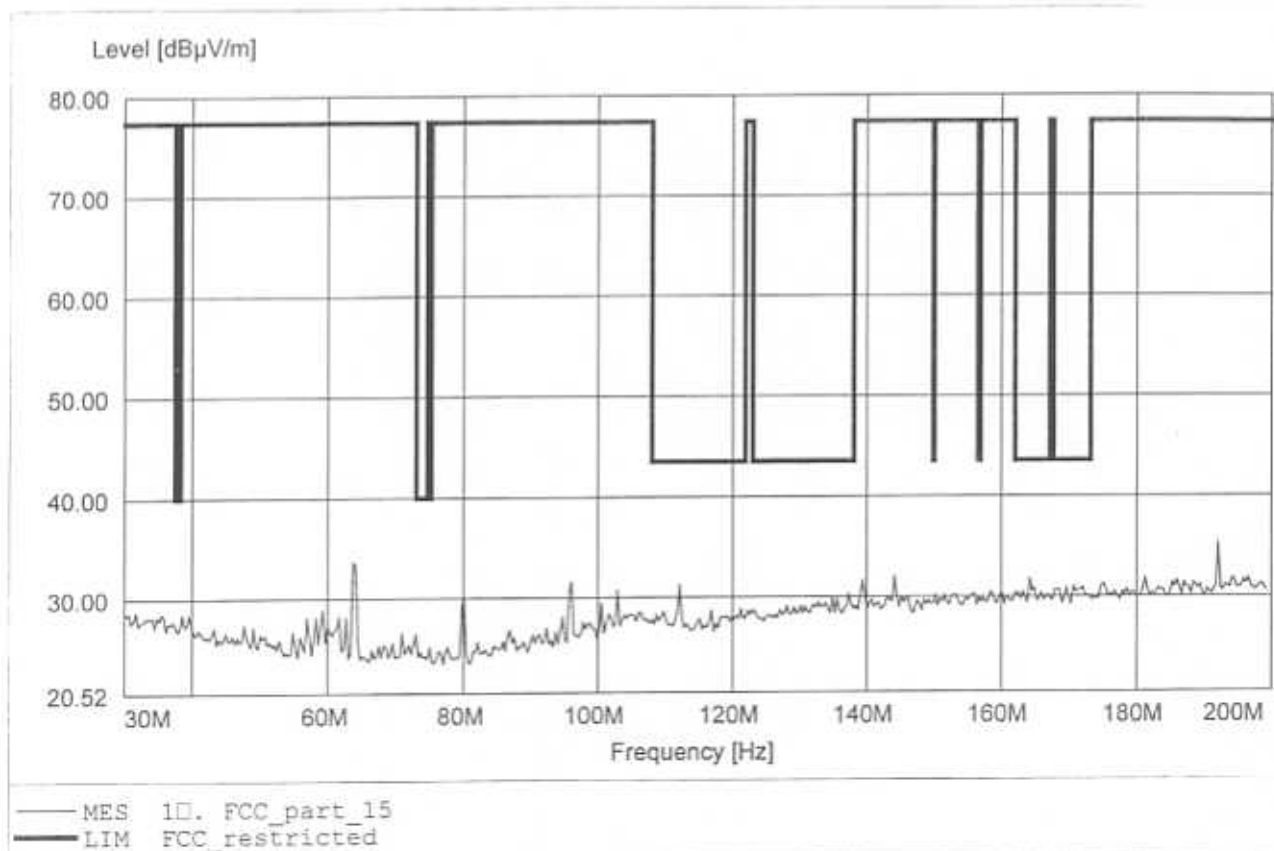


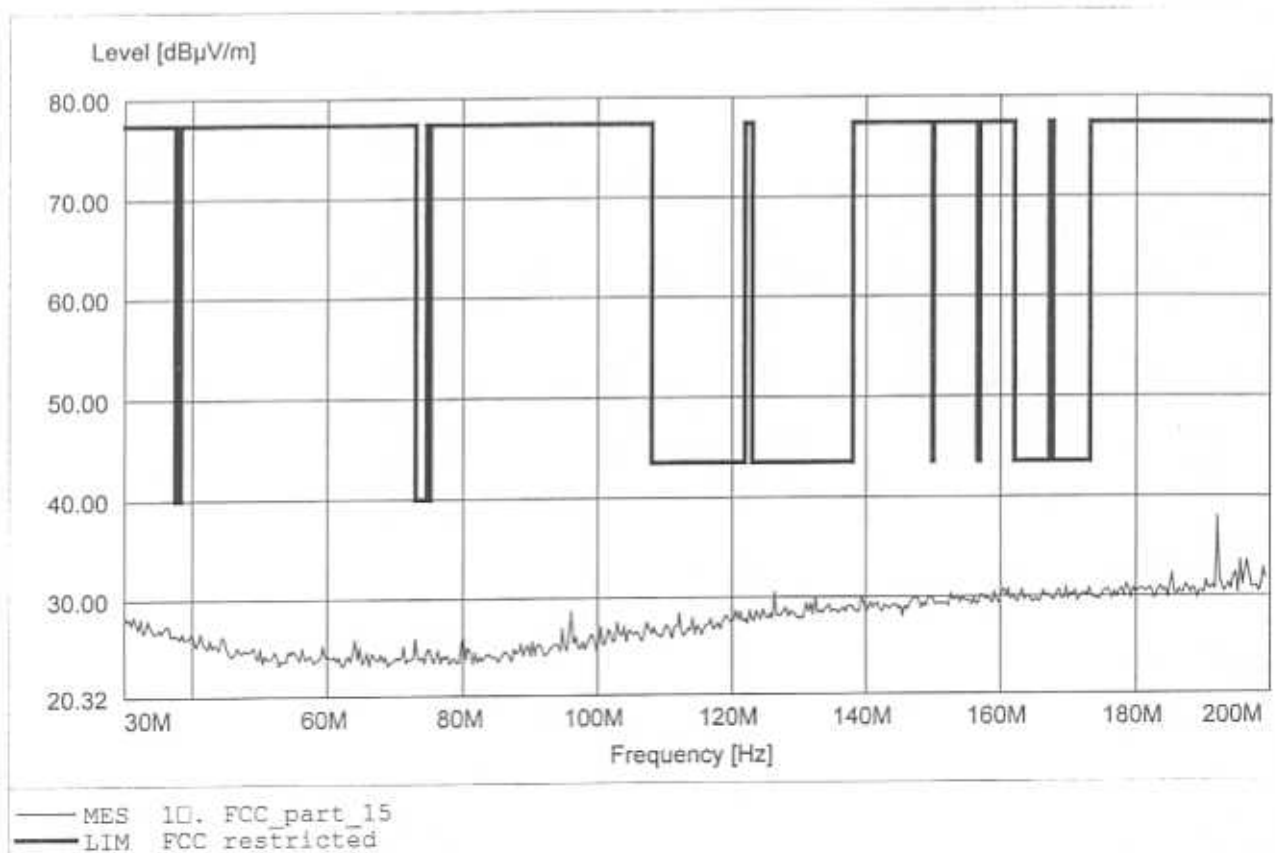
Spurious emissions Field Strength **FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
 Model: UGP22
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 V DC
 Test Site / Operator: ETS / Mr. Hoppe
 Test Specification: according to §15.247
 Comment 1: Dist.: 3m, Ant.: HK 116
 Comment 2: Freq: 192.164MHz, Emax: 35.36dBμV/m, RBW: 100kHz



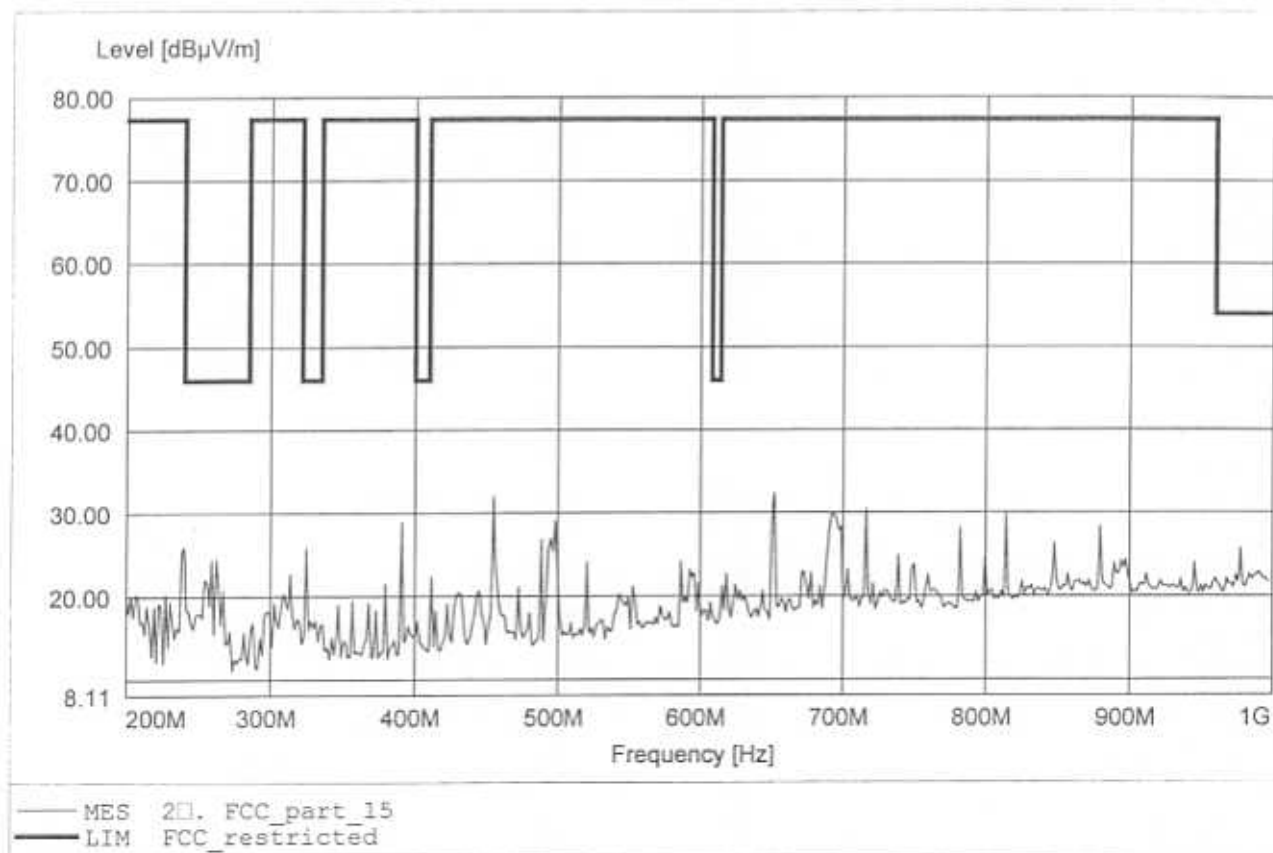
Spurious emissions Field Strength **FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
 Model: UGP22
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 V DC
 Test Site / Operator: ETS / Mr. Hoppe
 Test Specification: according to §15.247
 Comment 1: Dist.: 3m, Ant.: HK 116
 Comment 2: Freq: 192.164MHz, Emax: 38.01dBµV/m, RBW: 100kHz



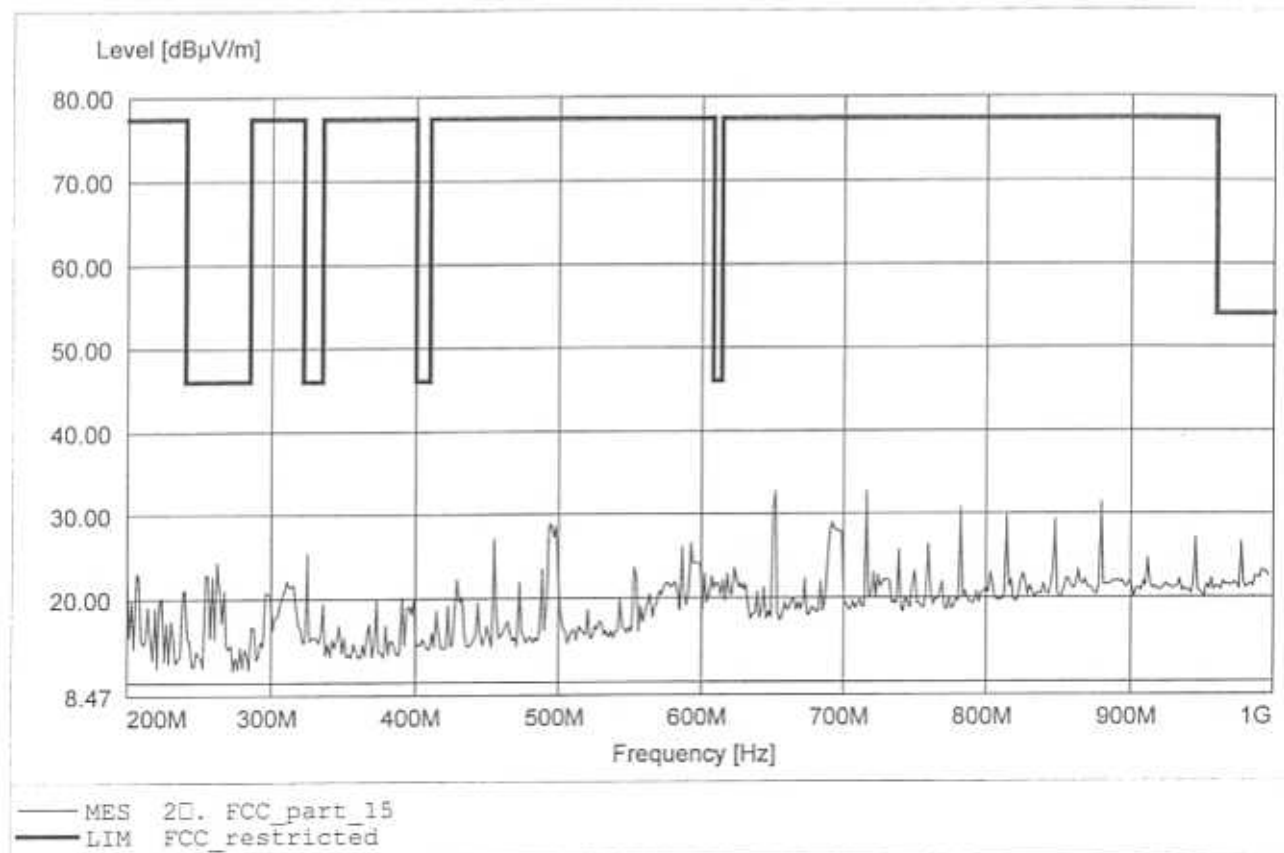
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 32.30dBμV/m, RBW: 100kHz



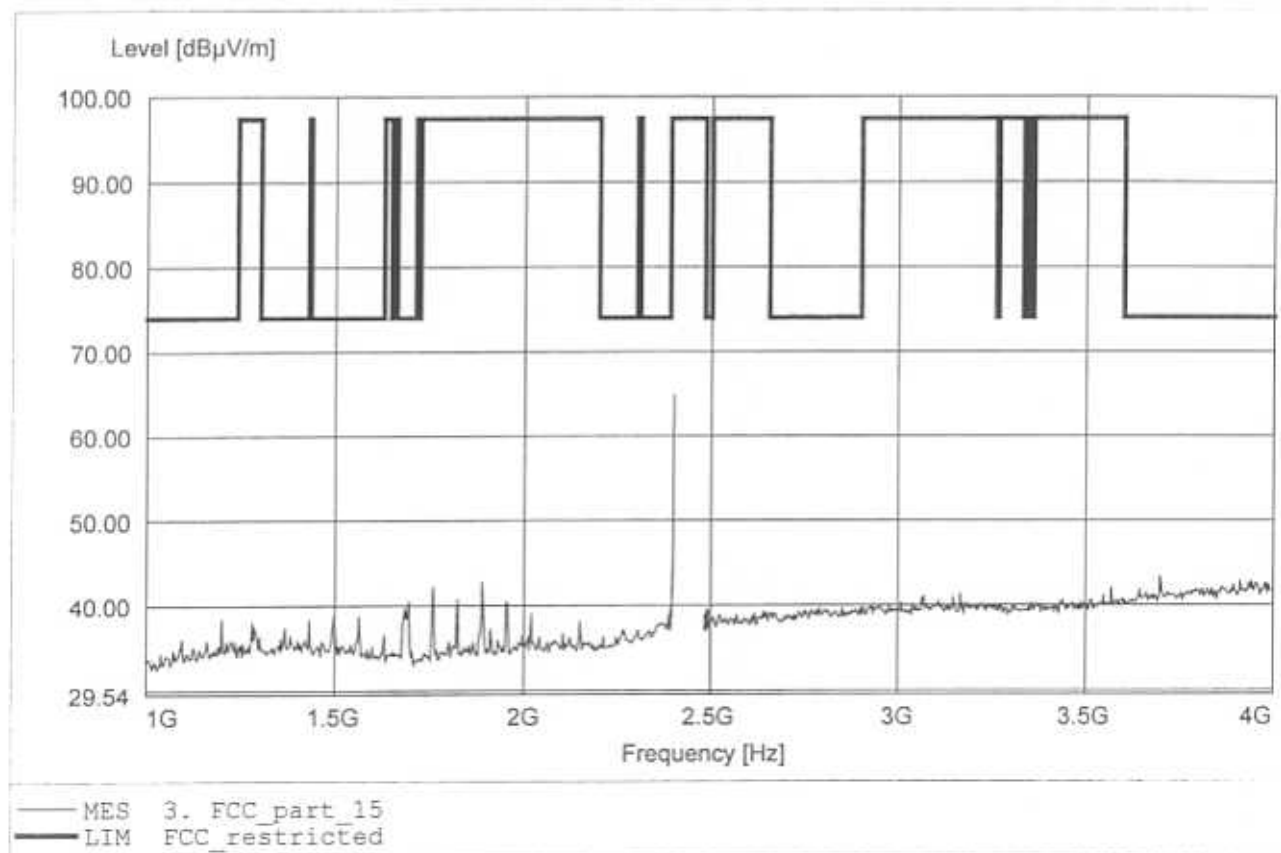
Spurious emissions Field Strength **FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
 Model: UGP22
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 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: 32.80dBµV/m, RBW: 100kHz



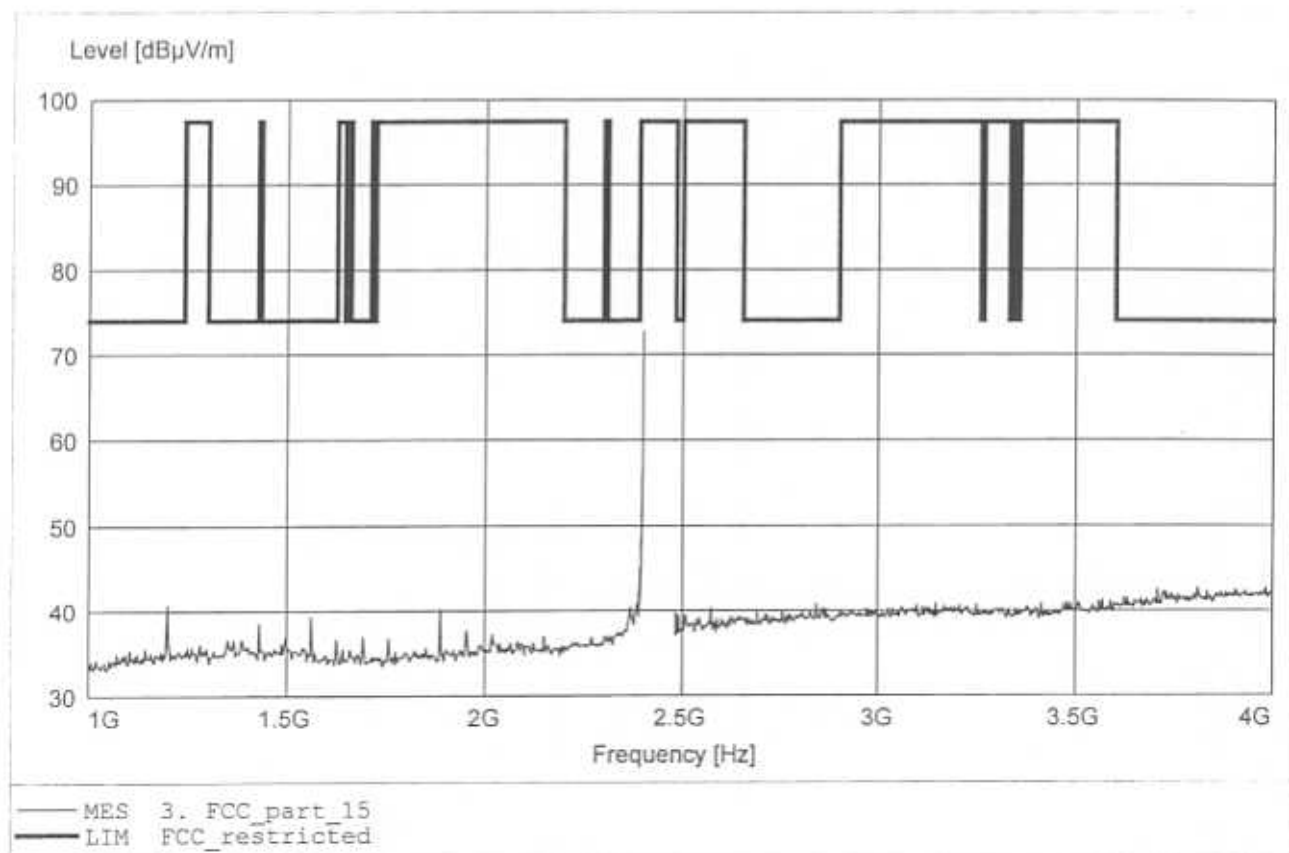
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
 Model: UGP22
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 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: 64.80dBμV/m, RBW: 1MHz



