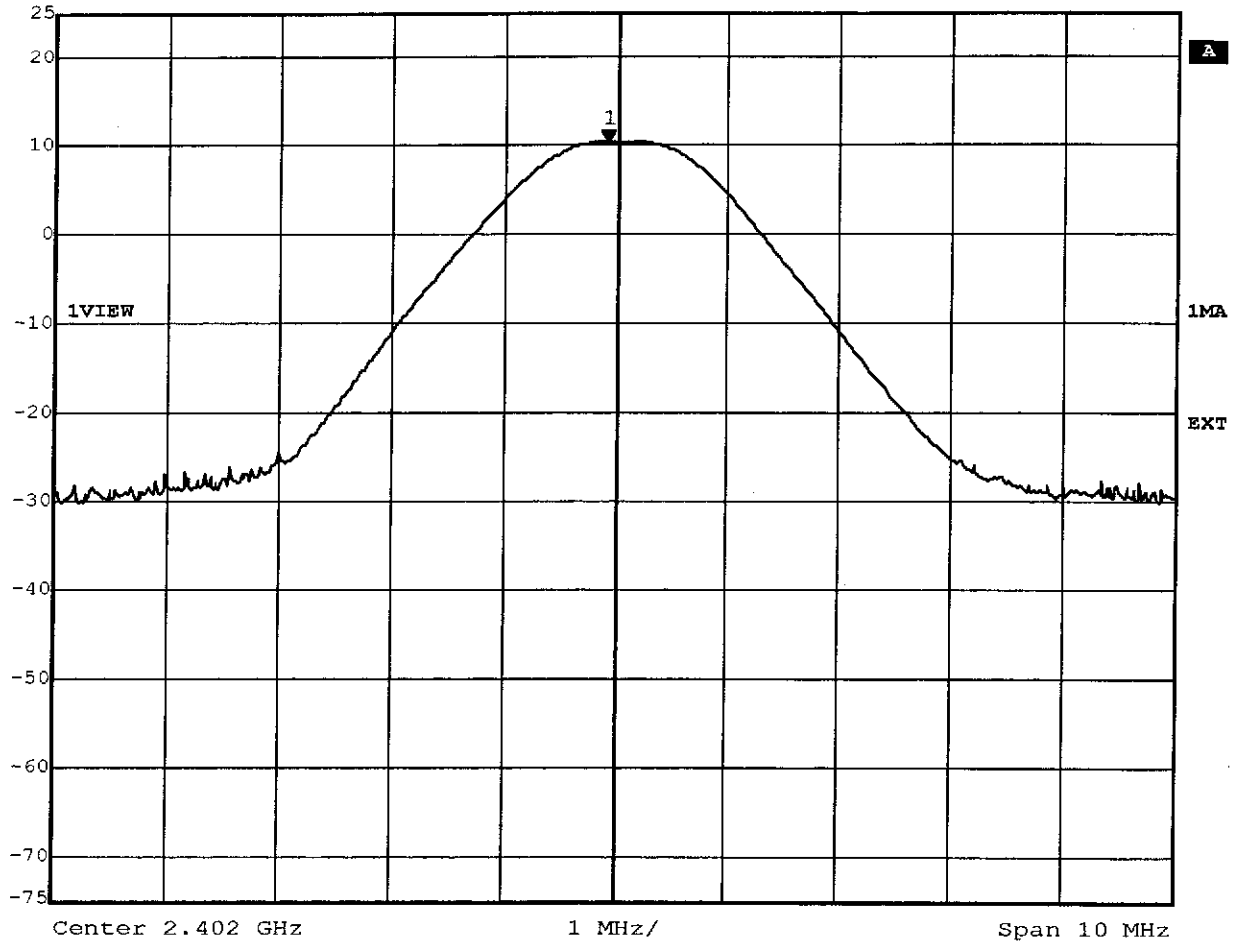


Appendix B

Peak Output Power



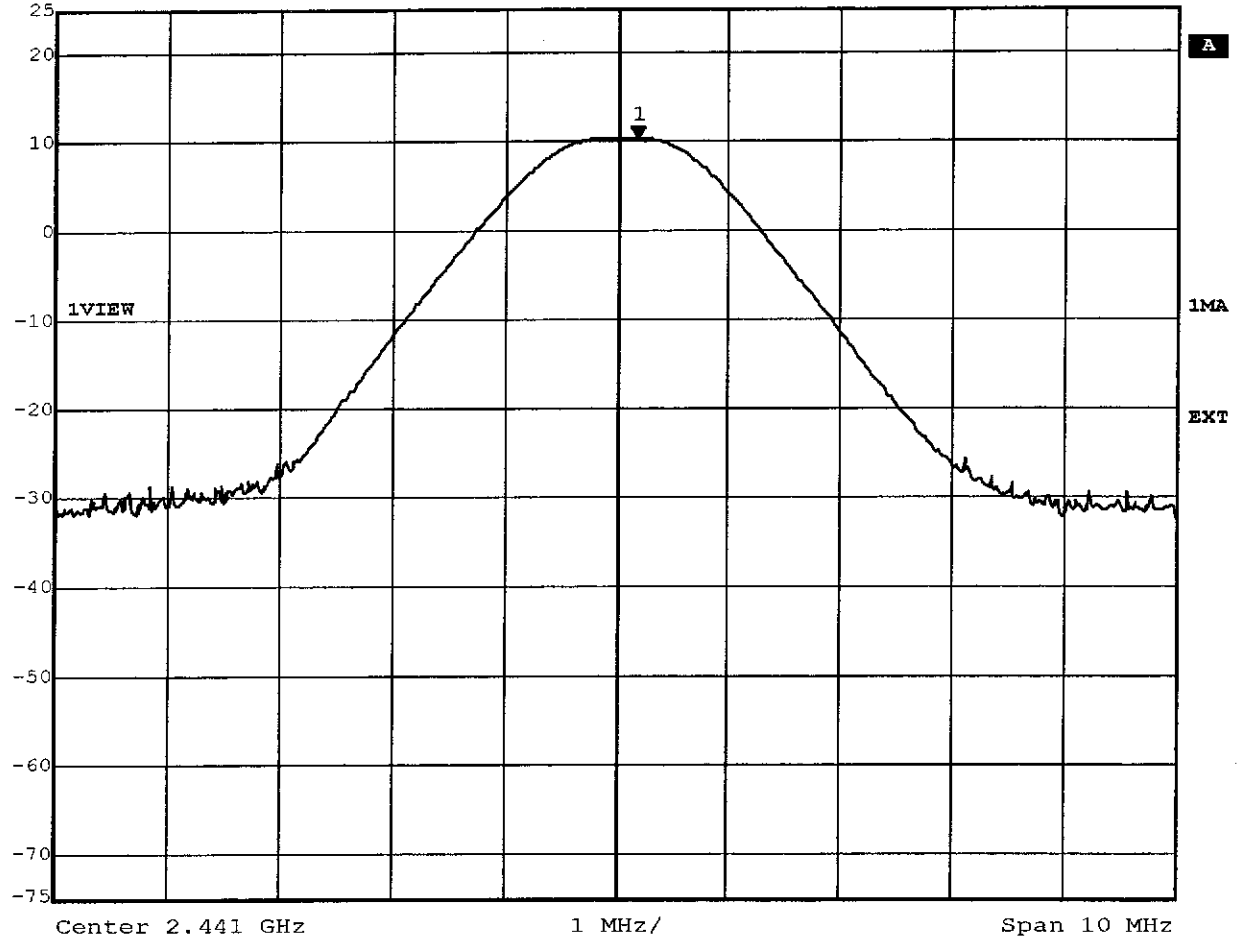
Marker 1 [T1]	RBW	1 MHz	RF Att	50 dB
10.12 dBm	VBW	1 MHz		
2.40192986 GHz	SWT	5 ms	Unit	dBm
25 dBm				



Title: Peak Output Power conducted Ch.: 0
Comment A: Alps Bluetooth Module UGP21
Date: 11.JUN.2002 07:45:41



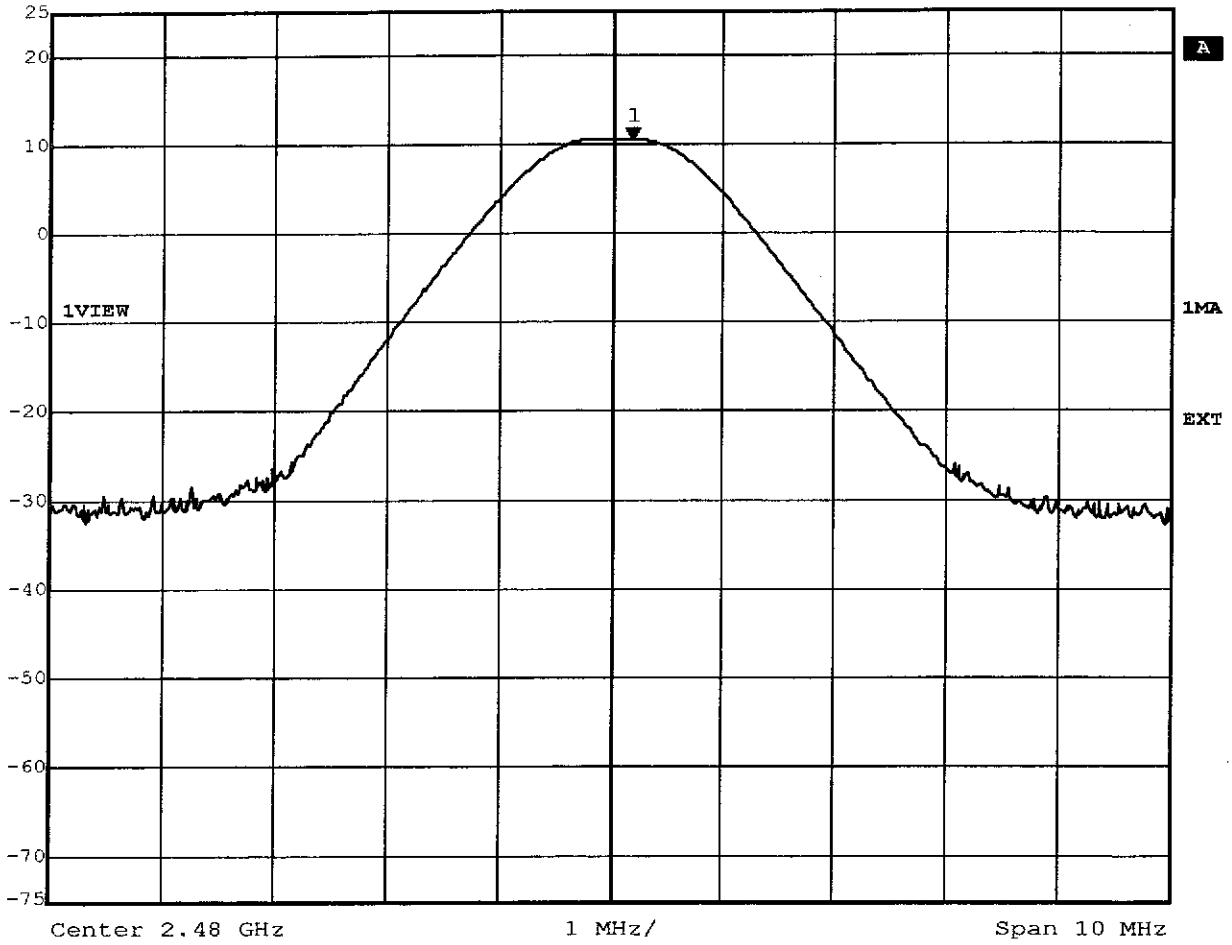
Ref Lvl	25 dBm	Marker 1 [T1]	10.14 dBm	RBW	1 MHz	RF Att	50 dB
			2.44119038 GHz	VBW	1 MHz	Unit	dBm
				SWT	5 ms		



Title: Peak Output Power conducted Ch.: 39
Comment A: Alps Bluetooth Module UGPZ1
Date: 11.JUN.2002 07:47:33



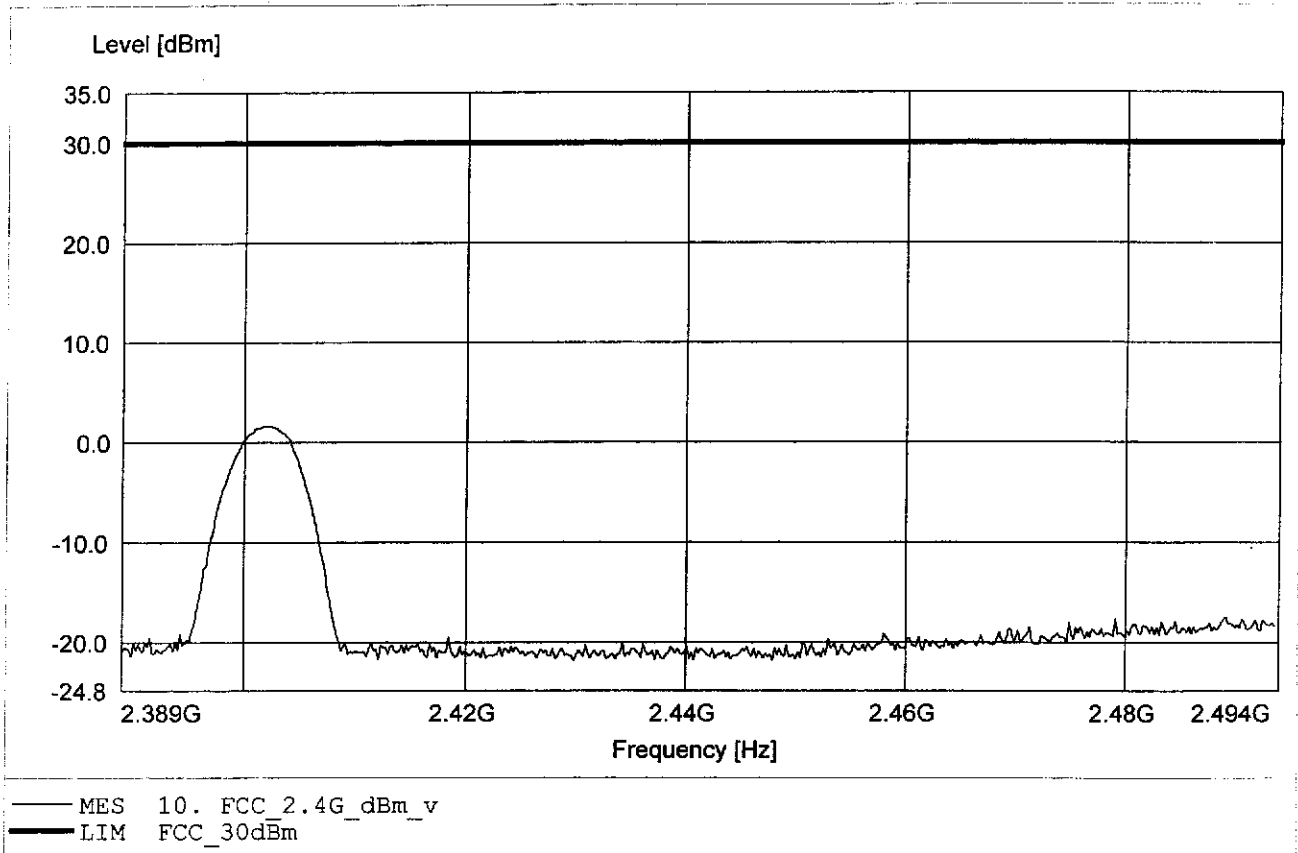
Marker 1 [T1]	RBW	1 MHz	RF Att	50 dB
10.44 dBm	VBW	1 MHz		
2.48019038 GHz	SWT	5 ms	Unit	dBm



Title: Peak Output Power conducted Ch.: 78
Comment A: Alps Bluetooth Module UGPZ1
Date: 11.JUN.2002 07:48:53

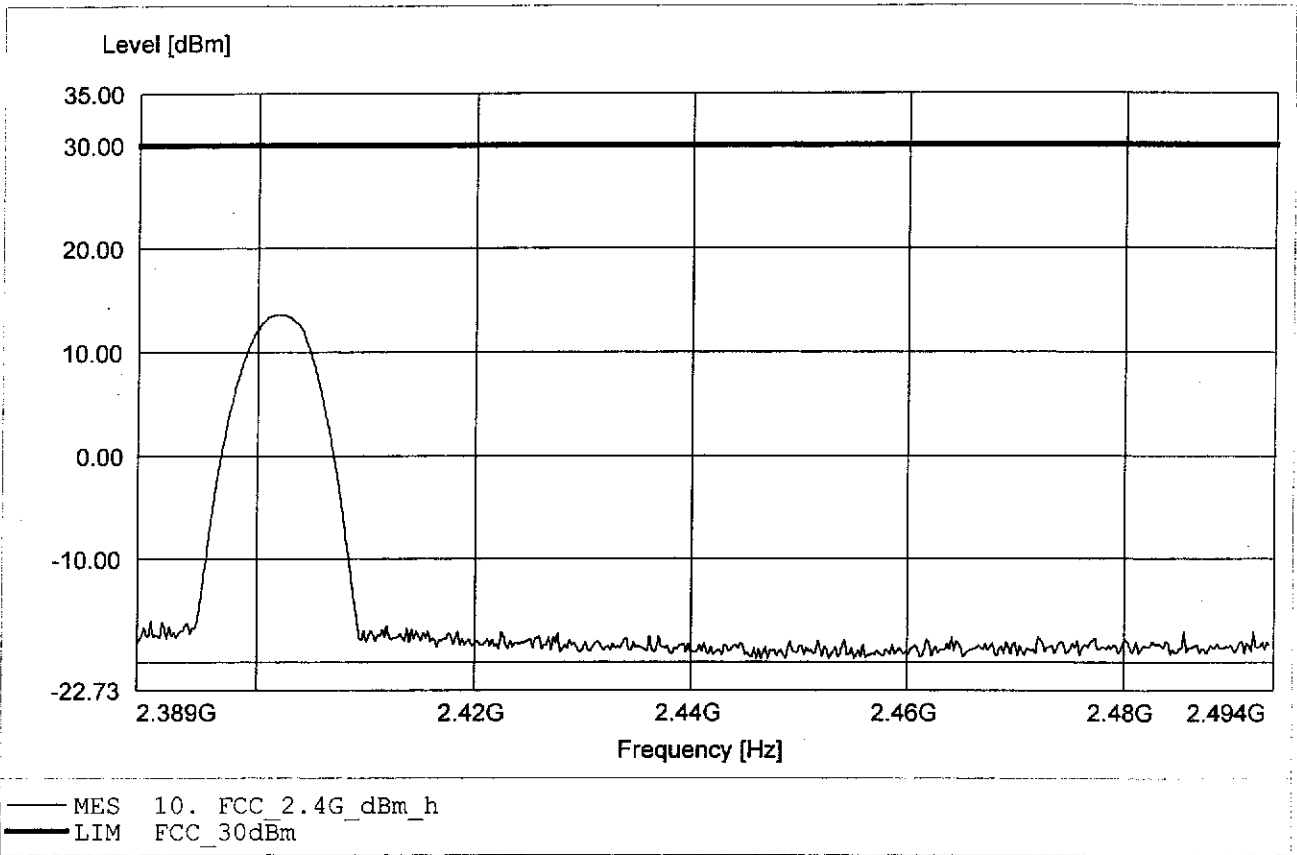
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.402GHz, Pmax: 1.63dBm, RBW: 5MHz



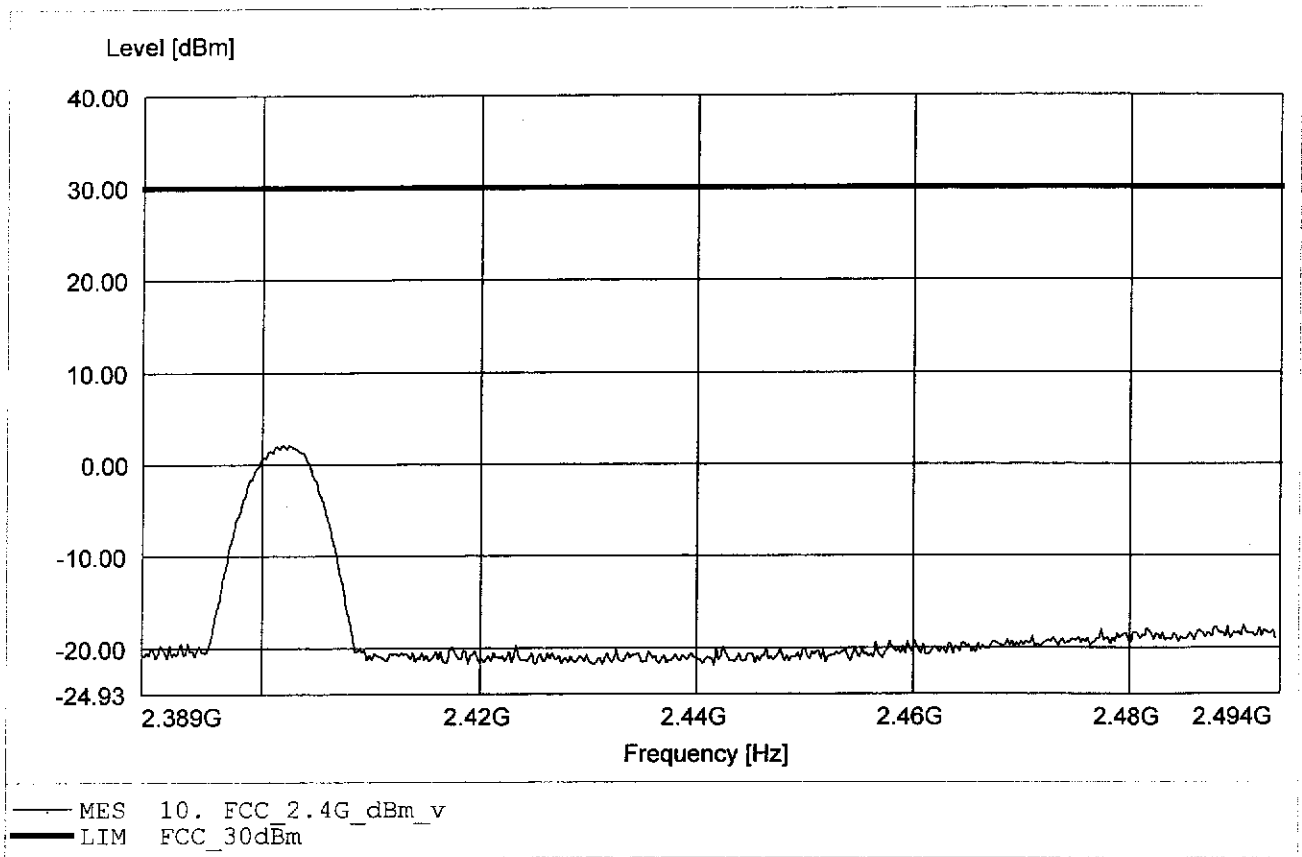
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.402GHz, Pmax: 13.59dBm, RBW: 5MHz



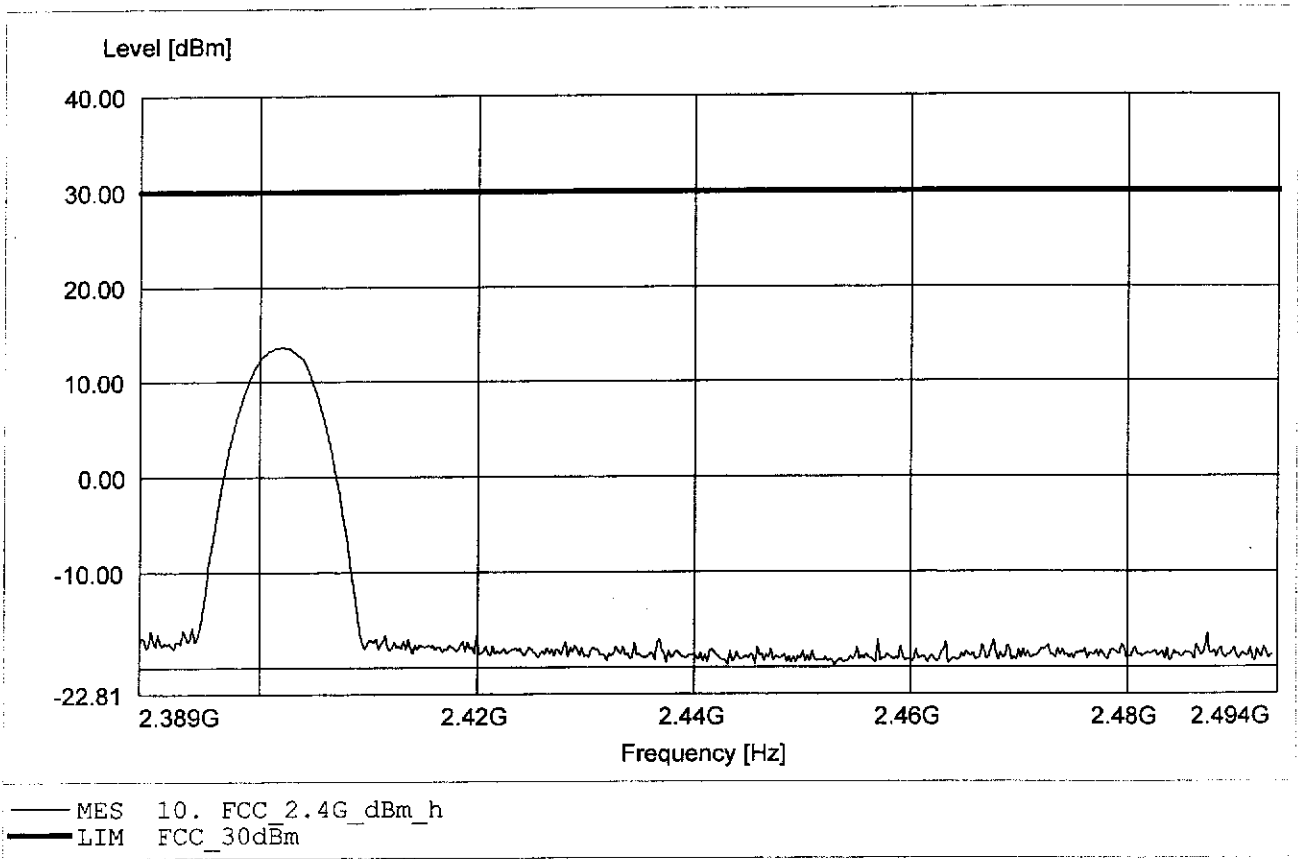
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umin: 3.6 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.402GHz, Pmax: 2.07dBm, RBW: 5MHz



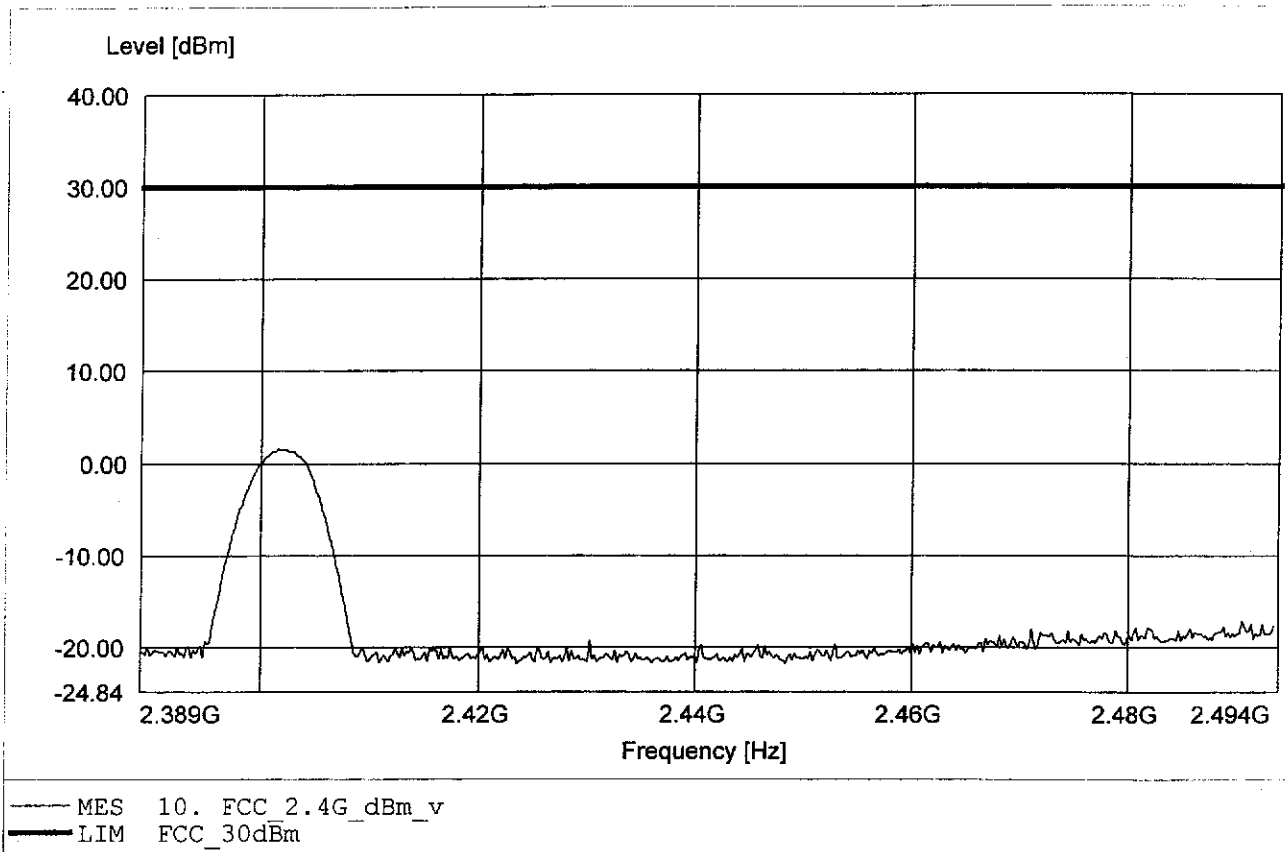
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umin: 3.6 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.402GHz, Pmax: 13.70dBm, RBW: 5MHz



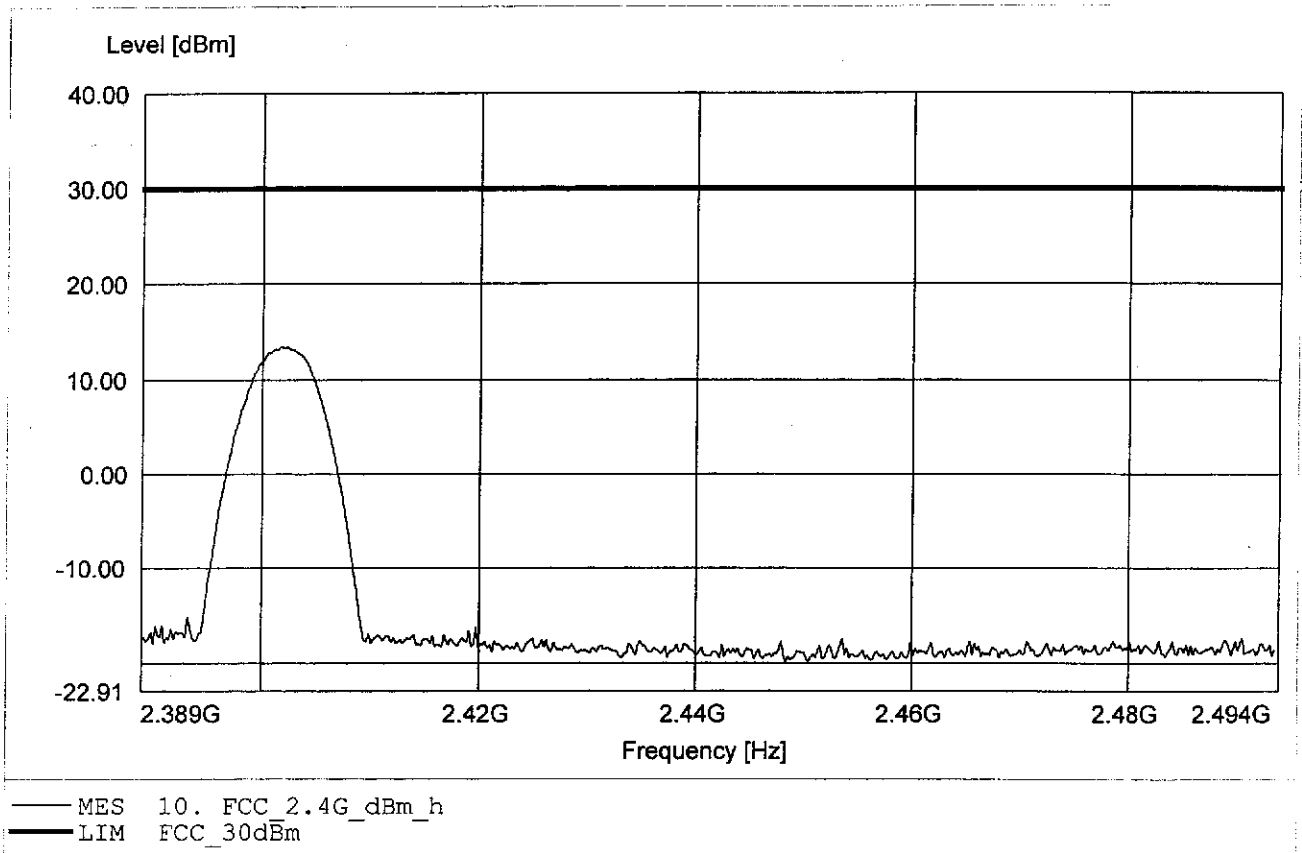
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umax: 5.2 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.402GHz, Pmax: 1.63dBm, RBW: 5MHz



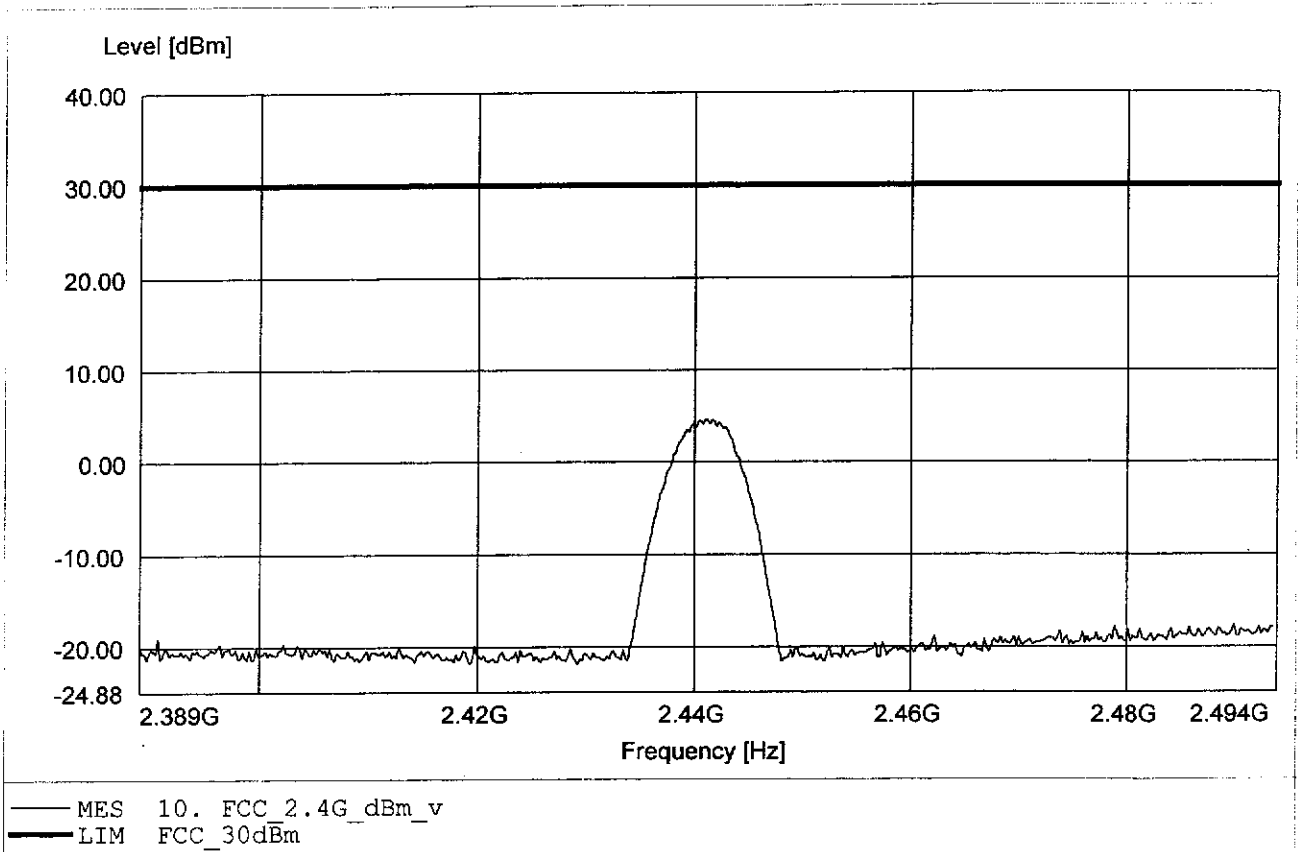
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umax: 5.2 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.402GHz, Pmax: 13.44dBm, RBW: 5MHz