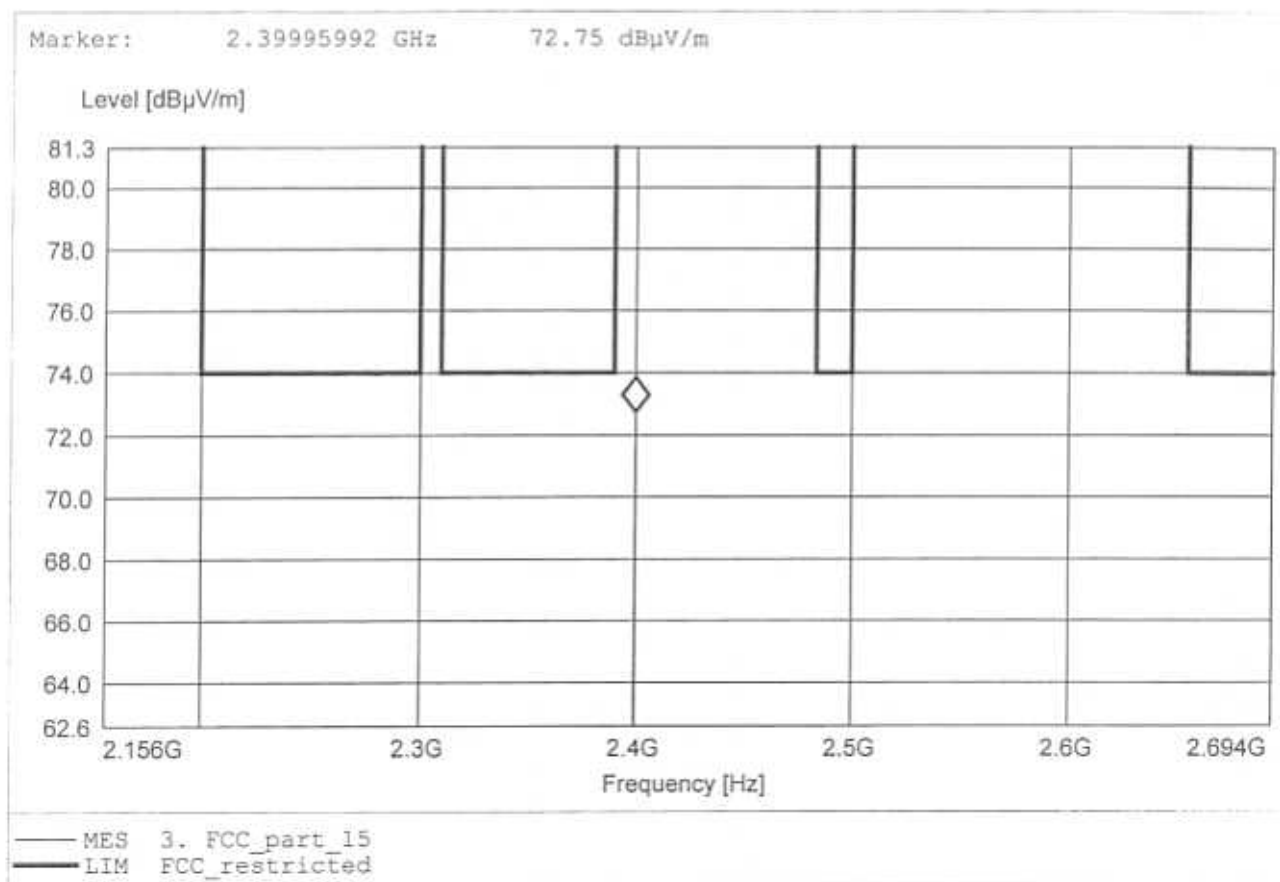
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
Model: UGPZ2
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 72.75dBuV/m, RBW: 1MHz



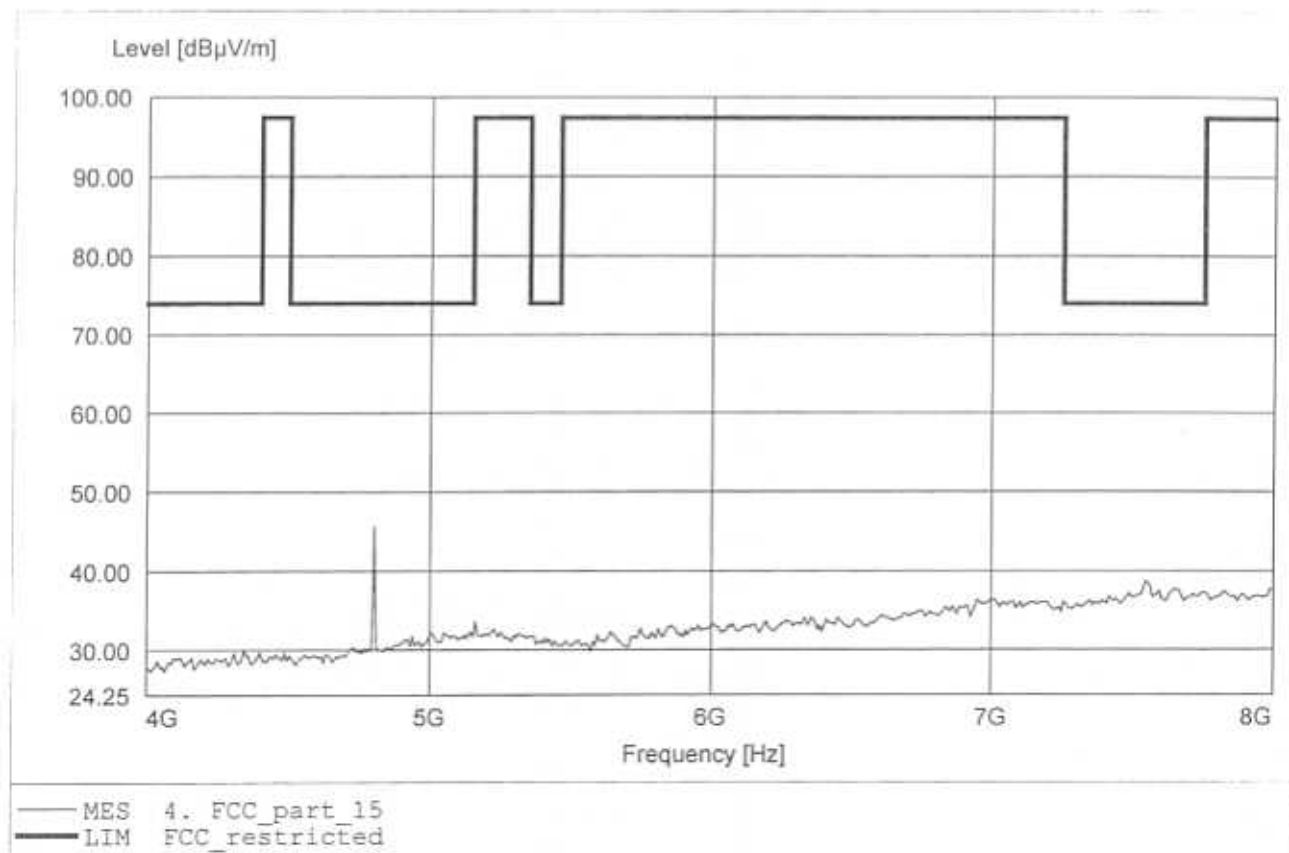
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
 Model: UGPZ2
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 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: 72.75dBuV/m, RBW: 1MHz



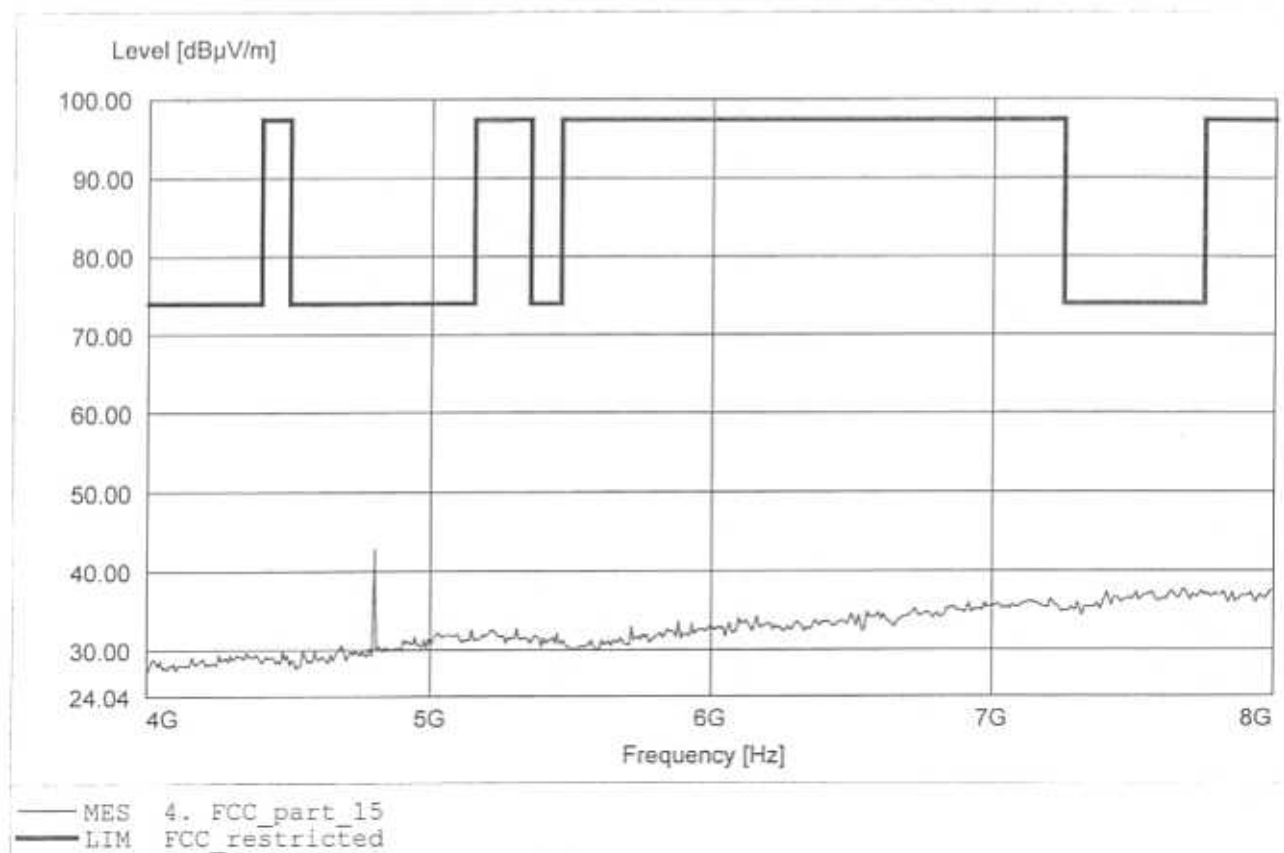
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 4.802GHz, Emax: 45.63dBμV/m, RBW: 1MHz



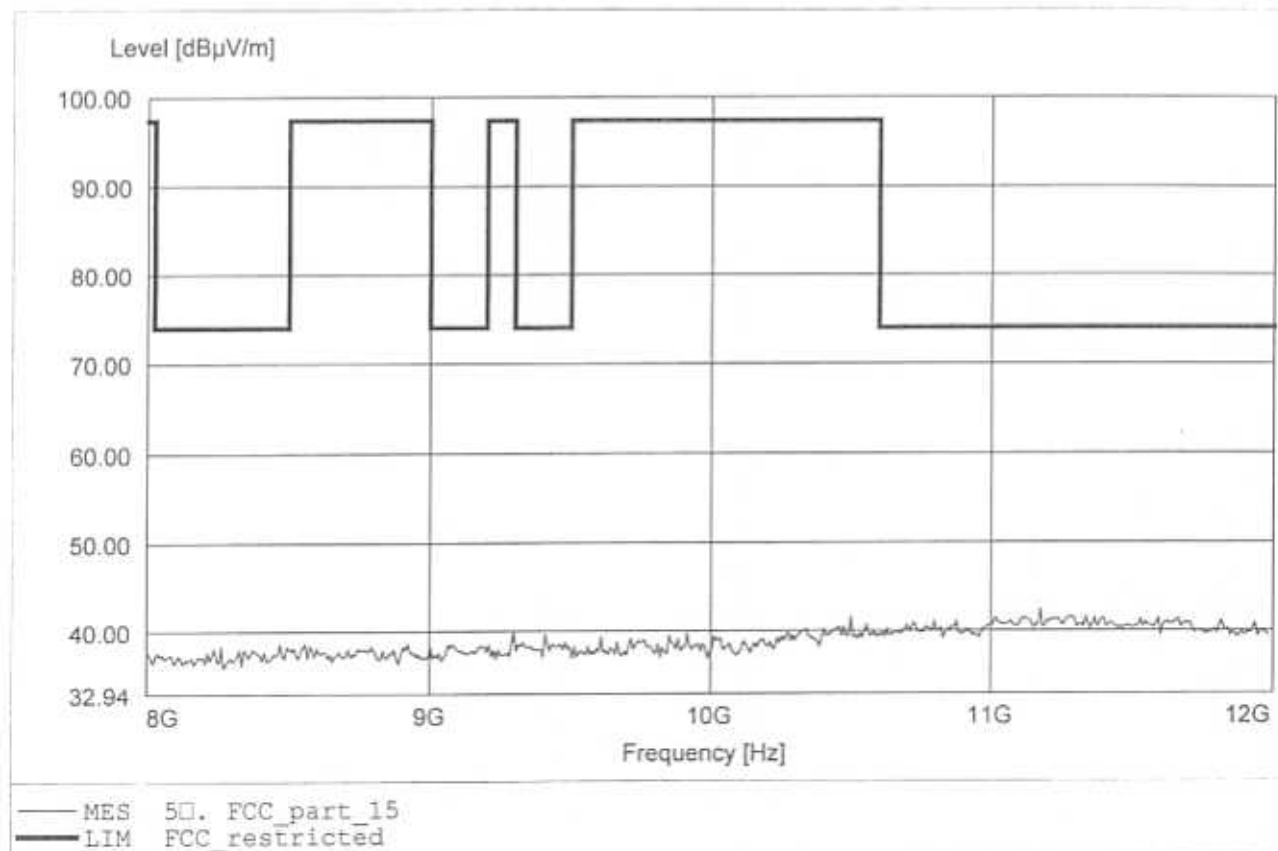
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
 Model: UGP22
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 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: 42.82dBuV/m, RBW: 1MHz



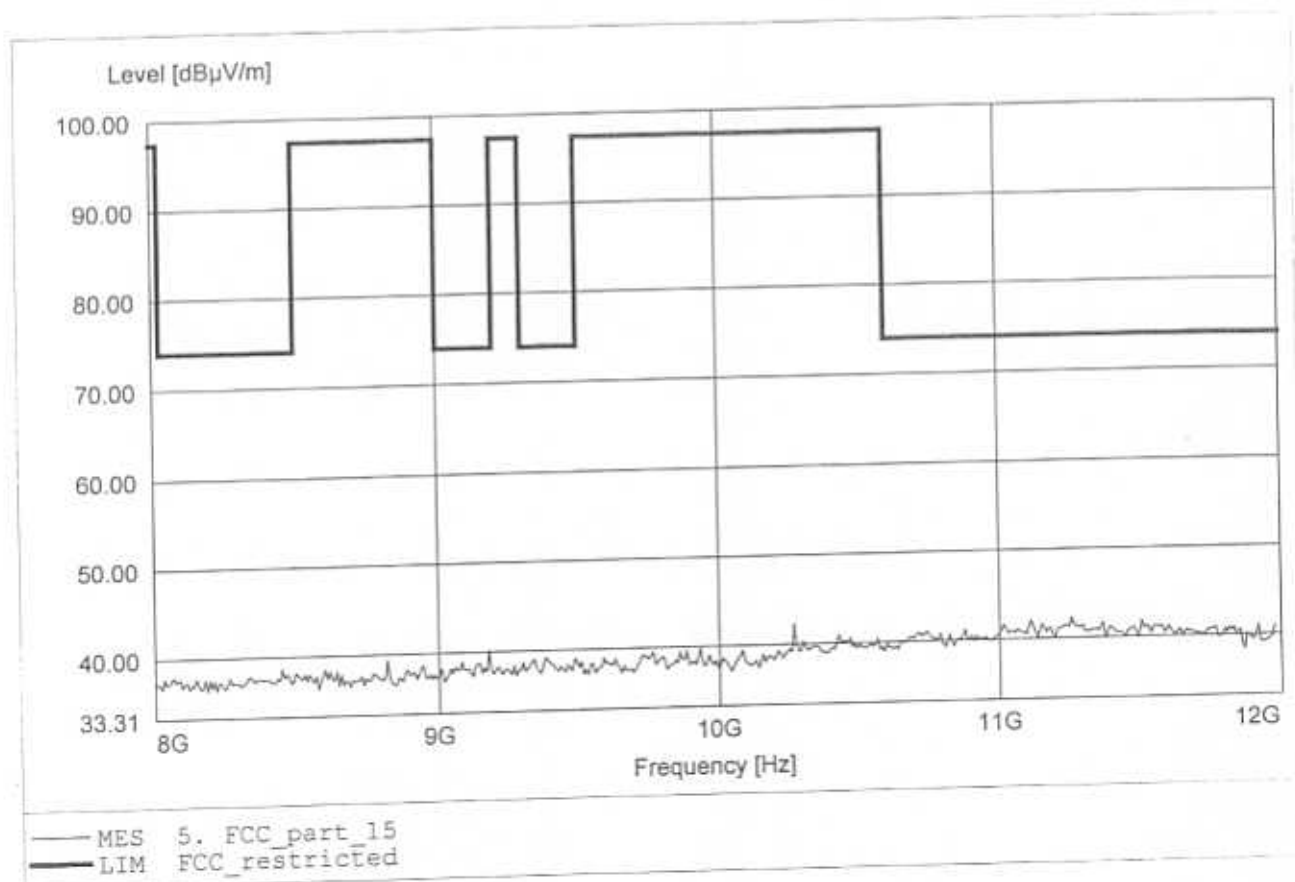
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
 Model: UGP22
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 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: 11.174GHz, Emax: 42.43dBμV/m, RBW: 1MHz



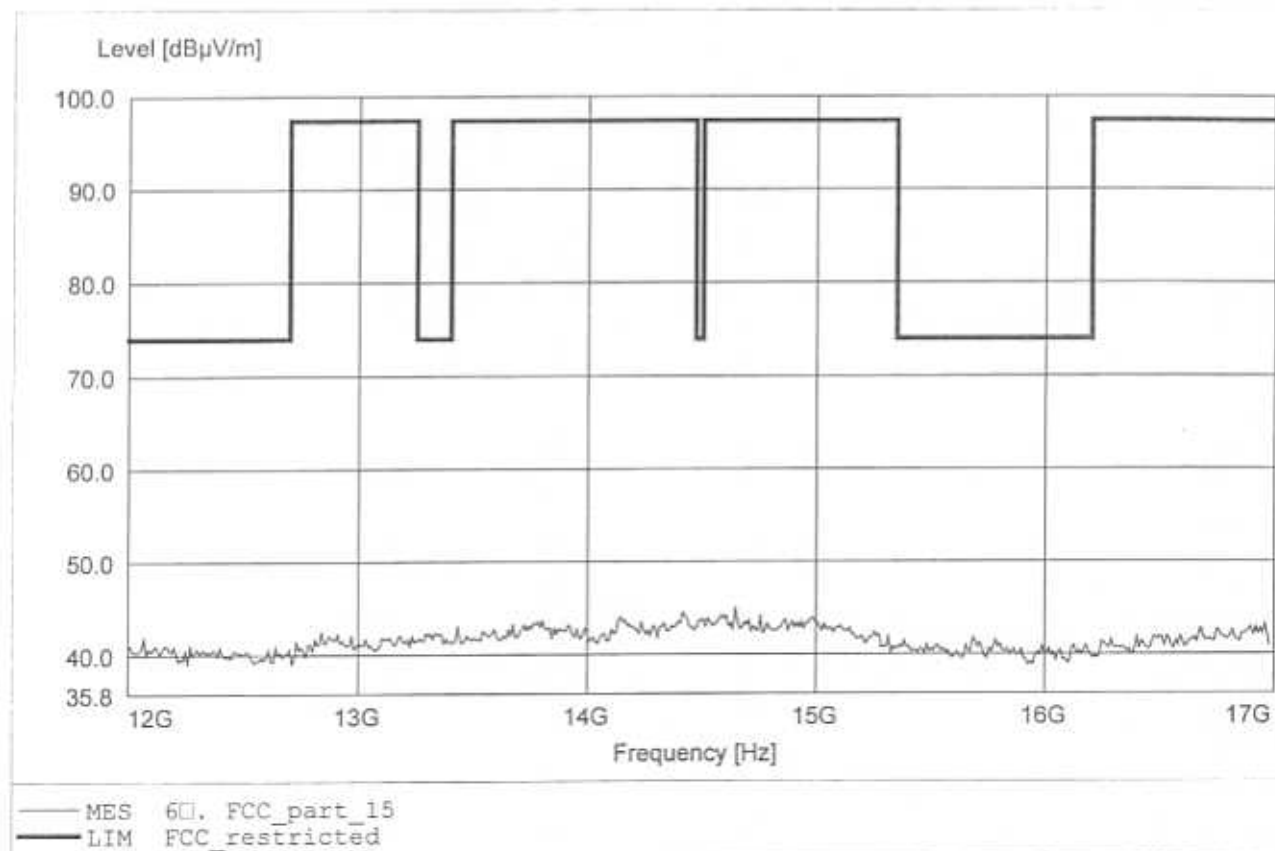
Spurious emissions Field Strength **FCC RULES PART 15, SUBPART C**

EUT :	Bluetooth Module	/	Ant.: int.	/	Pmax	/	2402 MHz
Model:	UGP22						
Approval Holder:	Alps Electric Co., Ltd.						
Operating Condition:	Tnom:23°C / Unom: 3.3 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: 10.269GHz, Emax: 42.23dBμV/m, RBW: 1MHz						