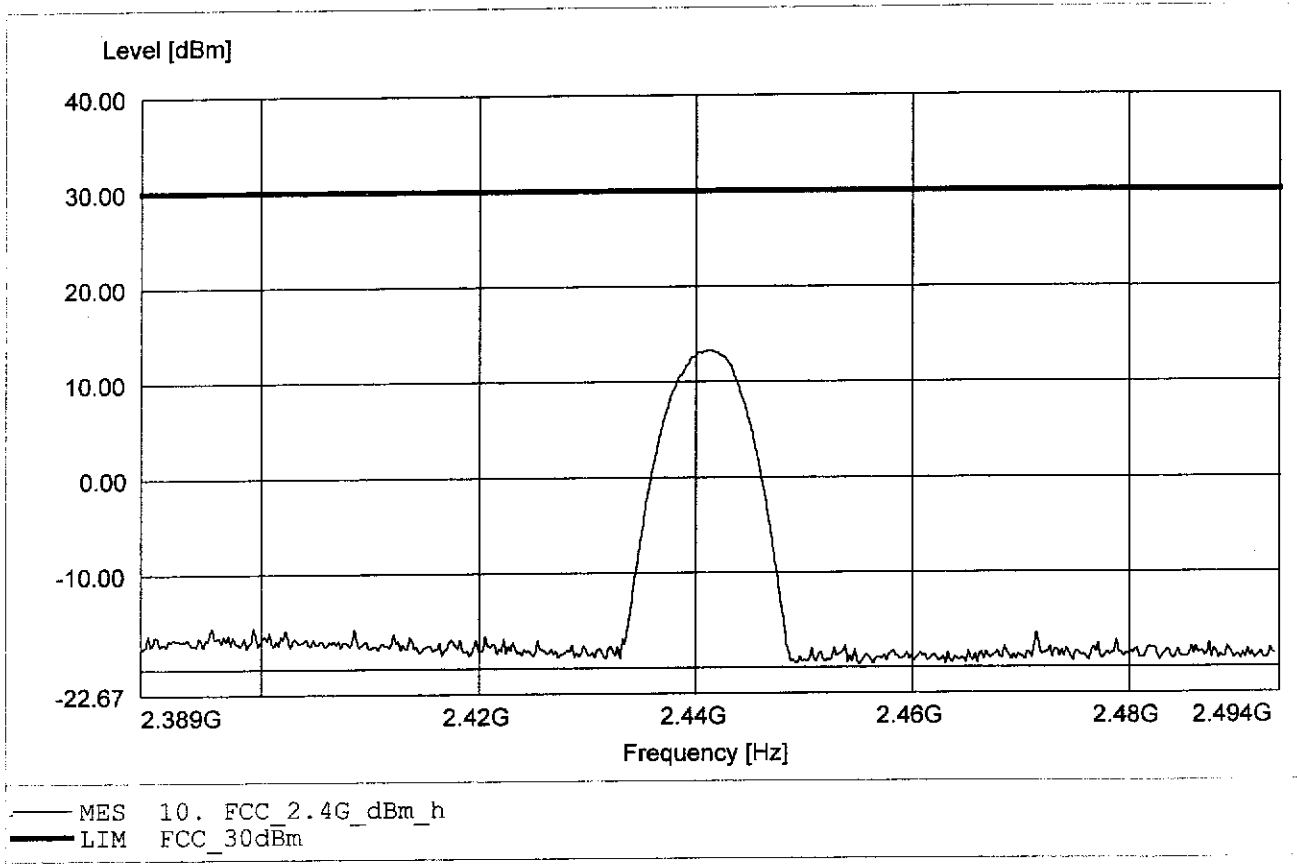
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.441GHz, Pmax: 4.62dBm, RBW: 5MHz



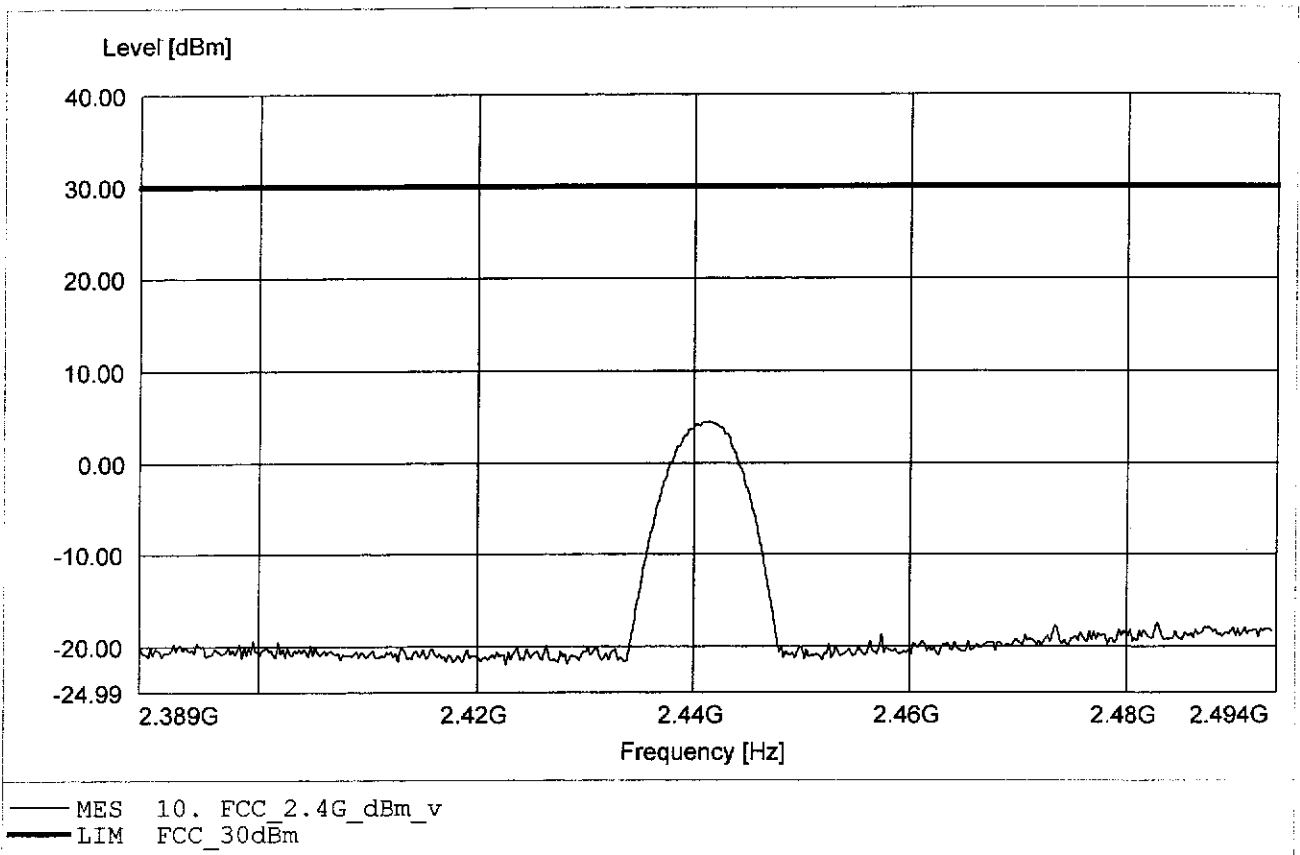
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Thom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.441GHz, Pmax: 13.23dBm, RBW: 5MHz



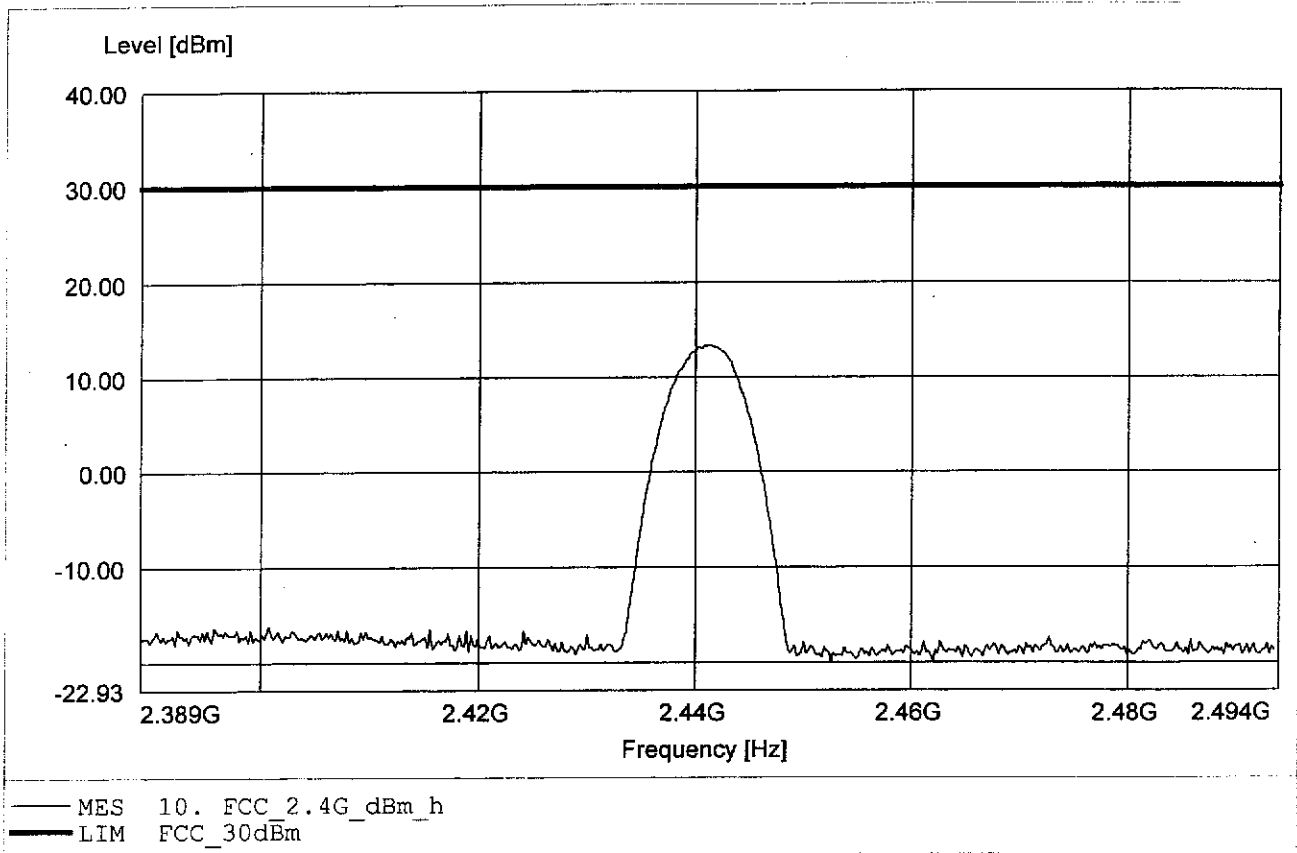
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umin: 3.6 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.441GHz, Pmax: 4.50dBm, RBW: 5MHz



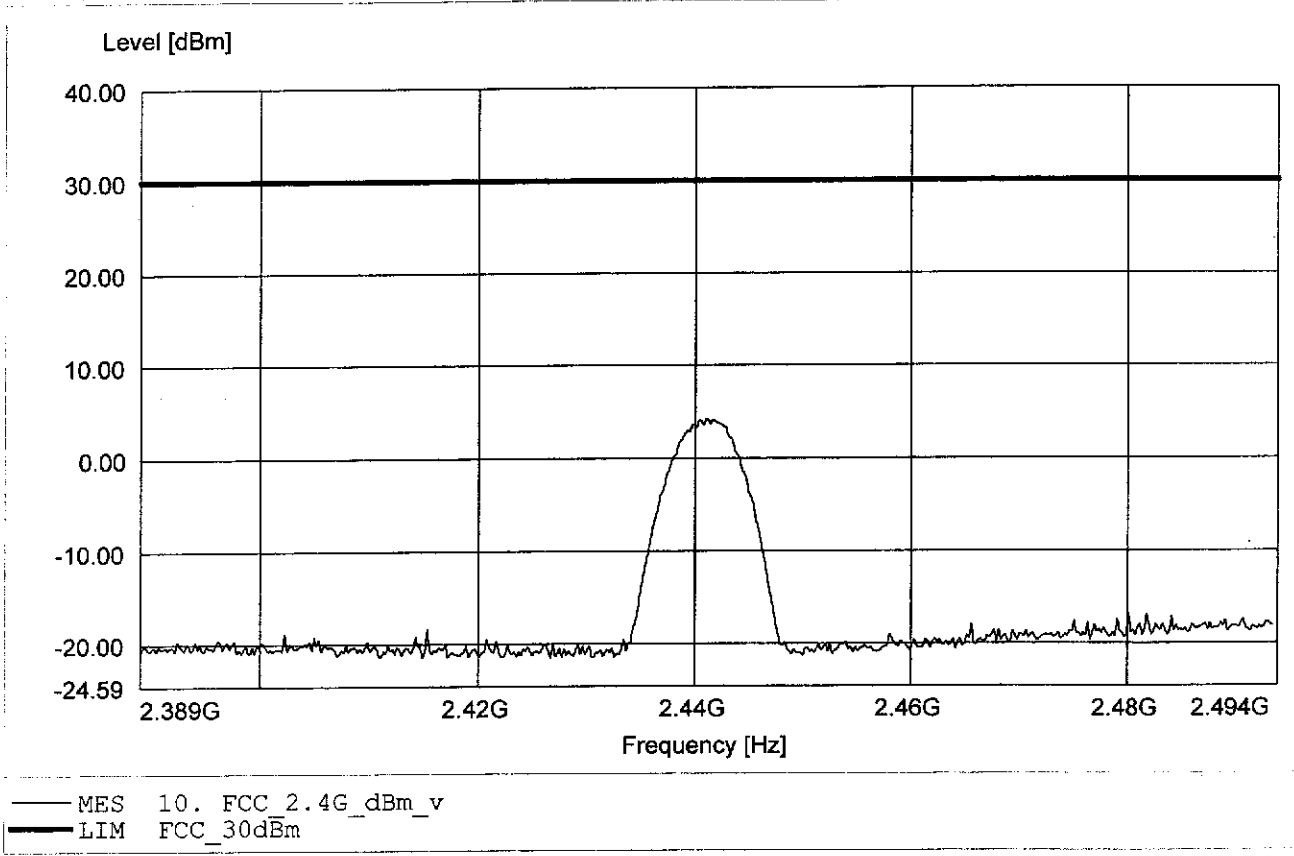
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umin: 3.6 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.441GHz, Pmax: 13.37dBm, RBW: 5MHz



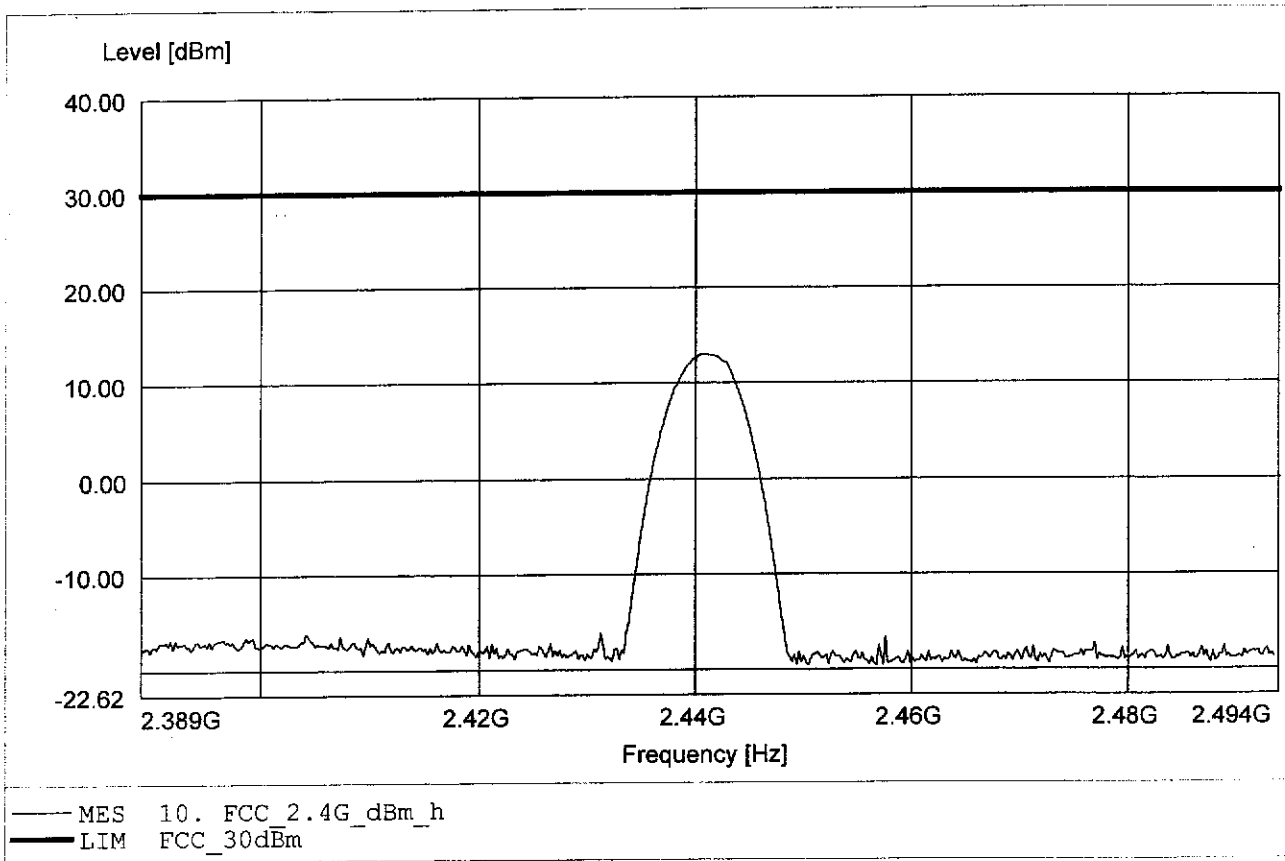
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT: Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umax: 5.2 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.441GHz, Pmax: 4.20dBm, RBW: 5MHz



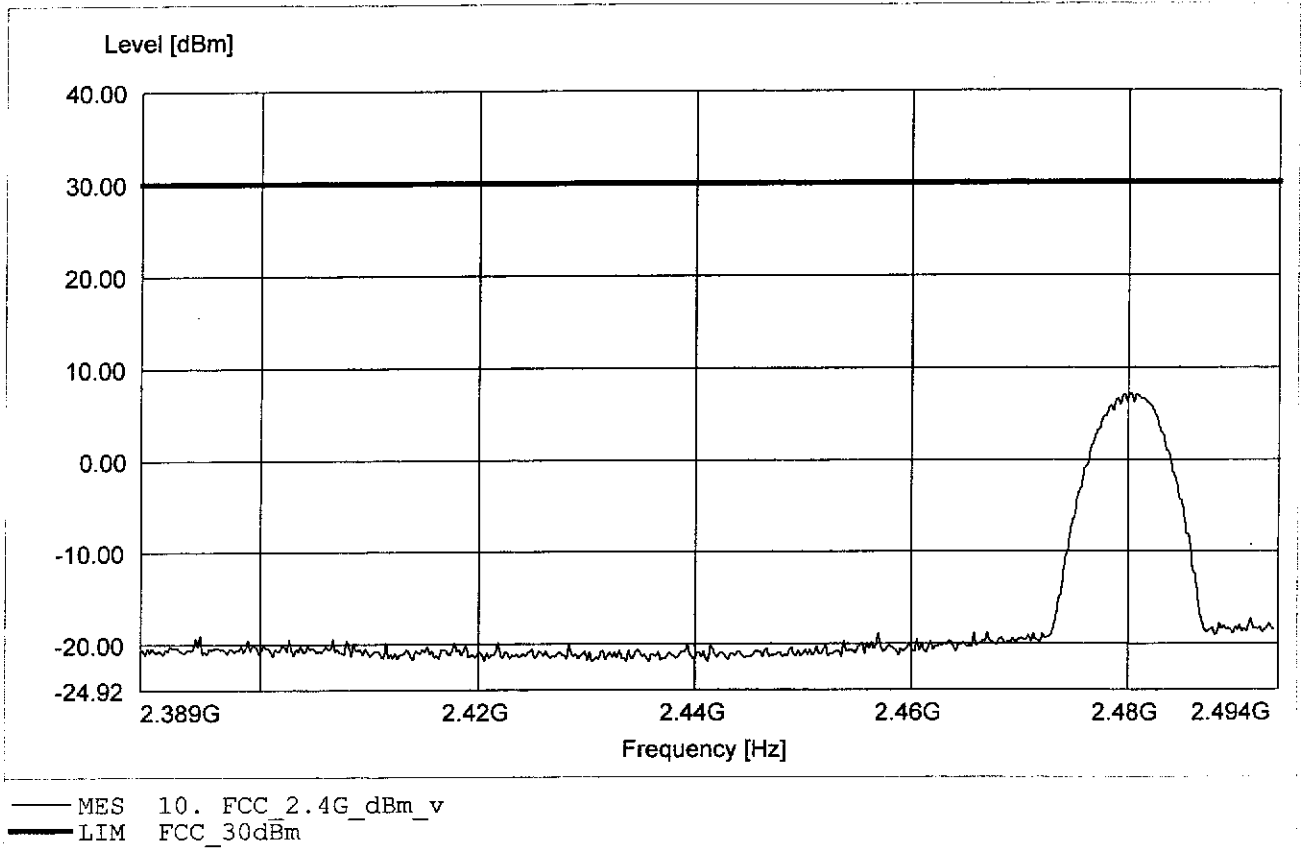
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umax: 5.2 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.441GHz, Pmax: 12.98dBm, RBW: 5MHz



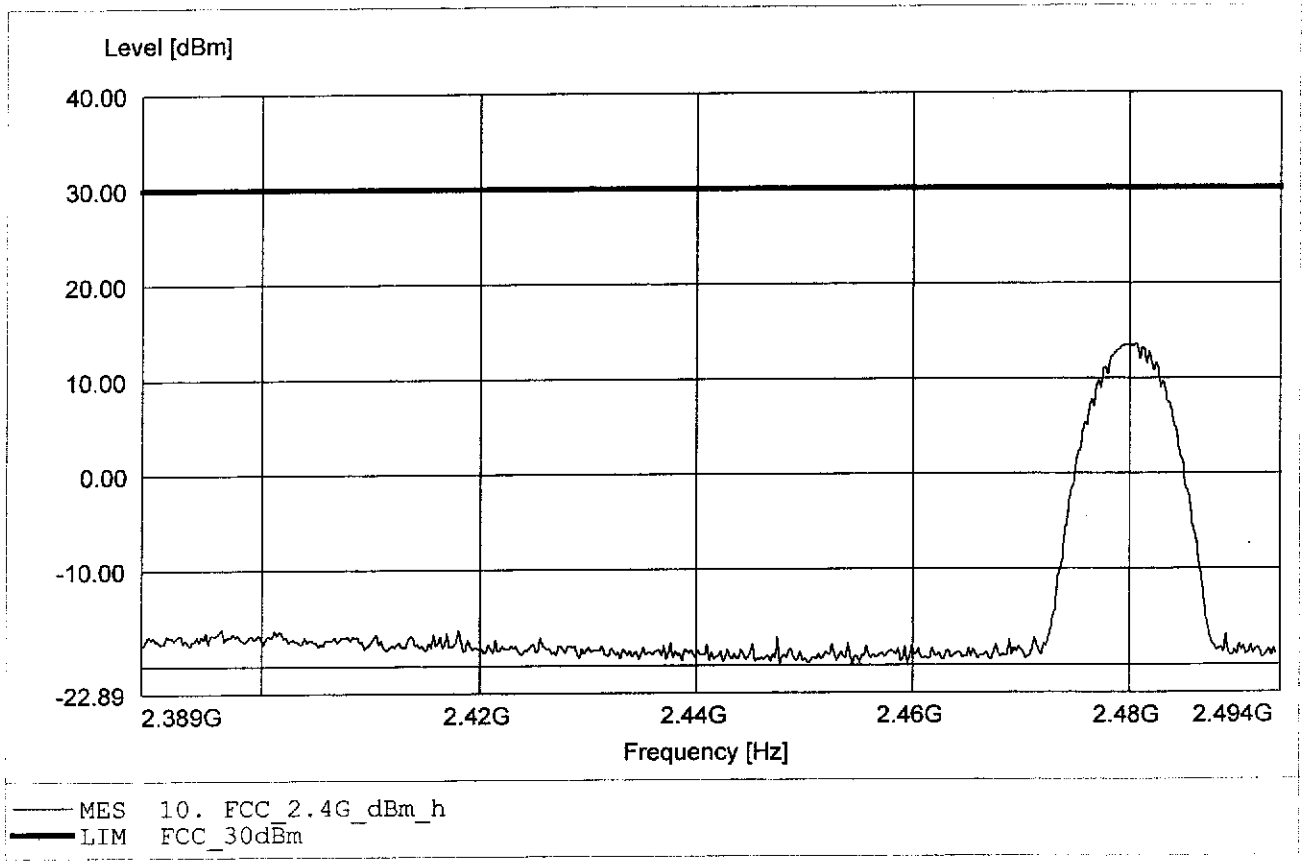
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.480GHz, Pmax: 7.20dBm, RBW: 5MHz



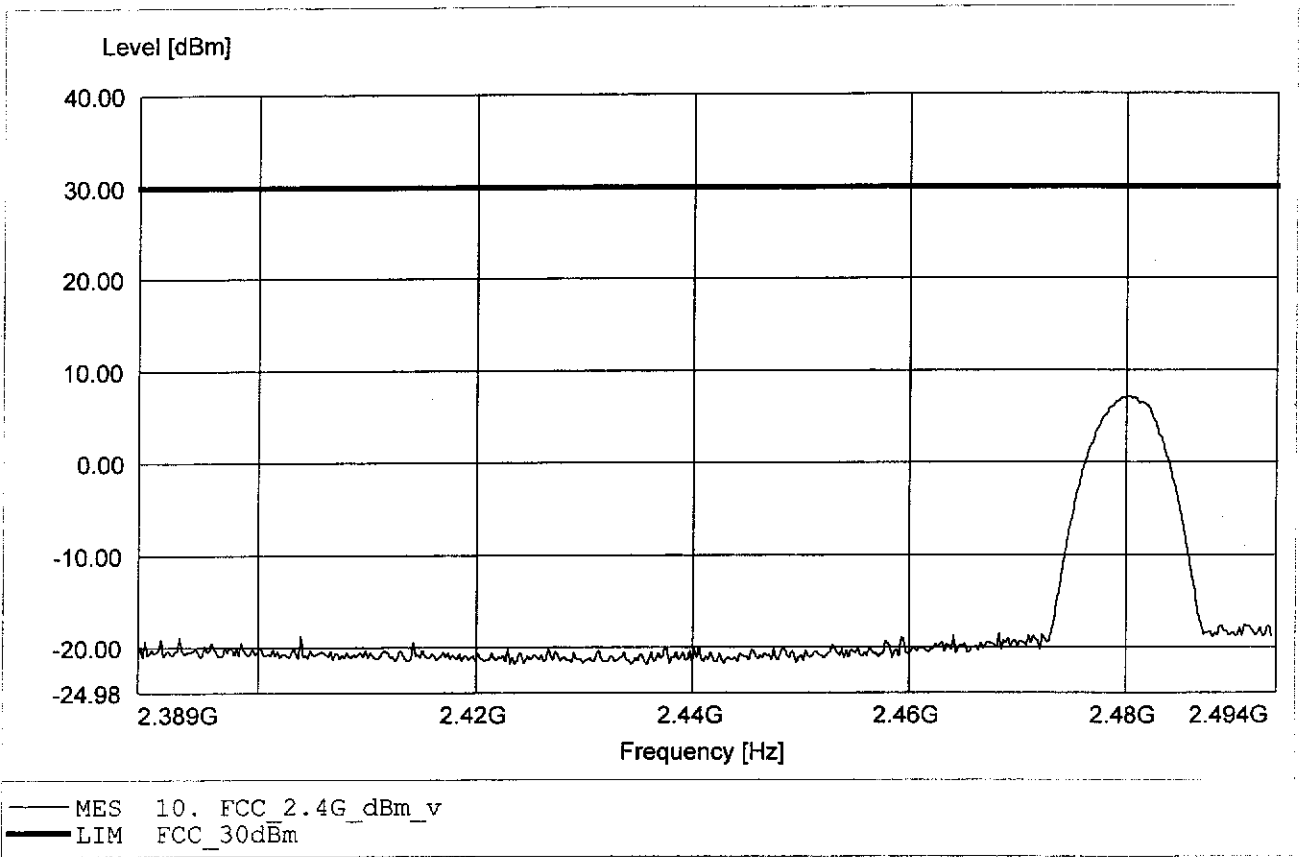
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.481GHz, Pmax: 13.56dBm, RBW: 5MHz



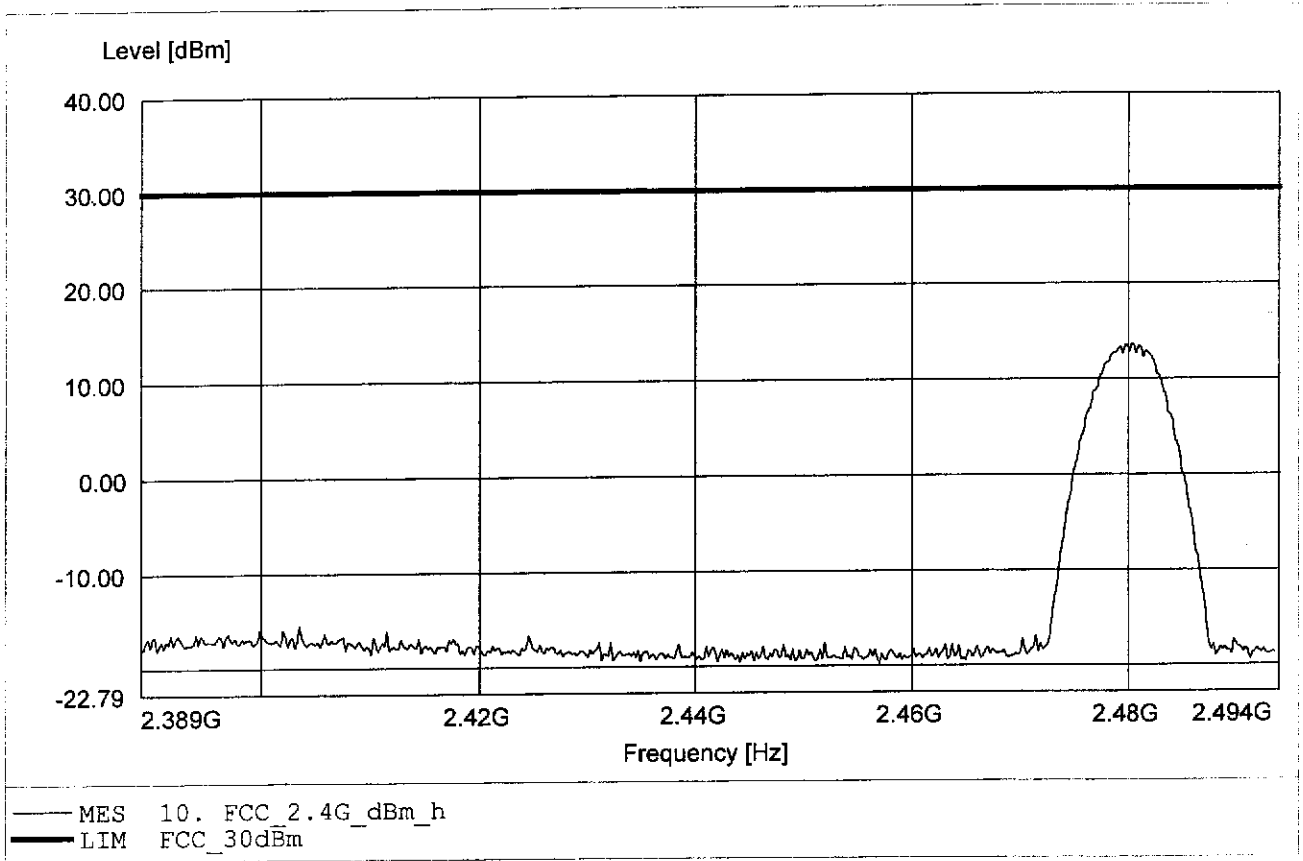
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umin: 3.6 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.480GHz, Pmax: 7.14dBm, RBW: 5MHz



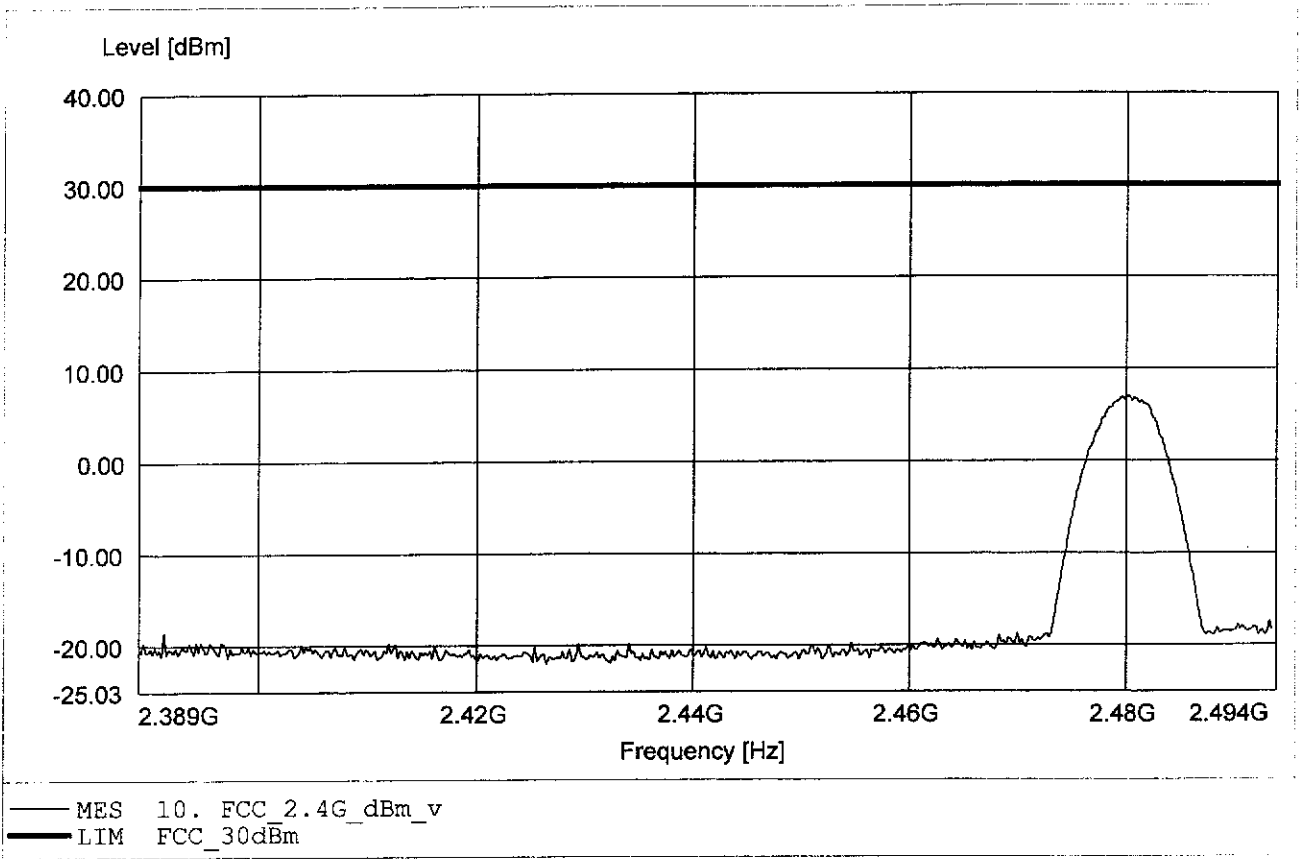
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umin: 3.6 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.480GHz, Pmax: 13.63dBm, RBW: 5MHz



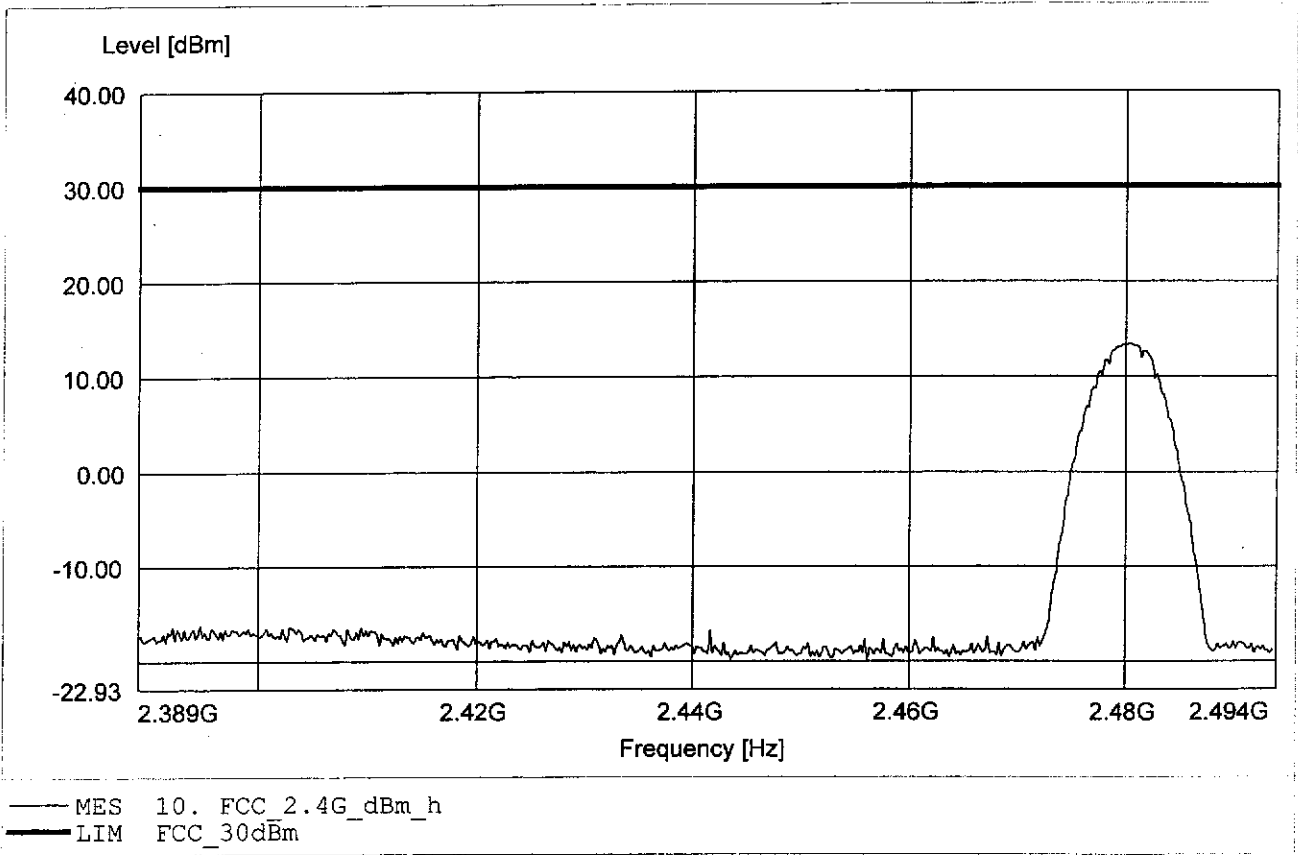
Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGP21
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umax: 5.2 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.480GHz, Pmax: 7.01dBm, RBW: 5MHz



Carrier power (dBm)
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Umax: 5.2 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: BBHA9120D
Comment 2: Freq: 2.480GHz, Pmax: 13.39dBm, RBW: 5MHz



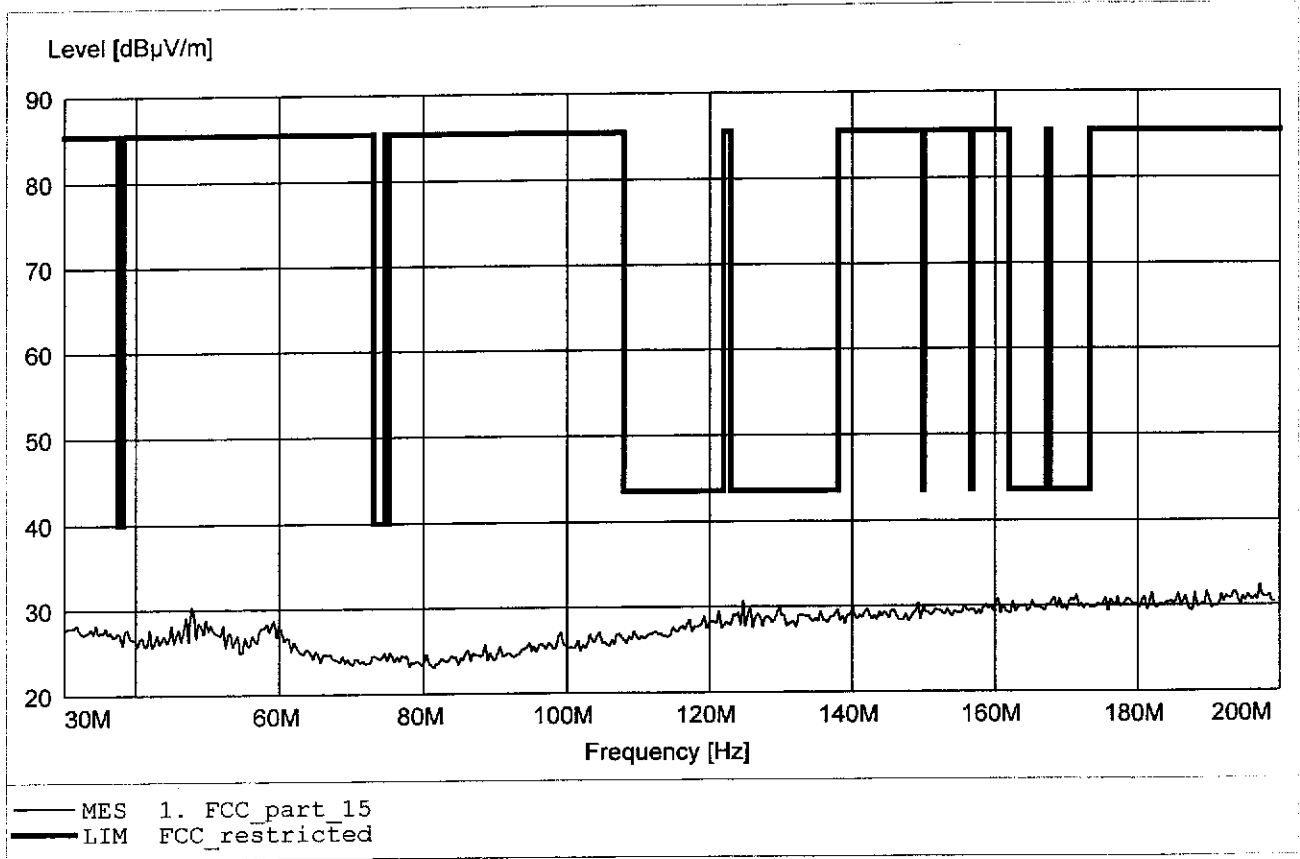


Appendix C

Spurious Emissions radiated - Transmitter operating

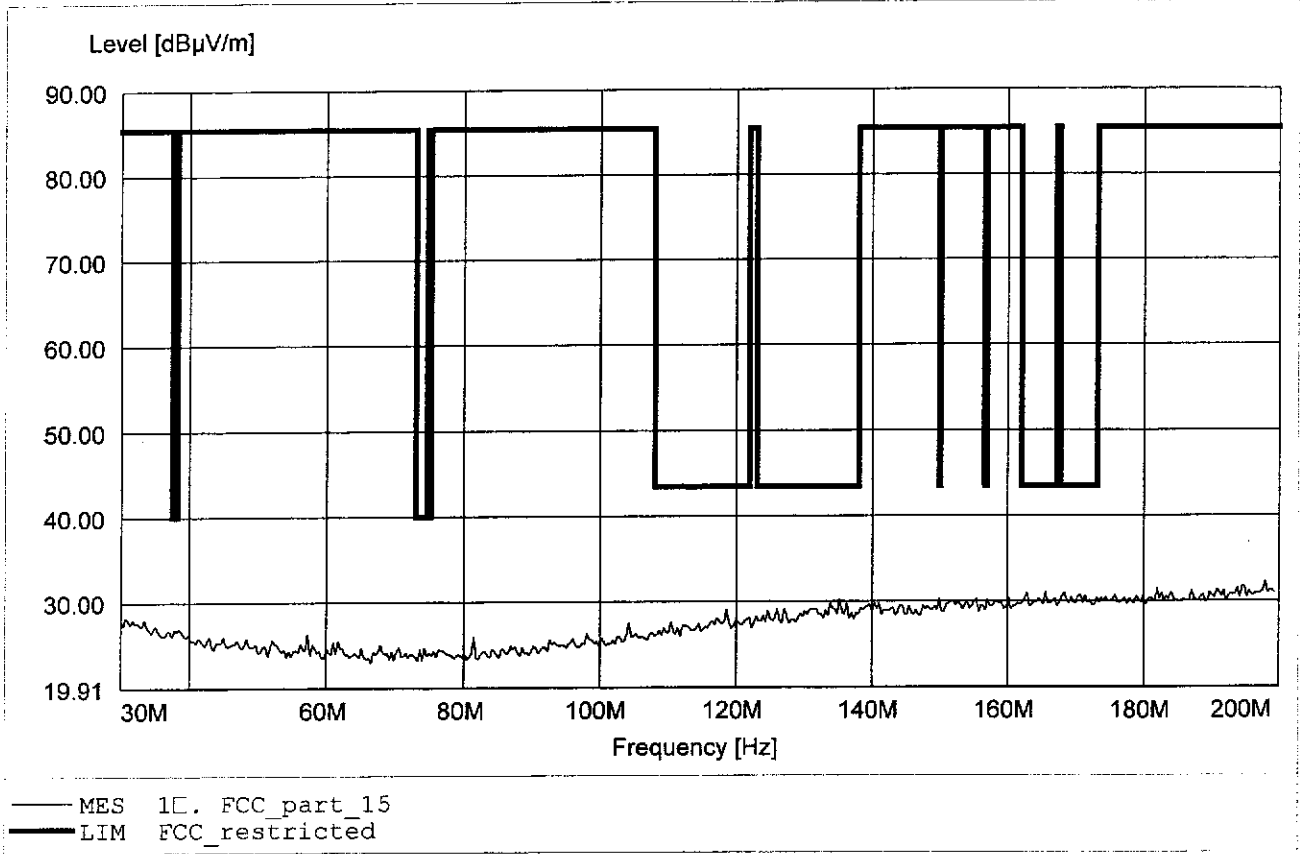
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 197.275MHz, Emax: 32.41dBµV/m, RBW: 100kHz



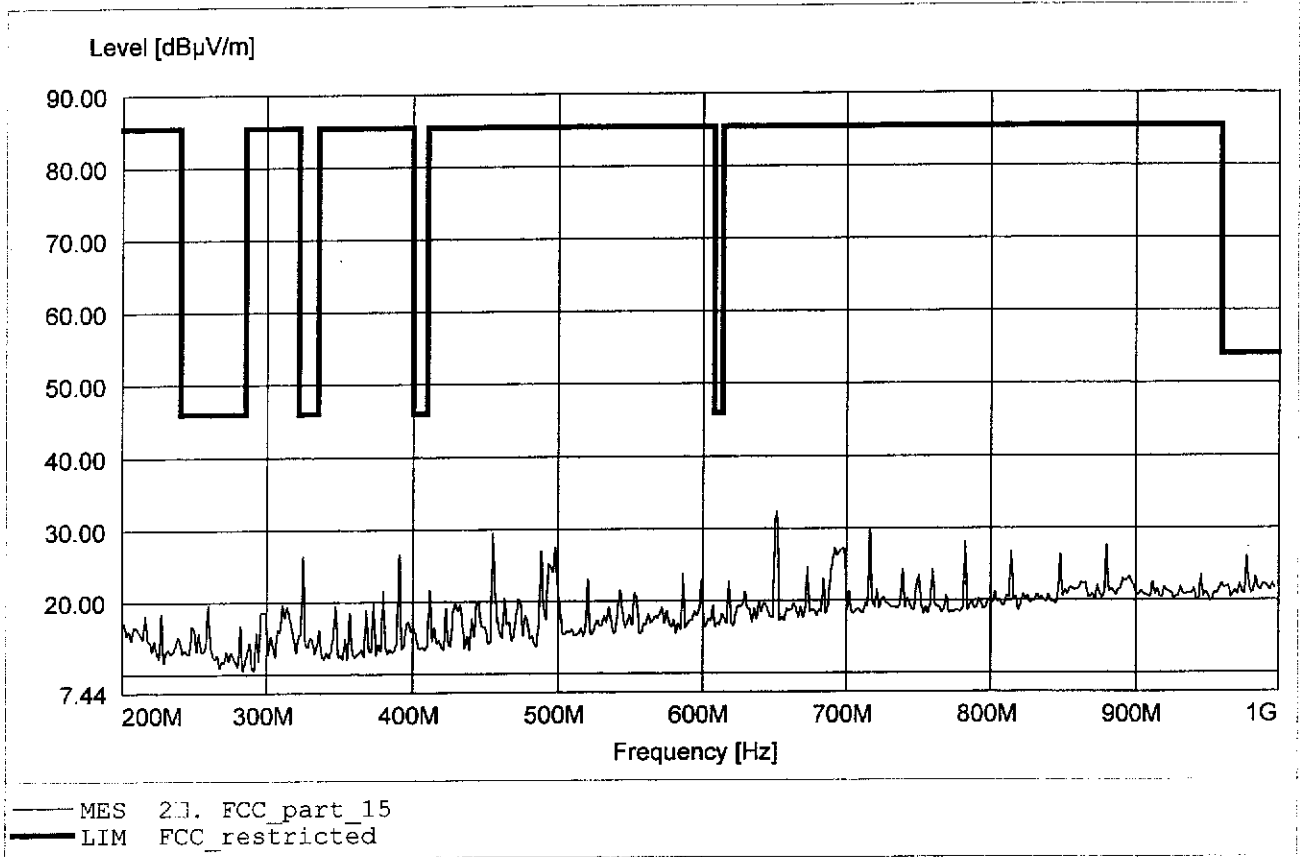
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 197.956MHz, Emax: 32.34dBμV/m, RBW: 100kHz



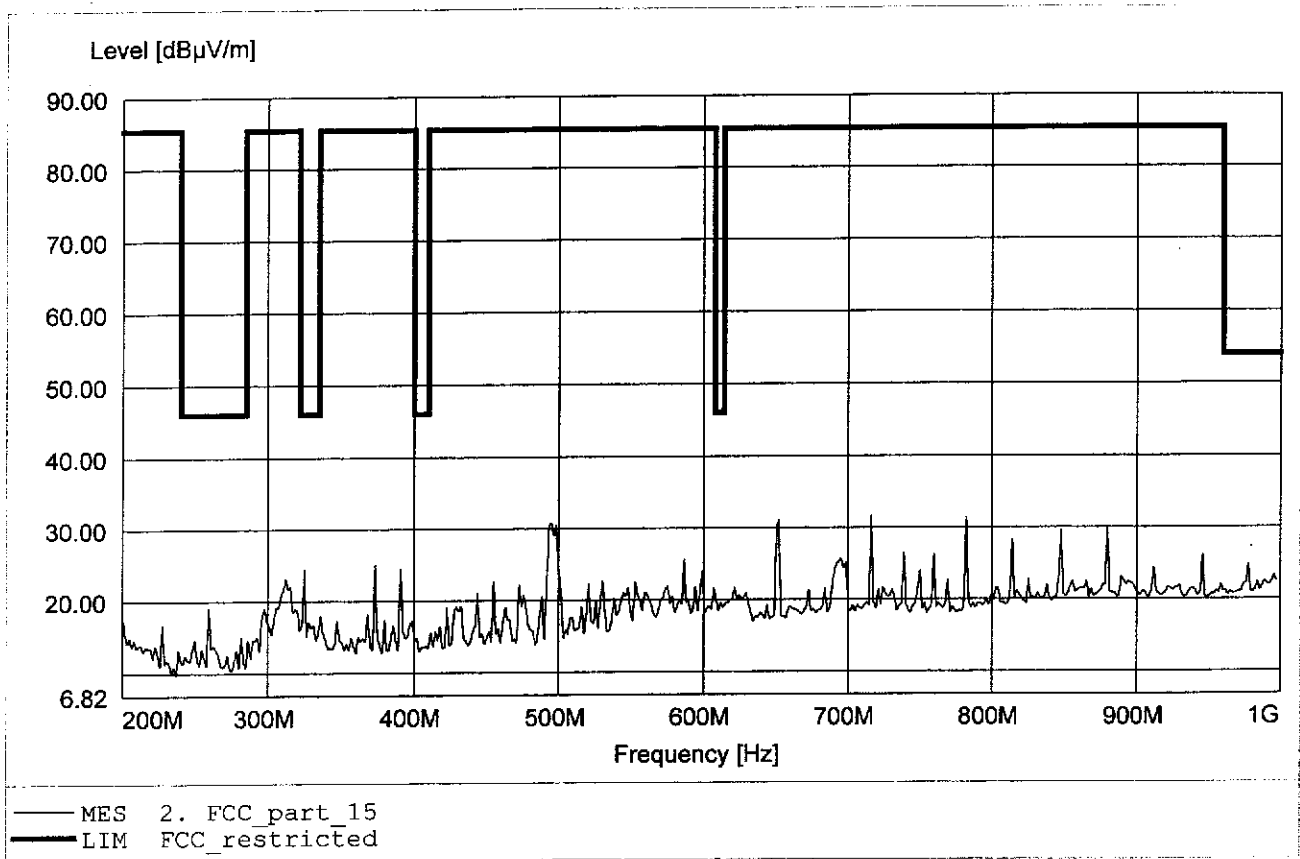
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Comment 2: Freq: 652.104MHz, Emax: 32.39dBµV/m, RBW: 100kHz



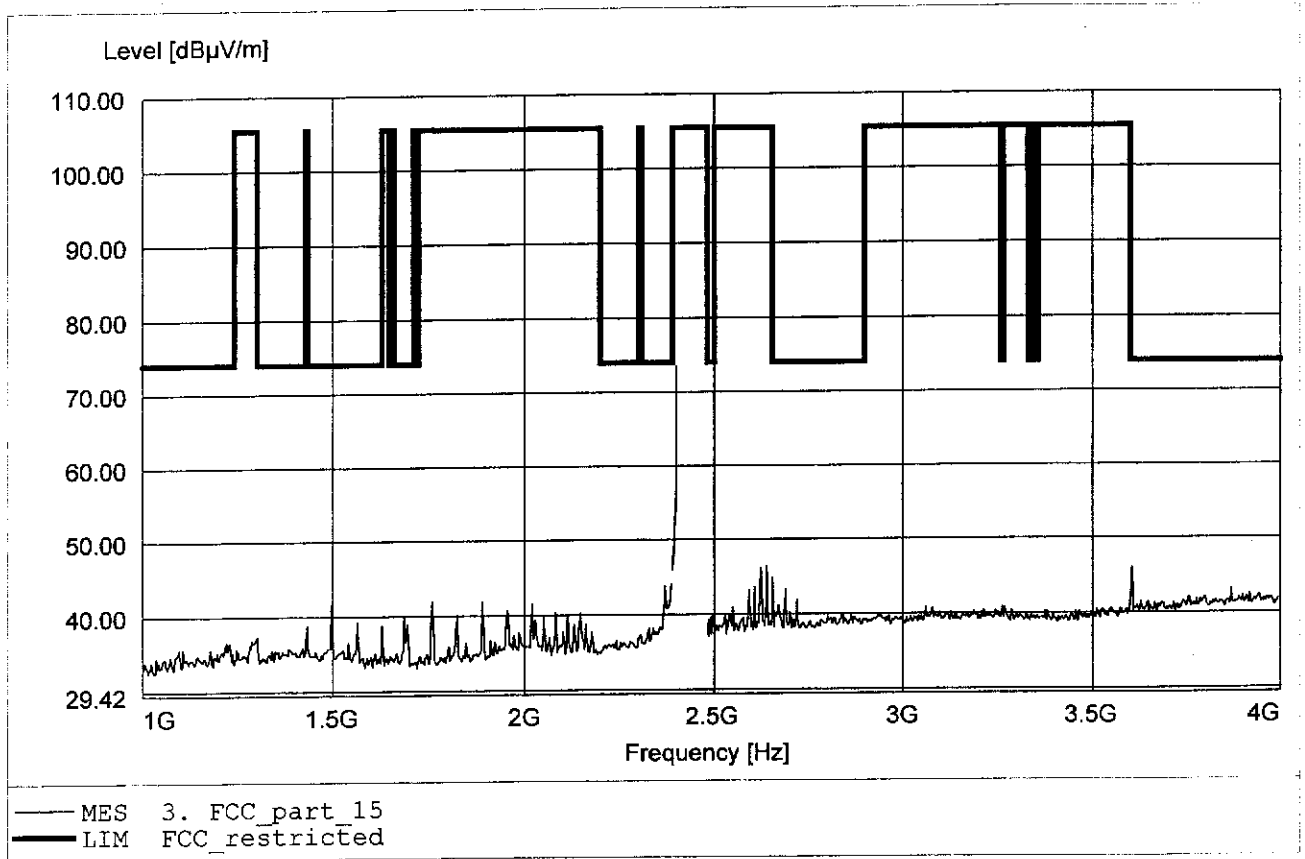
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Comment 2: Freq: 716.232MHz, Emax: 31.66dBuV/m, RBW: 100kHz



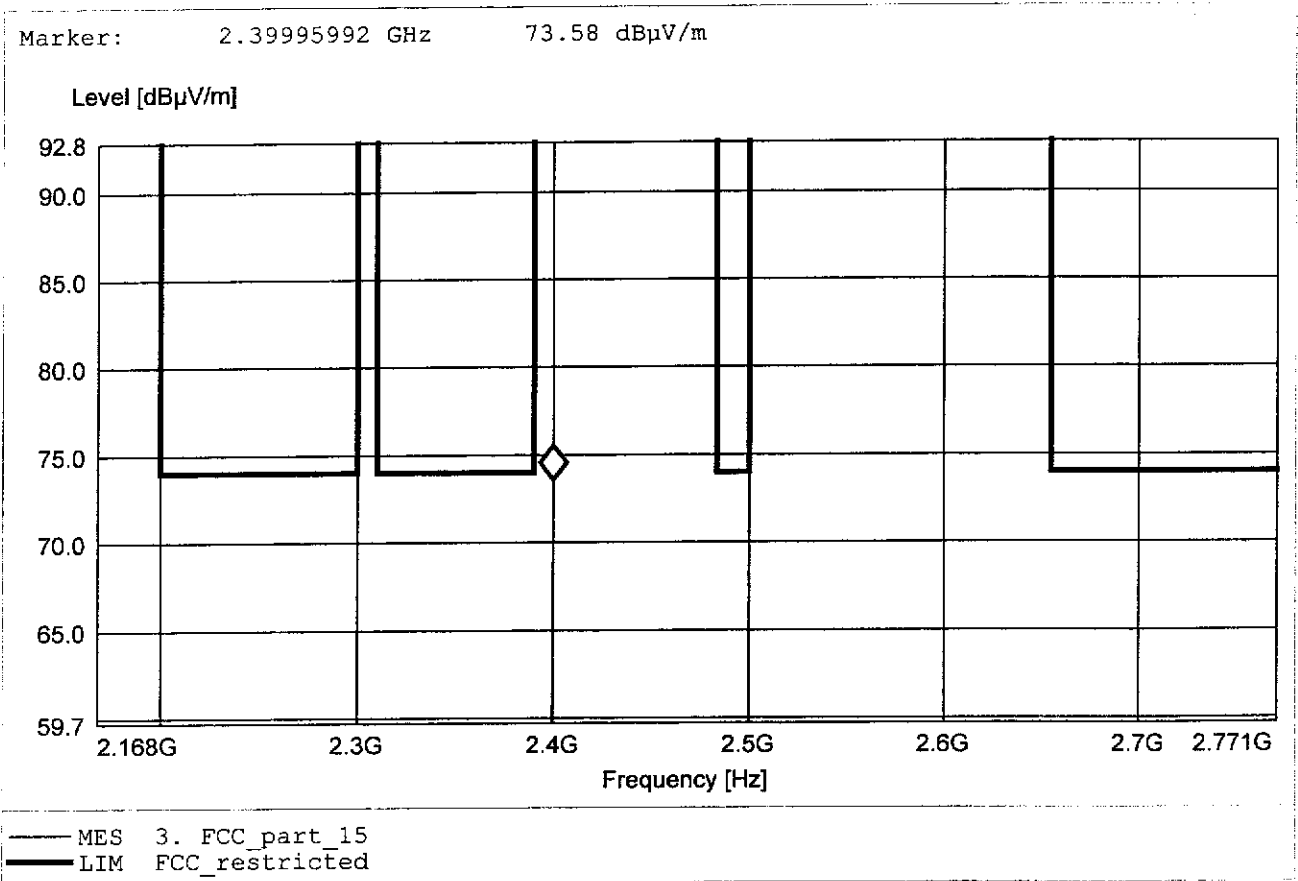
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, amplif.
Comment 2: Freq: 2.400GHz, Emax: 73.58dBuV/m, RBW: 1MHz



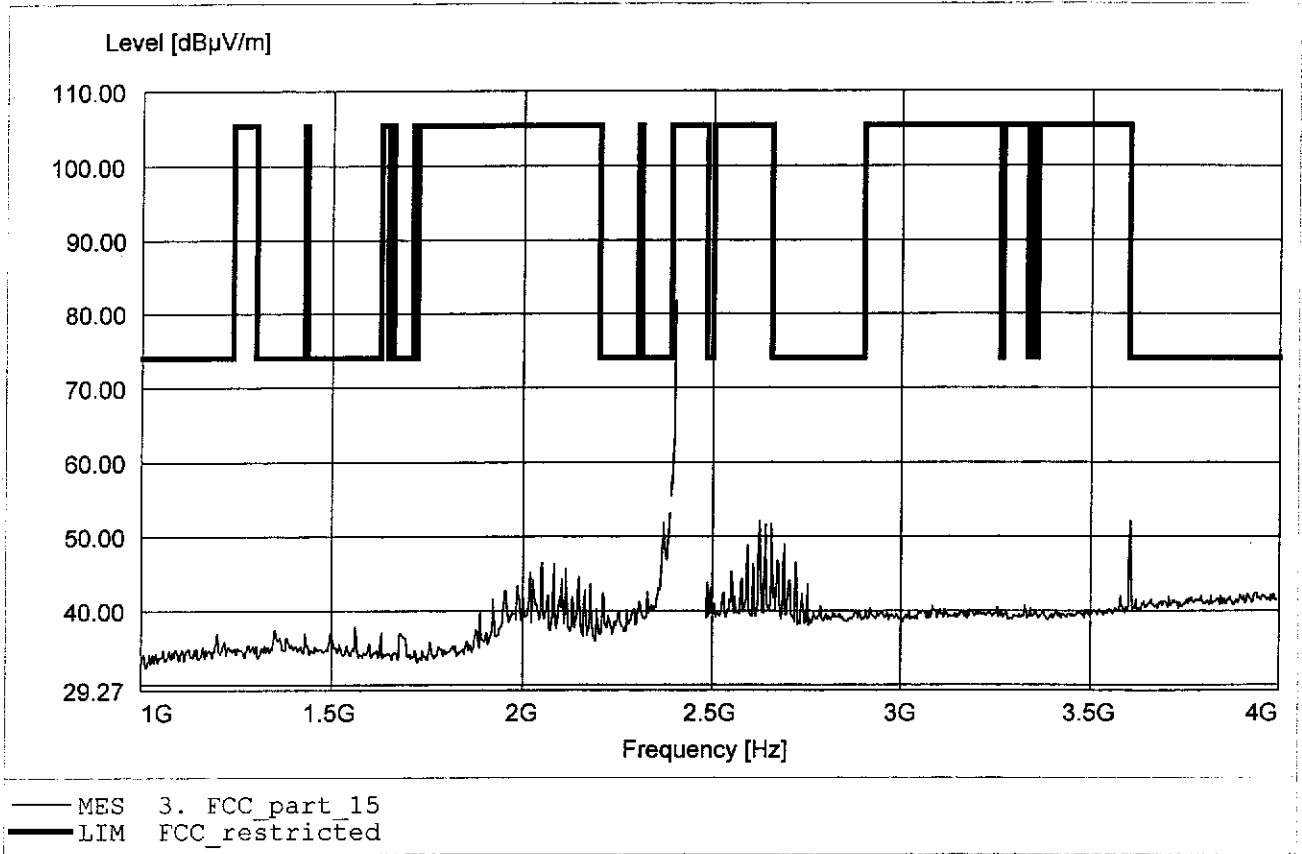
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, amplif.
Comment 2: Freq: 2.400GHz, Emax: 73.58dBµV/m, RBW: 1MHz



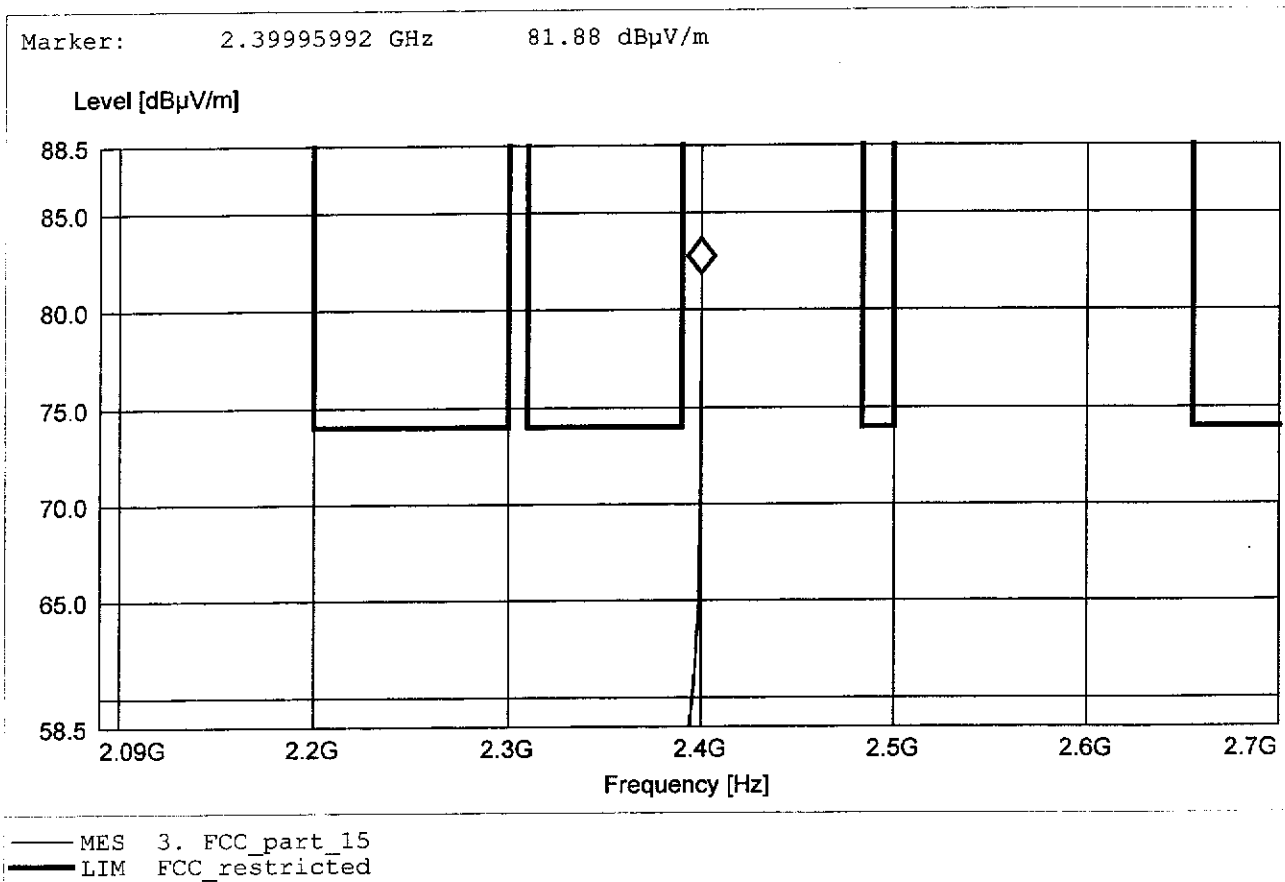
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGP21
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, amplif.
Comment 2: Freq: 2.400GHz, Emax: 81.88dBuV/m, RBW: 1MHz



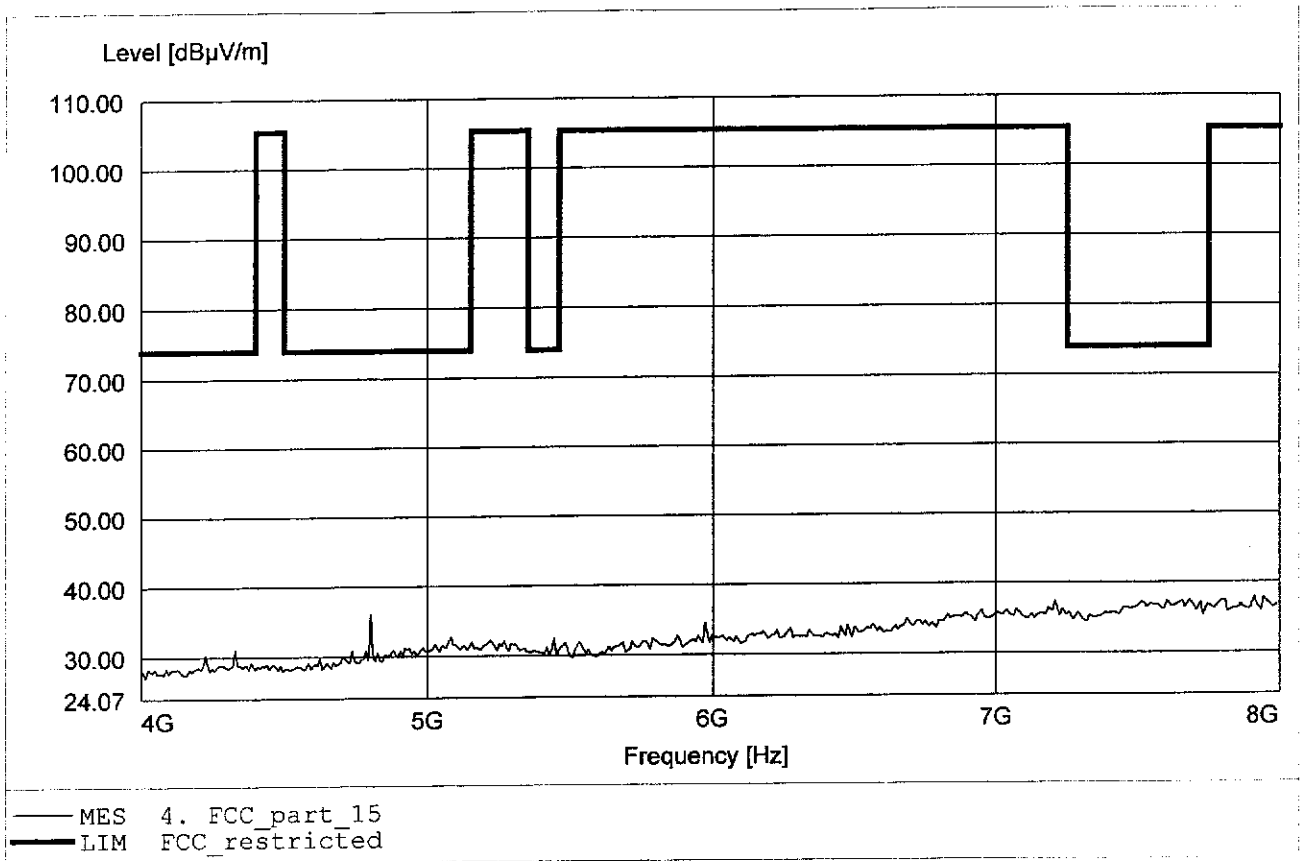
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, amplif.
Comment 2: Freq: 2.400GHz, Emax: 81.88dBµV/m, RBW: 1MHz