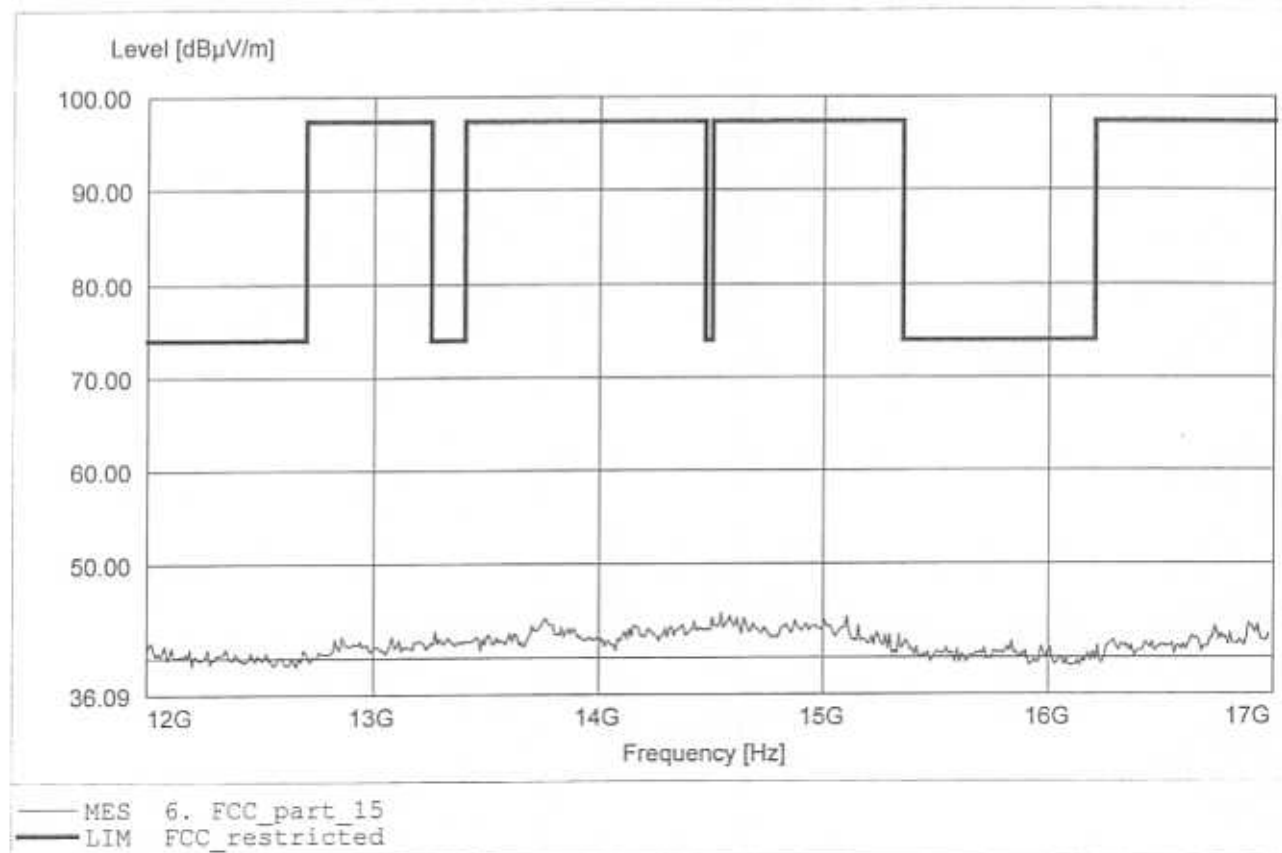
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
Model: UGPZ2
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 14.645GHz, Emax: 45.05dBμV/m, RBW: 1MHz



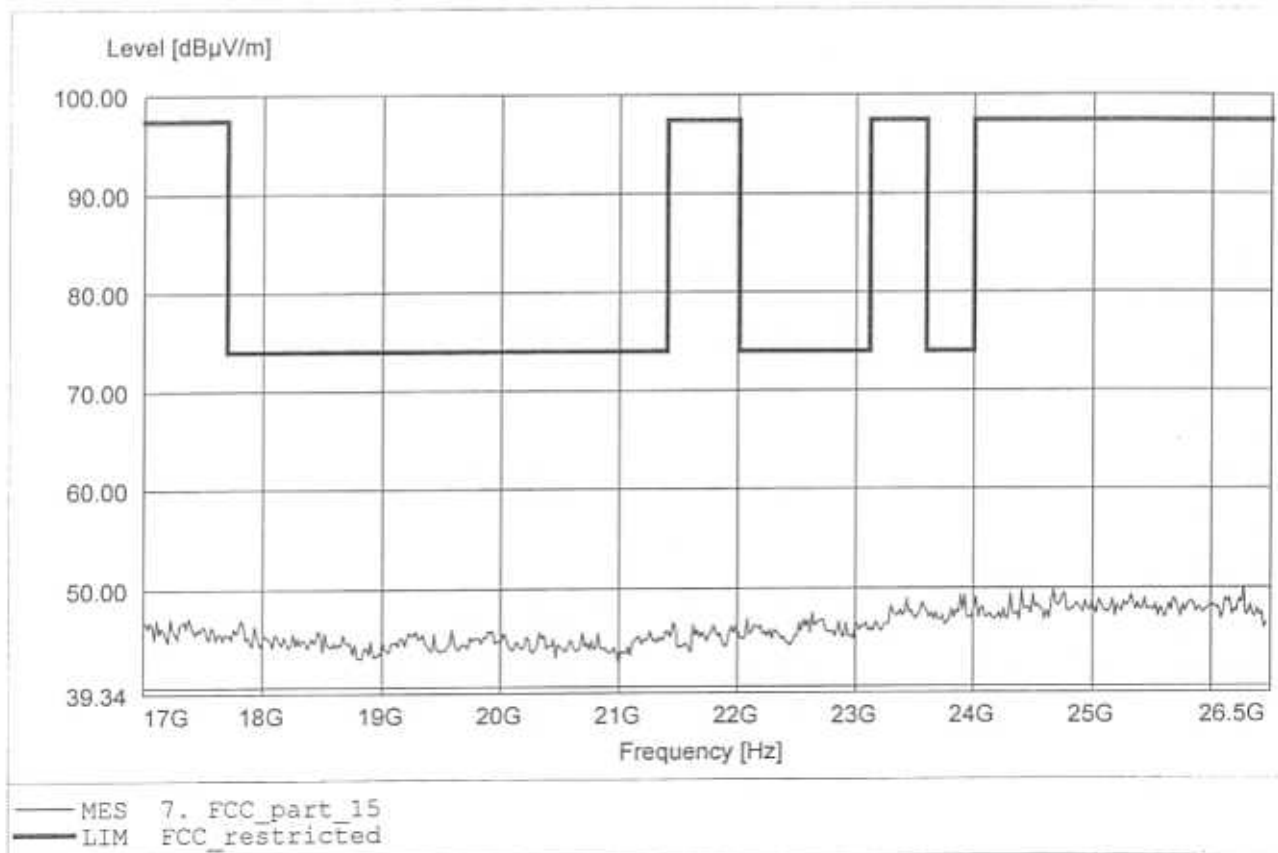
Spurious emissions Field Strength **FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
 Model: UGP22
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 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: 14.545GHz, Emax: 44.77dBμV/m, RBW: 1MHz



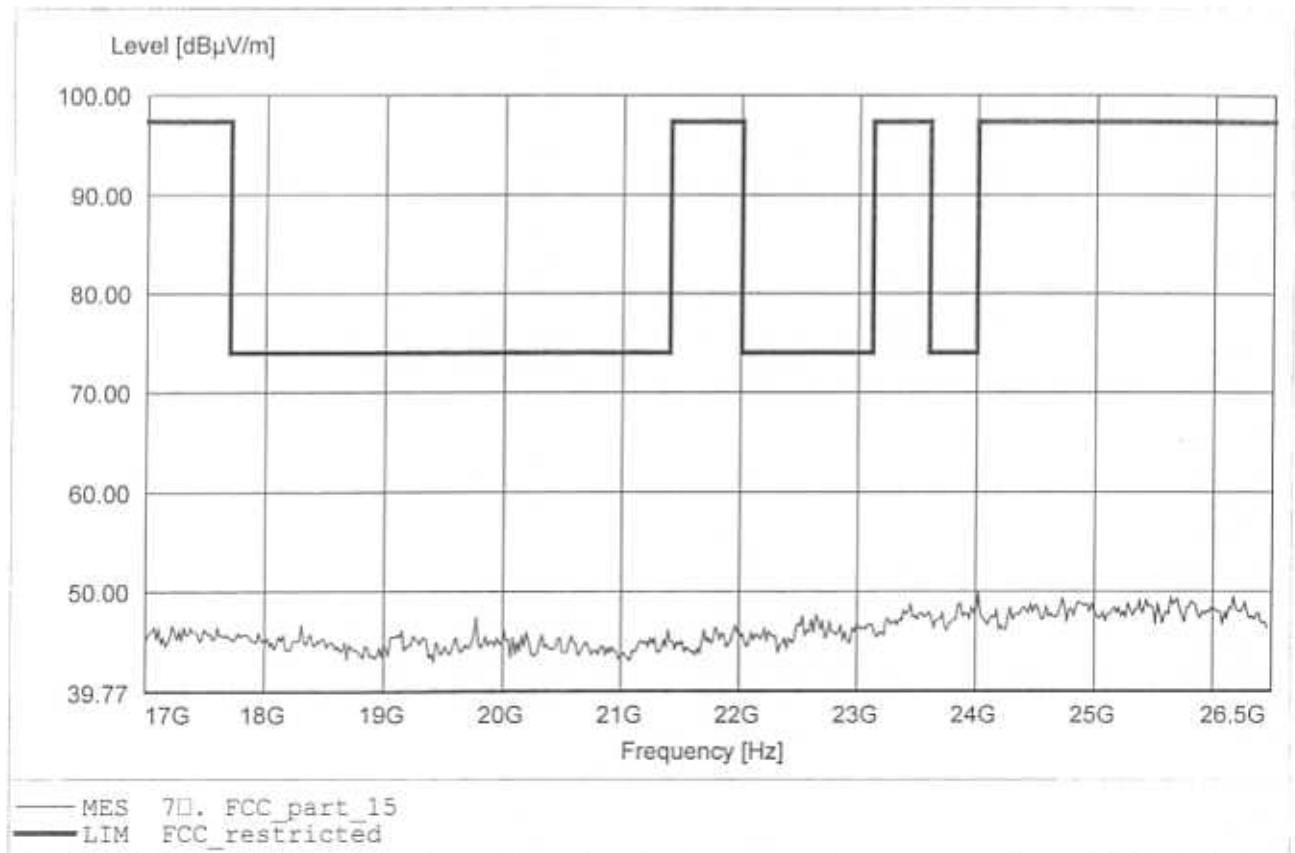
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 26.272GHz, Emax: 50.09dBμV/m, RBW: 1MHz



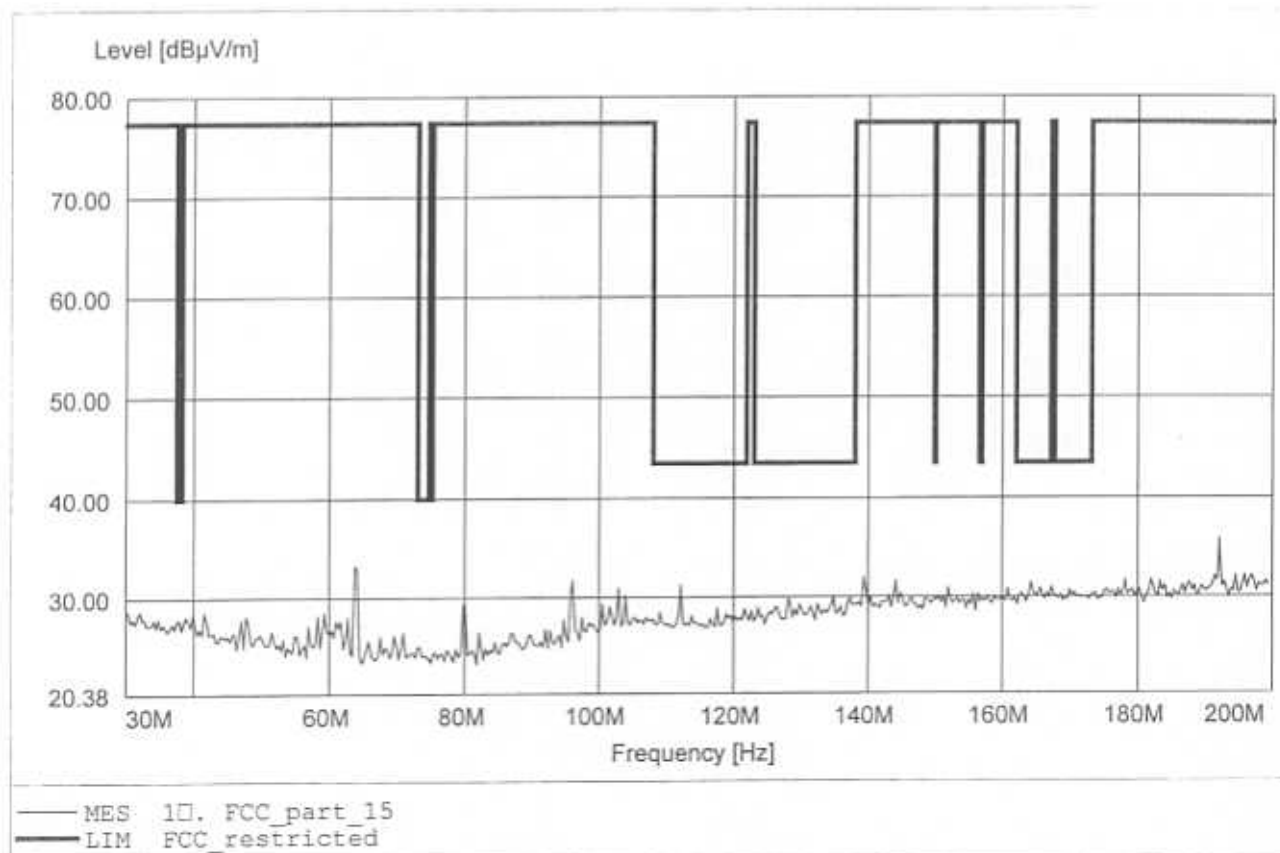
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2402 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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.: HL025, amplif.
Comment 2: Freq: 24.025GHz, Emax: 49.84dBμV/m, RBW: 1MHz



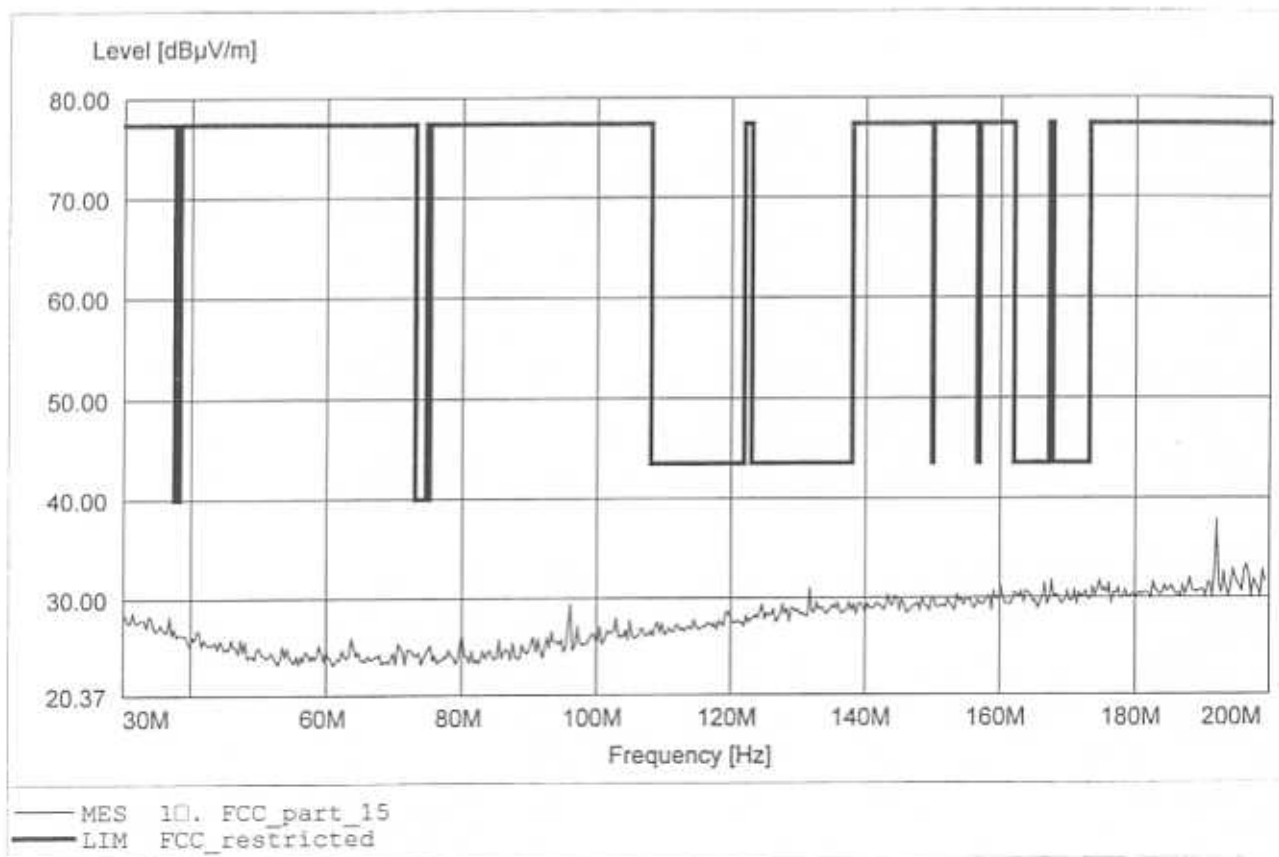
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 192.164MHz, Emax: 35.90dBμV/m, RBW: 100kHz



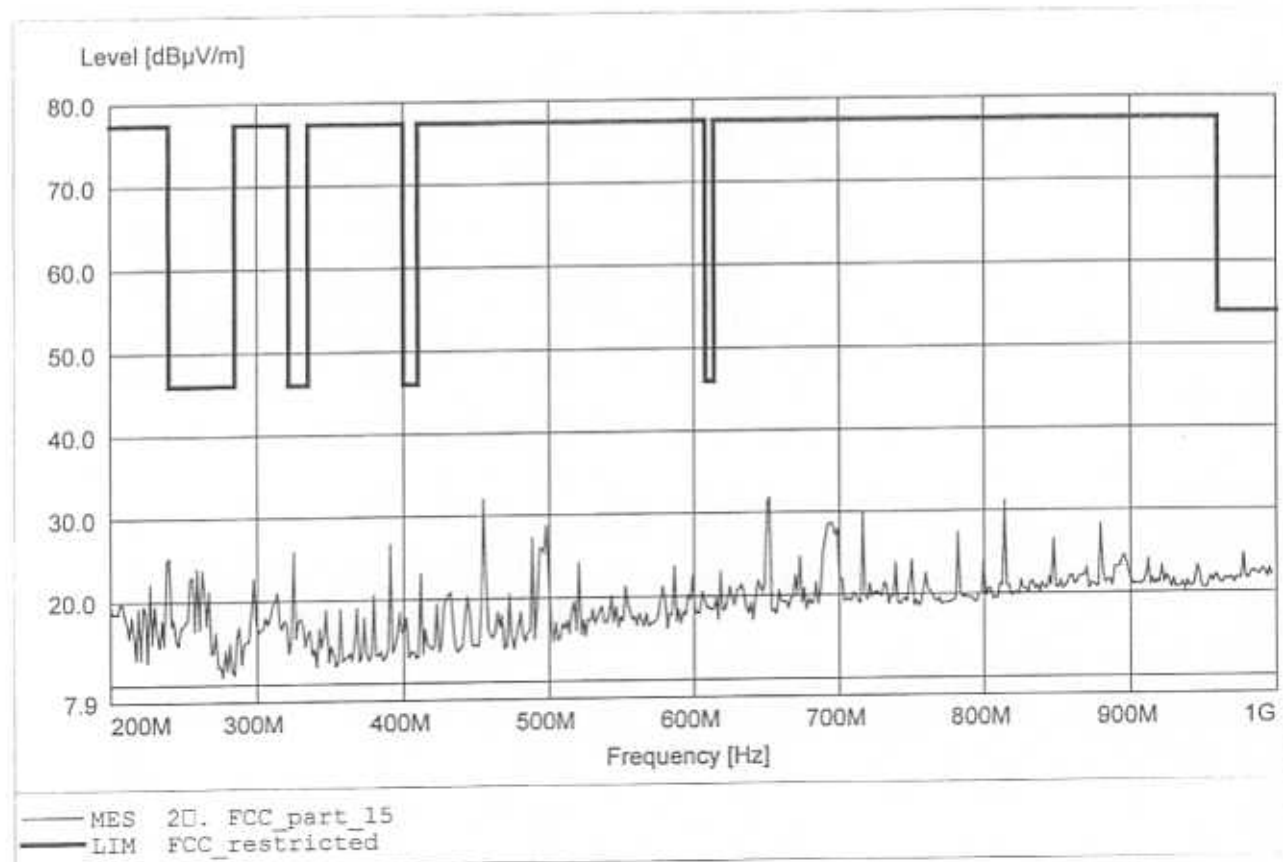
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGPZ2
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 192.164MHz, Emax: 37.88dBµV/m, RBW: 100kHz



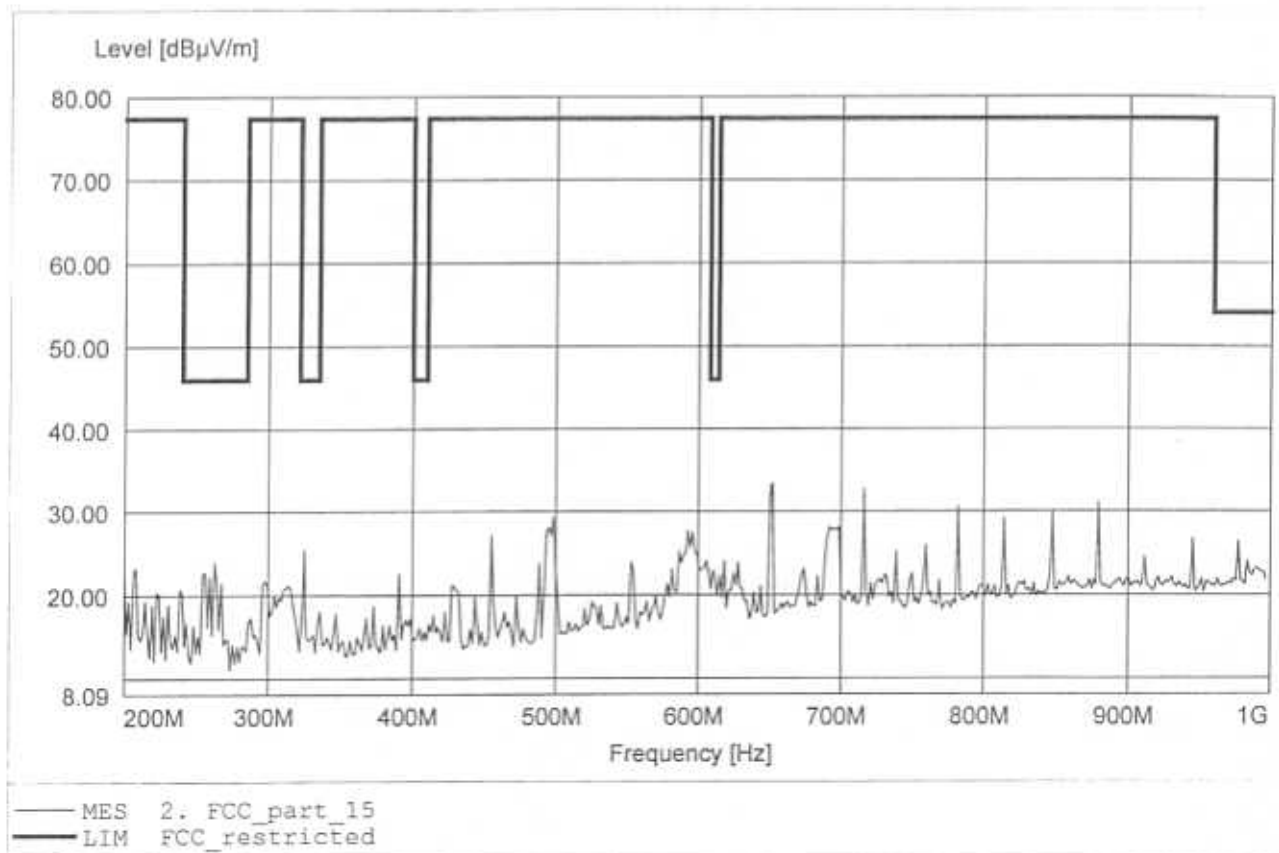
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 454.910MHz, Emax: 32.01dBµV/m, RBW: 100kHz