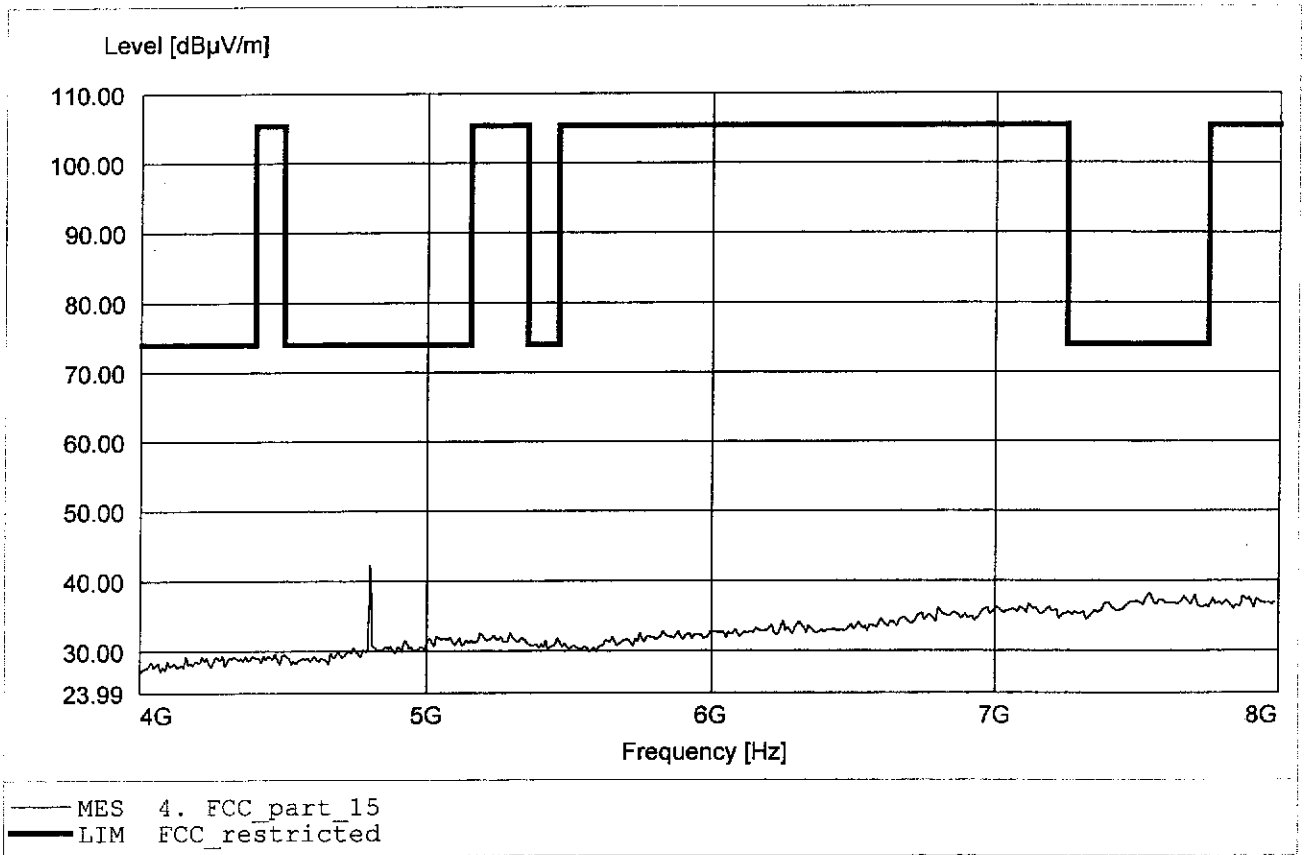
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGP21
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 7.912GHz, Emax: 37.83dBµV/m, RBW: 1MHz



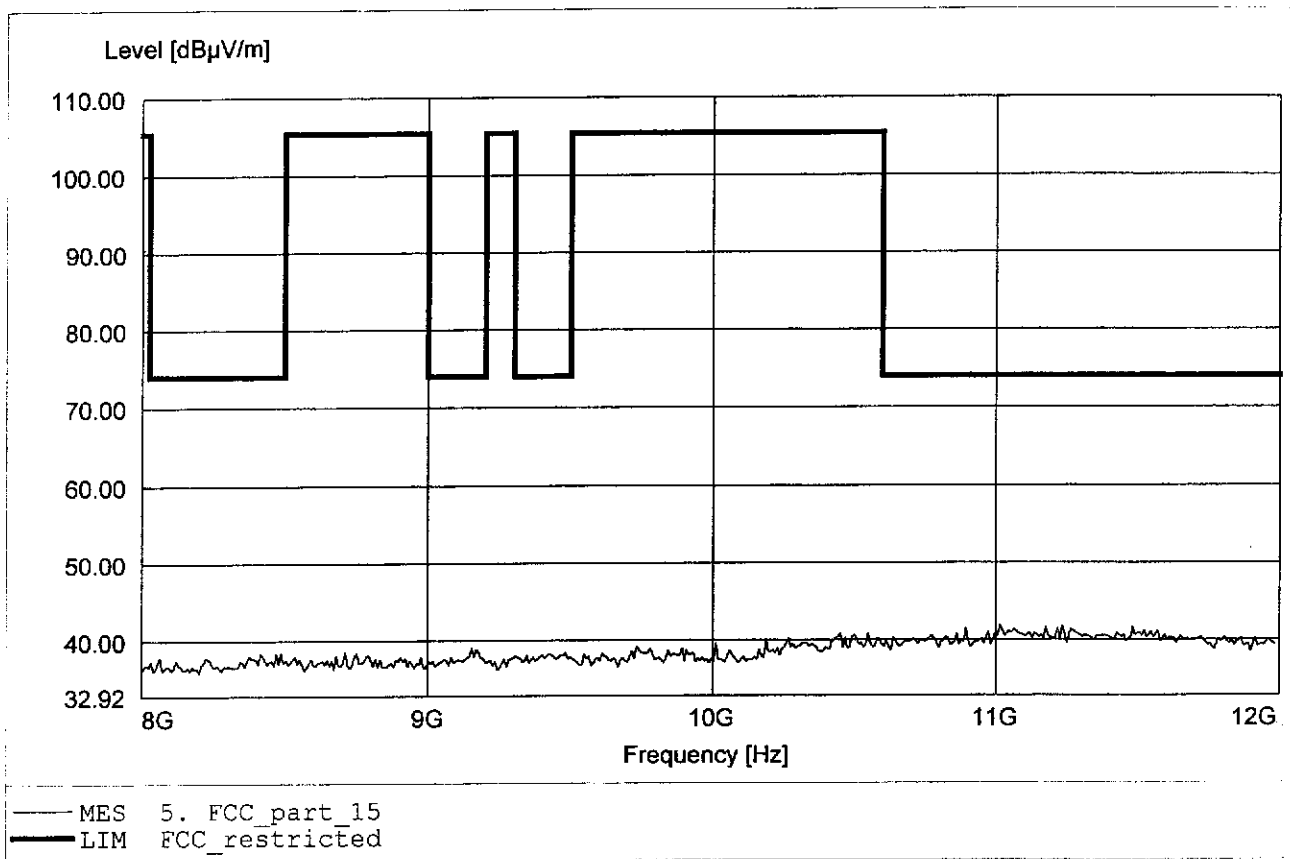
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 4.802GHz, Emax: 42.29dBμV/m, RBW: 1MHz



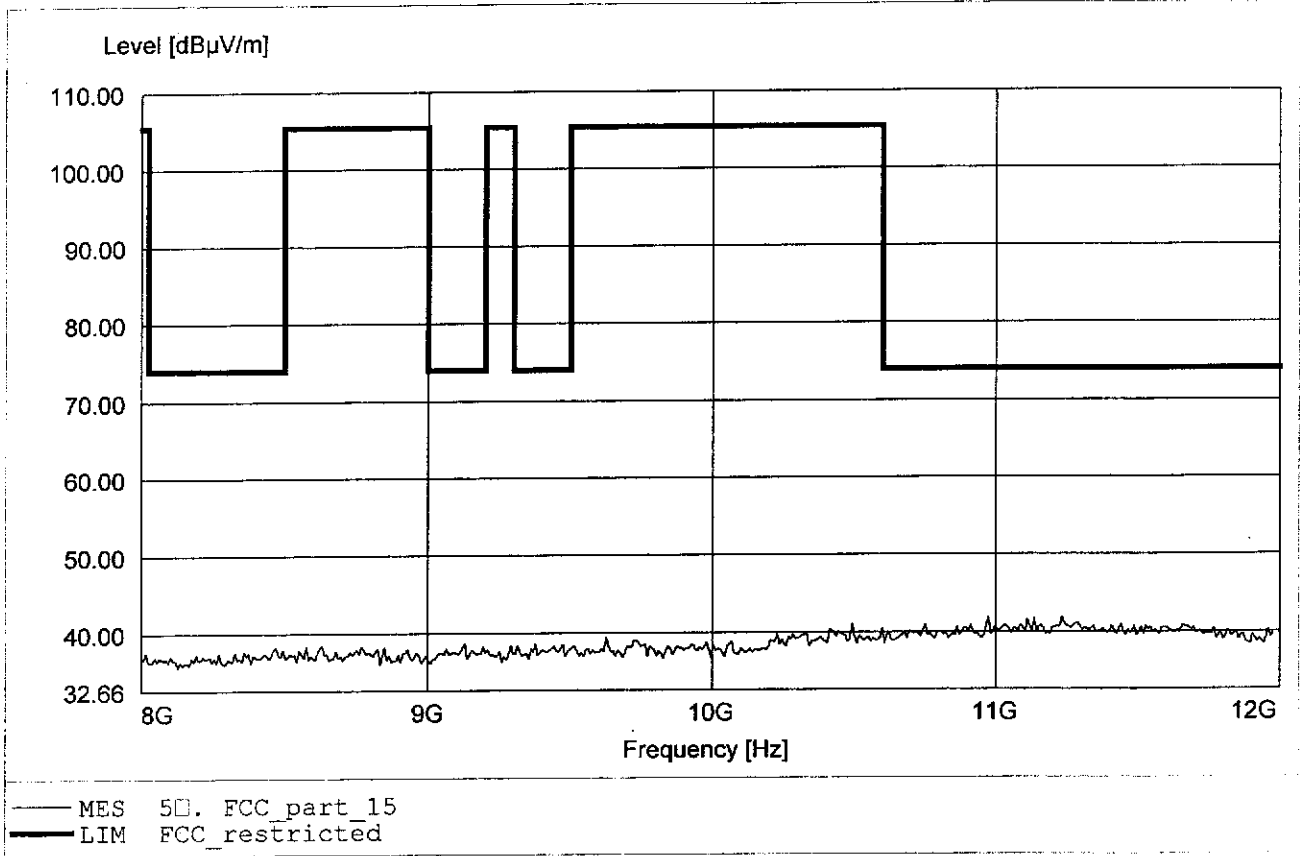
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 11.014GHz, Emax: 41.90dBµV/m, RBW: 1MHz



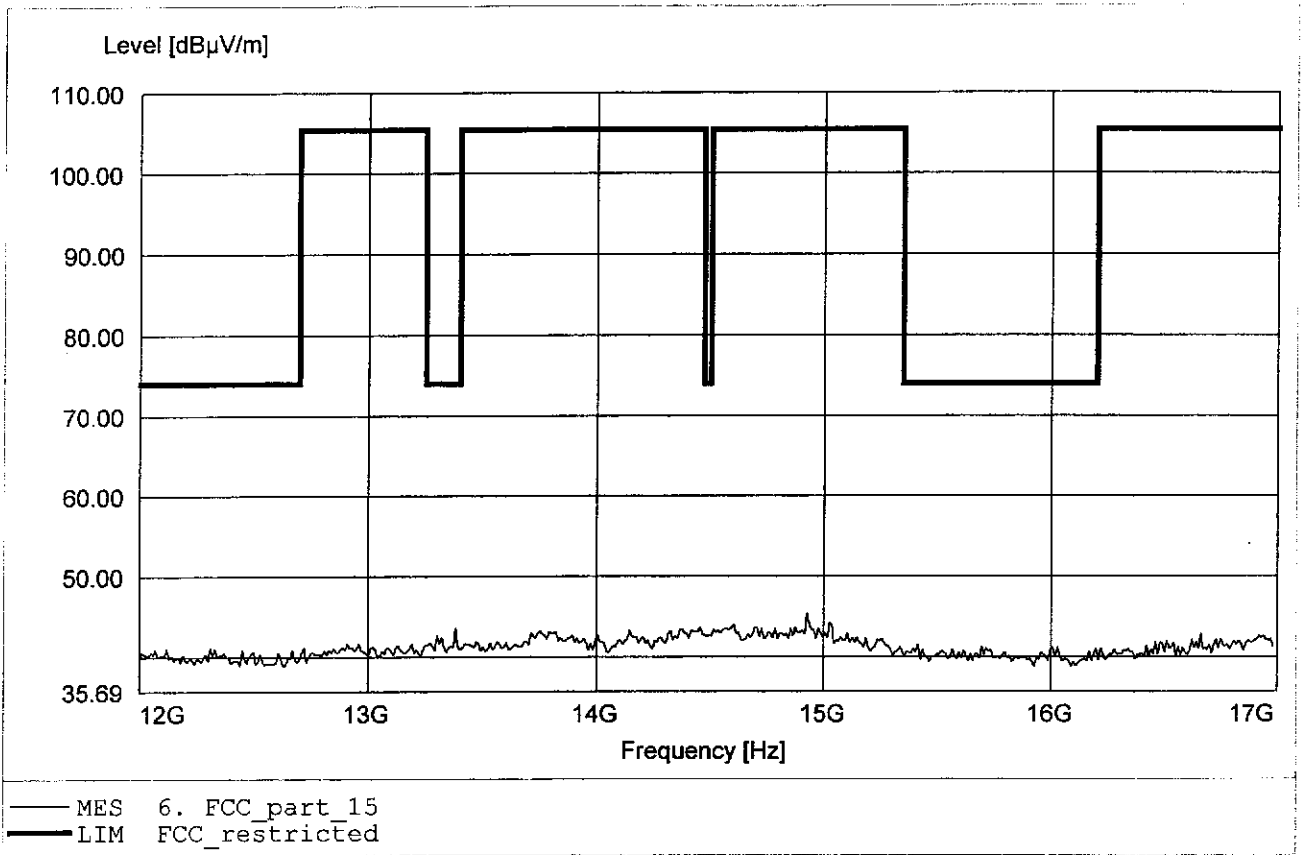
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGP21
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 10.974GHz, Emax: 41.86dBµV/m, RBW: 1MHz



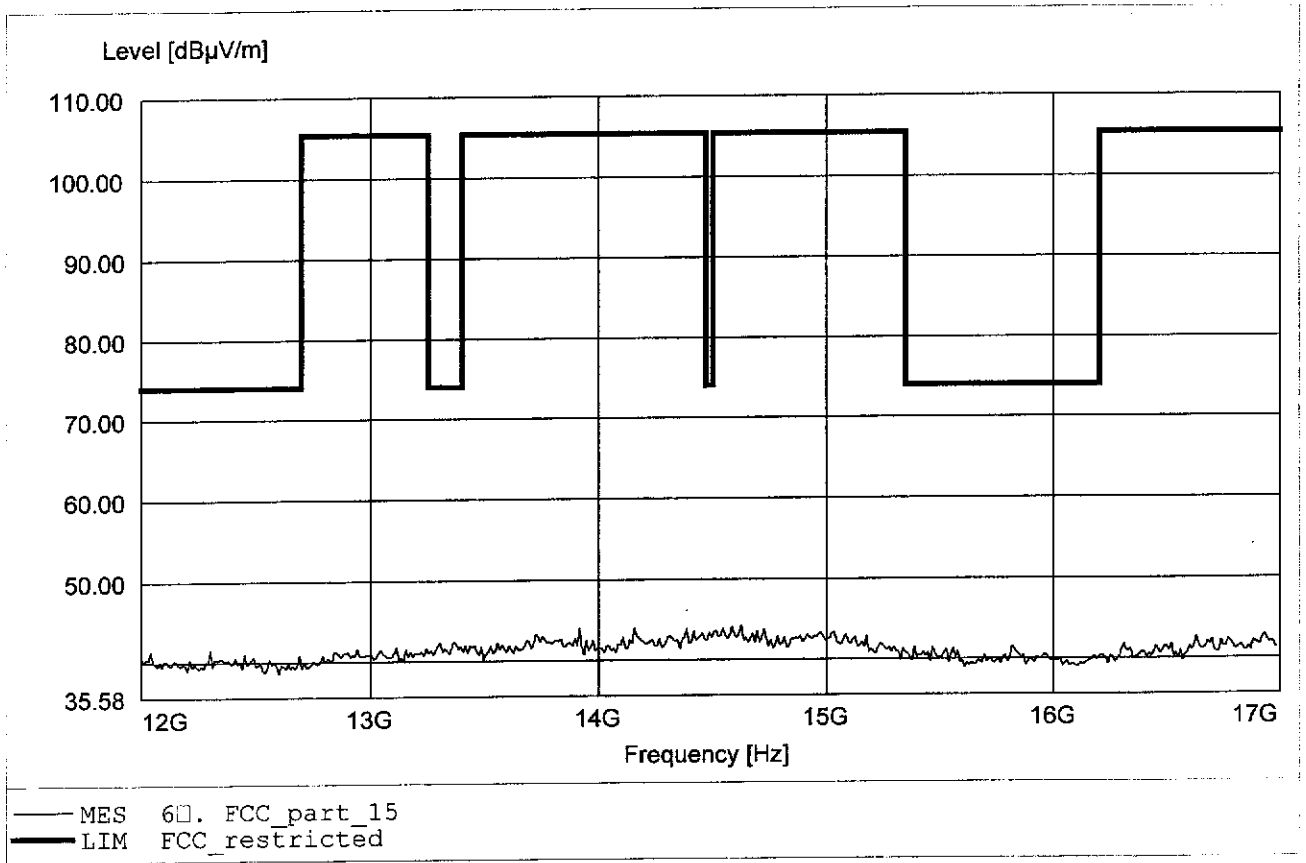
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 14.926GHz, Emax: 45.41dBuV/m, RBW: 1MHz



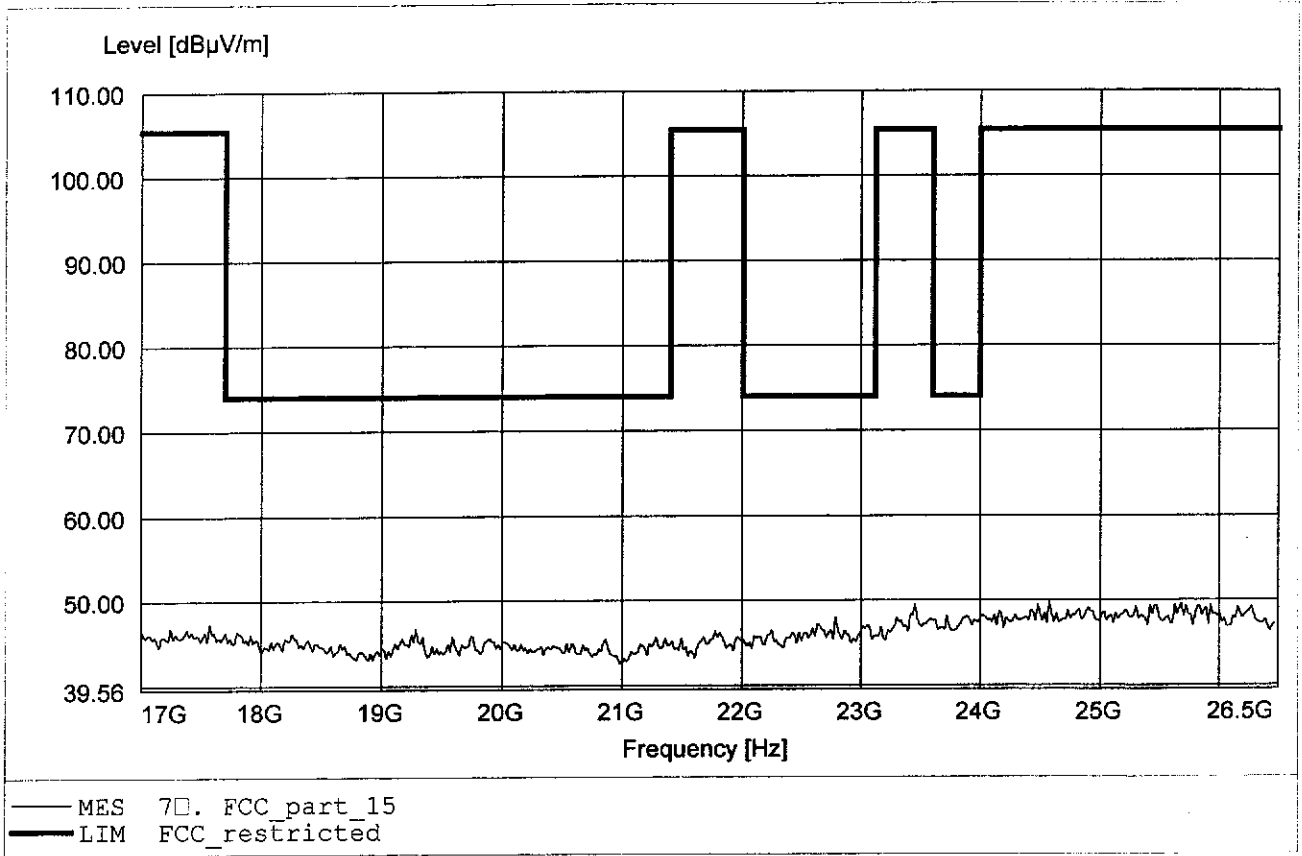
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGP21
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 14.625GHz, Emax: 44.26dBµV/m, RBW: 1MHz



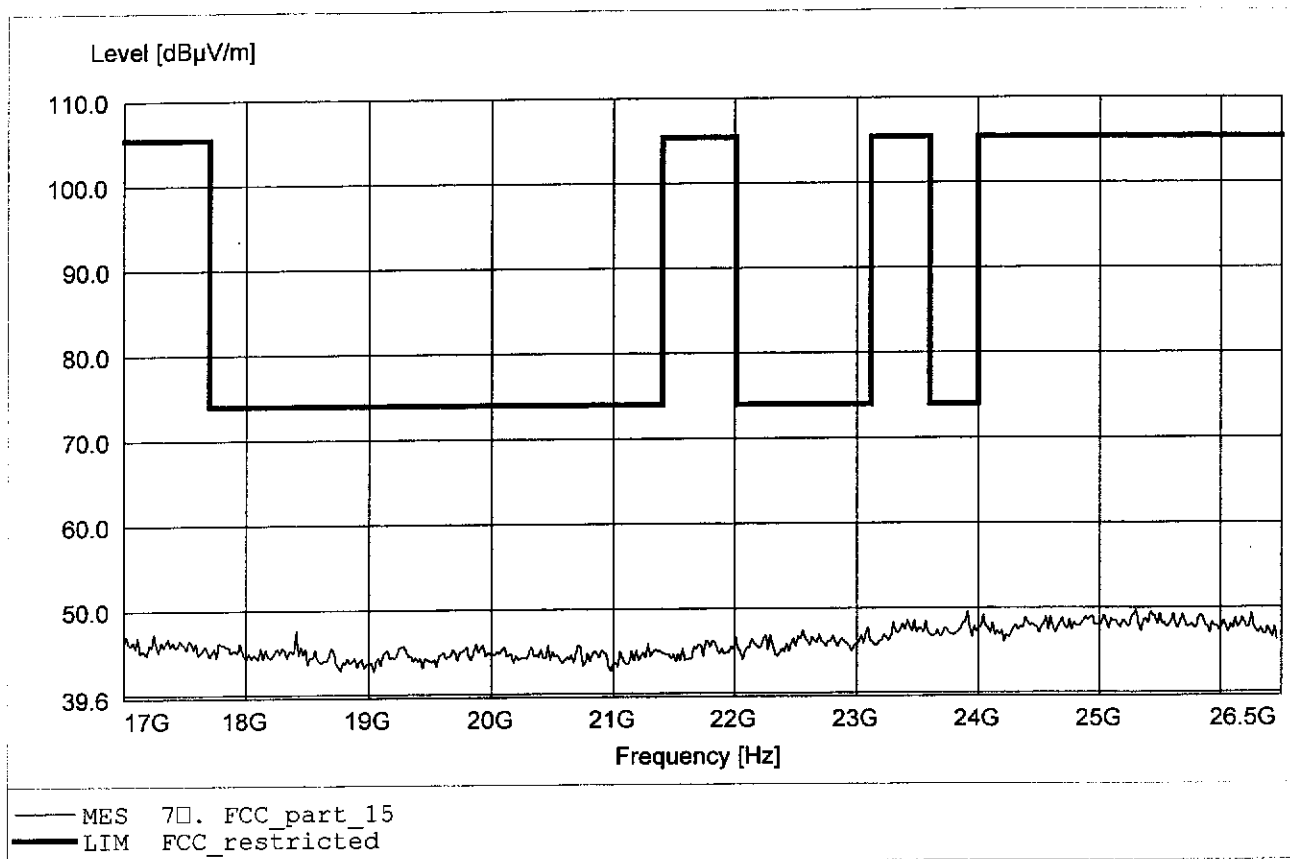
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 24.577GHz, Emax: 49.95dBμV/m, RBW: 1MHz



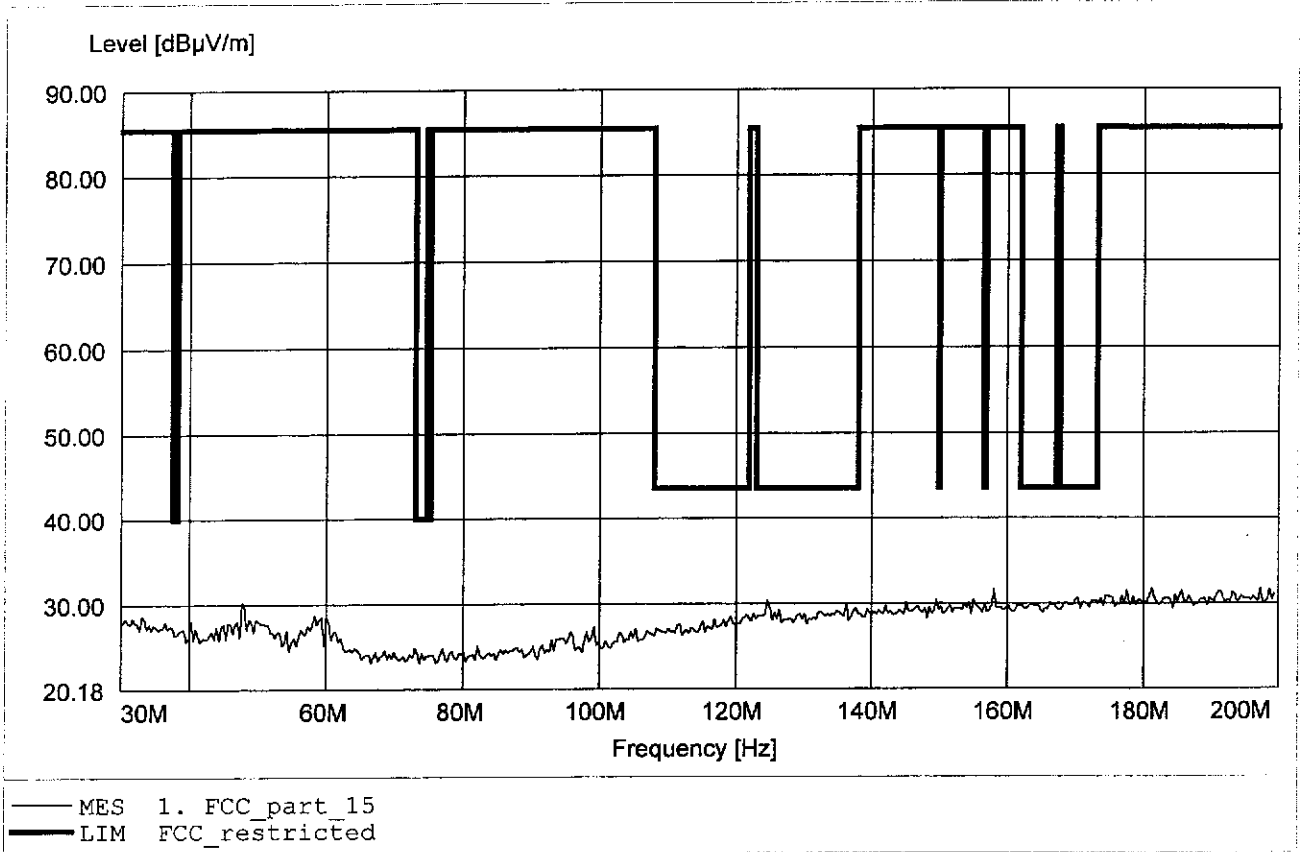
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2402MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 25.301GHz, Emax: 49.70dBμV/m, RBW: 1MHz



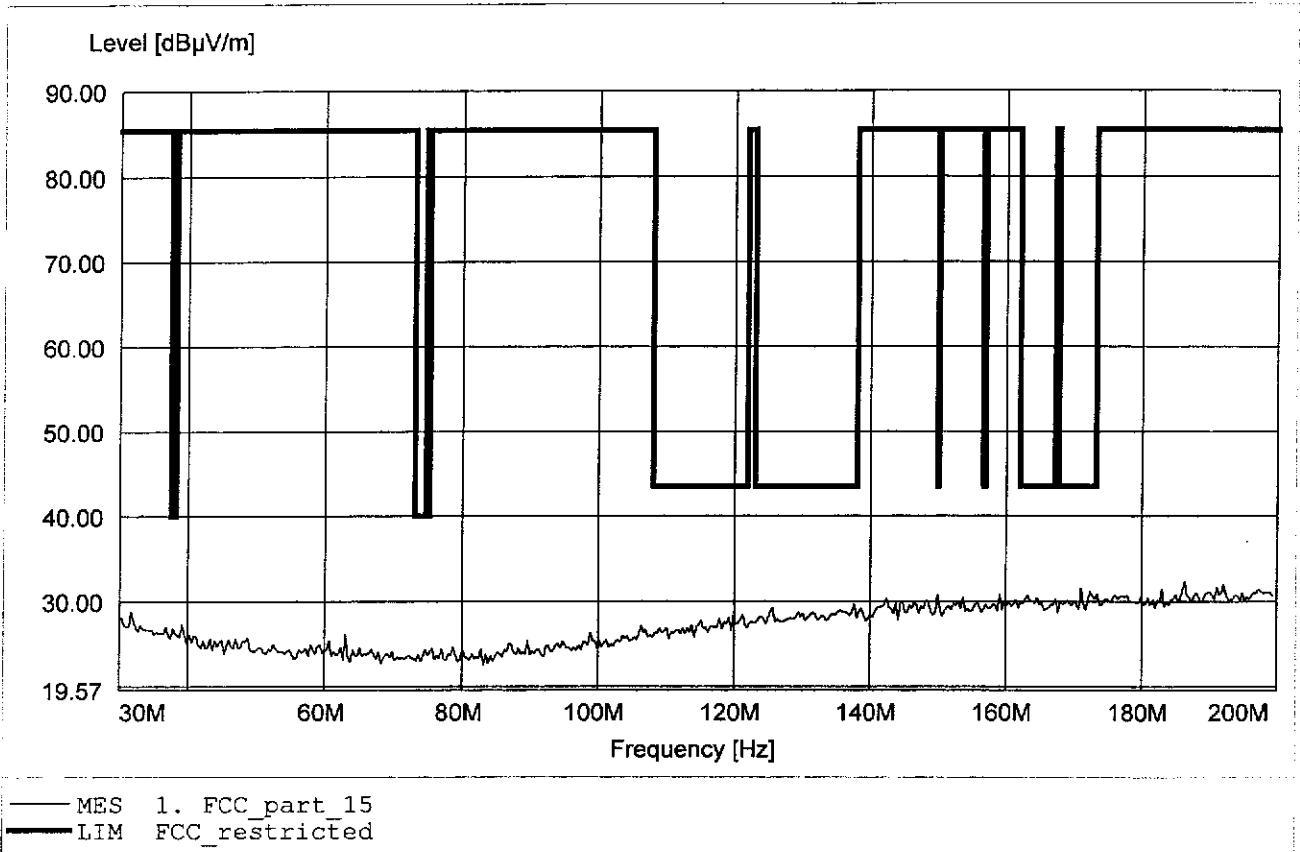
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 181.263MHz, Emax: 31.77dBµV/m, RBW: 100kHz



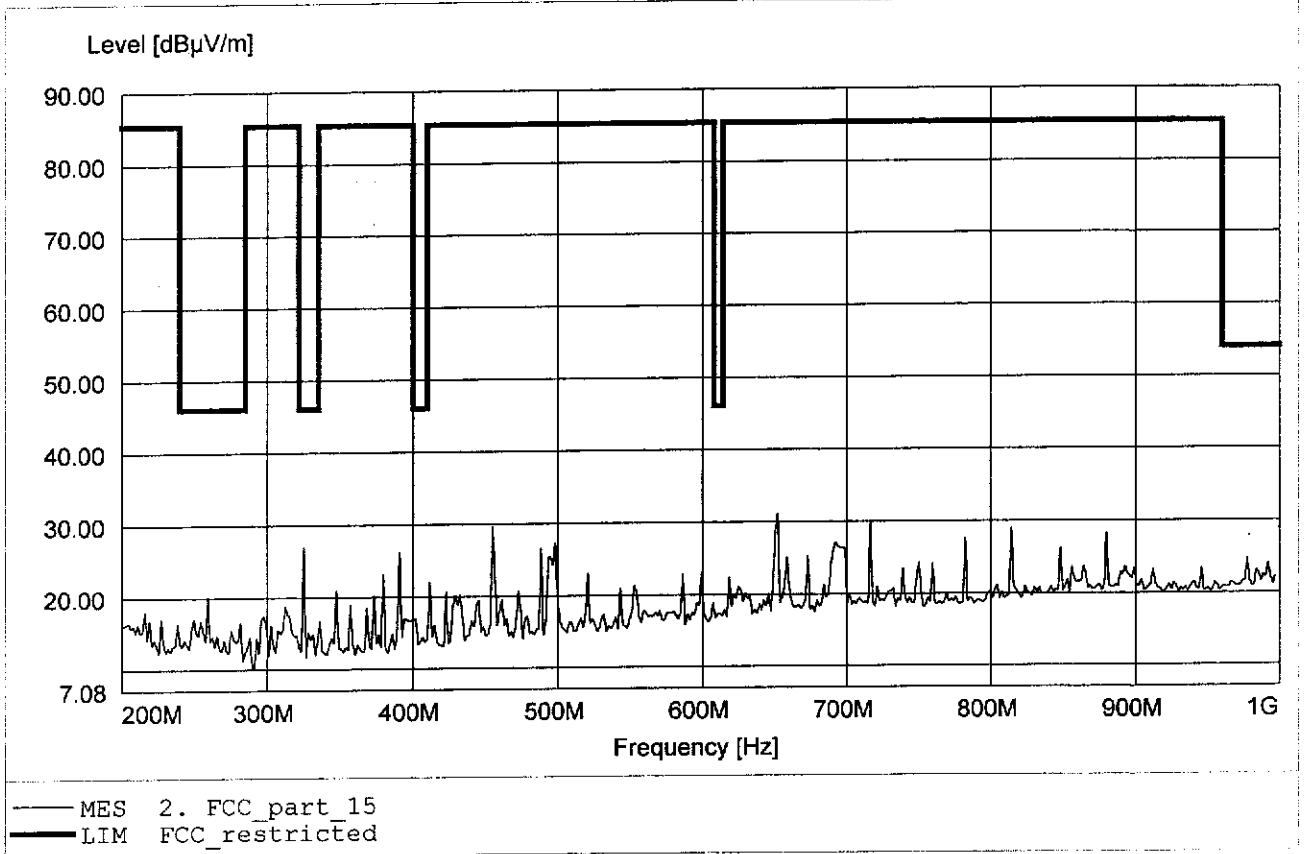
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 186.373MHz, Emax: 32.38dBuV/m, RBW: 100kHz



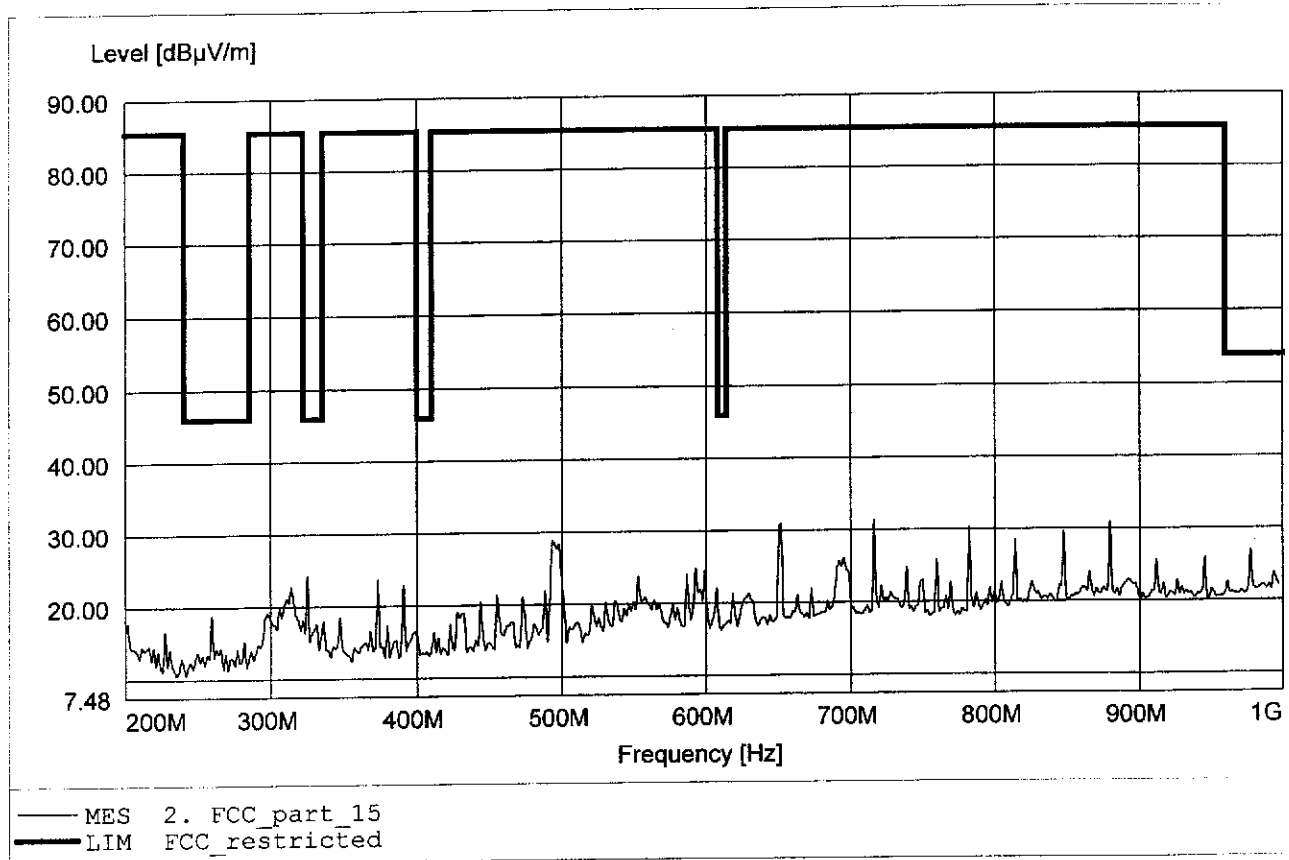
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Comment 2: Freq: 652.104MHz, Emax: 31.13dBµV/m, RBW: 100kHz



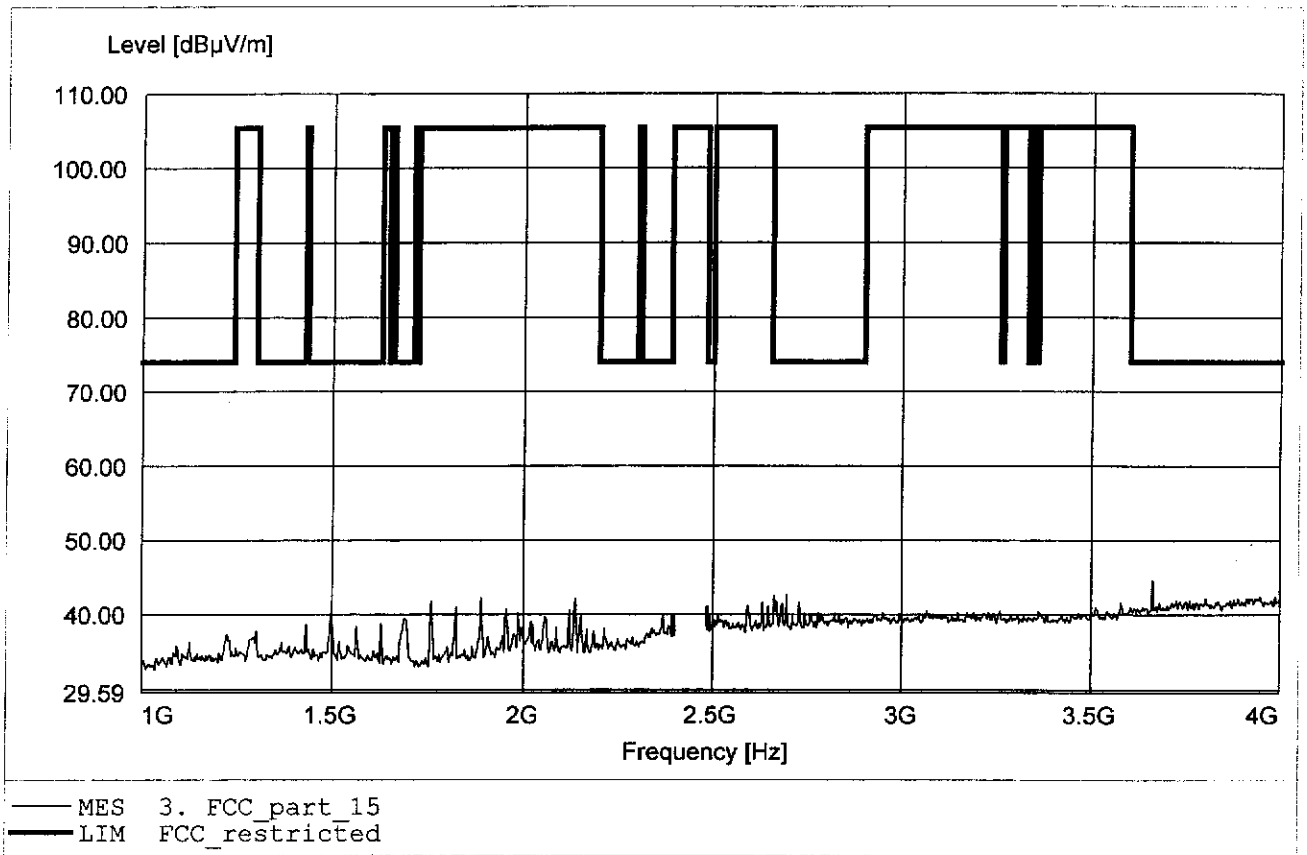
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Comment 2: Freq: 716.232MHz, Emax: 31.44dBµV/m, RBW: 100kHz



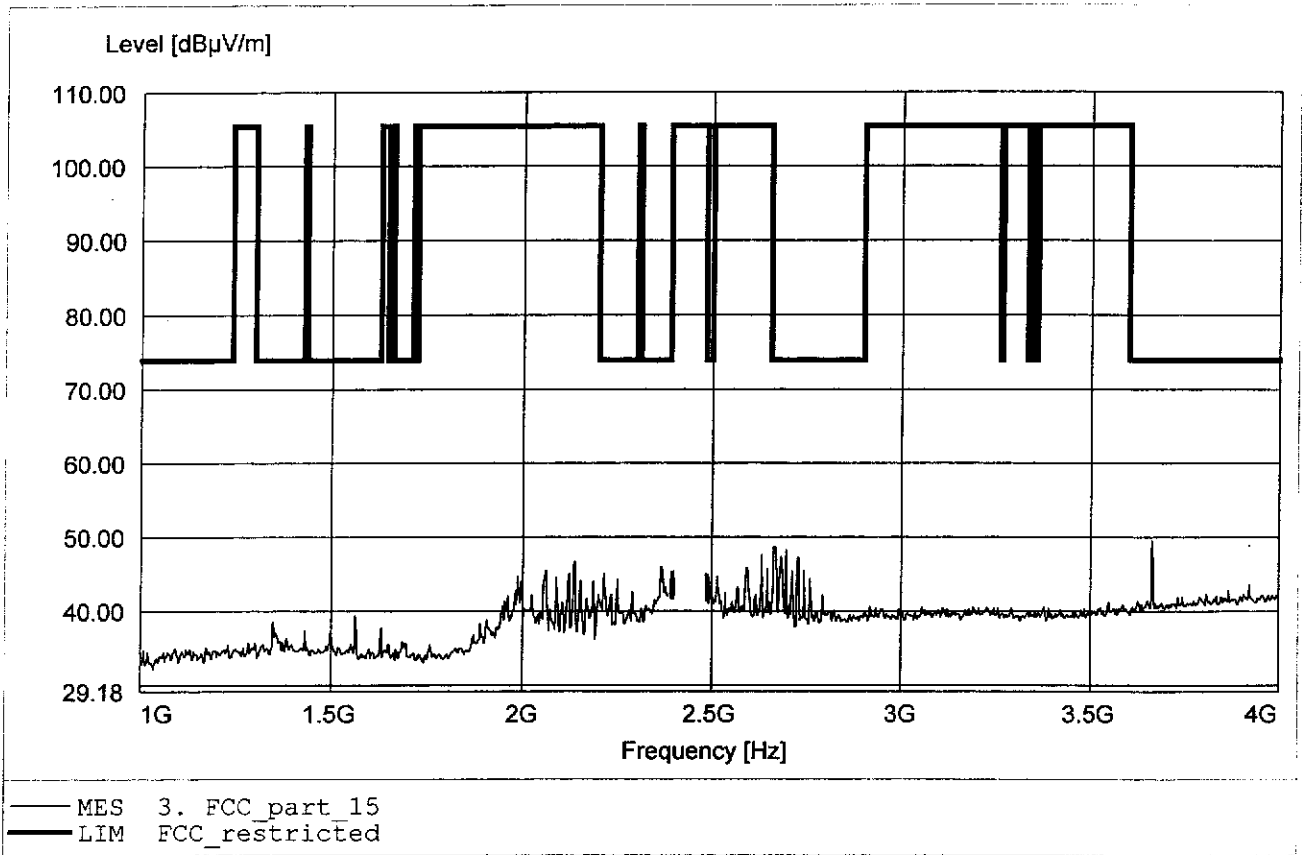
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, amplif.
Comment 2: Freq: 3.662GHz, Emax: 44.65dBuV/m, RBW: 1MHz



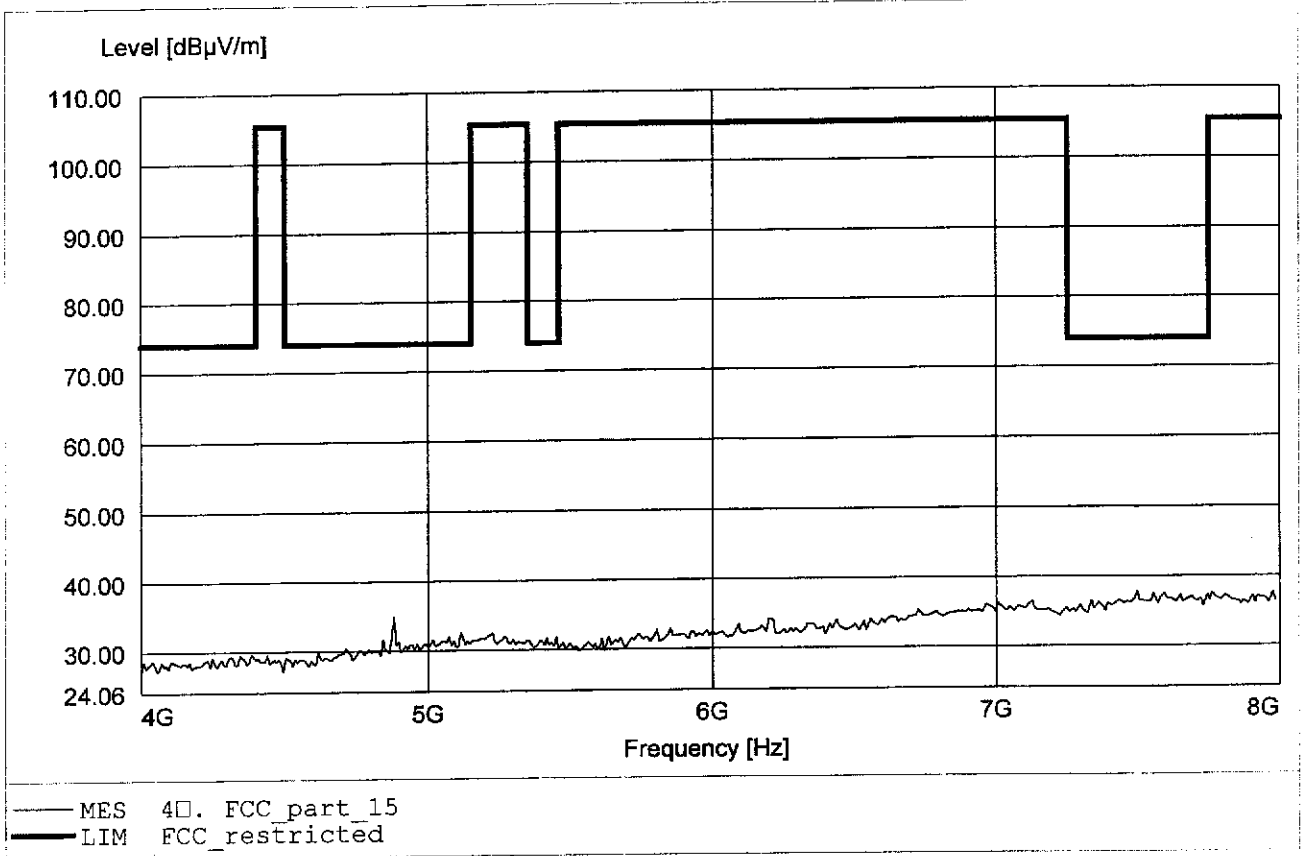
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGP21
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, amplif.
Comment 2: Freq: 3.662GHz, Emax: 49.57dBμV/m, RBW: 1MHz



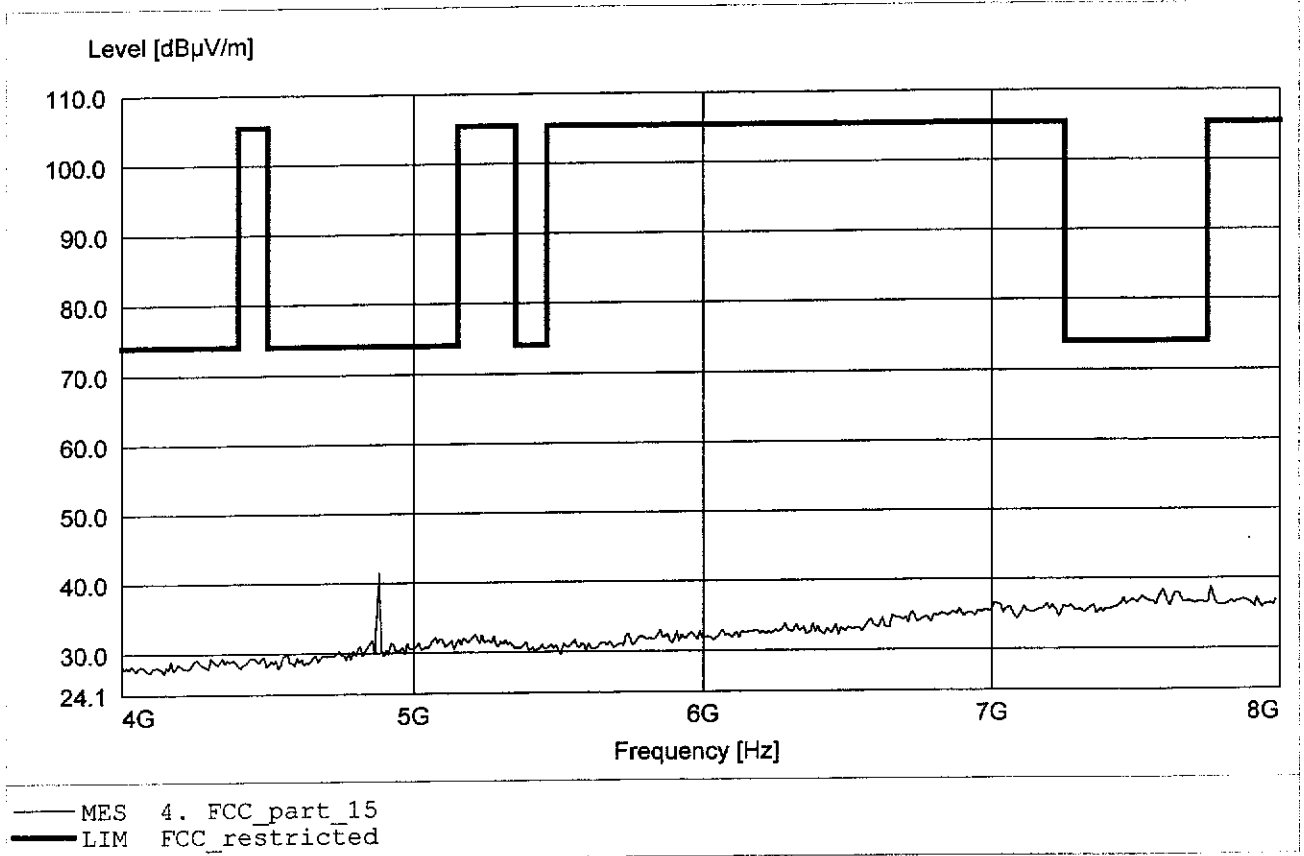
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 7.495GHz, Emax: 37.87dBuV/m, RBW: 1MHz



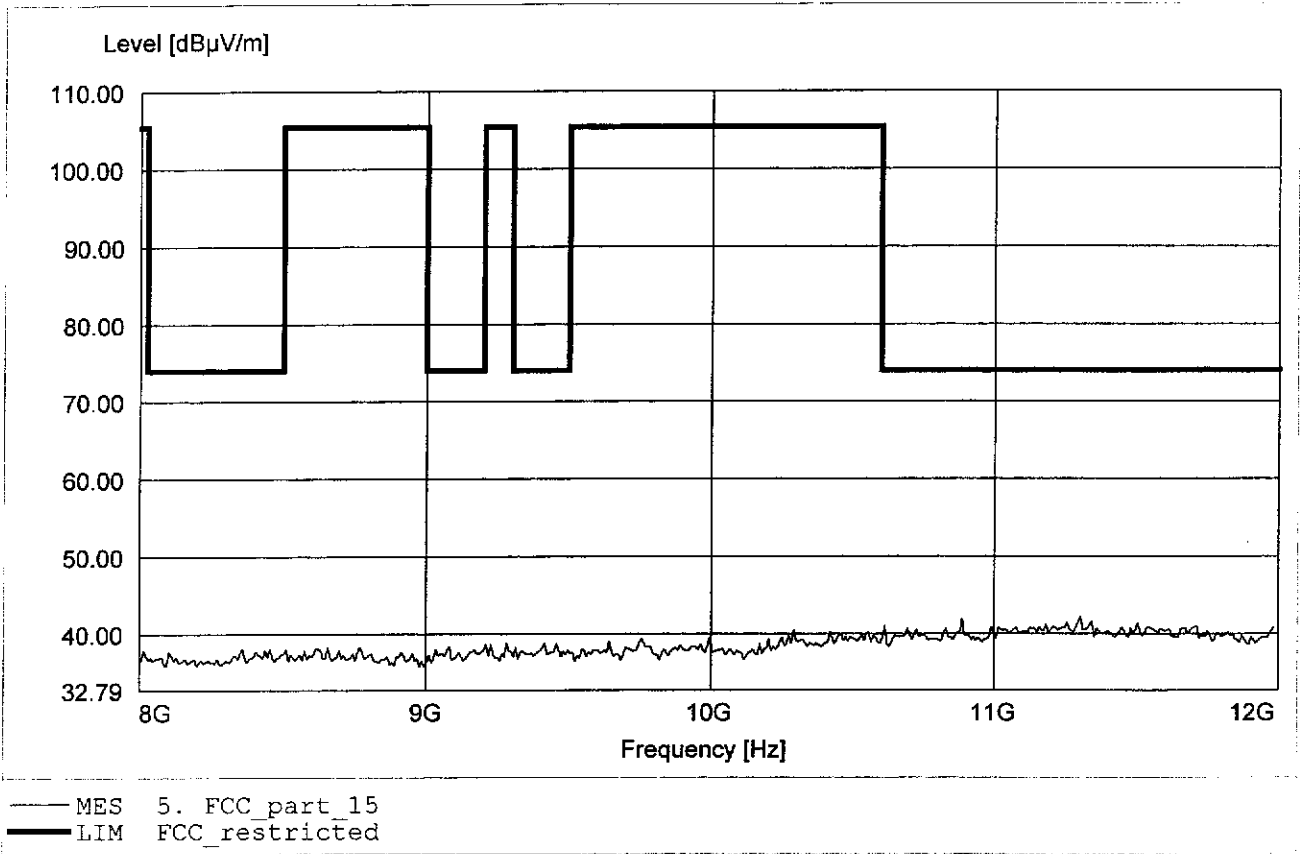
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 4.882GHz, Emax: 41.48dBµV/m, RBW: 1MHz



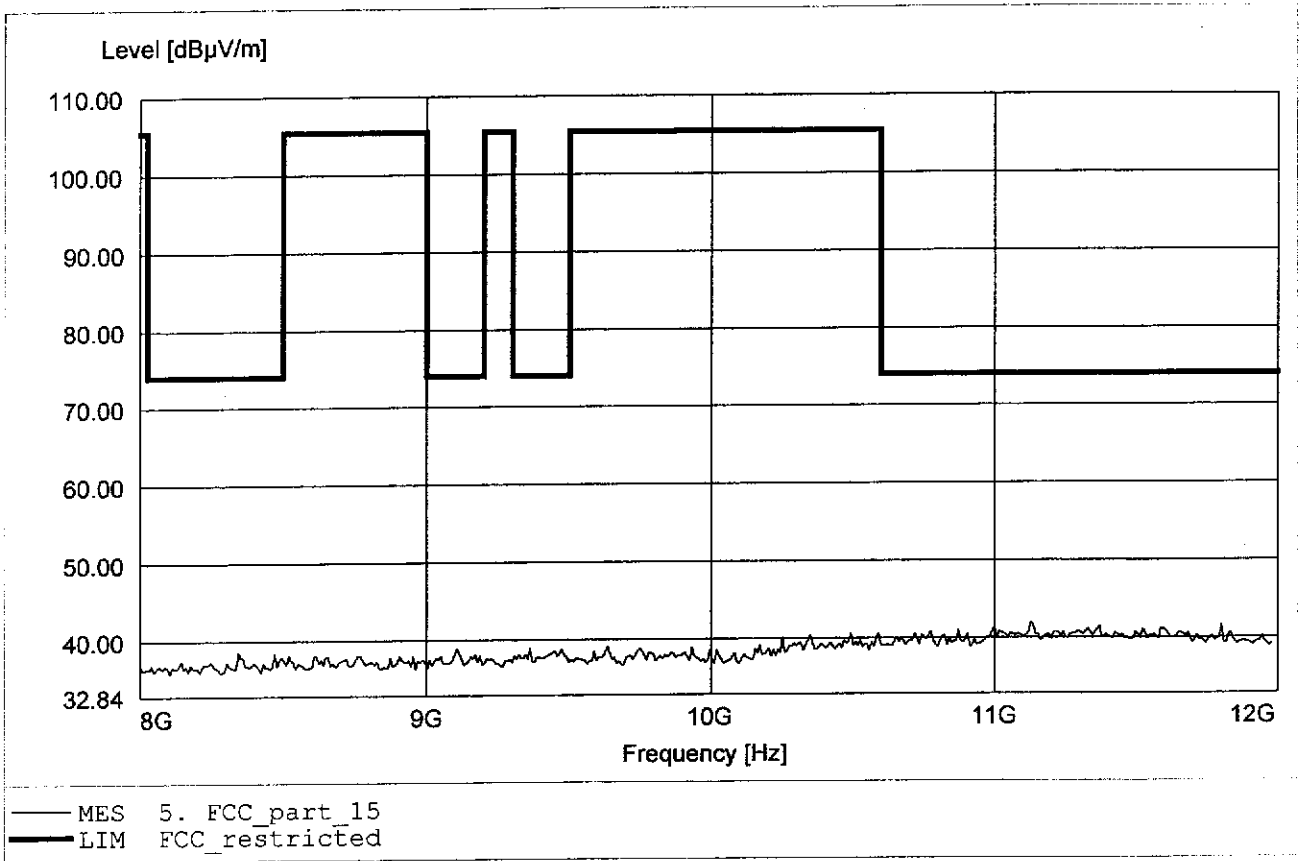
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 11.303GHz, Emax: 42.18dBµV/m, RBW: 1MHz



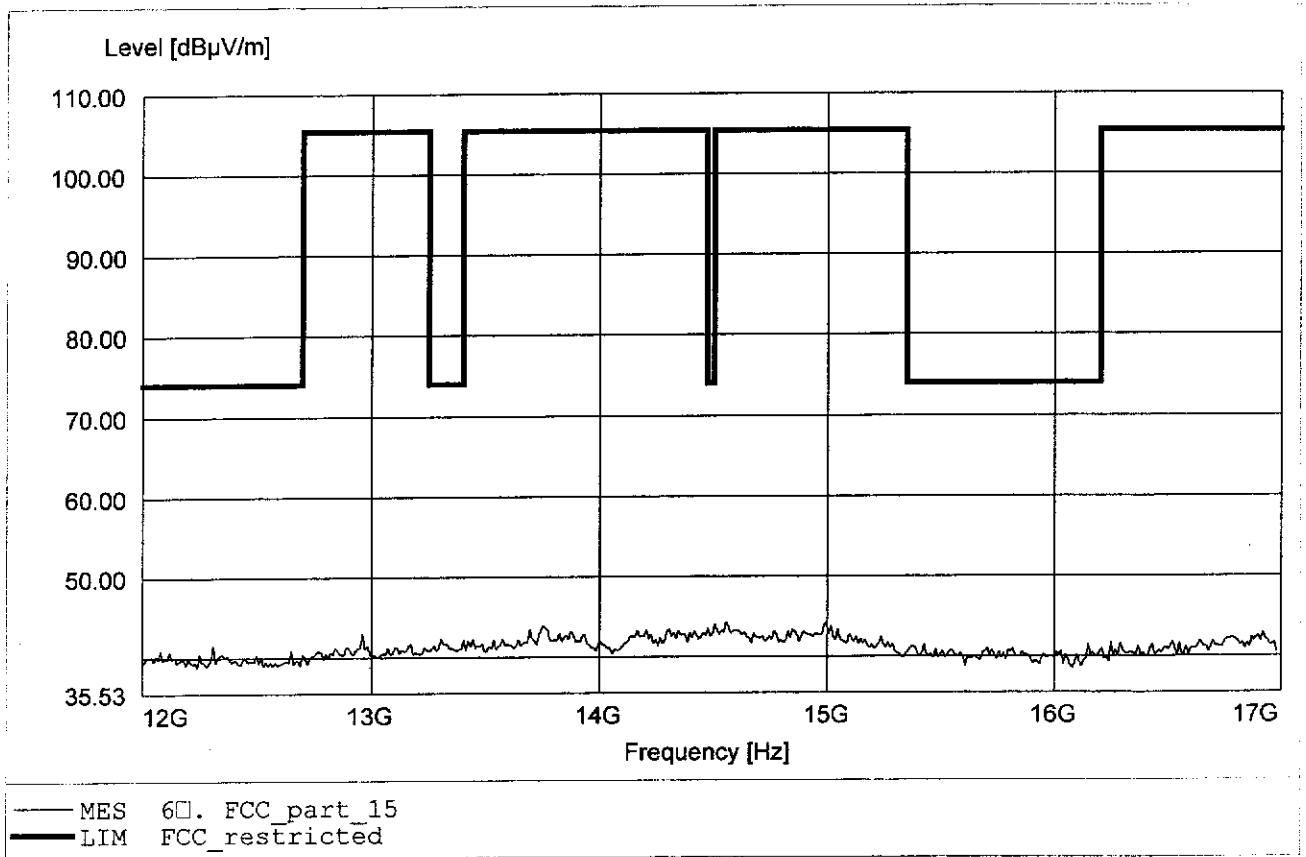
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 11.126GHz, Emax: 41.92dBμV/m, RBW: 1MHz



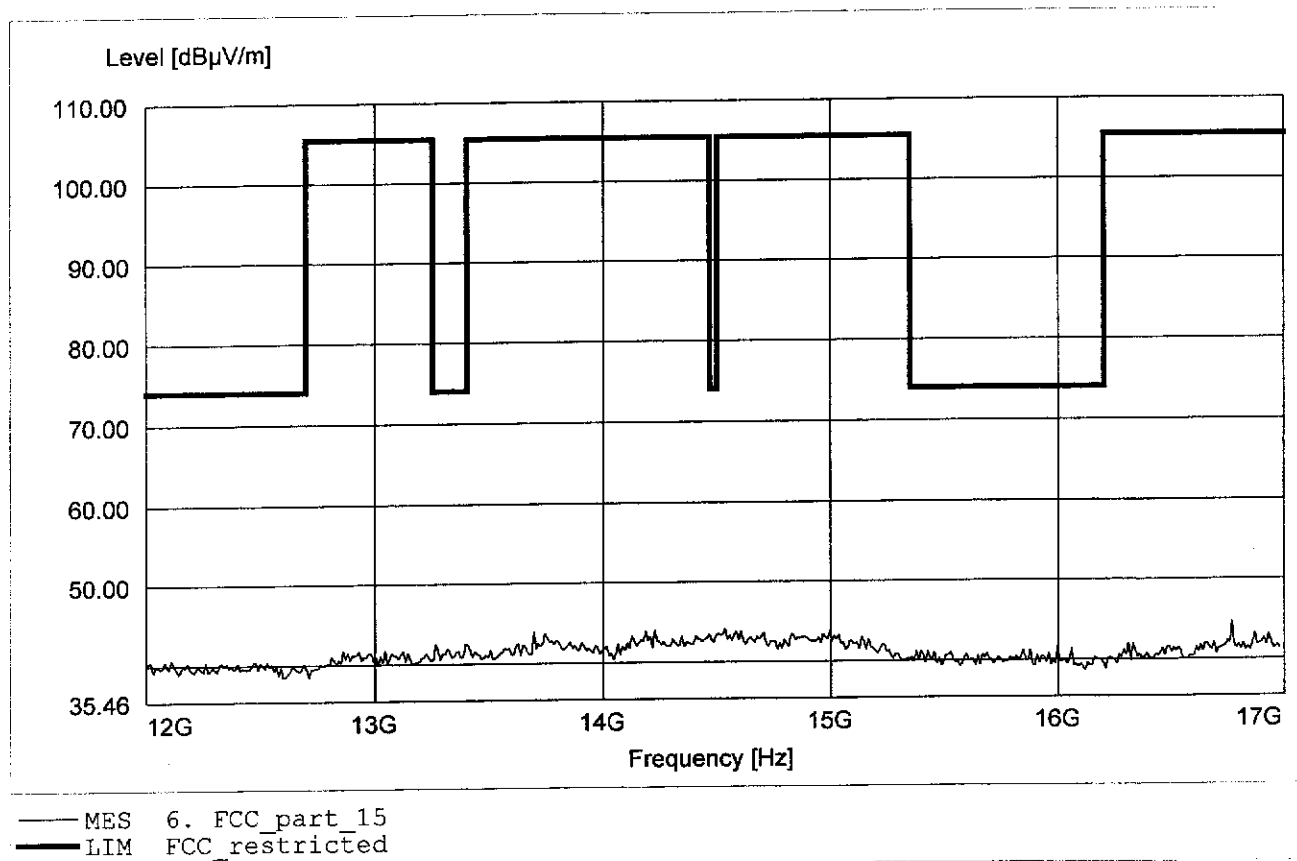
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 14.555GHz, Emax: 44.26dBµV/m, RBW: 1MHz



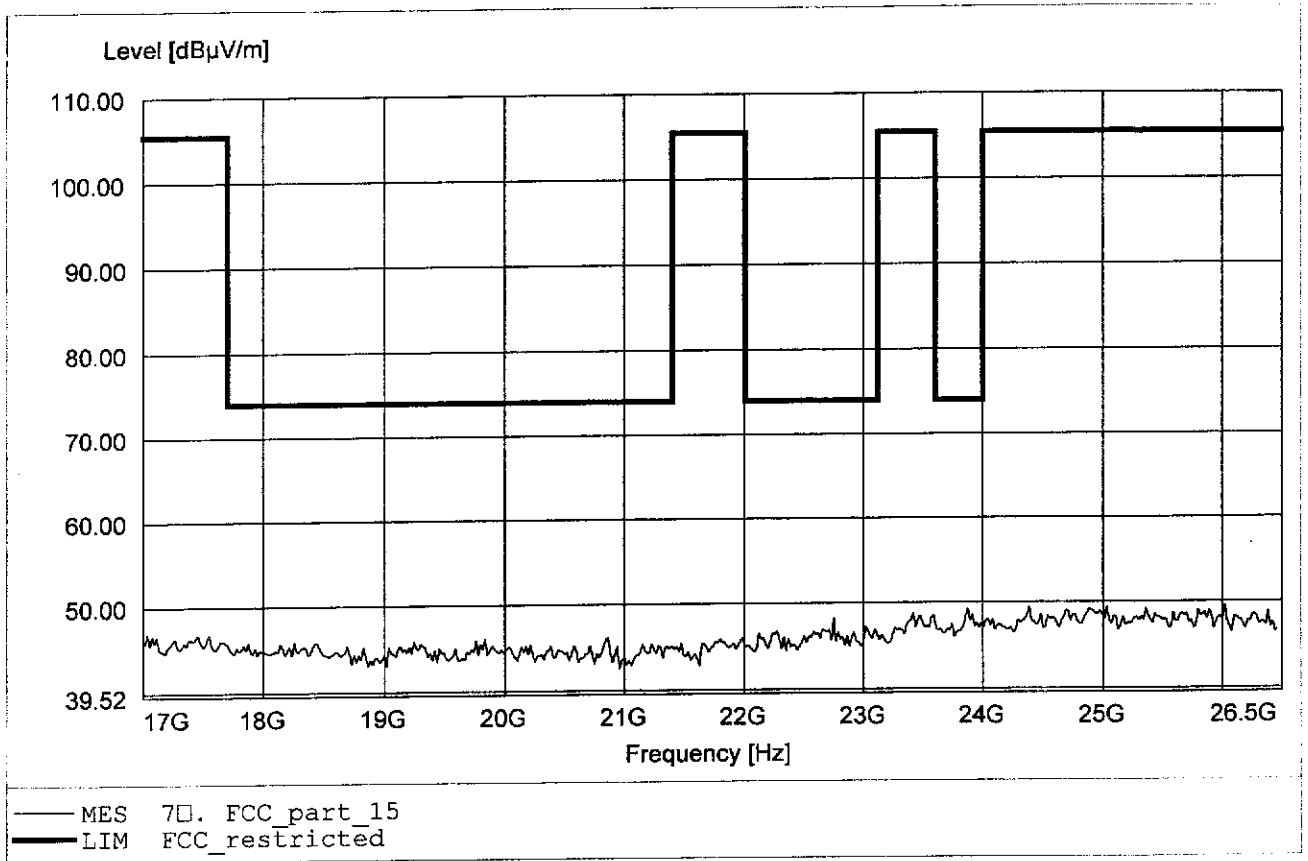
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 16.770GHz, Emax: 44.66dBµV/m, RBW: 1MHz



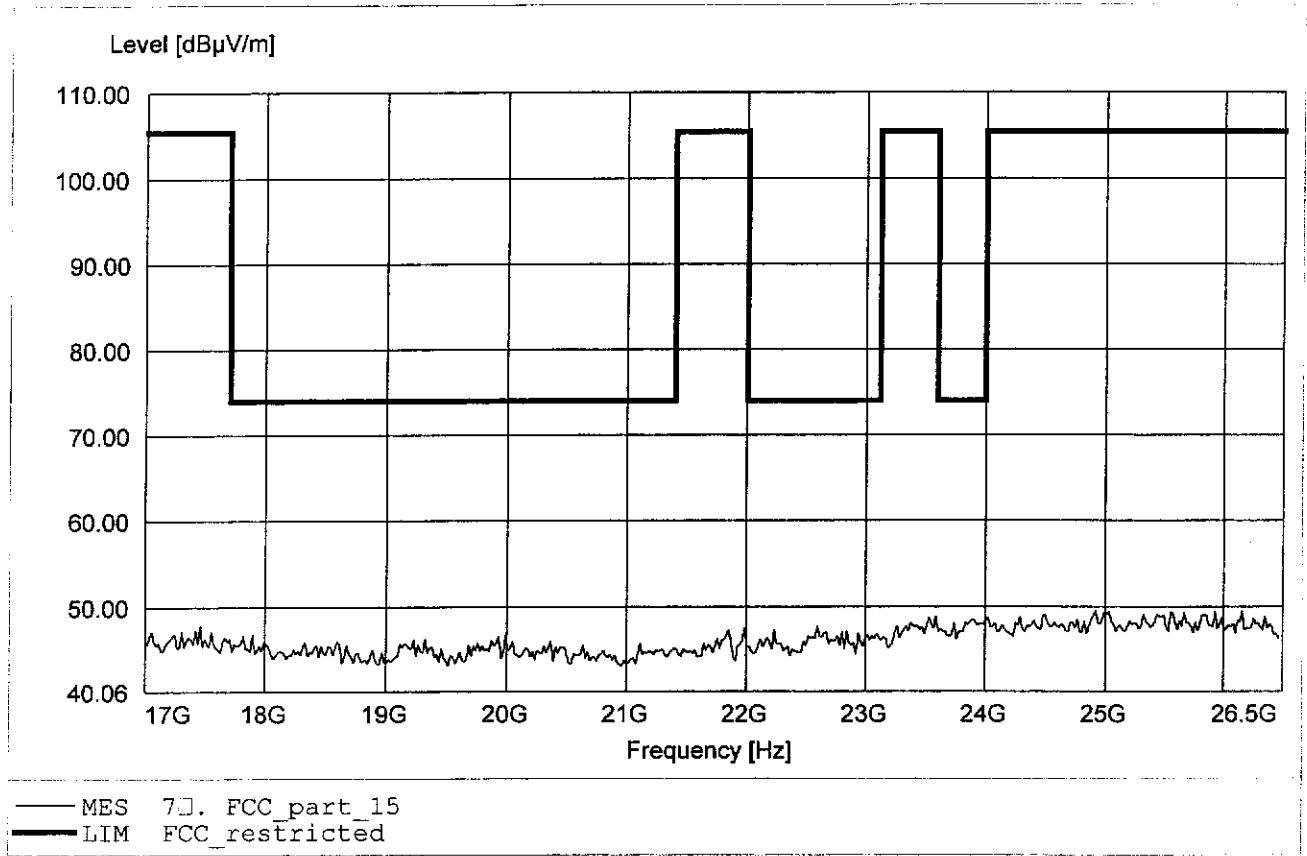
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 26.024GHz, Emax: 49.57dBμV/m, RBW: 1MHz