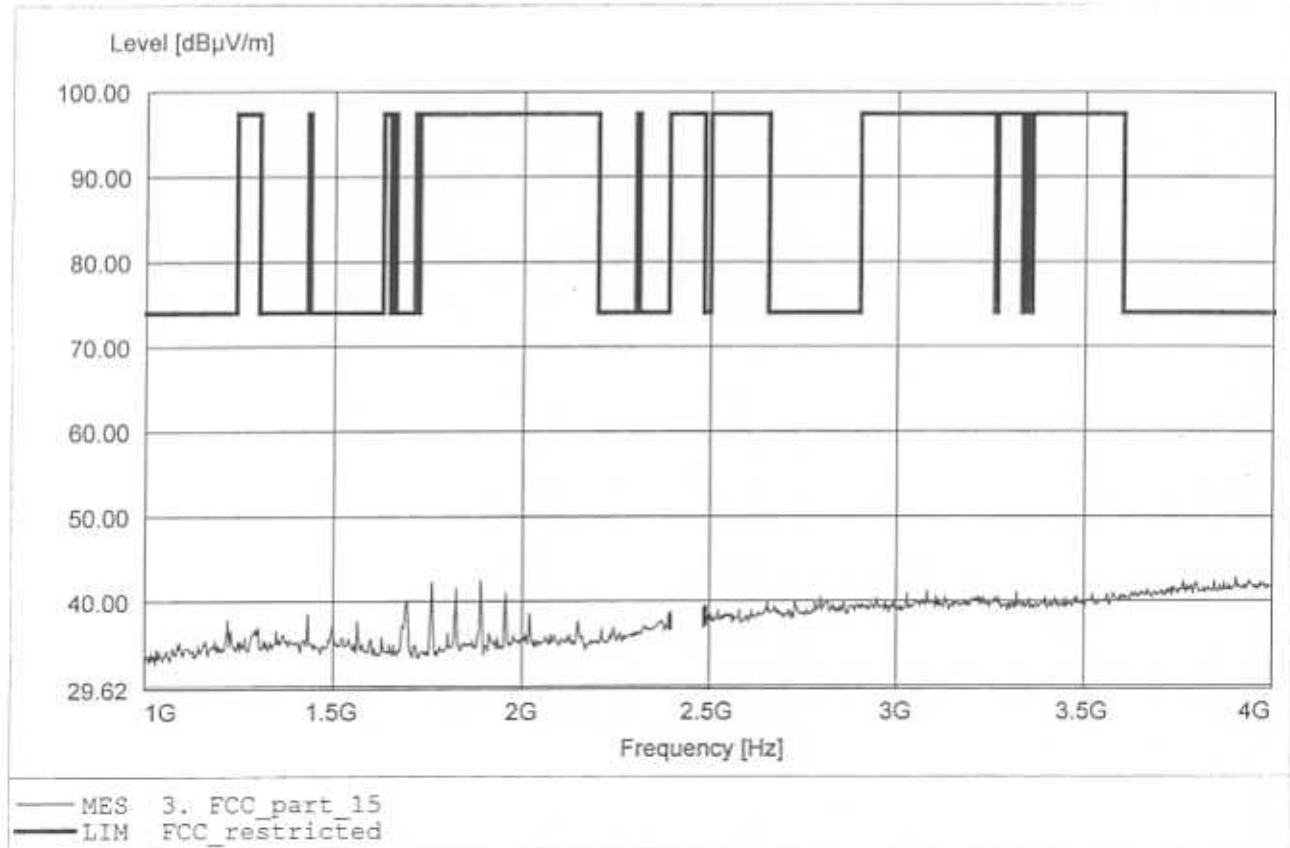
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 33.37dBµV/m, RBW: 100kHz



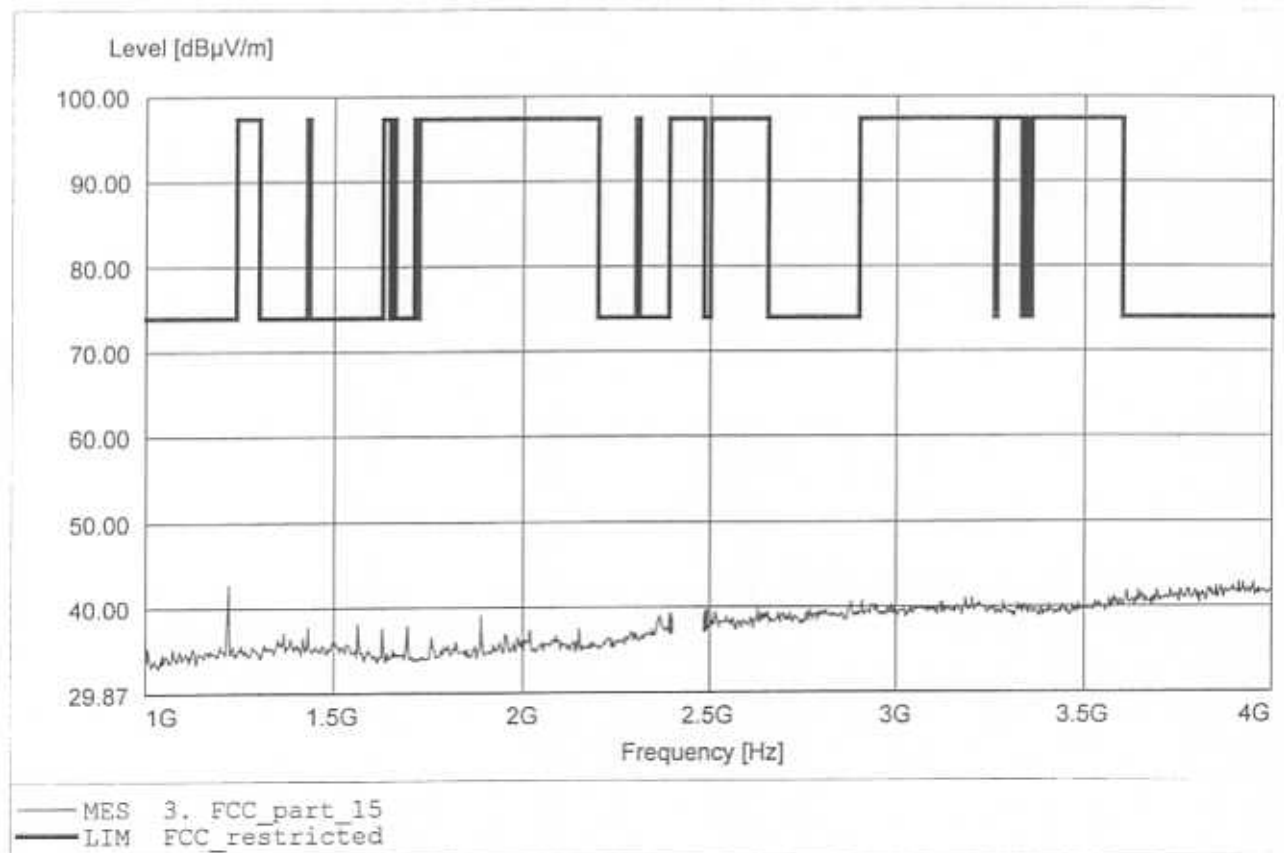
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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, amplif.
Comment 2: Freq: 3.903GHz, Emax: 42.84dBμV/m, RBW: 1MHz



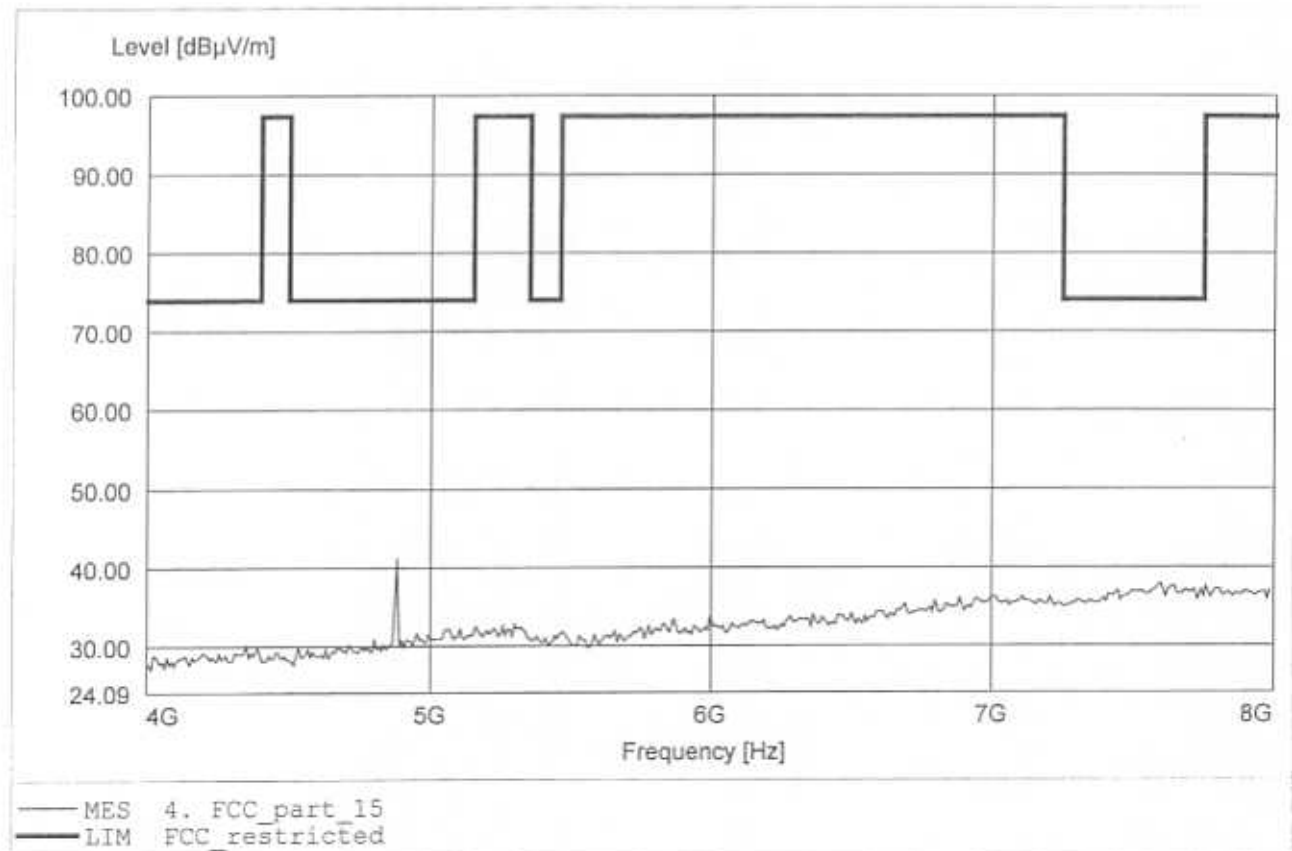
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
 Model: UGPZ2
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 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: 3.912GHz, Emax: 42.88dBµV/m, RBW: 1MHz



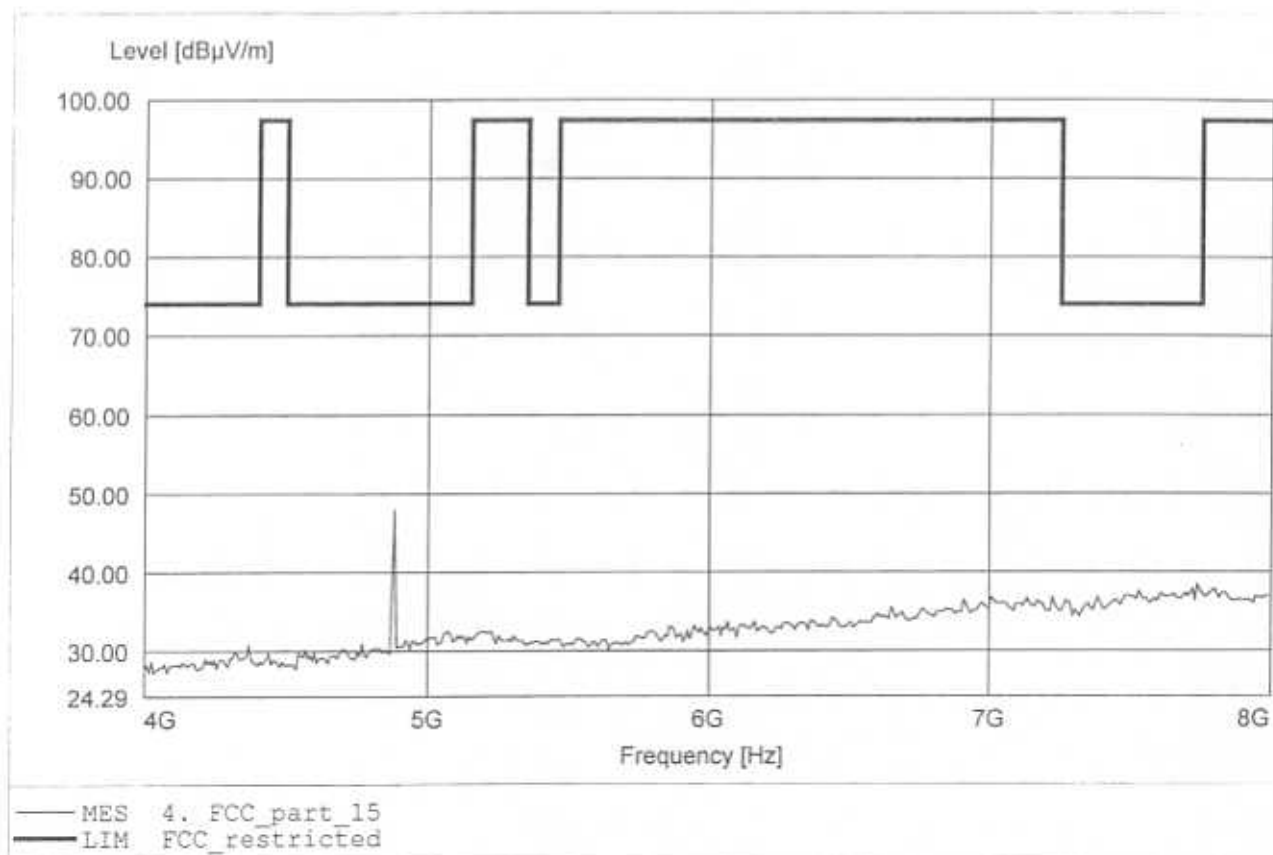
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 4.882GHz, Emax: 41.26dBμV/m, RBW: 1MHz



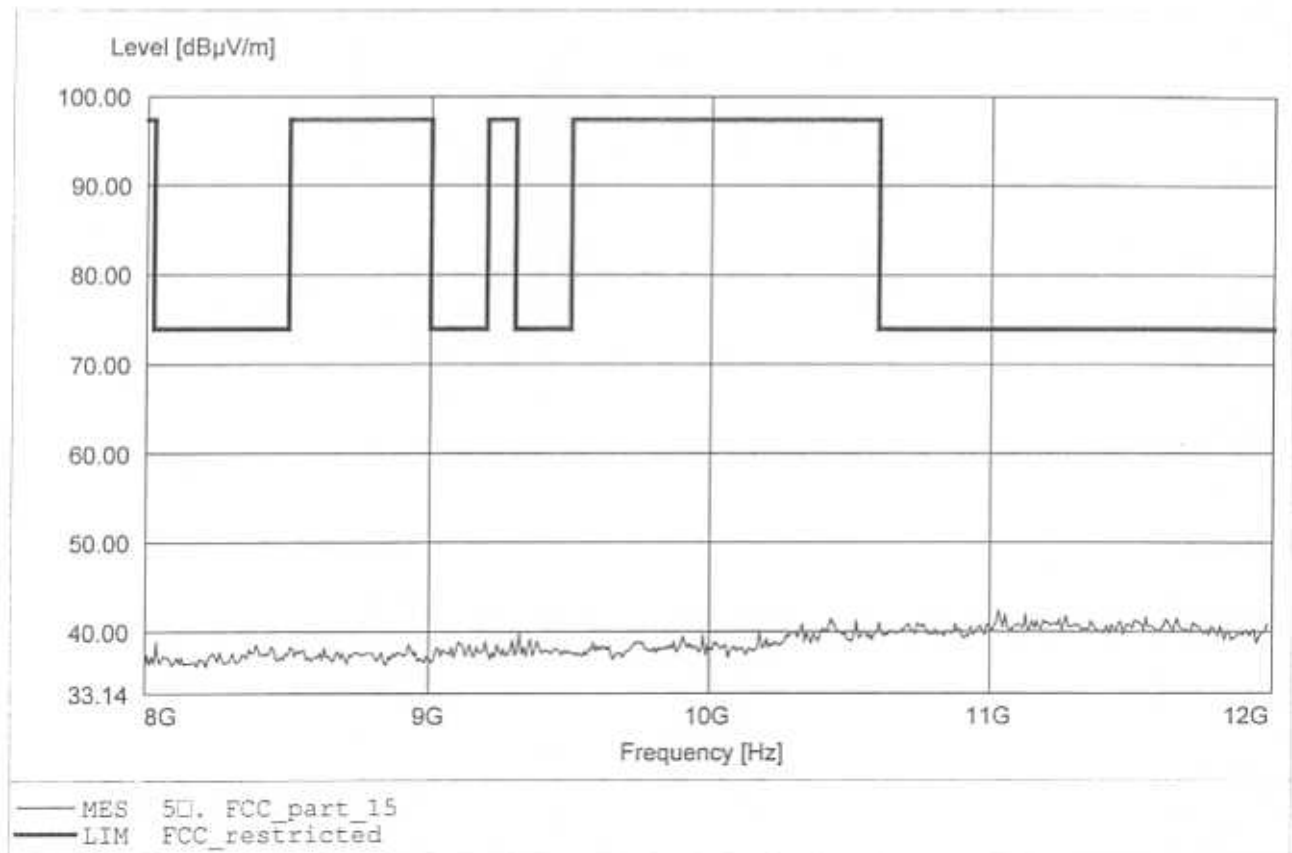
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 4.882GHz, Emax: 47.99dBµV/m, RBW: 1MHz



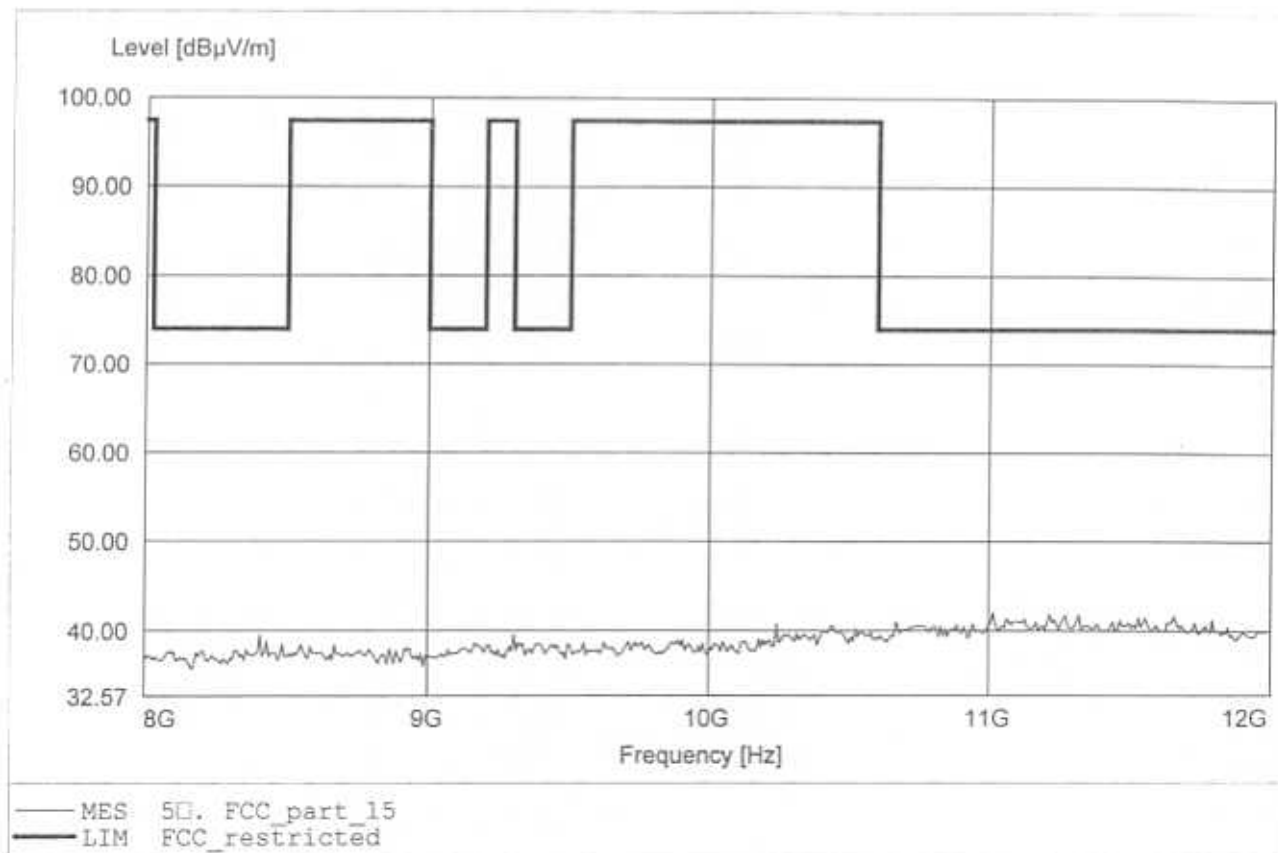
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGPZ2
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 11.030GHz, Emax: 42.44dBμV/m, RBW: 1MHz