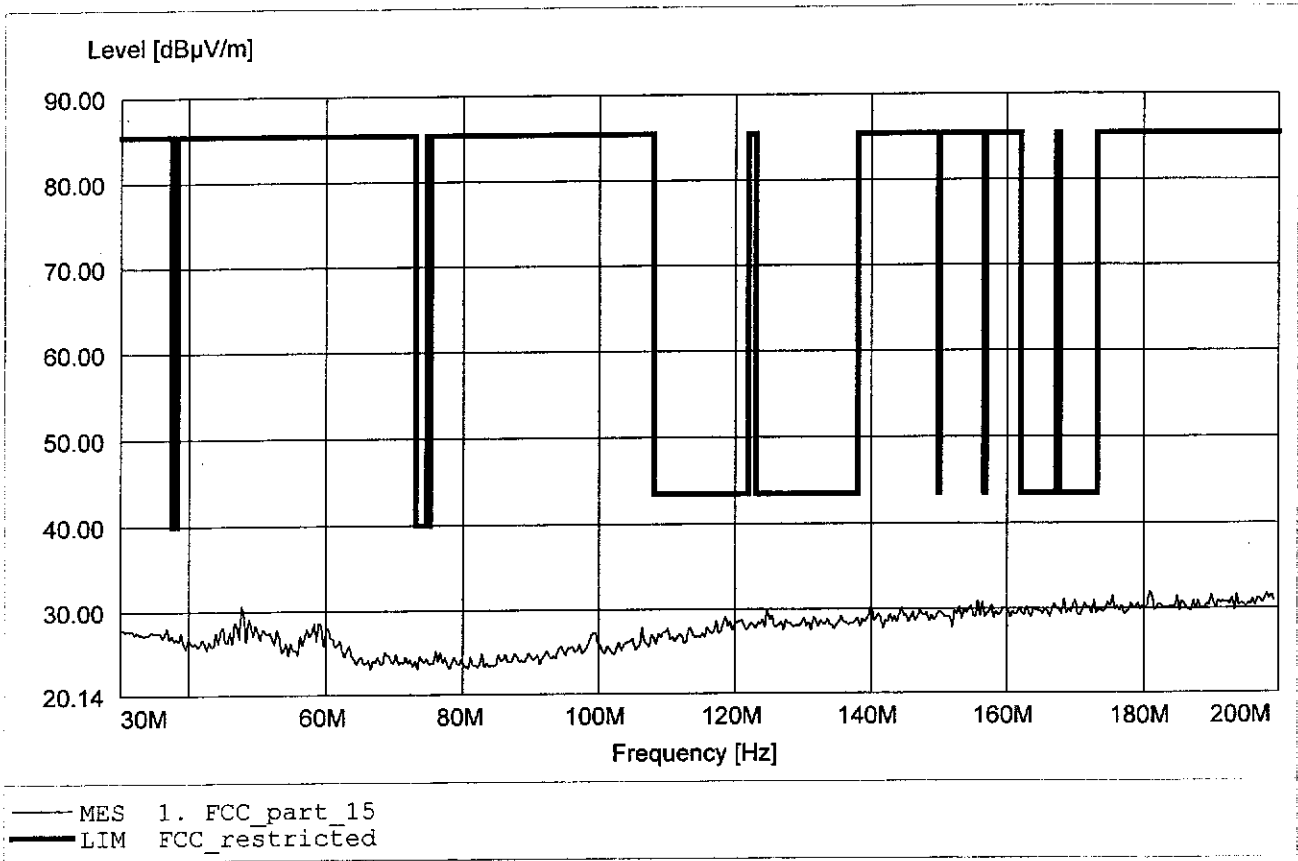
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2441MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 24.920GHz, Emax: 49.56dBuV/m, RBW: 1MHz



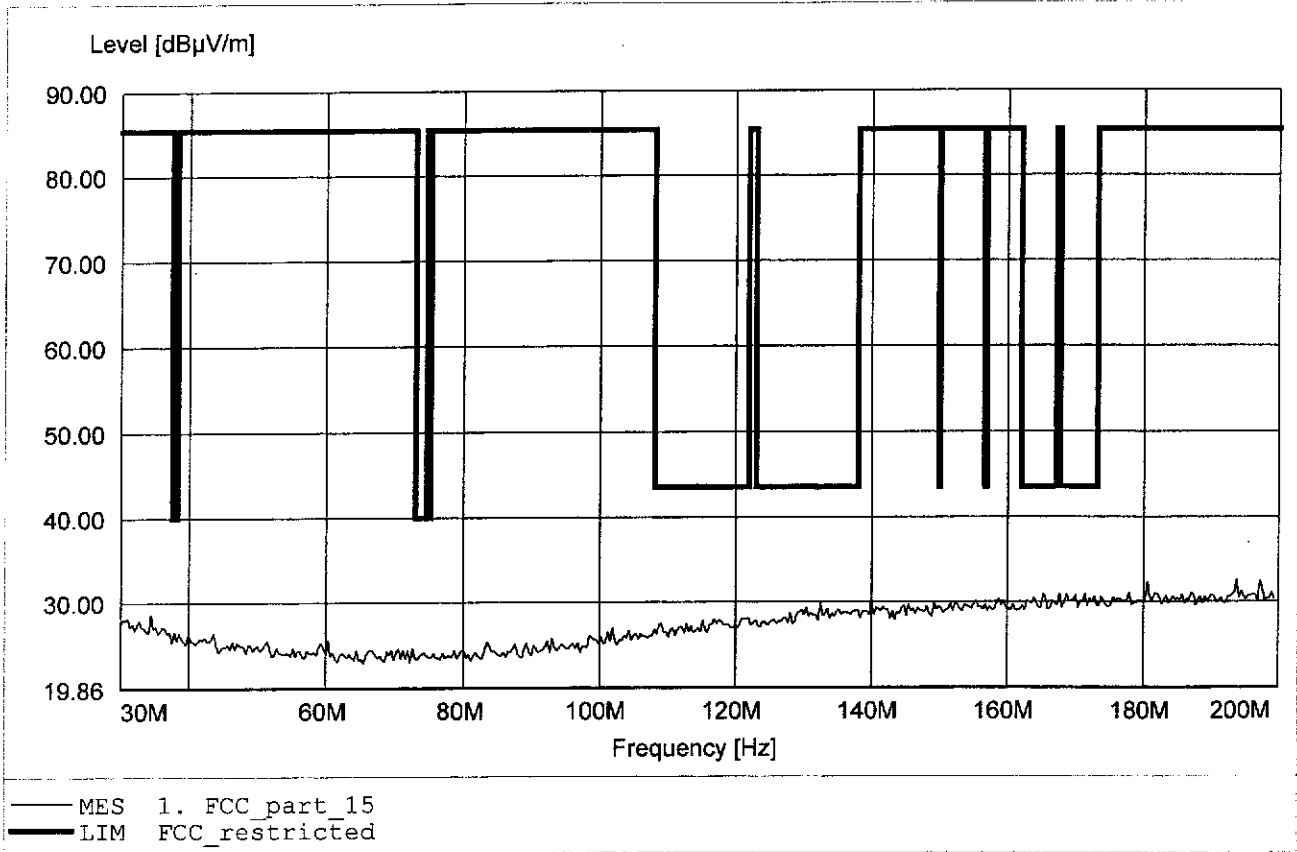
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 180.922MHz, Emax: 32.00dBuV/m, RBW: 100kHz



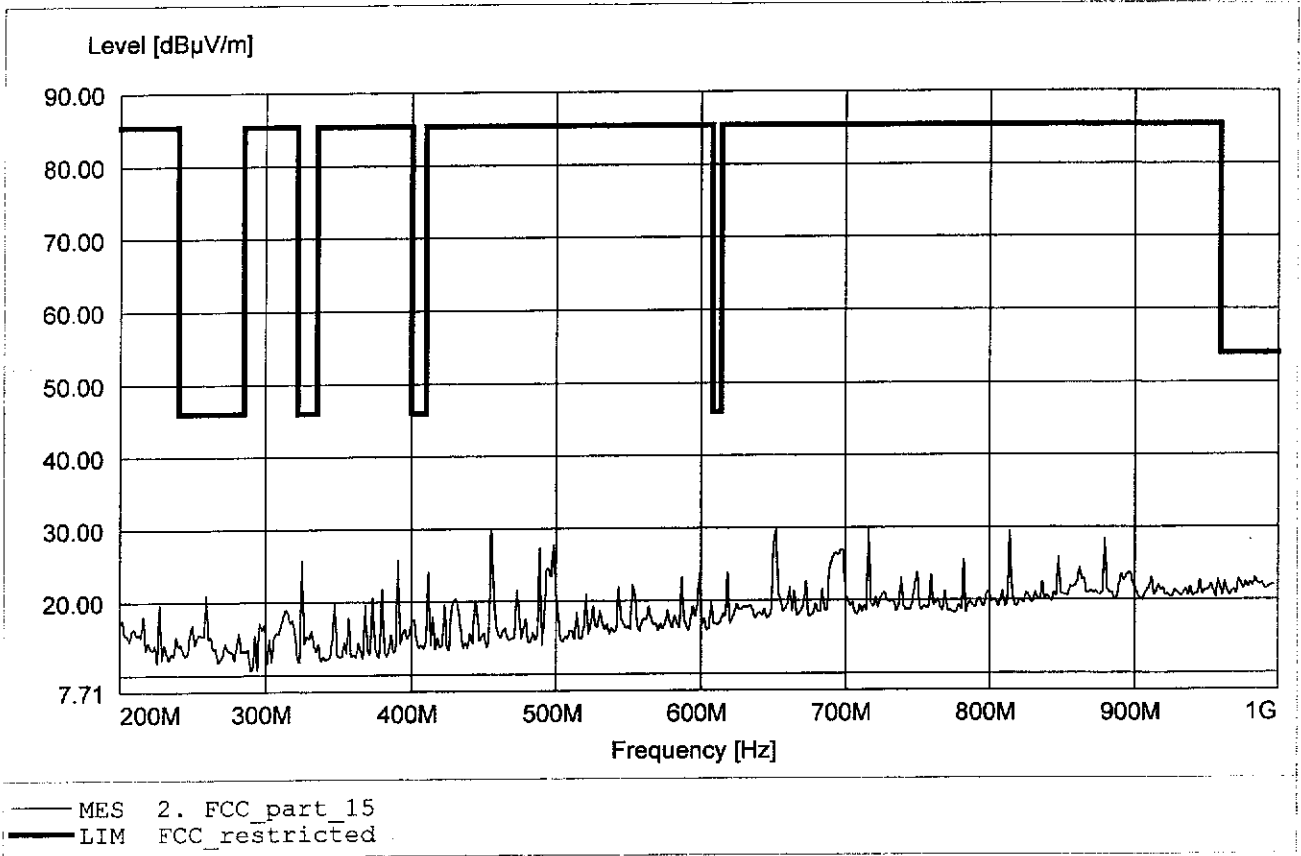
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 193.868MHz, Emax: 32.68dBμV/m, RBW: 100kHz



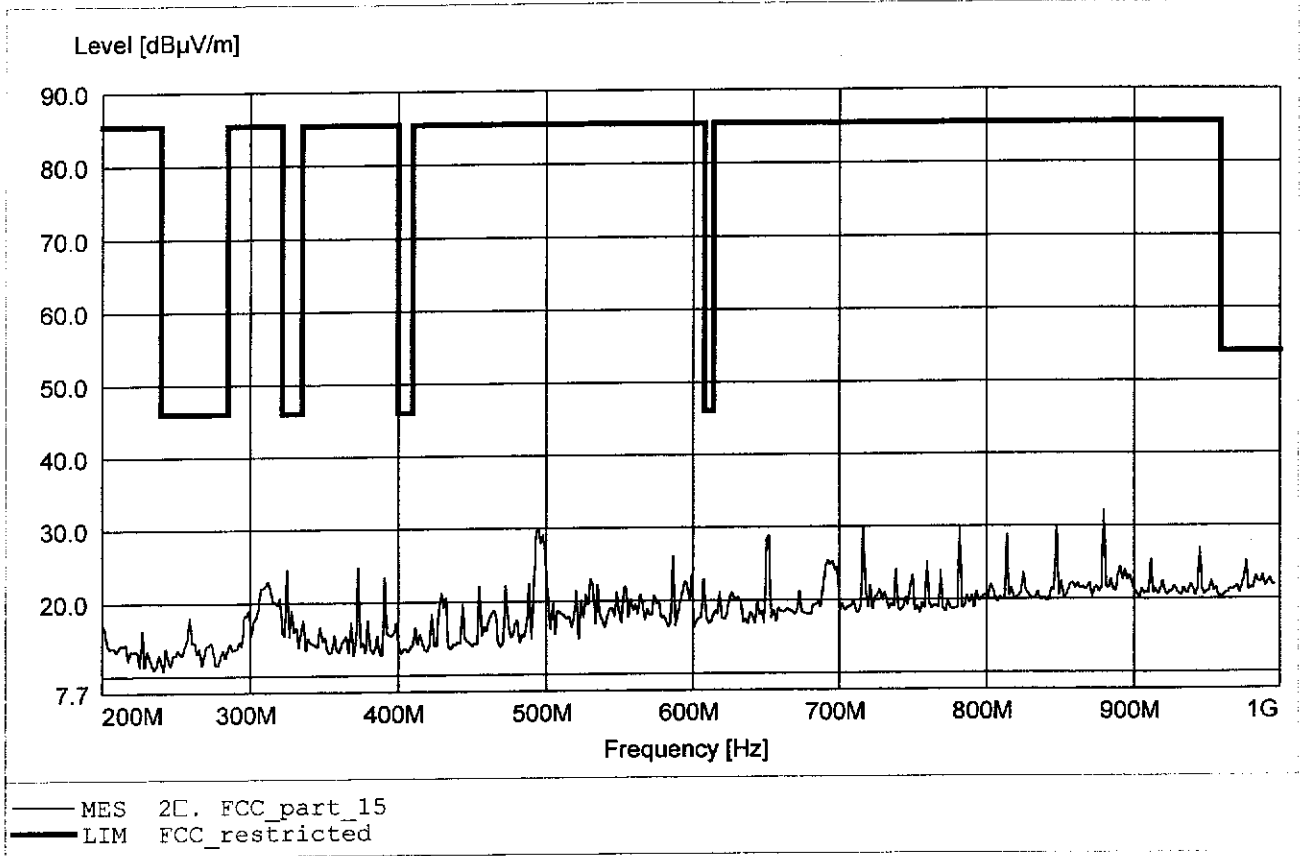
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Comment 2: Freq: 716.232MHz, Emax: 29.90dBµV/m, RBW: 100kHz



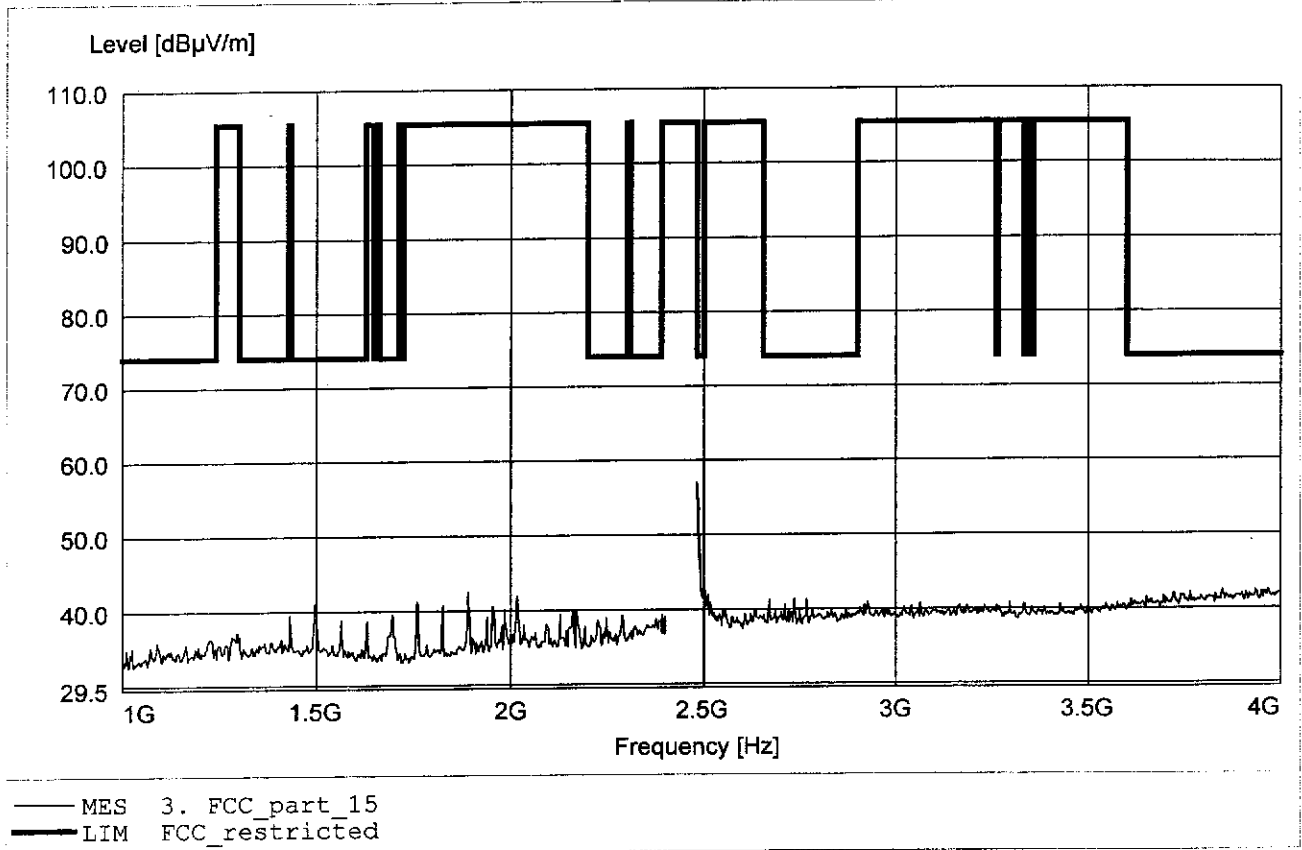
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15.247
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Comment 2: Freq: 879.760MHz, Emax: 32.03dBμV/m, RBW: 100kHz



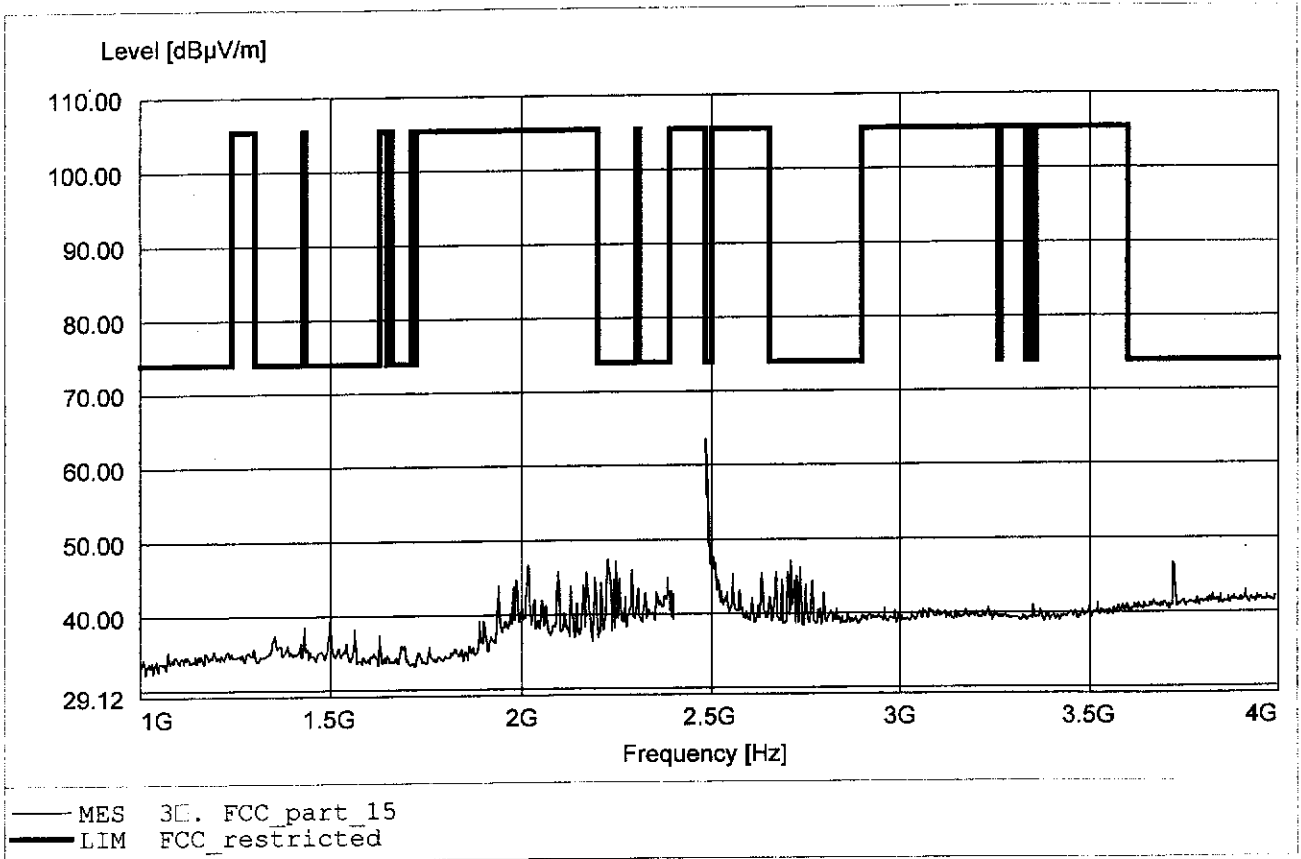
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, amplif.
Comment 2: Freq: 2.484GHz, Emax: 57.06dBµV/m, RBW: 1MHz



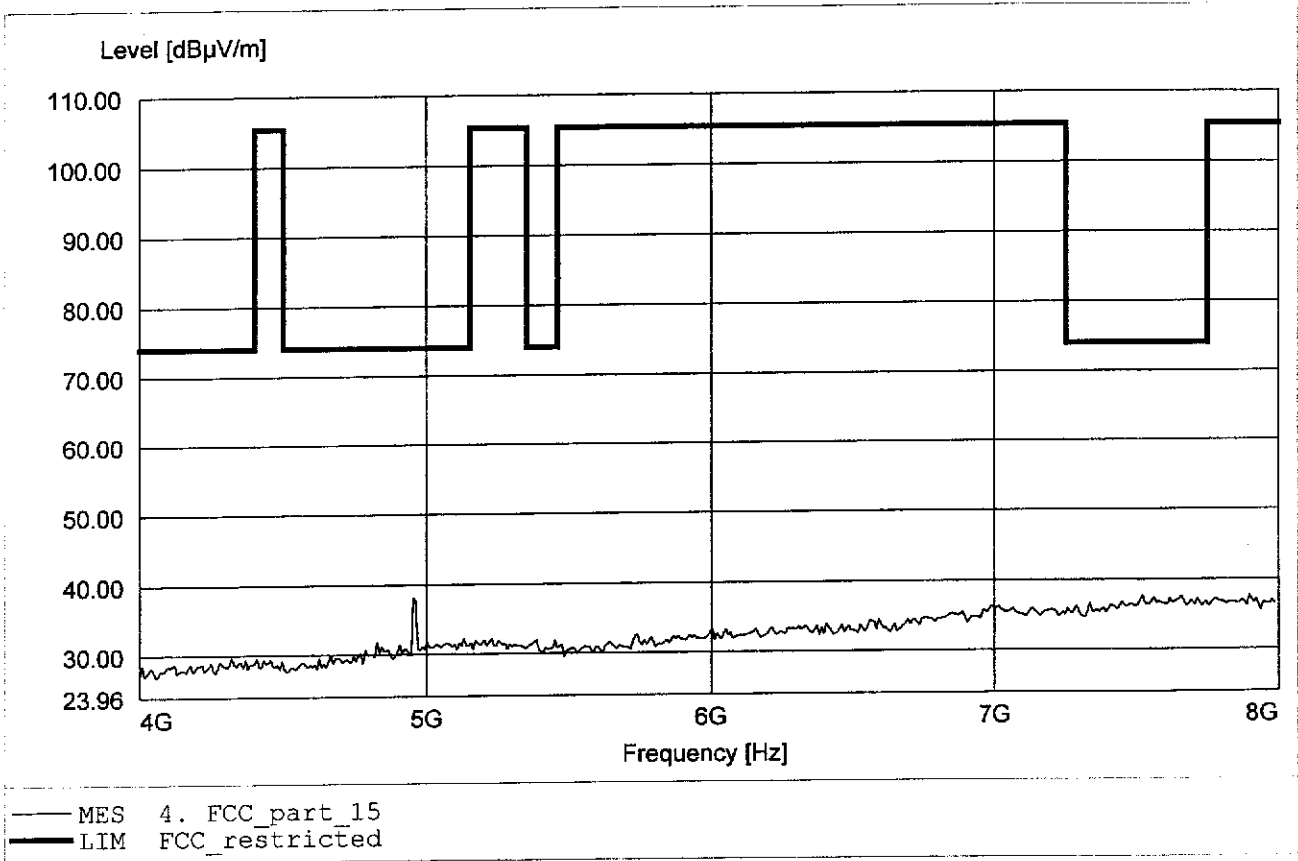
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, amplif.
Comment 2: Freq: 2.484GHz, Emax: 63.53dBuV/m, RBW: 1MHz



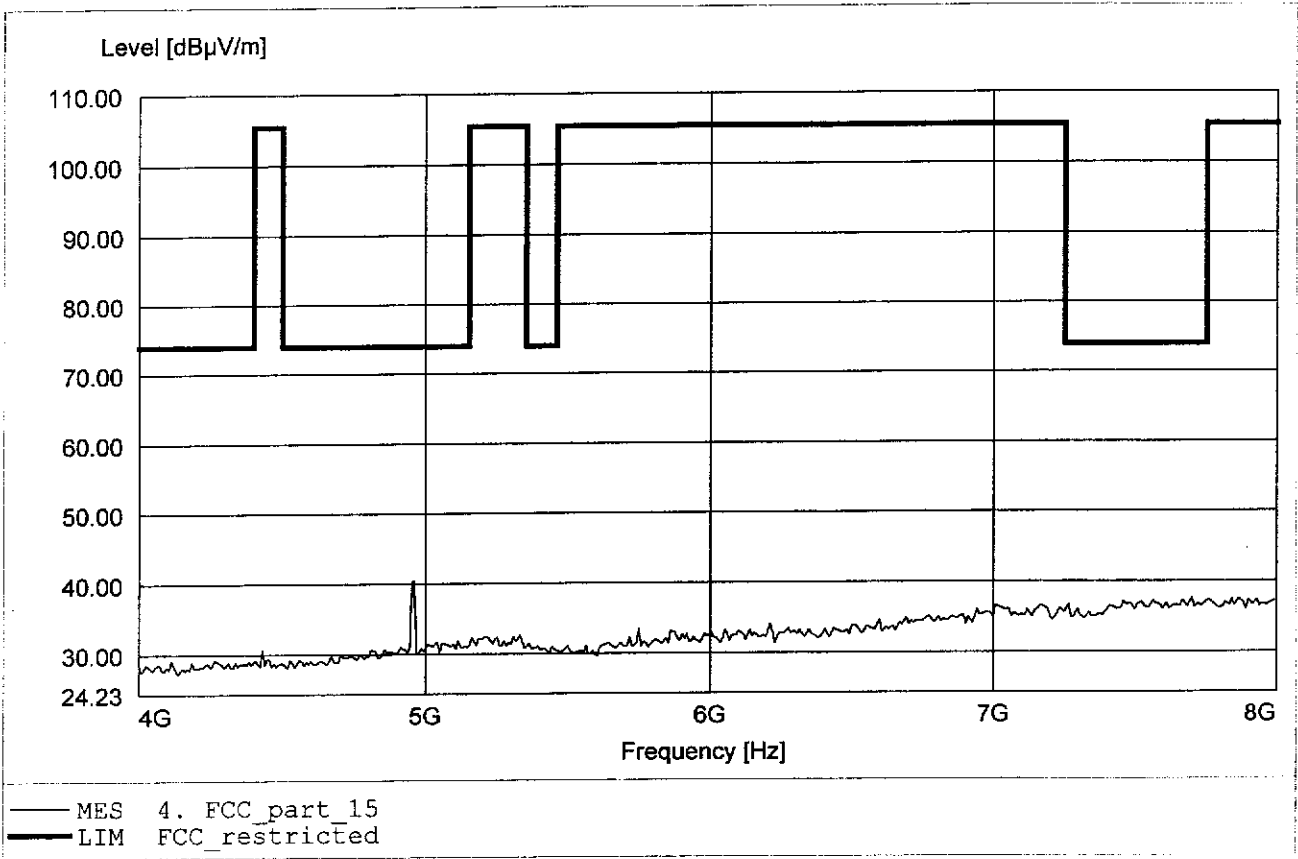
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 4.954GHz, Emax: 38.16dBuV/m, RBW: 1MHz



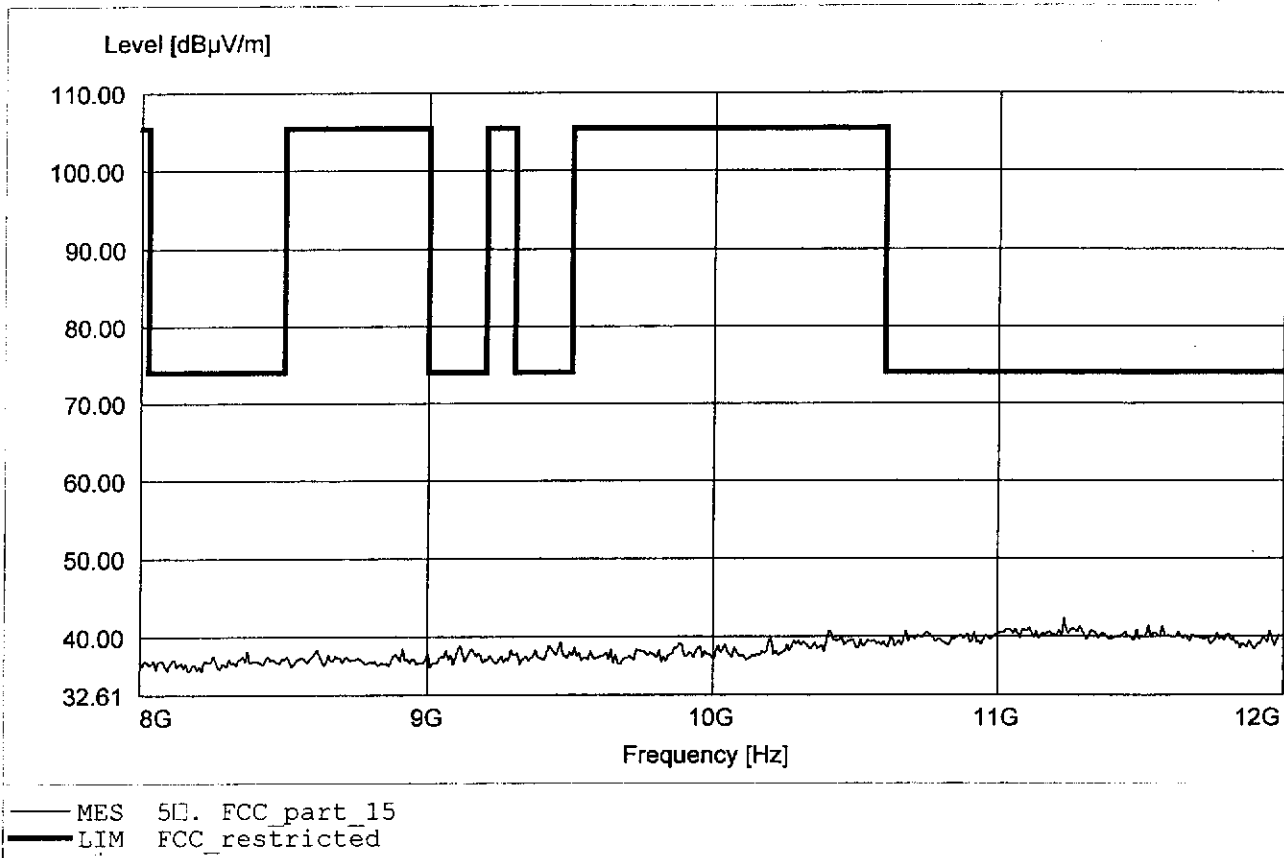
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 4.962GHz, Emax: 40.43dBuV/m, RBW: 1MHz



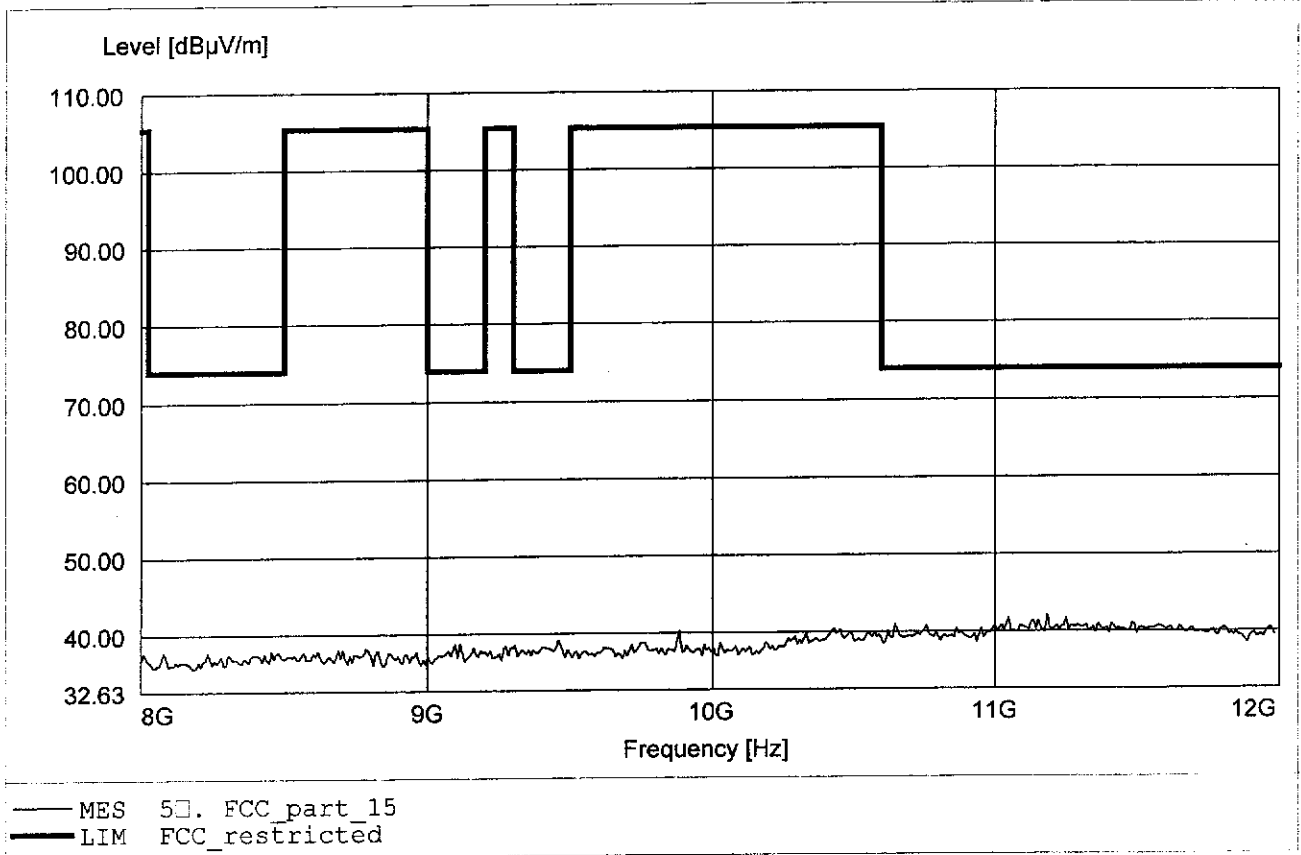
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 11.230GHz, Emax: 42.40dBuV/m, RBW: 1MHz