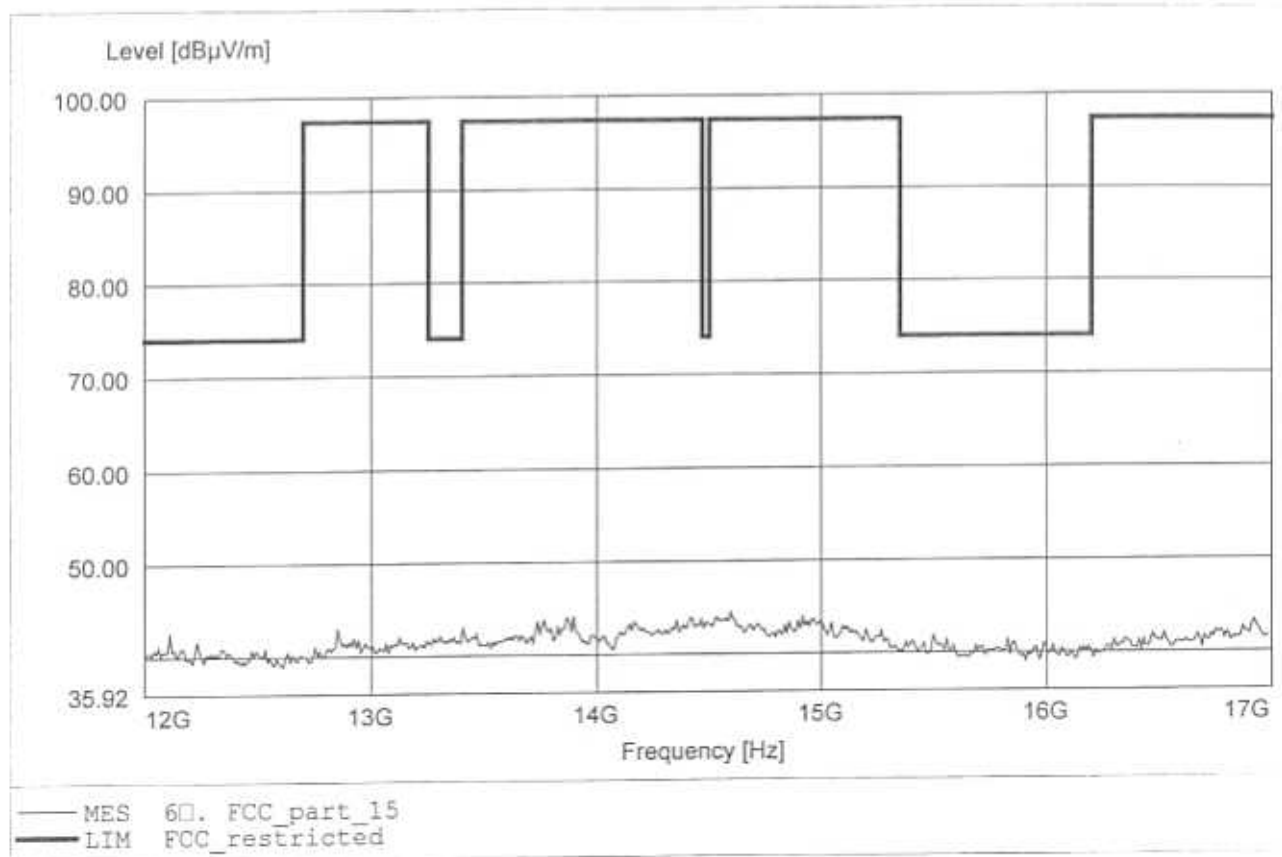
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGPZ2
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 11.014GHz, Emax: 42.07dBμV/m, RBW: 1MHz



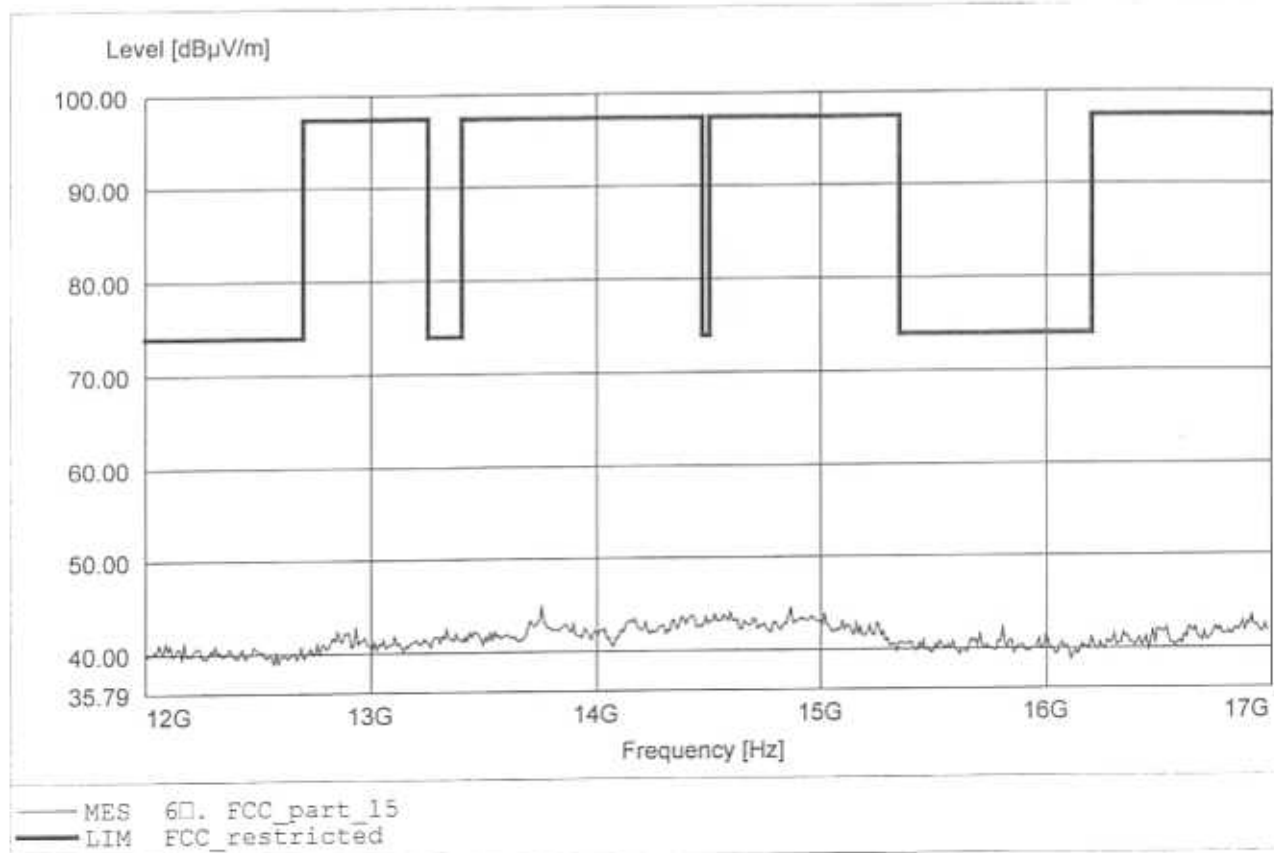
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
 Model: UGP22
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 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: 14.595GHz, Emax: 44.56dBμV/m, RBW: 1MHz



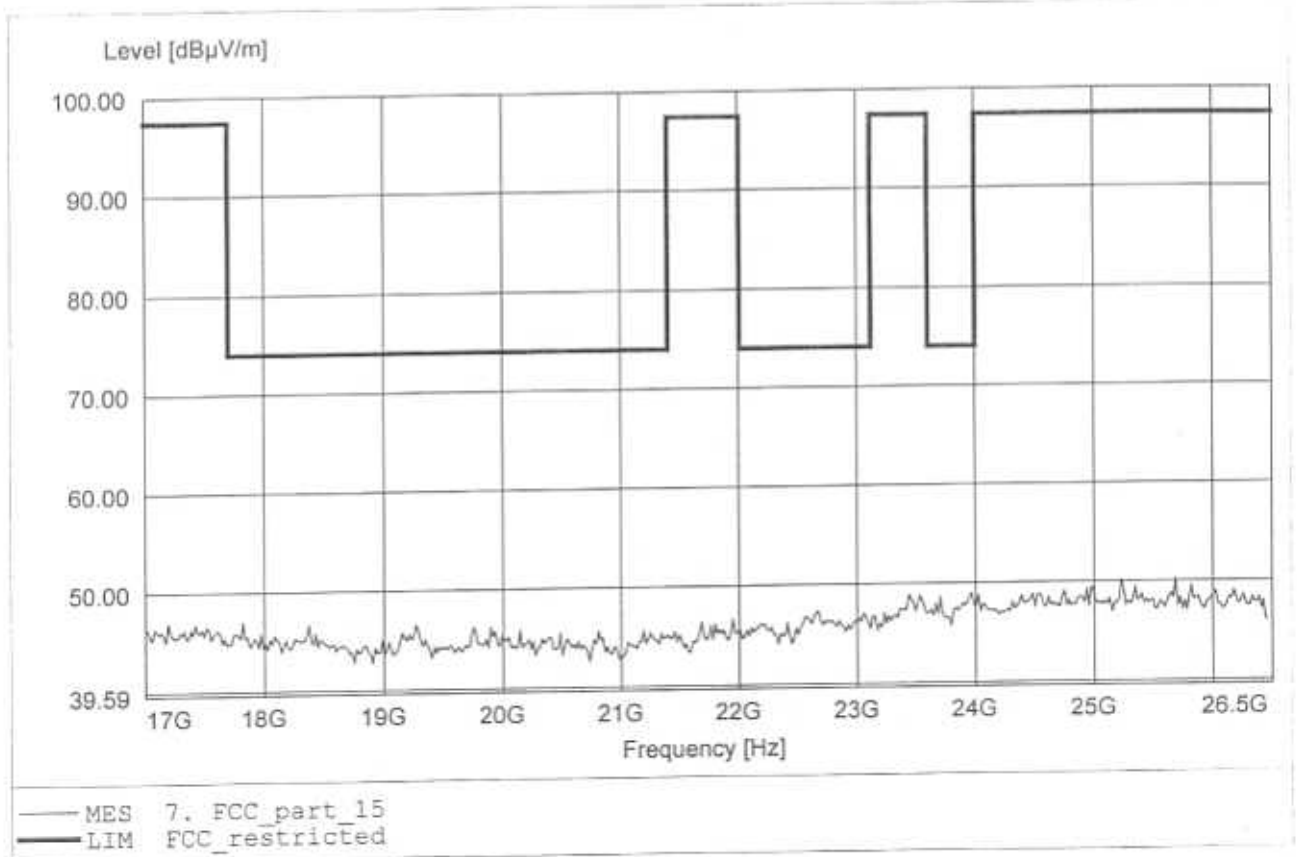
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGPZ2
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 13.754GHz, Emax: 44.97dBuV/m, RBW: 1MHz



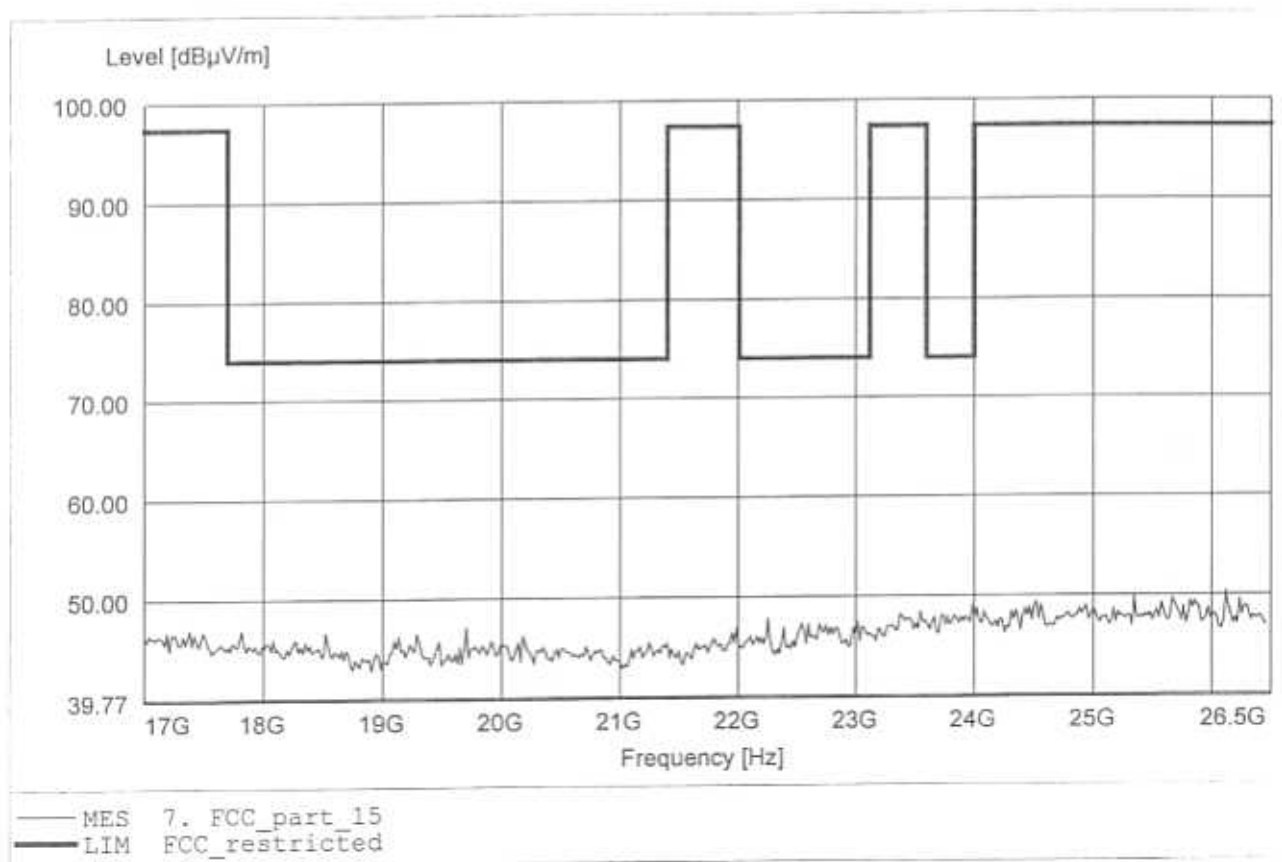
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 25.681GHz, Emax: 50.28dBμV/m, RBW: 1MHz



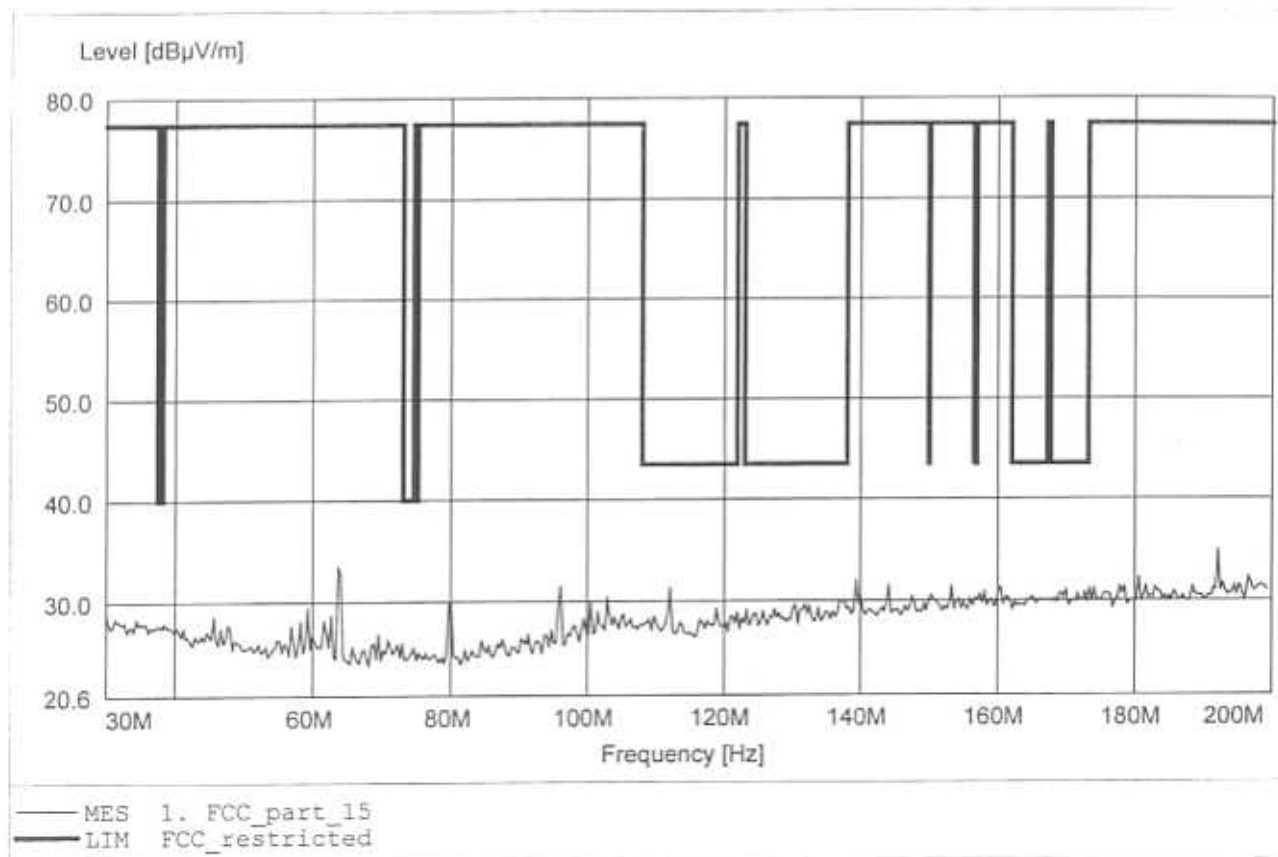
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2441 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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.: HL025, amplif.
Comment 2: Freq: 26.119GHz, Emax: 50.35dBμV/m, RBW: 1MHz



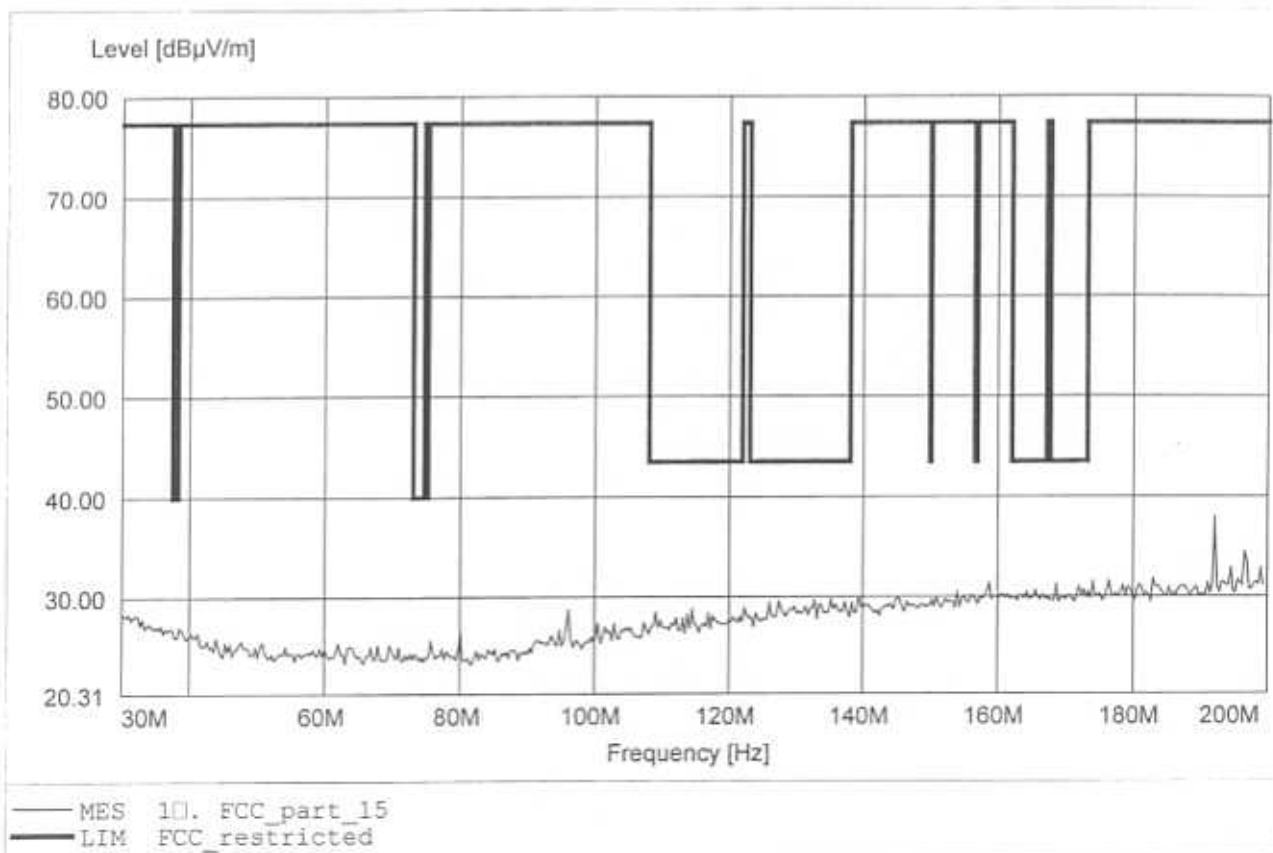
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 V DC
Test Site / Operator: ETS / Mr. Hoppe
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq: 192.164MHz, Emax: 34.98dBµV/m, RBW: 100kHz