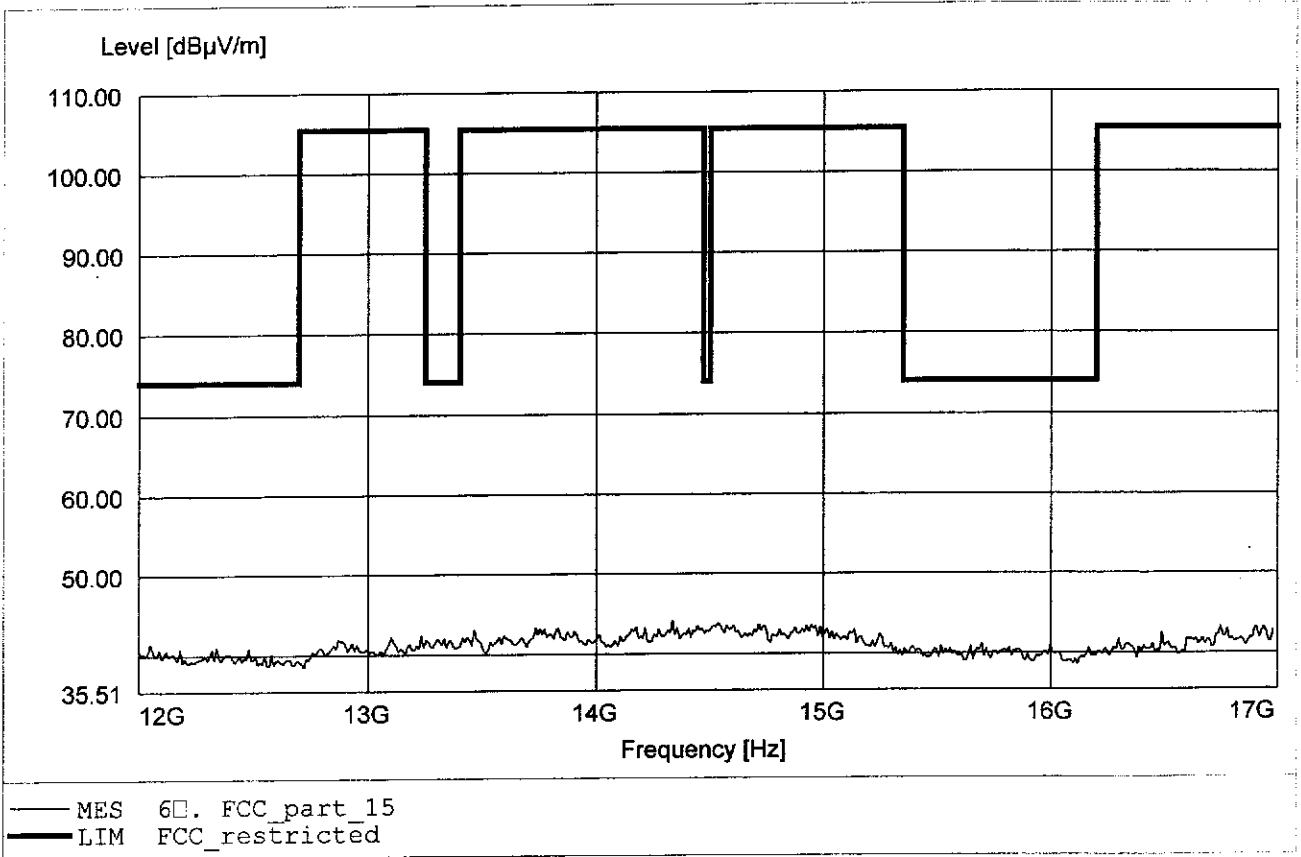
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 11.182GHz, Emax: 42.08dB μ V/m, RBW: 1MHz



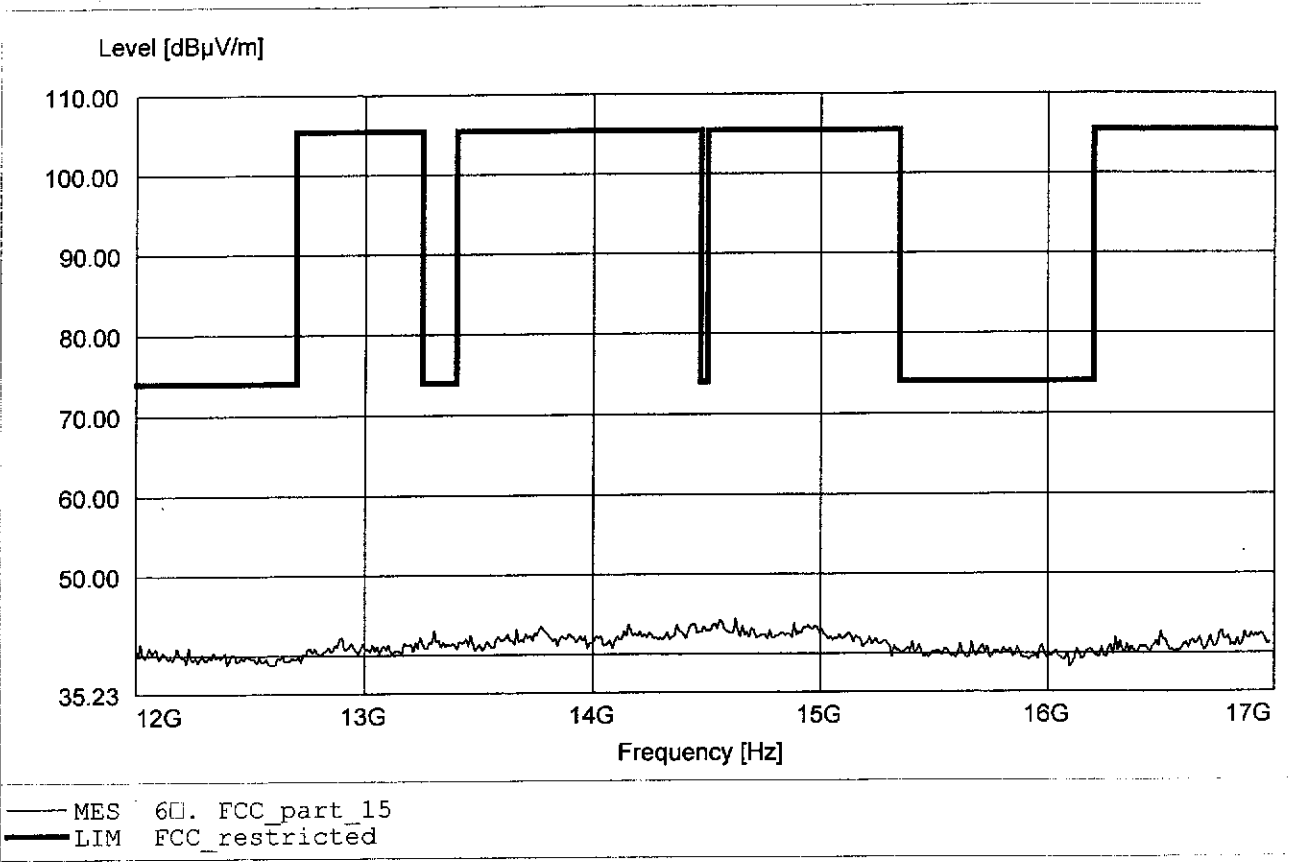
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 14.335GHz, Emax: 44.11dBµV/m, RBW: 1MHz



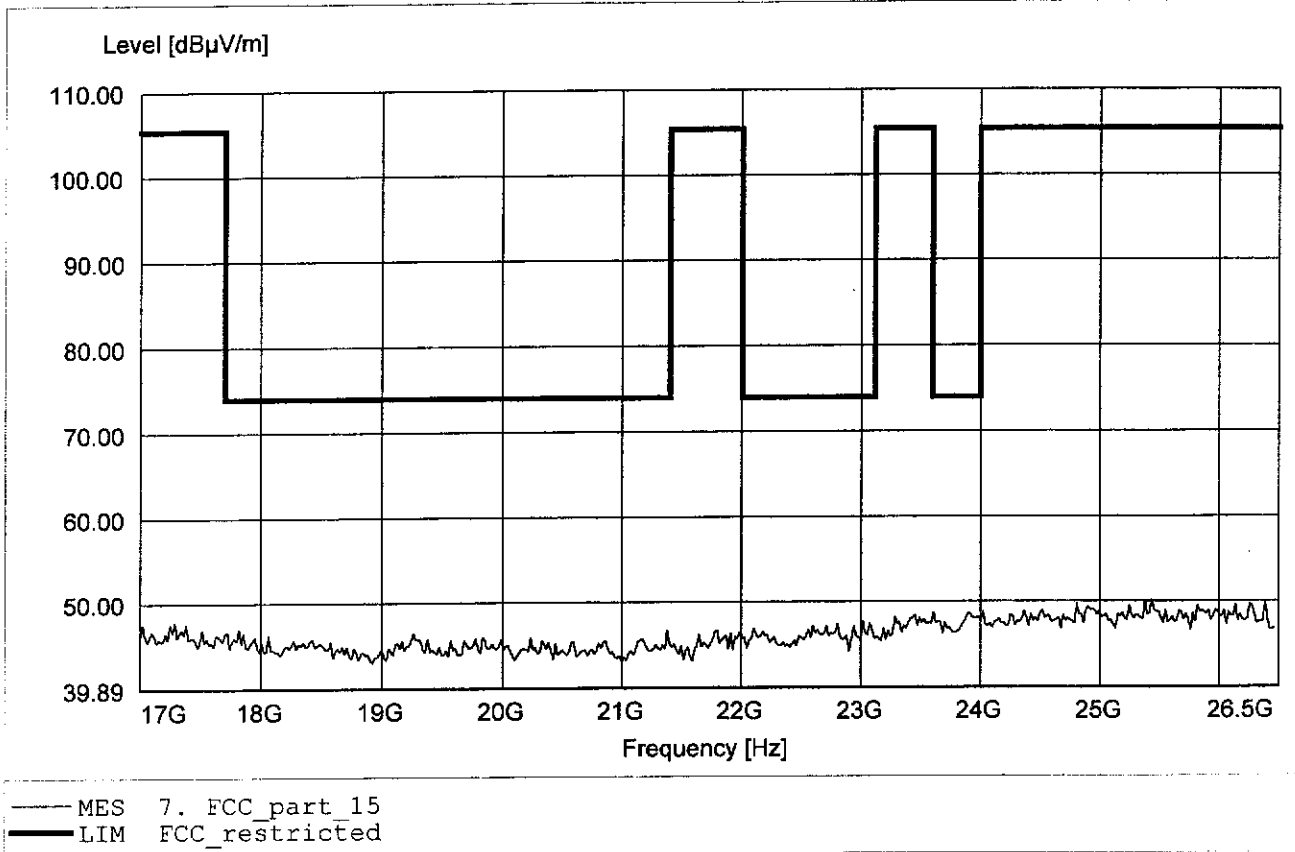
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: BBHA2190D, ampl.+HP.
Comment 2: Freq: 14.625GHz, Emax: 44.39dBμV/m, RBW: 1MHz



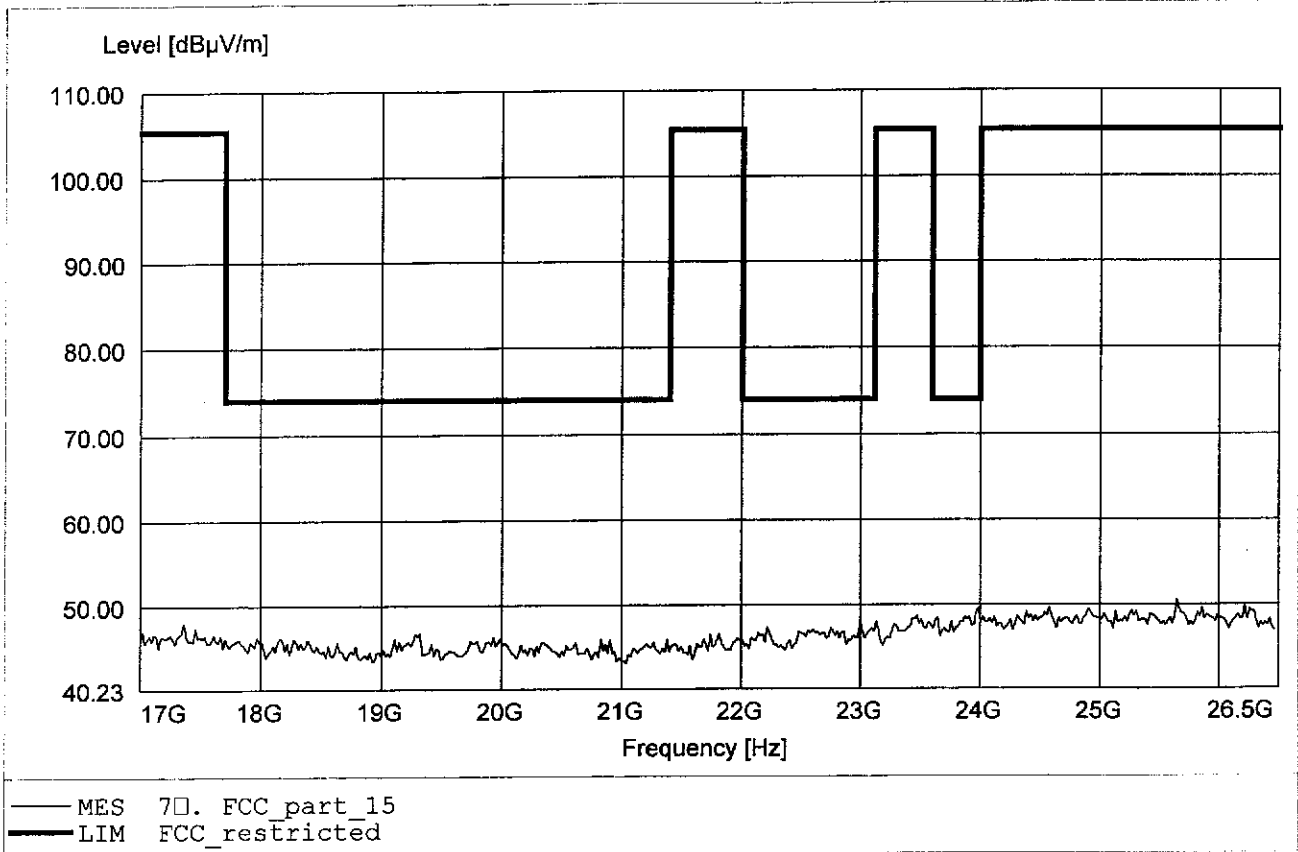
**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 25.434GHz, Emax: 50.15dBμV/m, RBW: 1MHz



**Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Pmax / 2480MHz
Model: UGPZ1
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 4.4 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to S15247, Limit 20 dB up peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Comment 2: Freq: 25.643GHz, Emax: 50.57dBuV/m, RBW: 1MHz





Appendix D

Spurious Emissions conducted - Transmitter operating

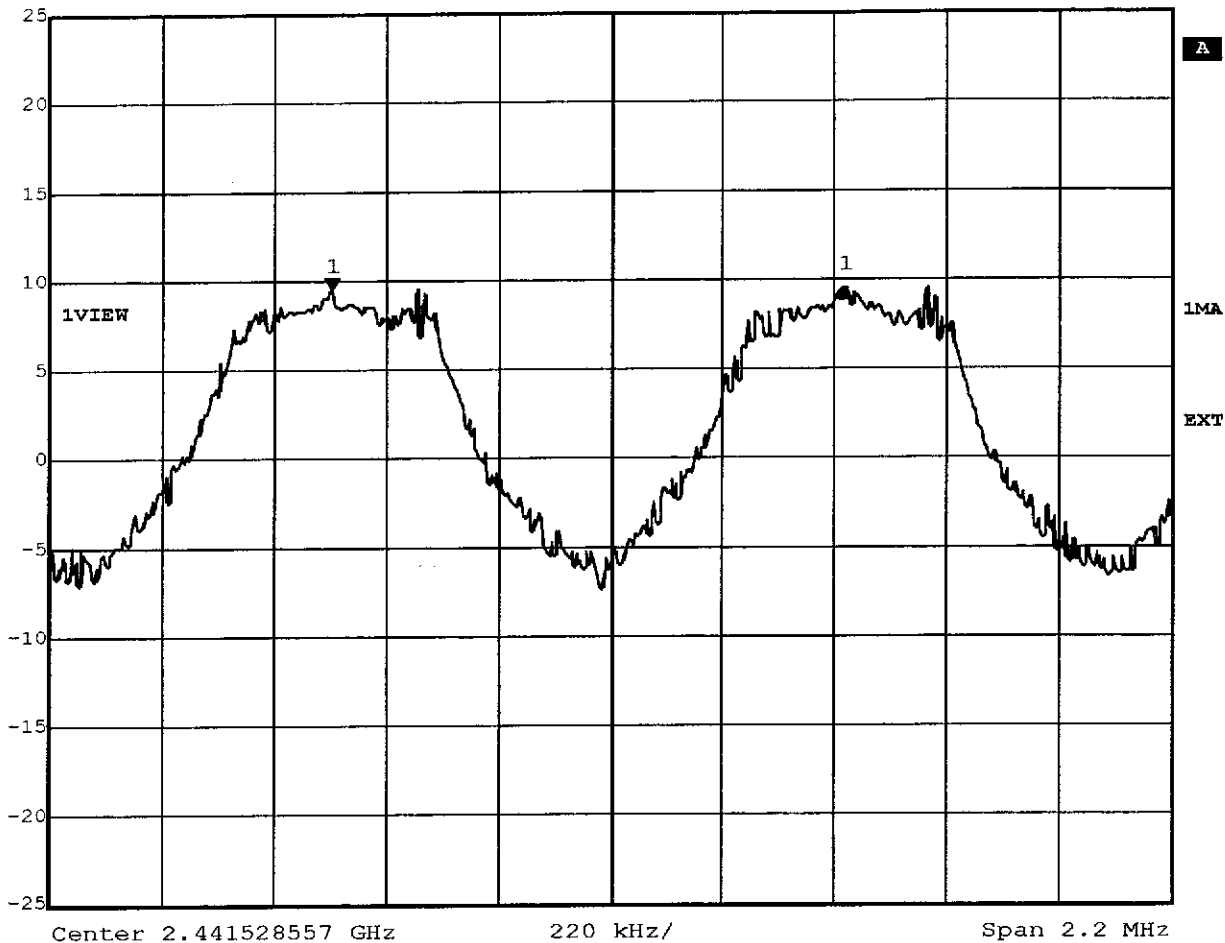


Appendix E

Carrier Frequency Separation



Delta 1 [T1] REW 100 kHz RF Att 50 dB
Ref Lvl 0.01 dB VBW 100 kHz
25 dBm 1.00521042 MHz SWT 5 ms Unit dBm



Title: Carrier Frequency Separation
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 10:12:29

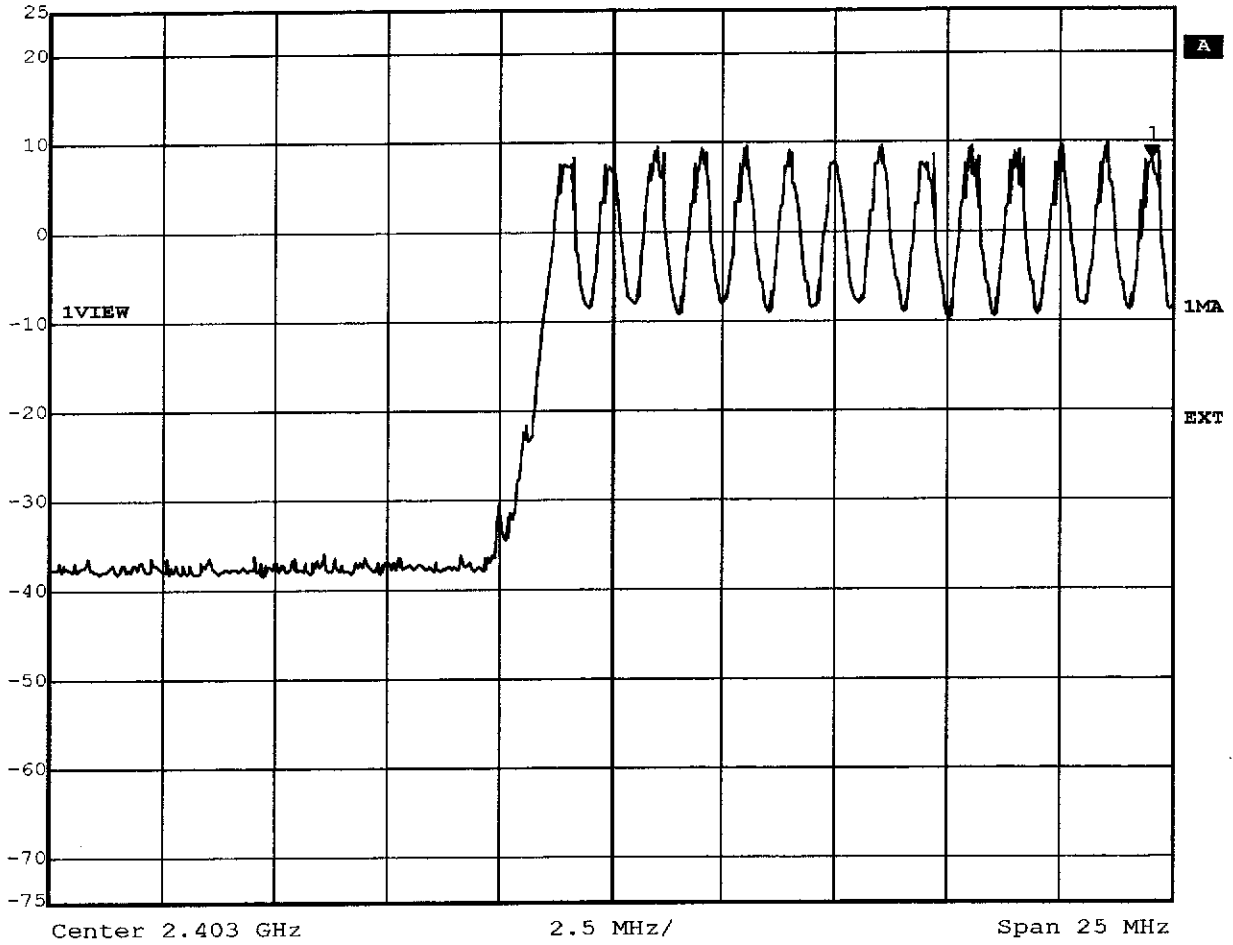


Appendix F

Number of Hopping Frequencies



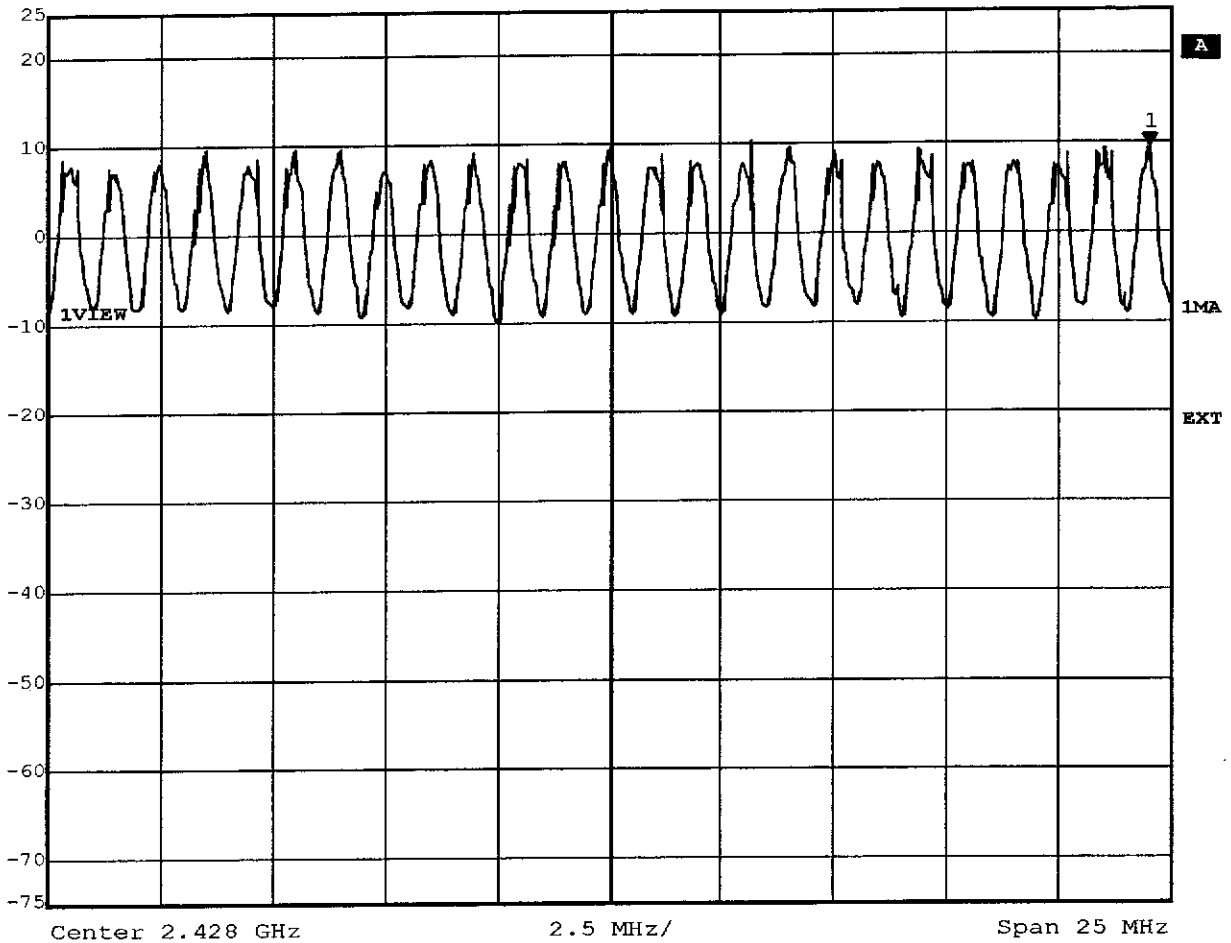
Marker 1 [T1] RBW 50 kHz RF Att 50 dB
Ref Lvl 7.81 dBm VBW 50 kHz
25 dBm 2.41504910 GHz SWT 25 ms Unit dBm



Title: Number of Hopping Frequencies Ch.: 0-13
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 10:18:40



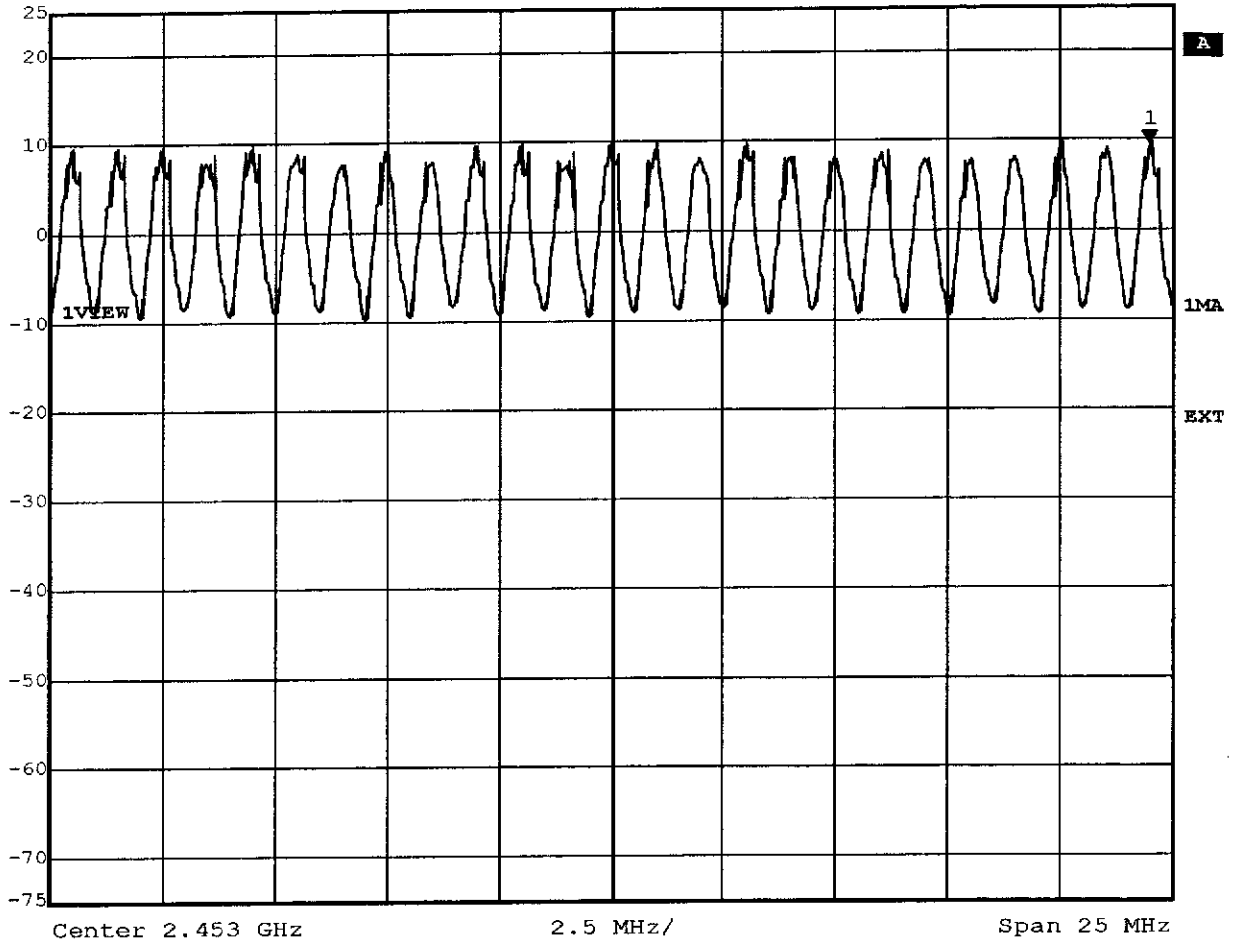
Marker 1 [T1] RBW 50 kHz RF Att 50 dB
Ref Lvl 9.35 dBm VBW 50 kHz
25 dBm 2.44004910 GHz SWT 25 ms Unit dBm



Title: Number of Hopping Frequencies Ch.: 14-38
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 10:24:54



Marker 1 [T1] RBW 50 kHz RF Att 50 dB
Ref Lvl 9.45 dBm VBW 50 kHz
25 dBm 2.46499900 GHz SWT 25 ms Unit dBm

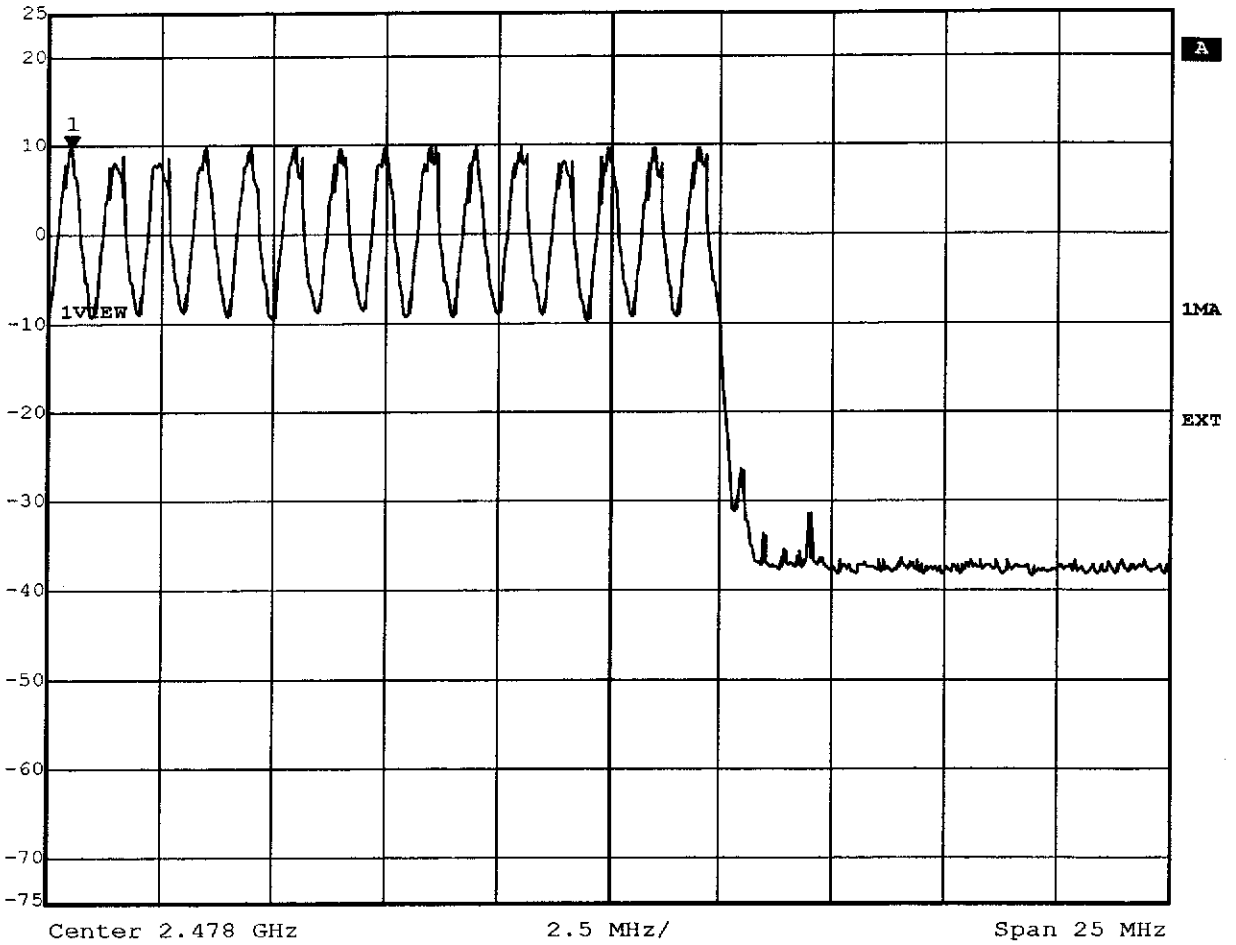


Title: Number of Hopping Frequencies Ch.: 39-63
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 10:32:47



Marker 1 [T1]	RBW	50 kHz	RF Att	50 dB
9.51 dBm	VBW	50 kHz		
2.46600100 GHz	SWT	25 ms	Unit	dBm

Ref Lvl 25 dBm



Title: Number of Hopping Frequencies Ch.: 64-78
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 10:47:30

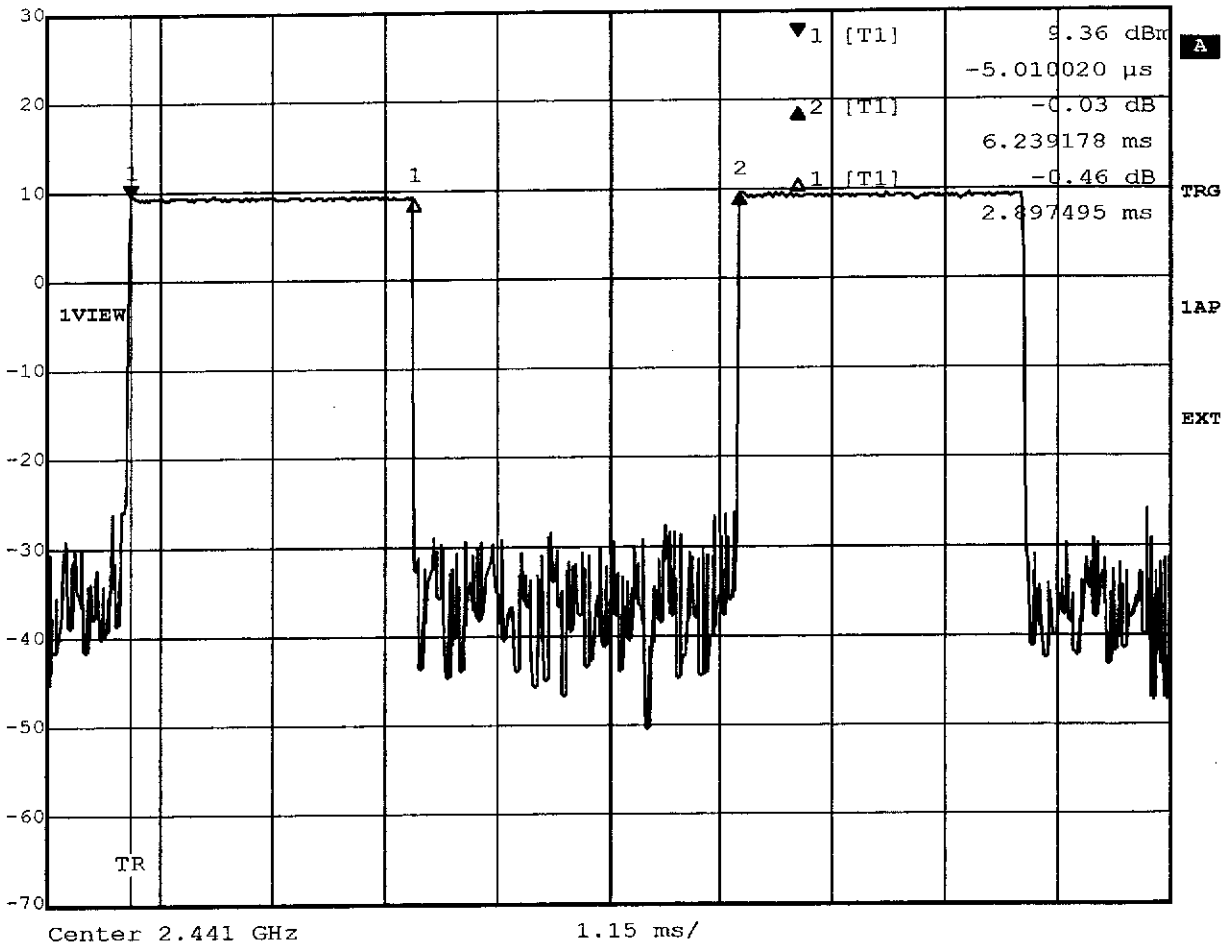


Appendix G

Time of Occupancy (Dwell Time)