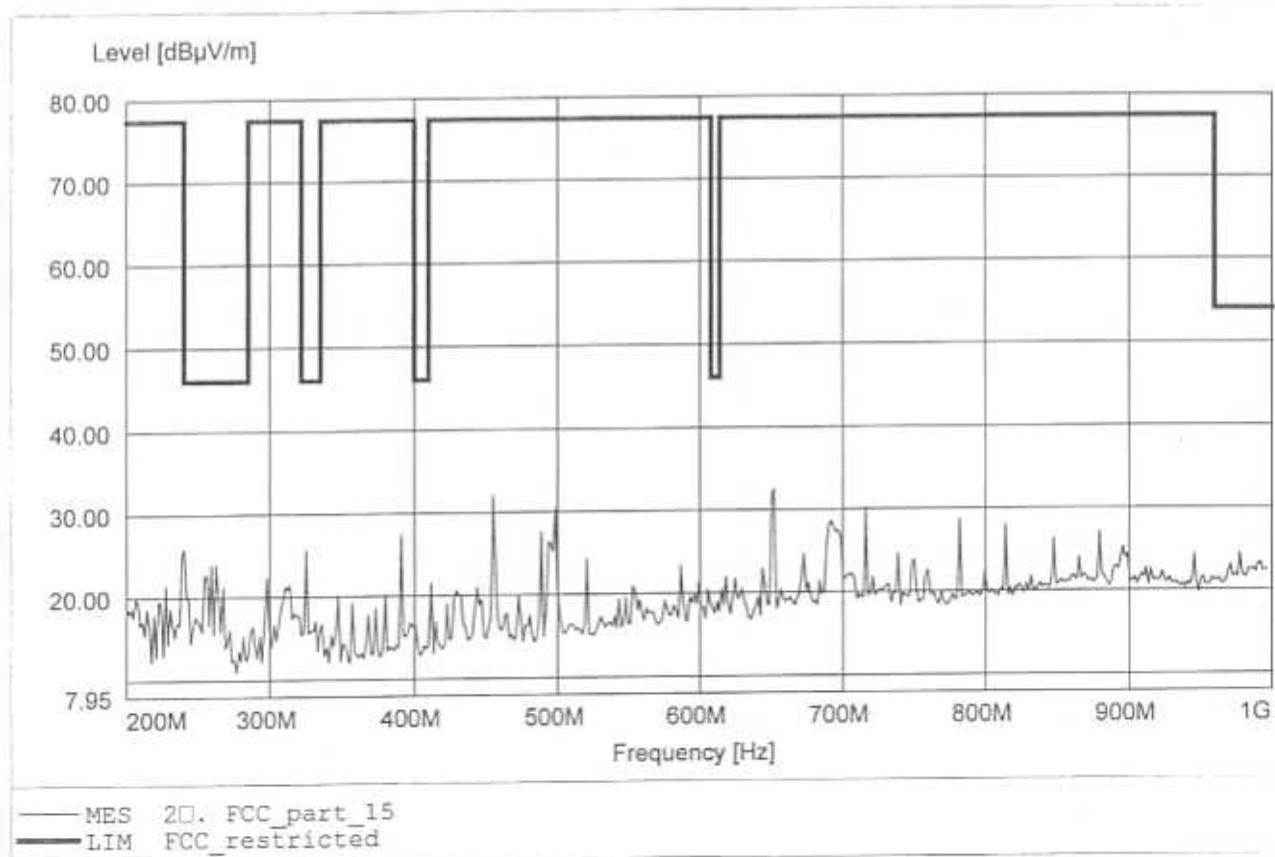
Spurious emissions Field Strength **FCC RULES PART 15, SUBPART C**

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
 Model: UGP22
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 V DC
 Test Site / Operator: ETS / Mr. Hoppe
 Test Specification: according to §15.247
 Comment 1: Dist.: 3m, Ant.: HK 116
 Comment 2: Freq: 192.164MHz, Emax: 38.03dBµV/m, RBW: 100kHz



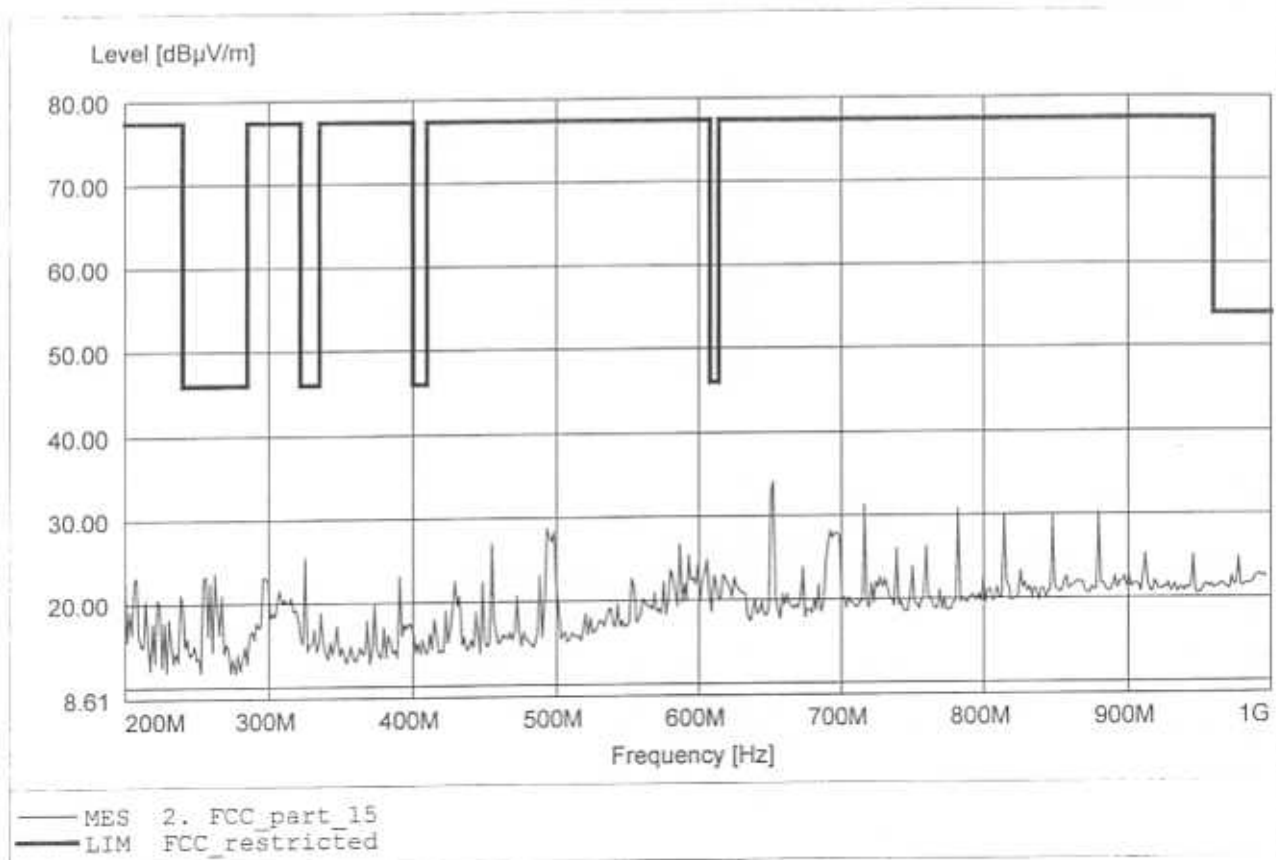
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
Model: UGPZ2
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 32.53dBµV/m, RBW: 100kHz



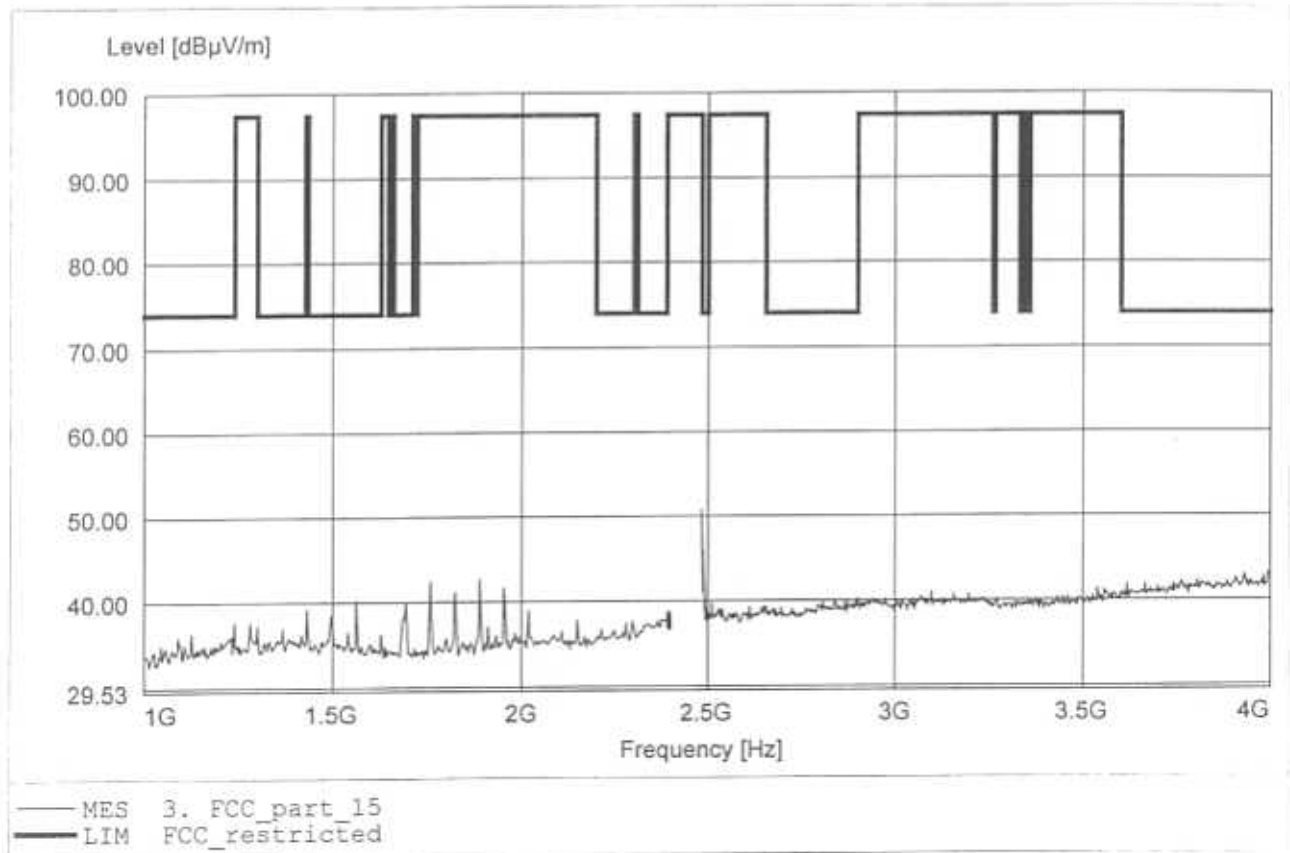
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
Model: UGPZ2
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 34.13dBμV/m, RBW: 100kHz



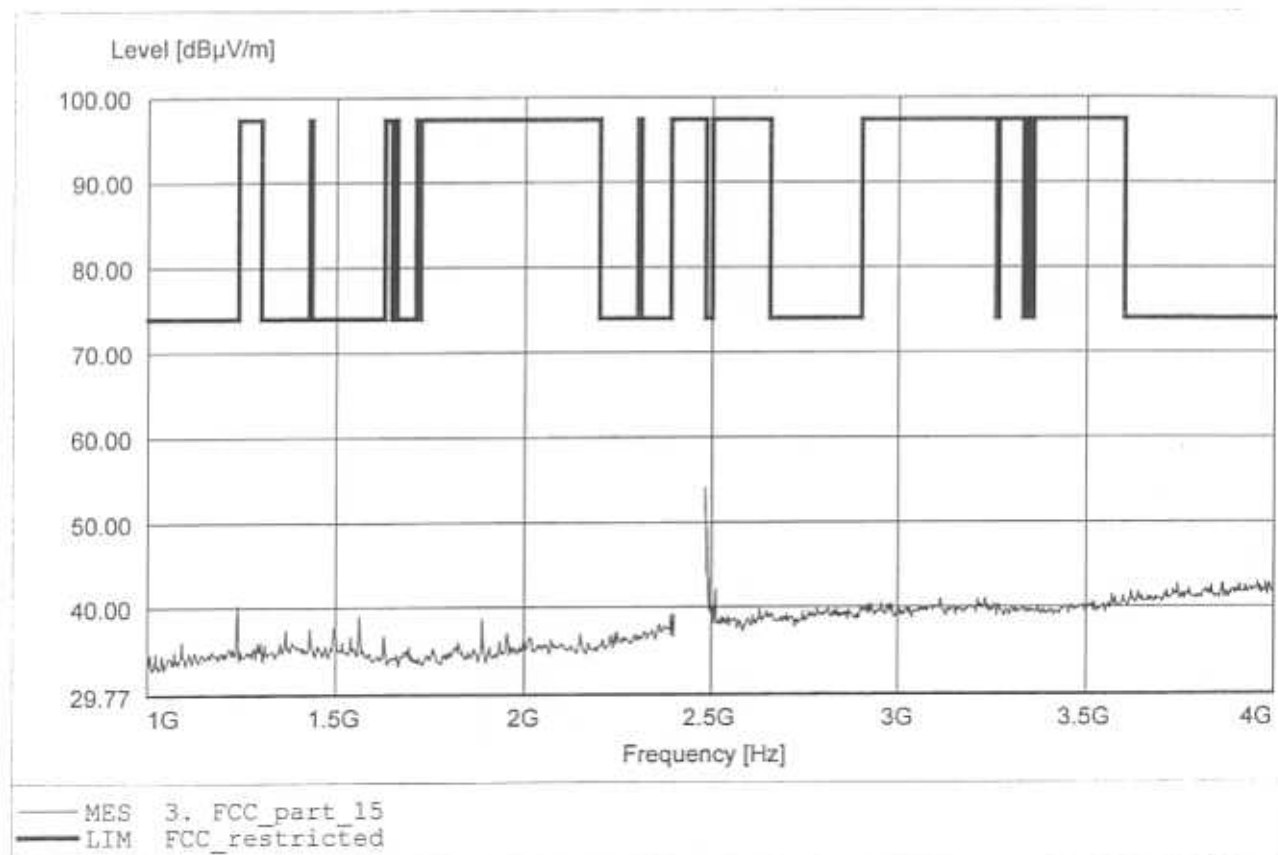
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Fmax / 2480 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 50.83dBμV/m, RBW: 1MHz



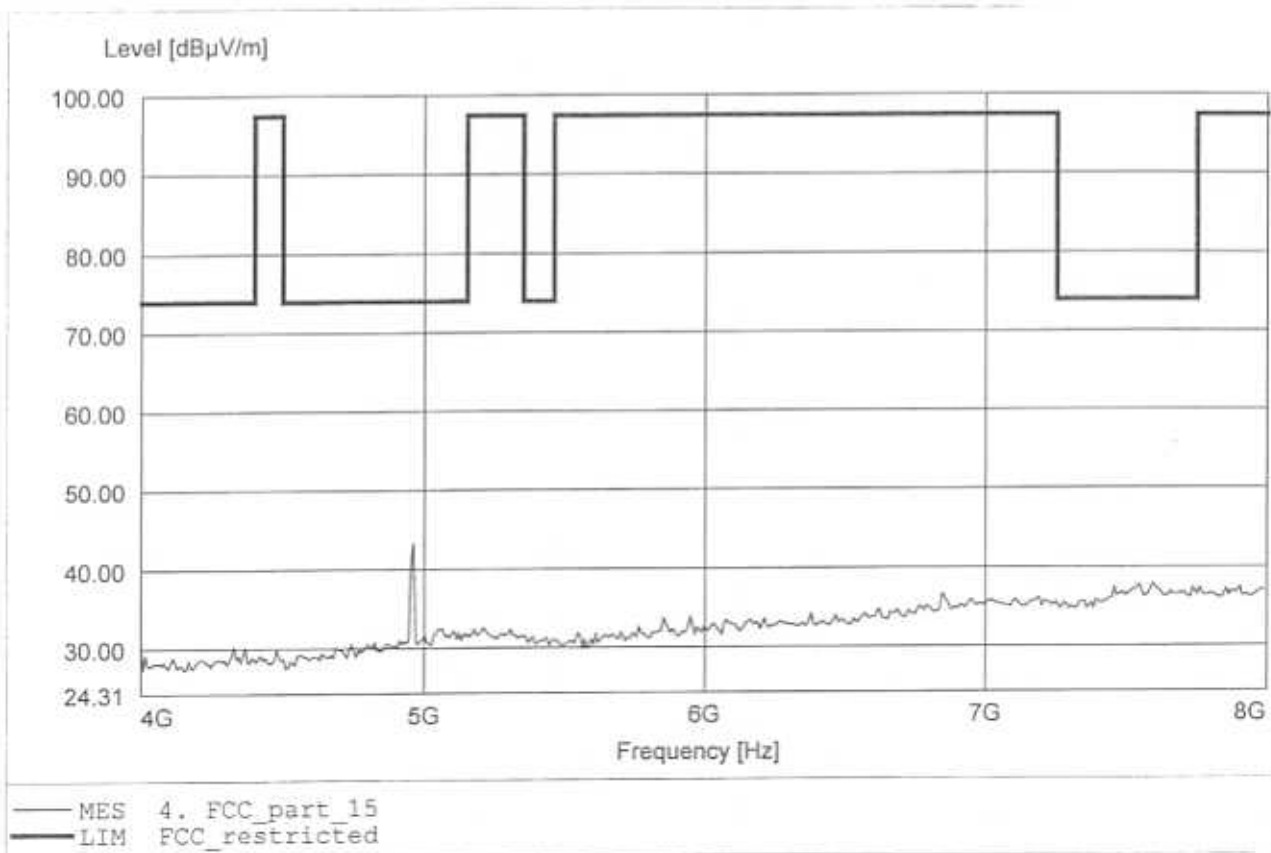
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Fmax / 2480 MHz
 Model: UGPZ2
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 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, amplif.
 Comment 2: Freq: 2.484GHz, Emax: 54.15dBμV/m, RBW: 1MHz



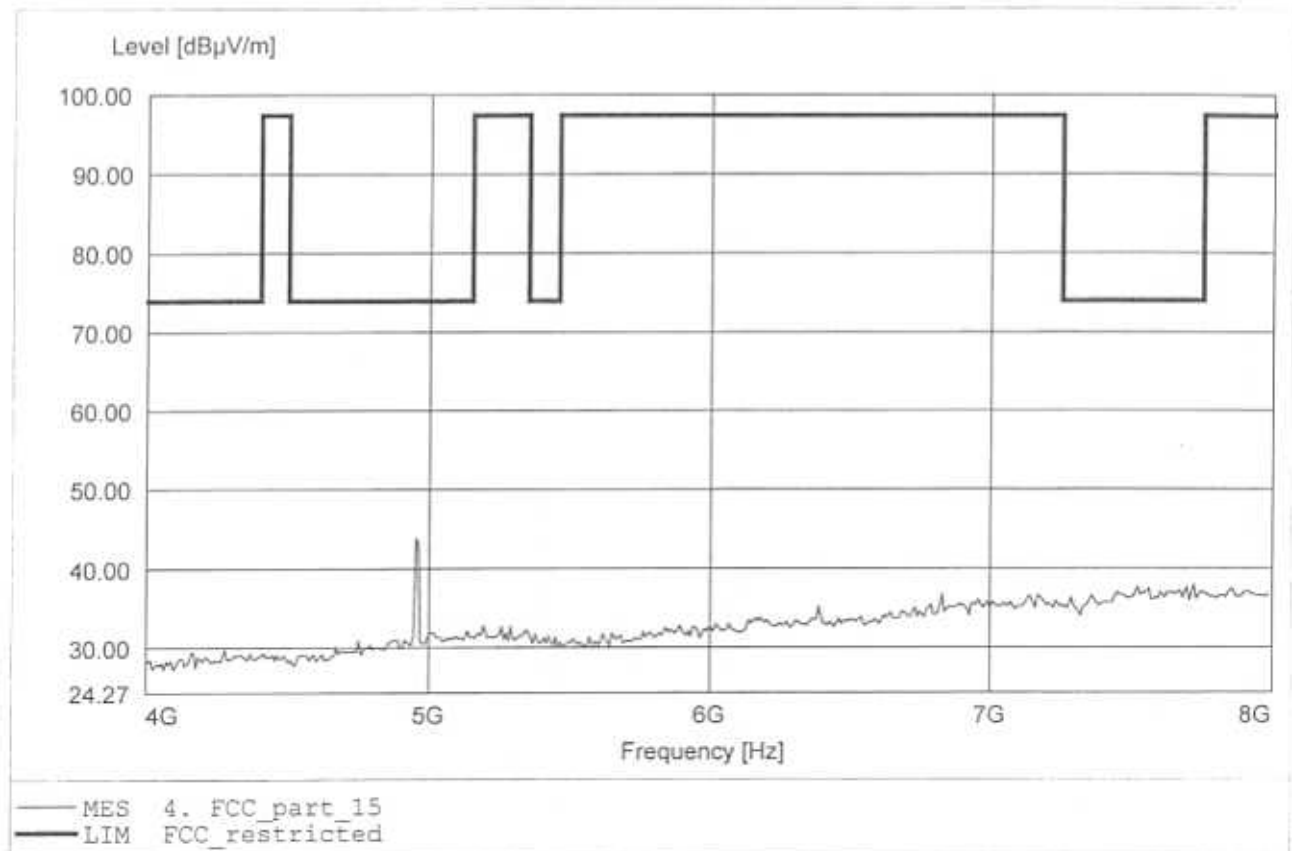
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
Model: UGPZ2
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 43.36dBμV/m, RBW: 1MHz



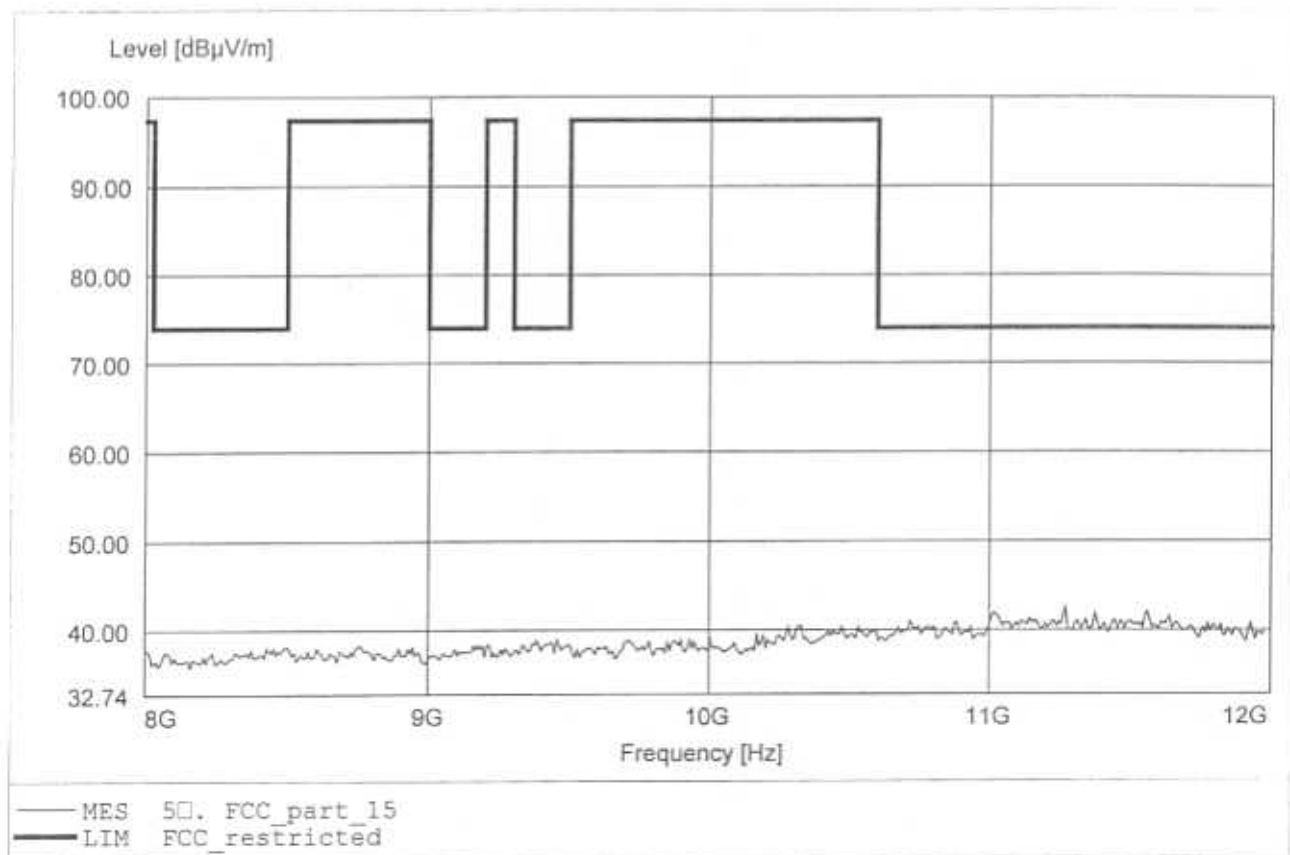
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
 Model: UGP22
 Approval Holder: Alps Electric Co., Ltd.
 Operating Condition: Tnom:23°C / Unom: 3.3 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: 43.87dBuV/m, RBW: 1MHz



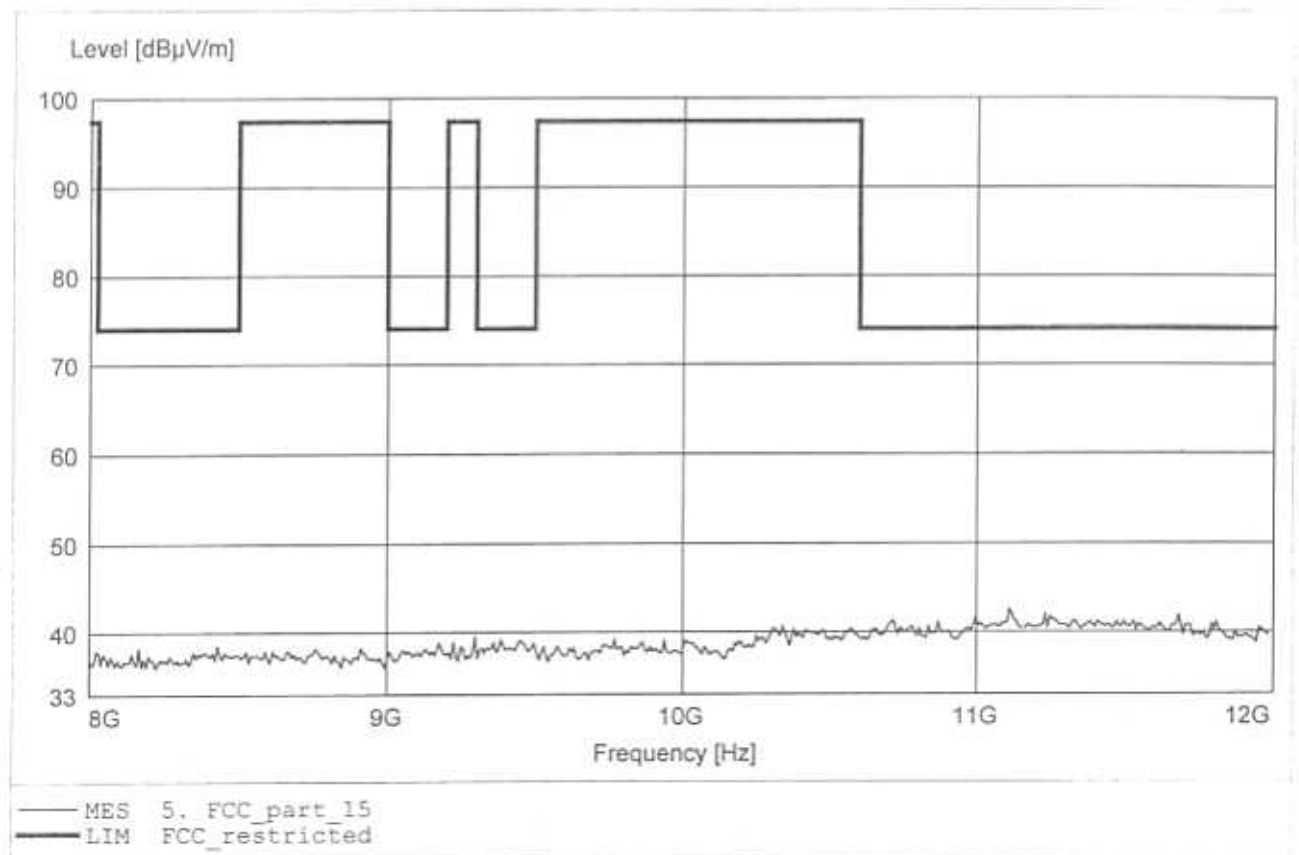
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 11.271GHz, Emax: 42.63dBμV/m, RBW: 1MHz



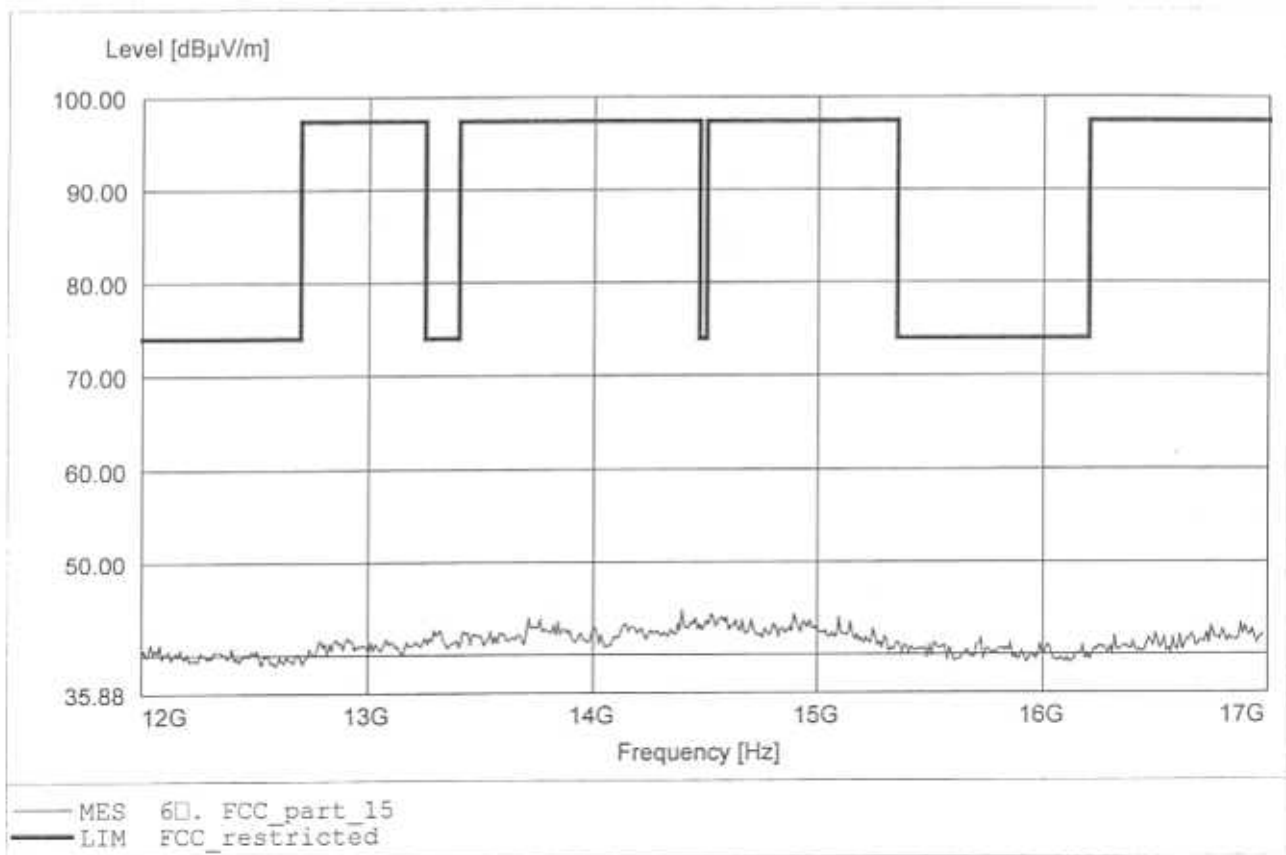
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
Model: UGPZ2
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 11.110GHz, Emax: 42.67dBuV/m, RBW: 1MHz



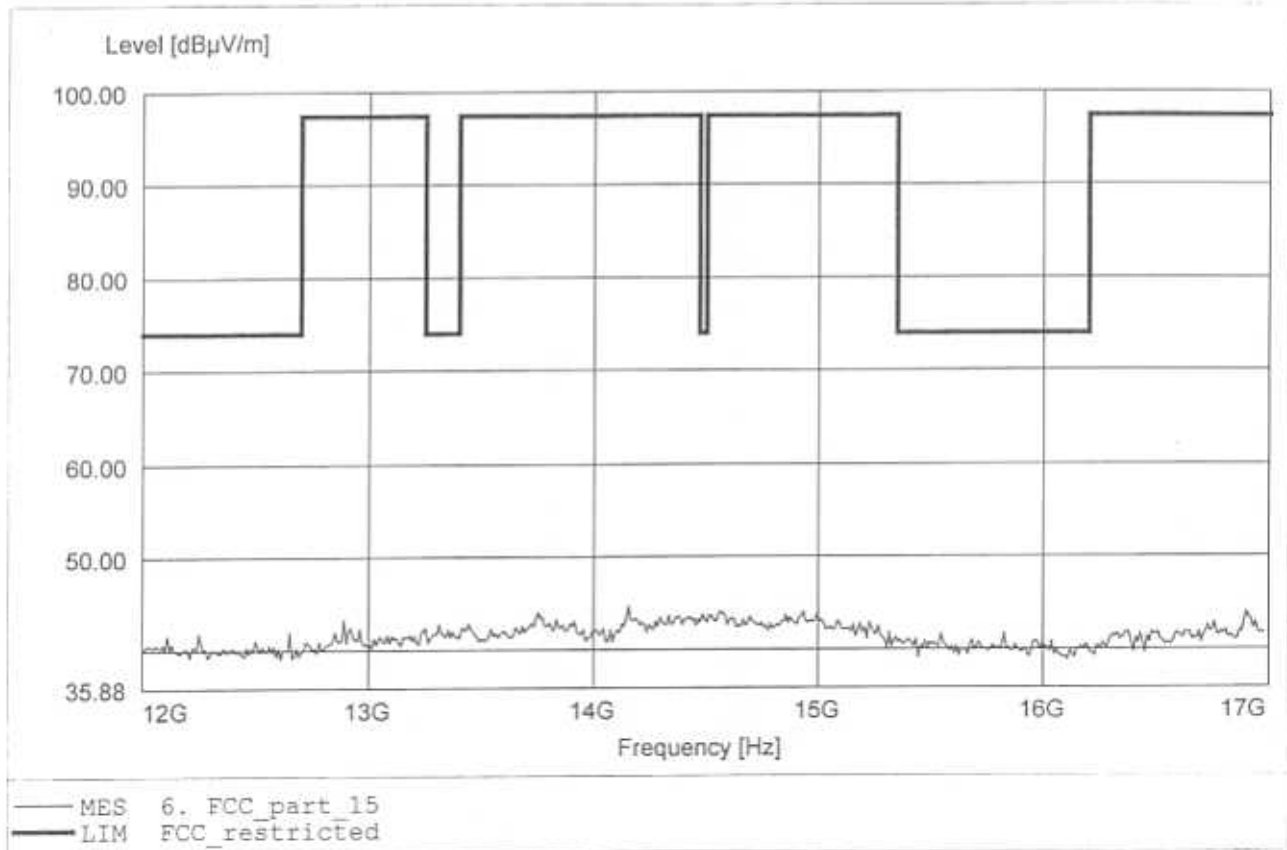
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 14.395GHz, Emax: 44.89dBμV/m, RBW: 1MHz



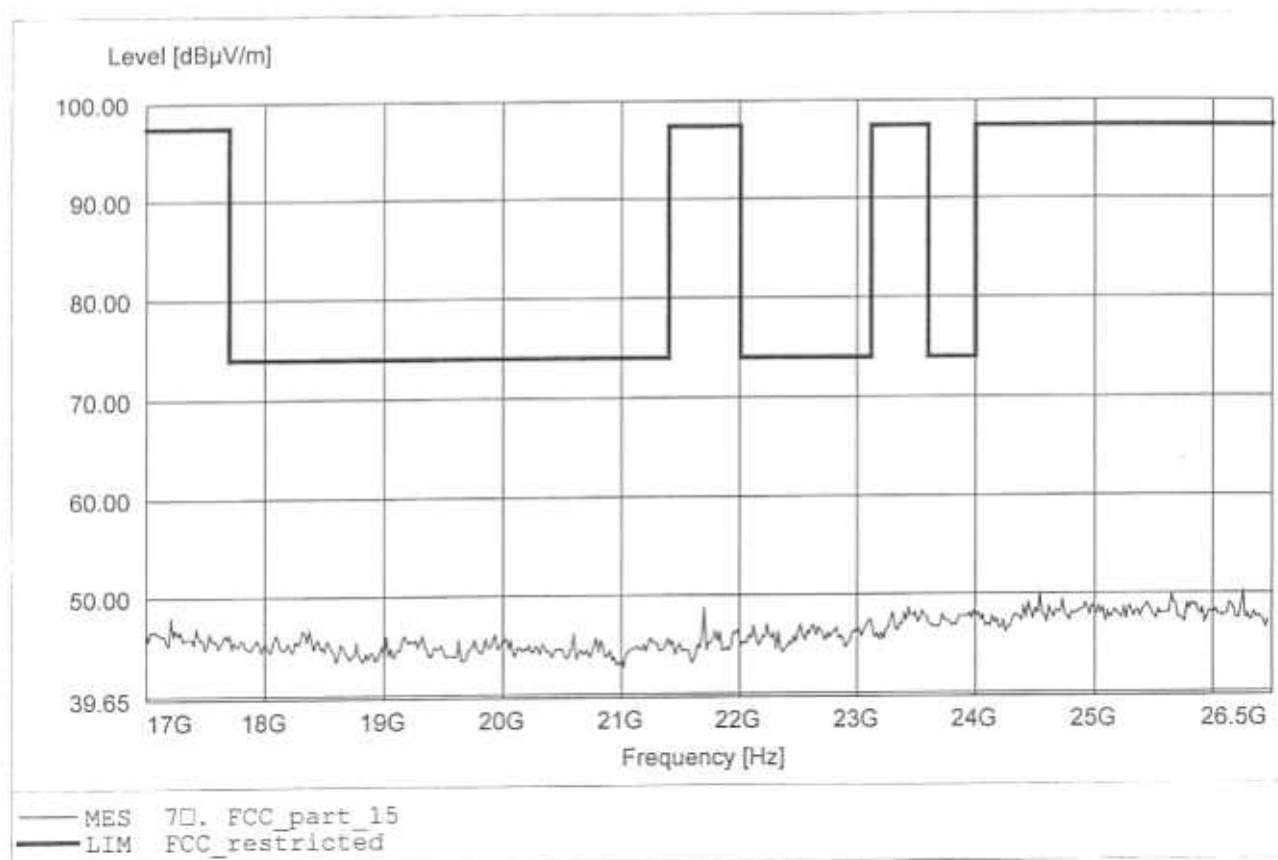
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
Model: UGPZ2
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 14.154GHz, Emax: 44.66dBμV/m, RBW: 1MHz



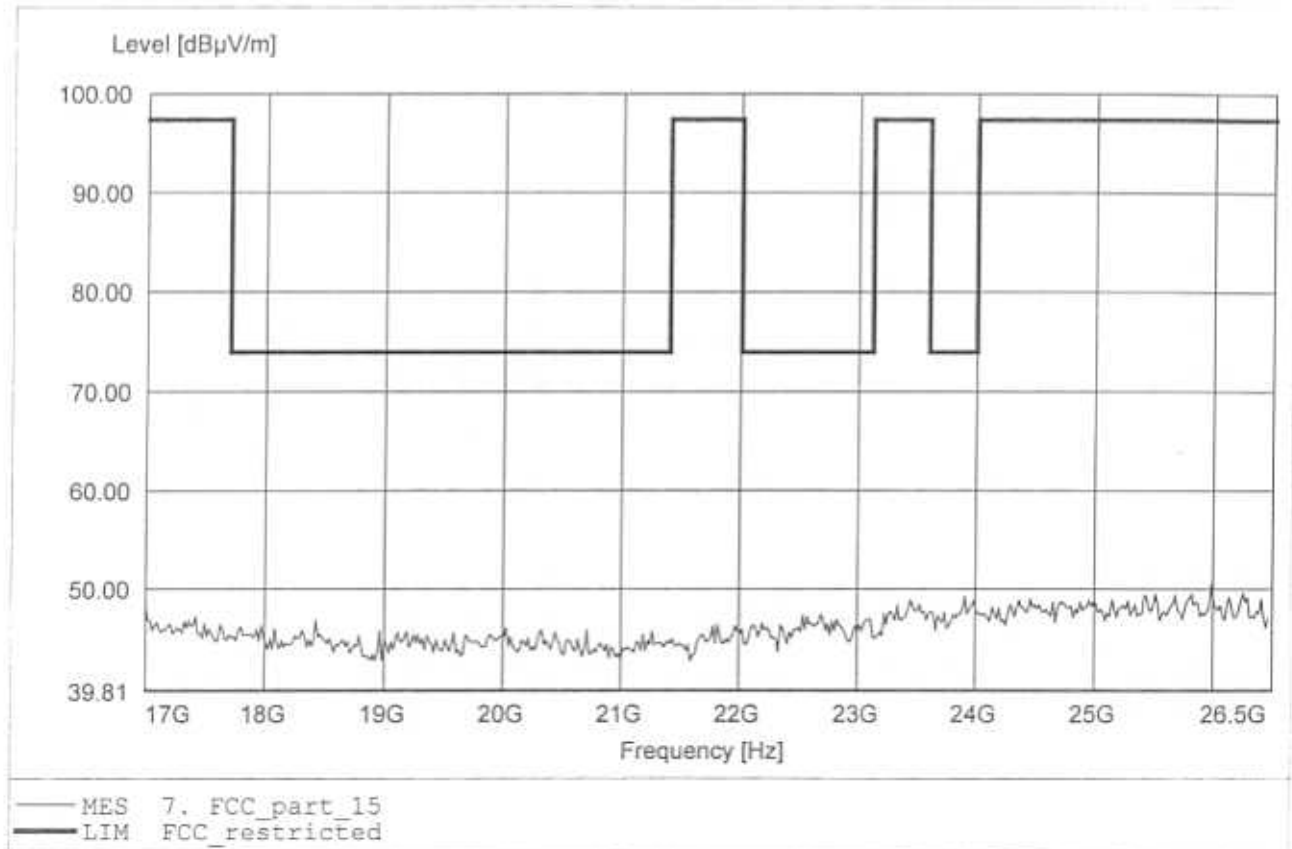
Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 26.253GHz, Emax: 50.35dBμV/m, RBW: 1MHz



Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C

EUT : Bluetooth Module / Ant.: int. / Pmax / 2480 MHz
Model: UGP22
Approval Holder: Alps Electric Co., Ltd.
Operating Condition: Tnom:23°C / Unom: 3.3 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: 25.986GHz, Emax: 50.59dBμV/m, RBW: 1MHz



Appendix D

Spurious Emissions conducted - Transmitter operating

Appendix E

Carrier Frequency Separation



Ref Lvl
15 dBm

Delta 1 [T1]