Delta 2 [T1] RBW 1 MHz RF Att 60 dB
 Ref Lvl -0.03 dB VBW 1 MHz
 30 dBm 6.239178 ms SWT 11.5 ms Unit dBm



Title: Dwell Time
 Comment A: Alps Bluetooth Module UGPZ1
 Date: 13.JUN.2002 10:01:49

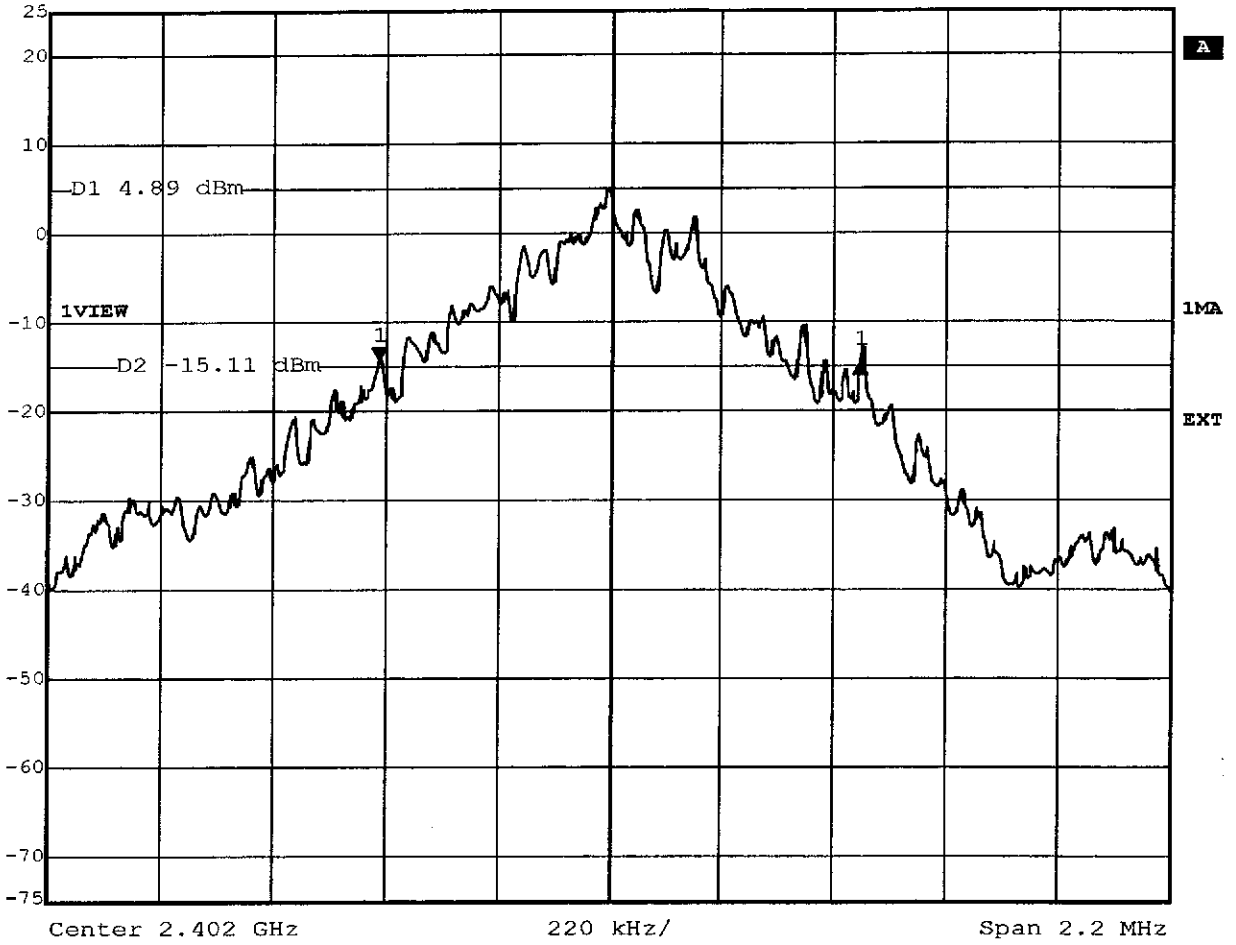


Appendix H

20dB Bandwidth



Delta 1 [T1]	RBW	10 kHz	RF Att	50 dB
-0.39 dB	VBW	10 kHz		
Ref Lvl	SWT	56 ms	Unit	dBm
25 dBm	943.48697395 kHz			

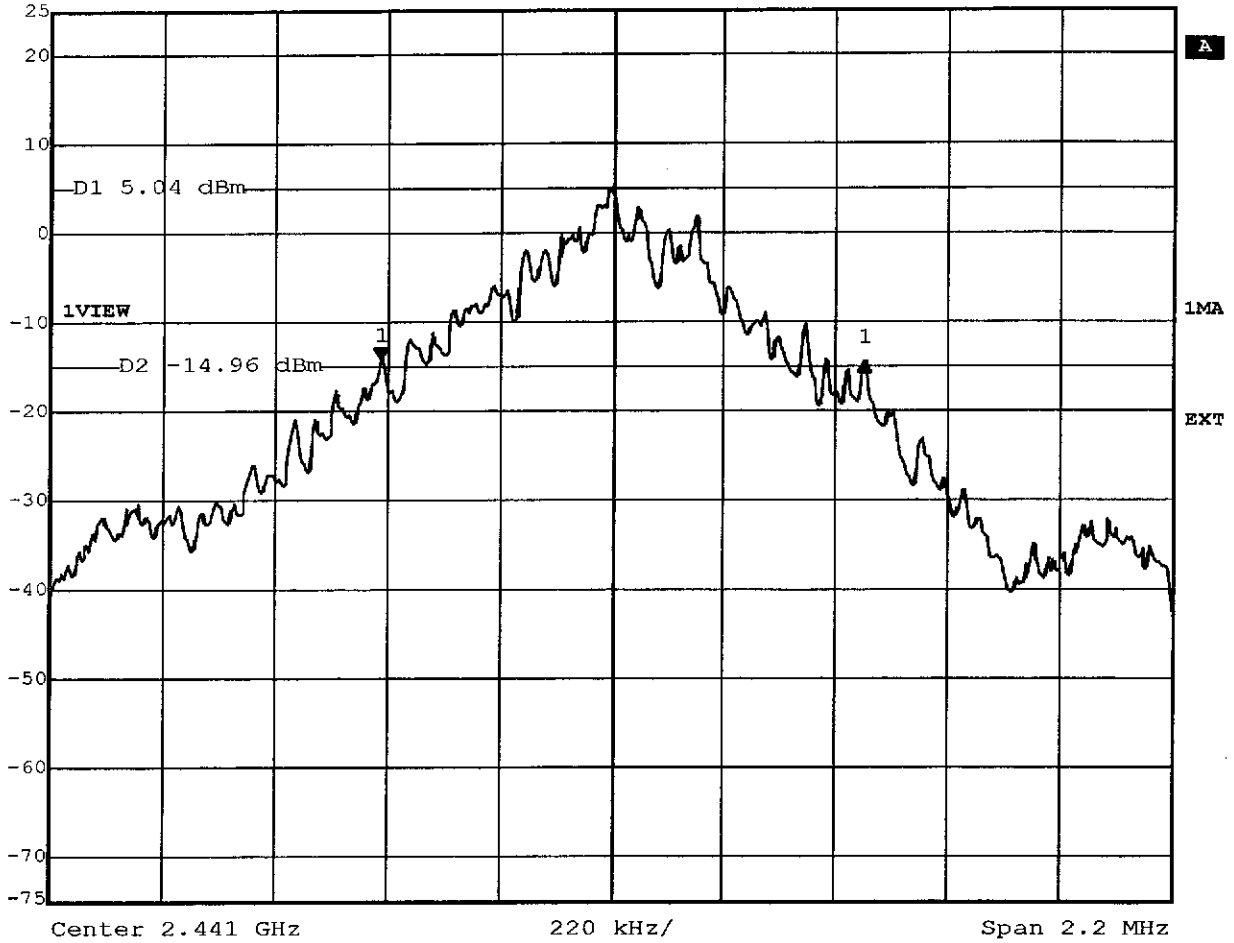


Center 2.402 GHz 220 kHz/ Span 2.2 MHz

Title: 20 dB Bandwidth Ch.: 0
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 09:53:17



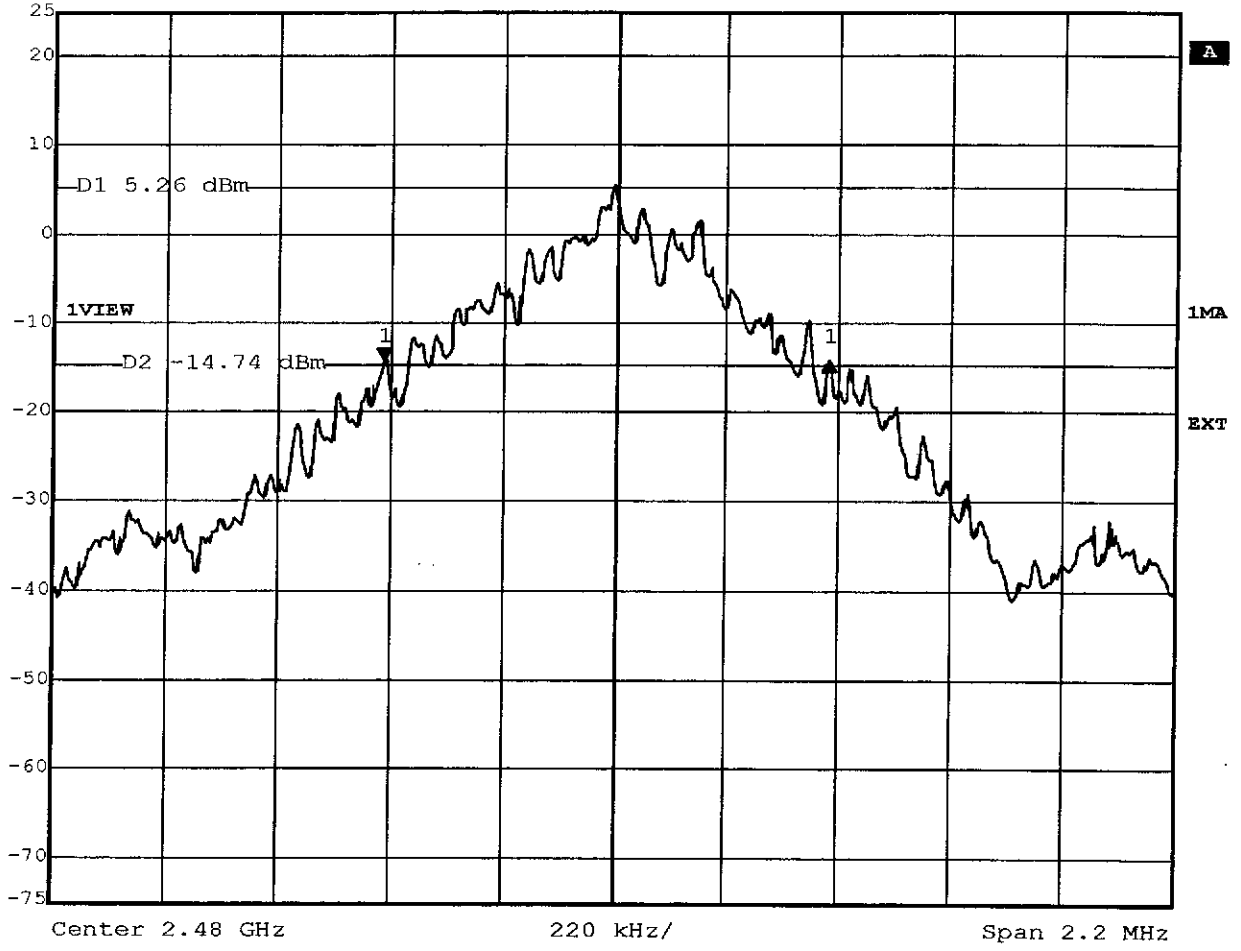
Delta 1 [T1]	RBW	10 kHz	RF Att	50 dB
Ref Lvl	-0.13 dB	VBW	10 kHz	
25 dBm	947.89579158 kHz	SWT	56 ms	Unit dBm



Title: 20 dB Bandwidth Ch.: 39
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 09:49:36



Delta 1 [T1] RBW 10 kHz RF Att 50 dB
Ref Lvl -0.15 dB VBW 10 kHz
25 dBm 872.94589178 kHz SWT 56 ms Unit dBm



Title: 20 dB Bandwidth Ch.: 78
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 09:55:28

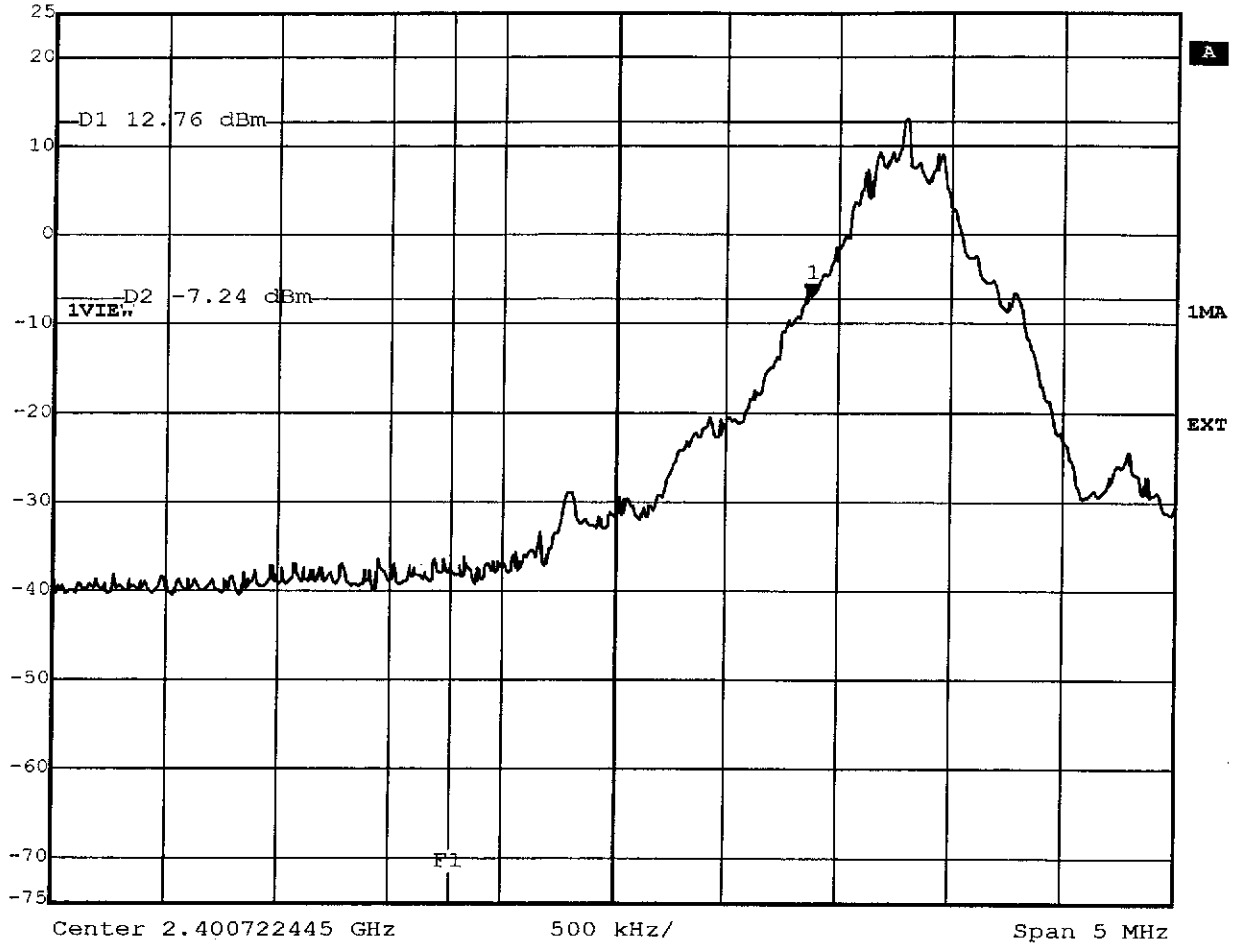


Appendix I

Band-edge Compliance of RF Emissions



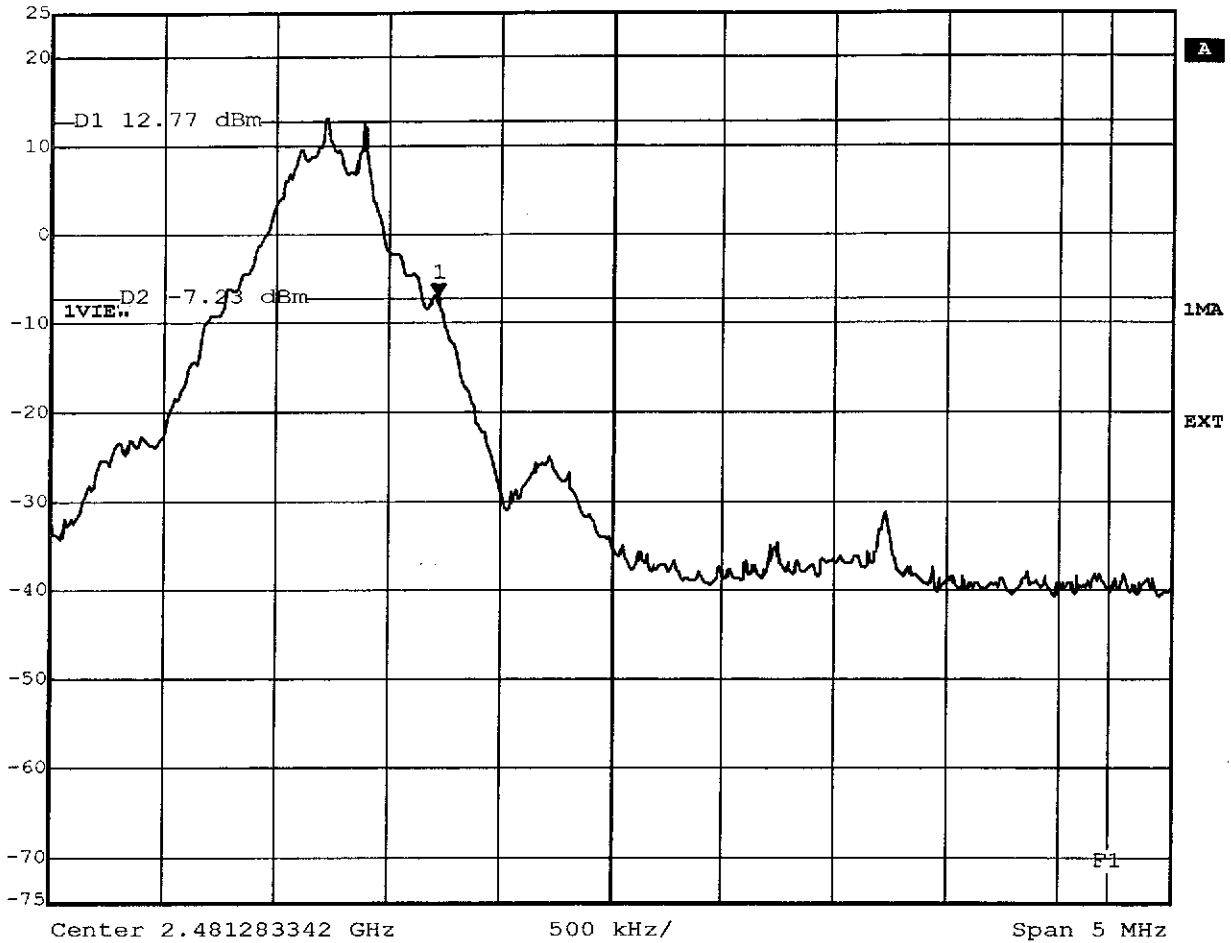
Marker 1 [T1] RBW 50 kHz RF Att 50 dB
Ref Lvl -7.04 dBm VBW 50 kHz
25 dBm 2.40159920 GHz SWT 5 ms Unit dBm



Title: Band-edge Compliance of RF Conducted Emissions Ch.: 0
Comment A: Alps Bluetooth Module UGPZ1
Date: 11.JUN.2002 07:56:07



Marker 1 [T1] REW 50 kHz RF Att 50 dB
Ref Lvl -7.21 dBm VBW 50 kHz
25 dBm 2.48050679 GHz SWT 5 ms Unit dBm



Title: Band-edge Compliance of RF Conducted Emissions Ch.: 78
Comment A: Alps Bluetooth Module UGP21
Date: 11.JUN.2002 07:53:27



Appendix J

Conducted Measurement at (AC) Power Line

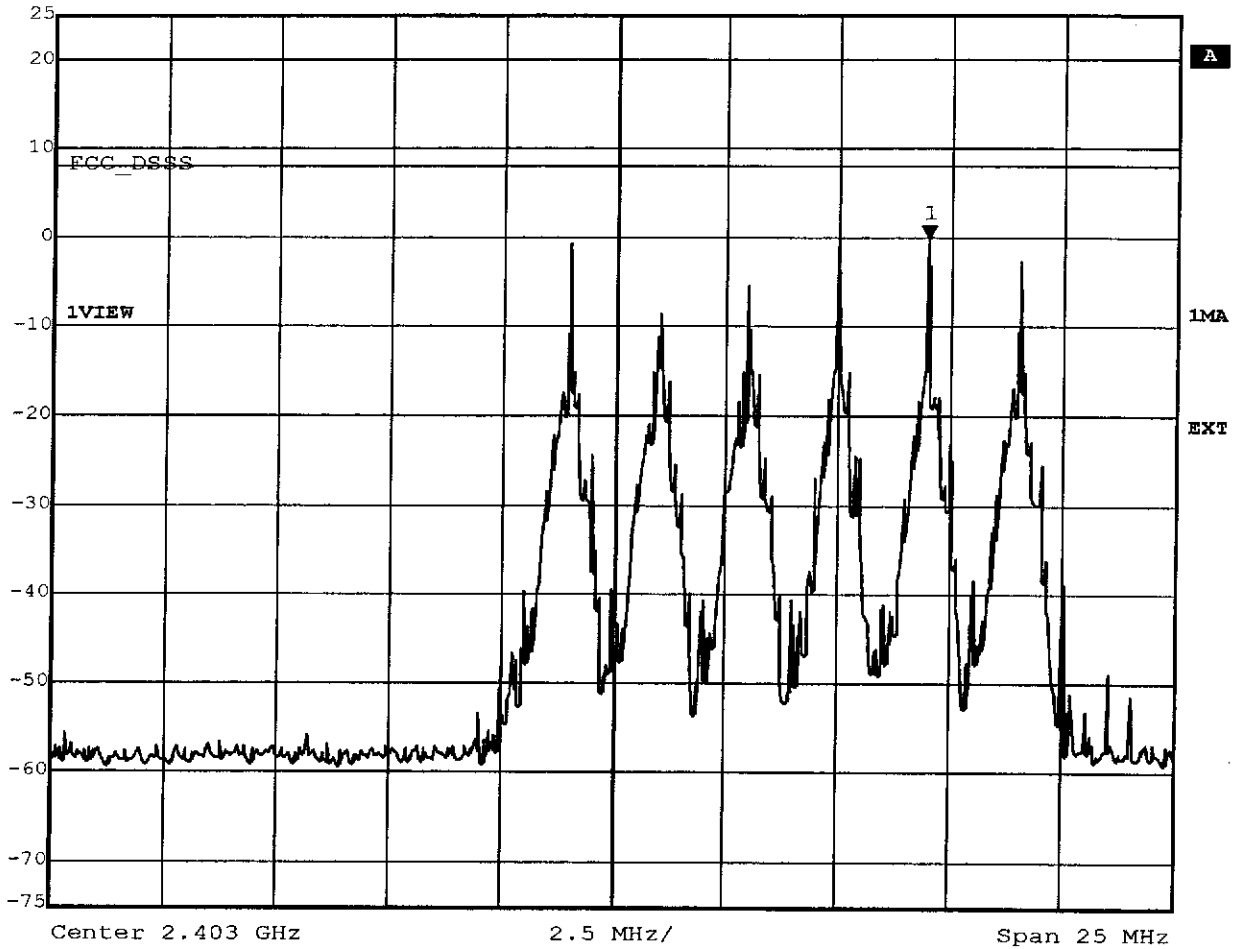


Appendix K

Peak Power Spectral Density (Master Inquiry Mode)



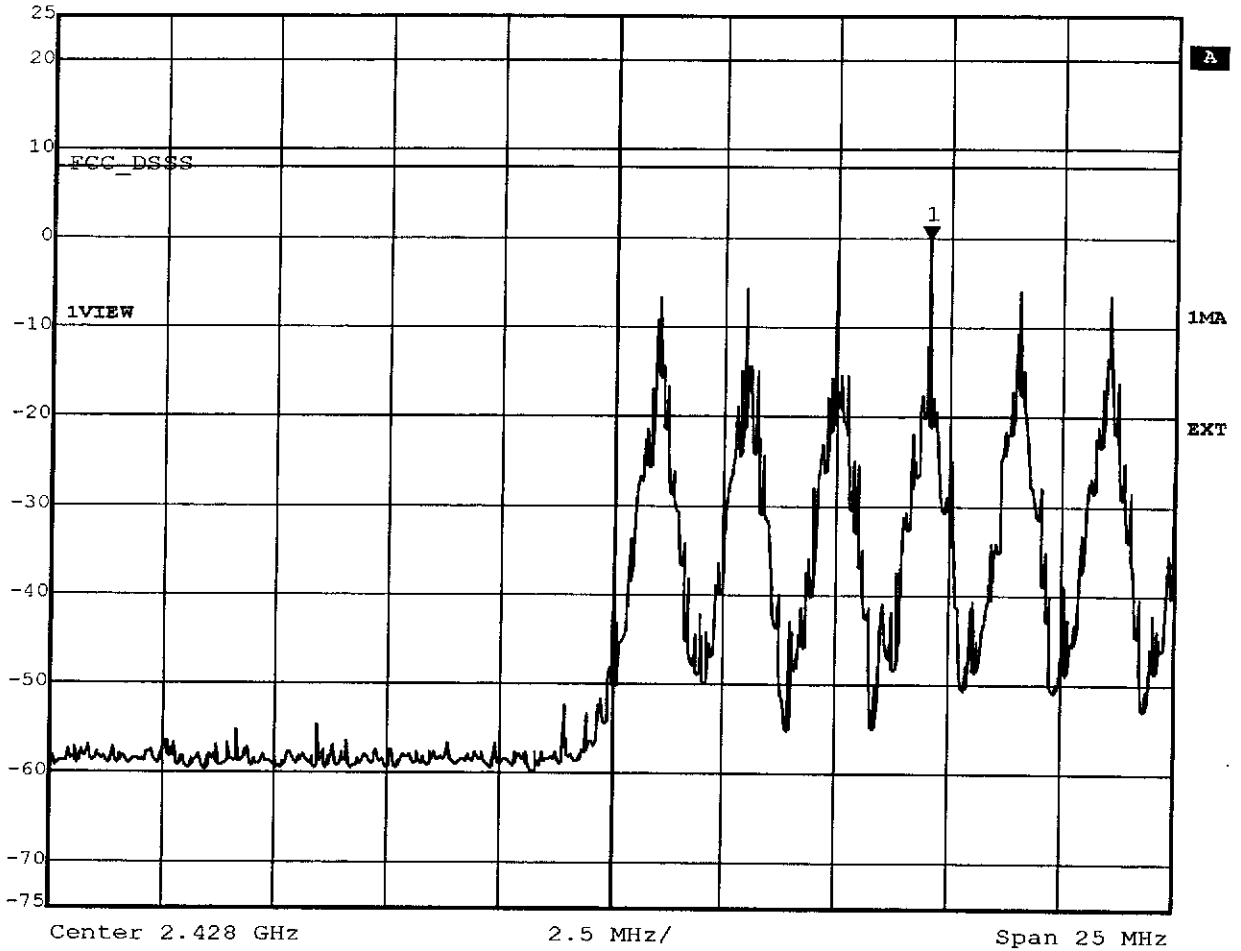
Ref Lvl	Marker 1 [T1]	RBW	3 kHz	RF Att	50 dB
25 dBm	-0.02 dBm	VBW	3 kHz	Unit	dBm
	2.40998898 GHz	SWT	10 s		



Title: Peak Power Spectral Density (Master Inquiry Mode)
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 10:54:32



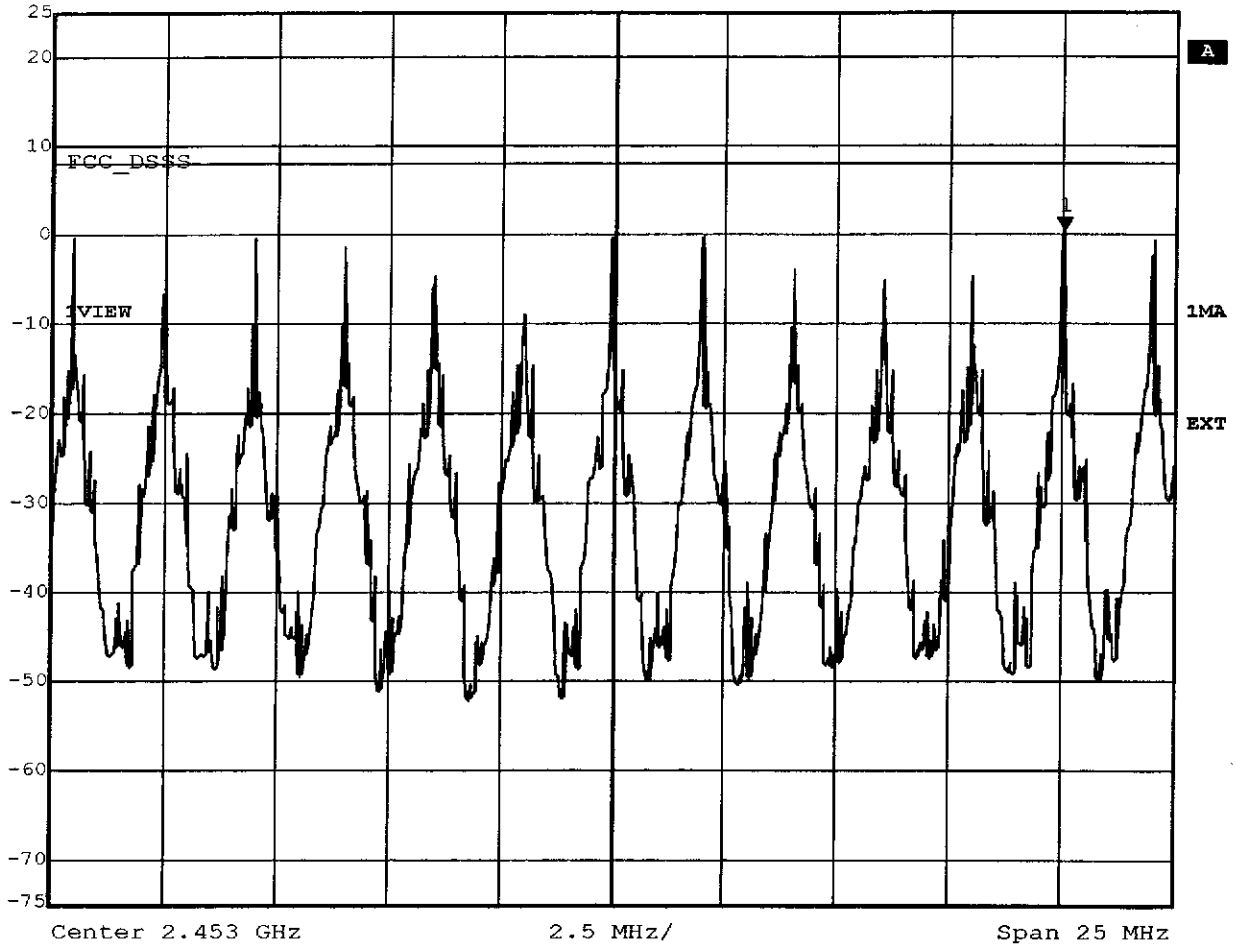
Marker 1 [T1] RBW 3 kHz RF Att 50 dB
Ref Lvl -0.23 dBm VBW 3 kHz
25 dBm 2.43503908 GHz SWT 10 s Unit dBm



Title: Peak Power Spectral Density (Master Inquiry Mode)
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 10:56:53



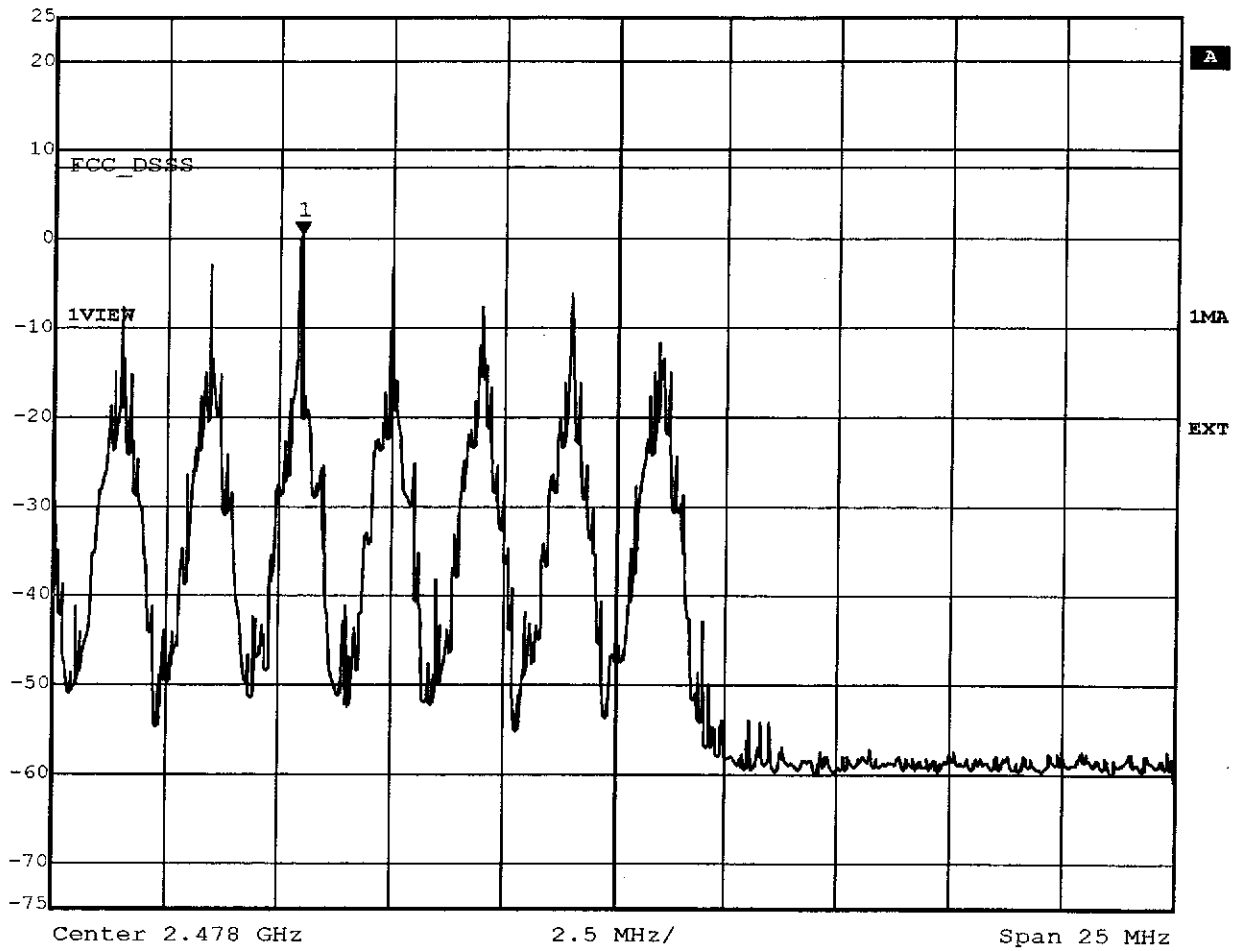
Marker 1 [T1] RBW 3 kHz RF Att 50 dB
Ref Lvl 0.49 dBm VBW 3 kHz
25 dBm 2.46304509 GHz SWT 10 s Unit dBm



Title: Peak Power Spectral Density (Master Inquiry Mode)
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 11:00:25



Marker 1 [T1] RBW 3 kHz RF Att 50 dB
Ref Lvl 0.27 dBm VBW 3 kHz
25 dBm 2.47101102 GHz SWT 10 s Unit dBm



Title: Peak Power Spectral Density (Master Inquiry Mode)
Comment A: Alps Bluetooth Module UGPZ1
Date: 13.JUN.2002 11:03:22