0.13 dB

1.02725451 MHz

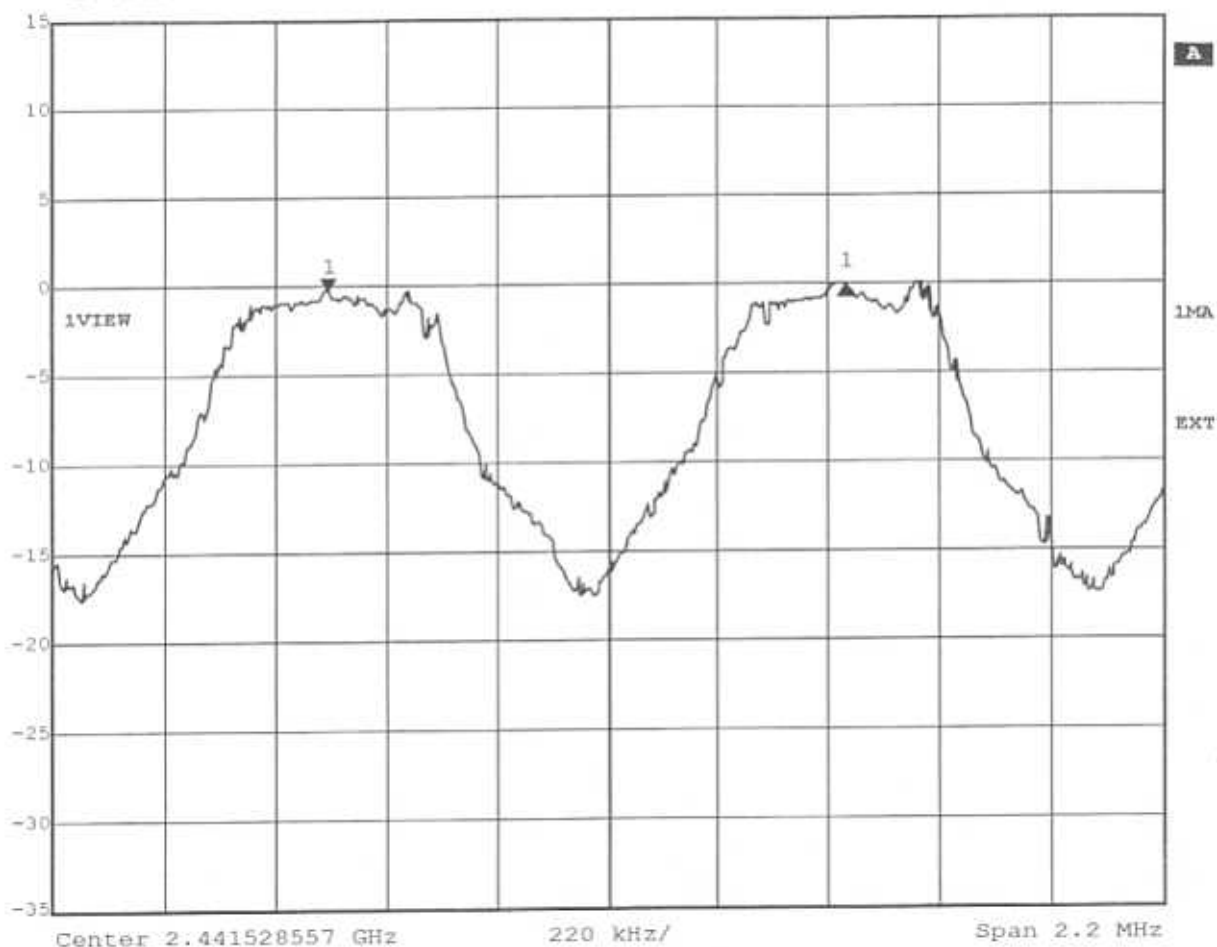
RBW 100 kHz

VBW 100 kHz

SWT 5 ms

RF Att 40 dB

Unit dBm



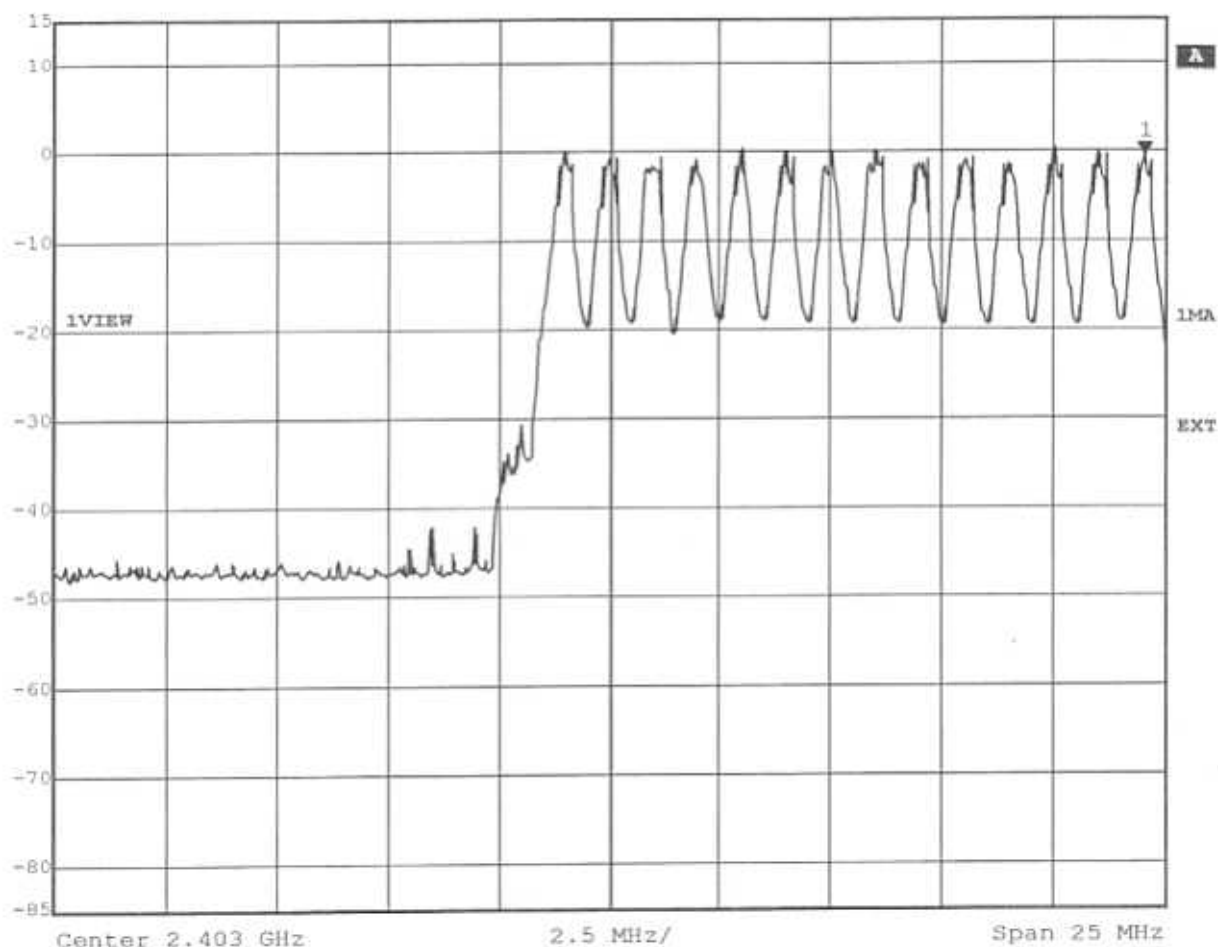
Title: Carrier Frequency Separation
Comment A: Alps Bluetooth Module UGP22
Date: 13.JUN.2002 13:17:29

Appendix F

Number of Hopping Frequencies



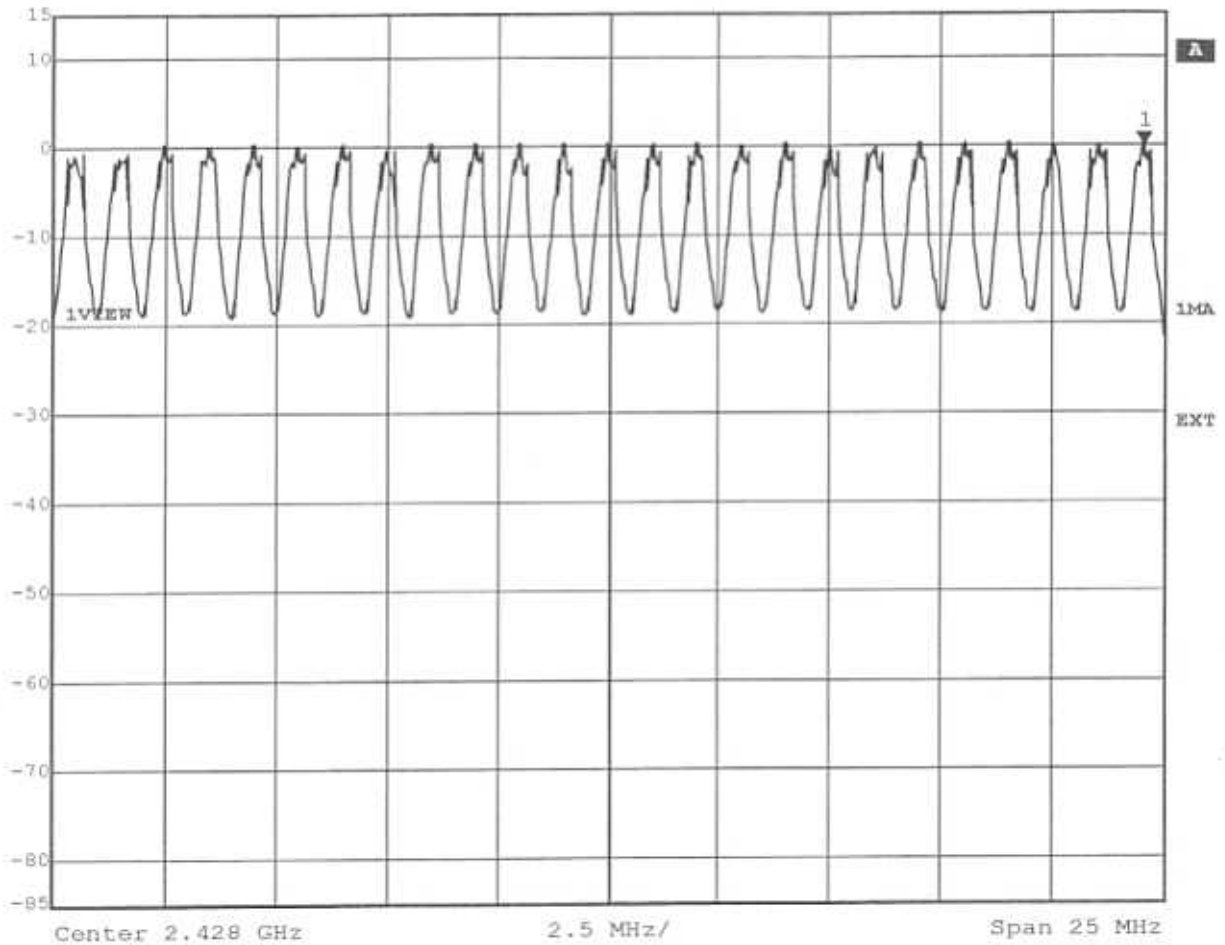
Marker 1 [T1] RBW 50 kHz RF Att 40 dB
Ref Lvl -0.70 dBm VBW 50 kHz
15 dBm 2.41504910 GHz SWT 25 ms Unit dBm



Title: Number of Hopping Frequencies Ch.: 0-13
Comment A: Alps Bluetooth Module UGP22
Date: 13.JUN.2002 13:27:59



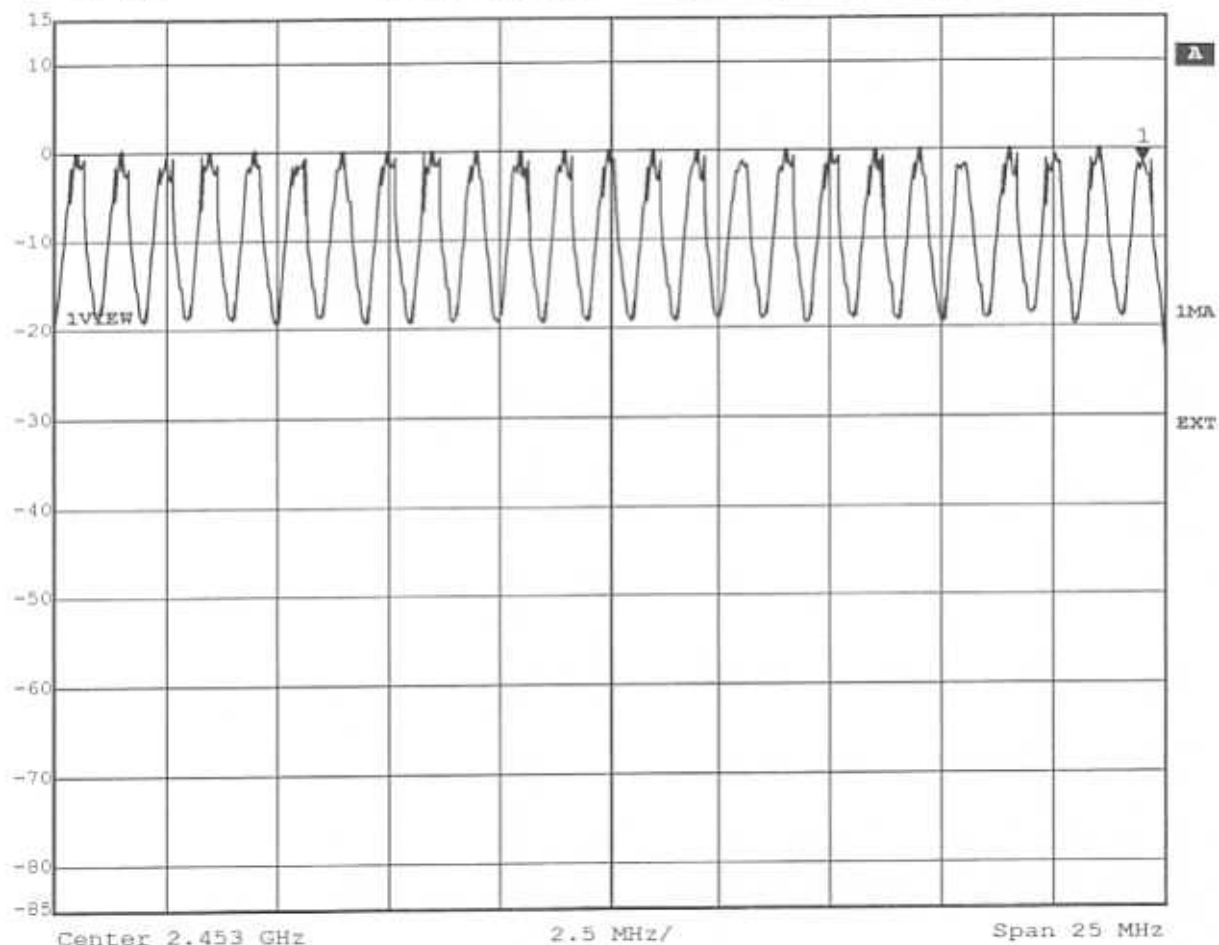
Marker 1 [T1] RBW 50 kHz RF Att 40 dB
Ref Lvl -0.00 dBm VBW 50 kHz
15 dBm 2.44004910 GHz SWT 25 ms Unit dBm



Title: Number of Hopping Frequencies Ch.: 14-38
Comment A: Alps Bluetooth Module UGPZ2
Date: 13.JUN.2002 13:50:18



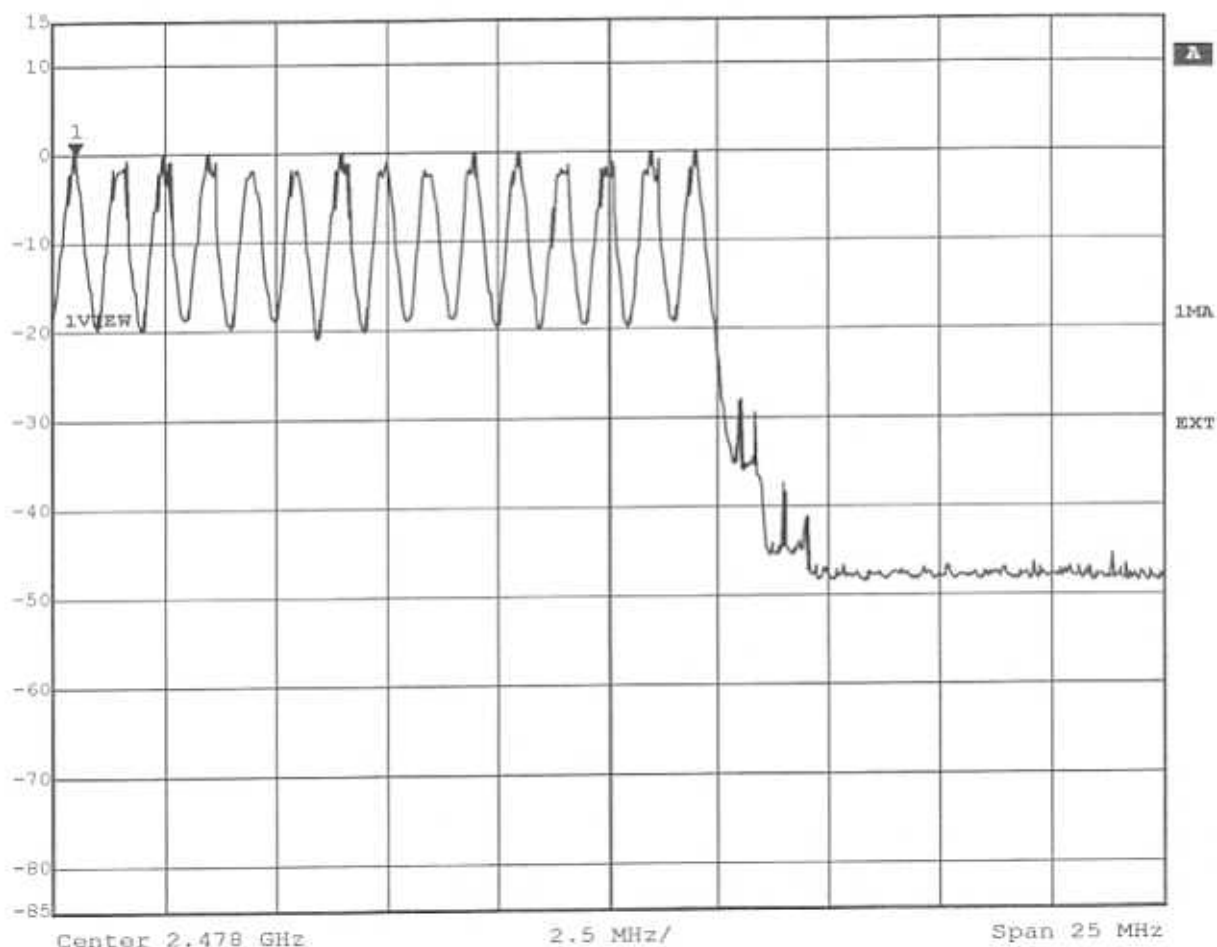
Marker 1 [T1] REW 50 kHz RF Att 40 dB
Ref Lvl -1.64 dBm VBW 50 kHz
15 dBm 2.46499900 GHz SWT 25 ms Unit dBm



Center 2.453 GHz 2.5 MHz/ Span 25 MHz
Title: Number of Hopping Frequencies Ch.: 39-63
Comment A: Alps Bluetooth Module UGP22
Date: 13.JUN.2002 14:04:39



Marker 1 [T1] RBW 50 kHz RF Att 40 dB
Ref Lvl -0.15 dBm VBW 50 kHz
15 dBm 2.46600100 GHz SWT 25 ms Unit dBm

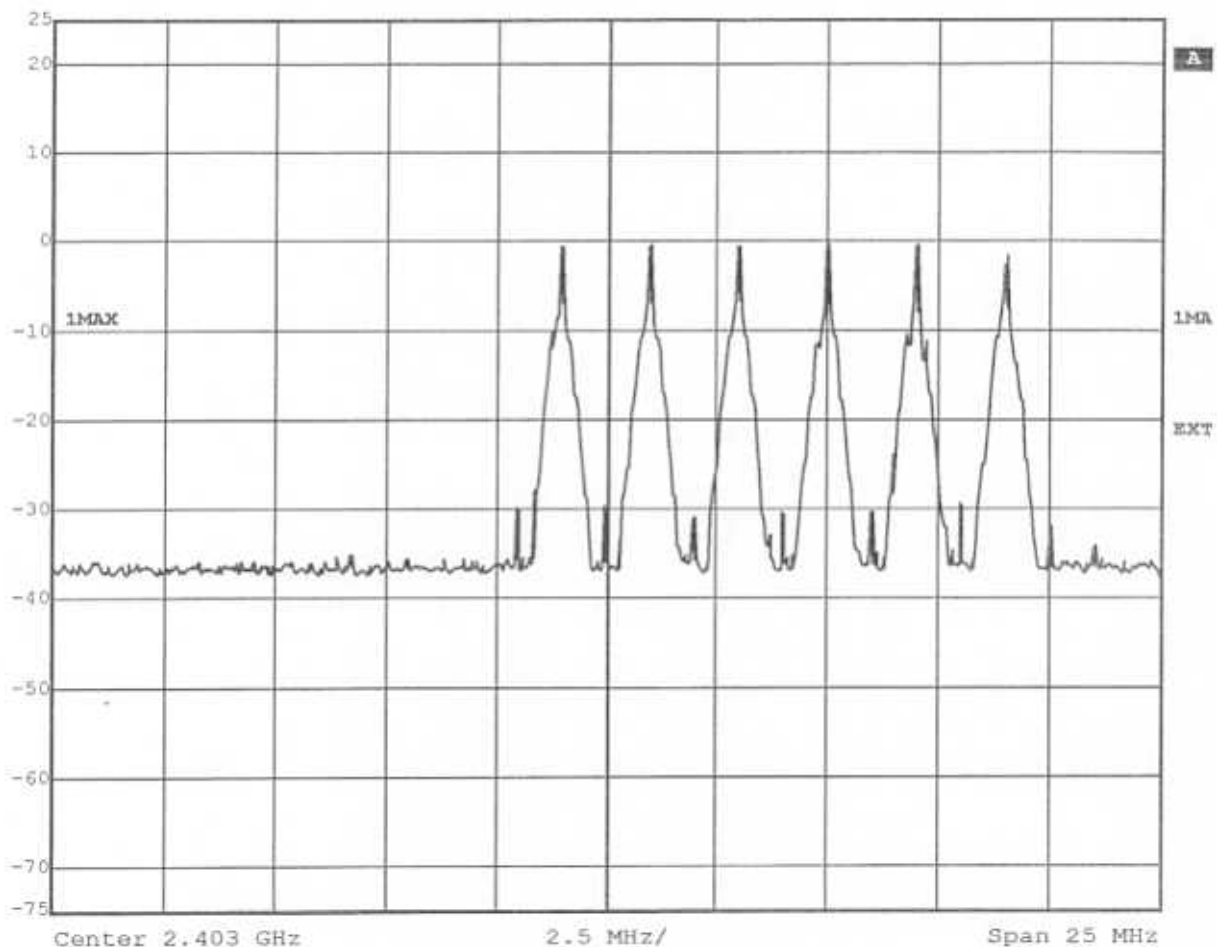


Title: Number of Hopping Frequencies Ch.: 64-78
Comment A: Alps Bluetooth Module UGPZ2
Date: 13.JUN.2002 14:11:01



Ref Lvl
25 dBm

RBW 50 kHz RF Att 50 dB
VBW 50 kHz
SWT 25 ms Unit dBm

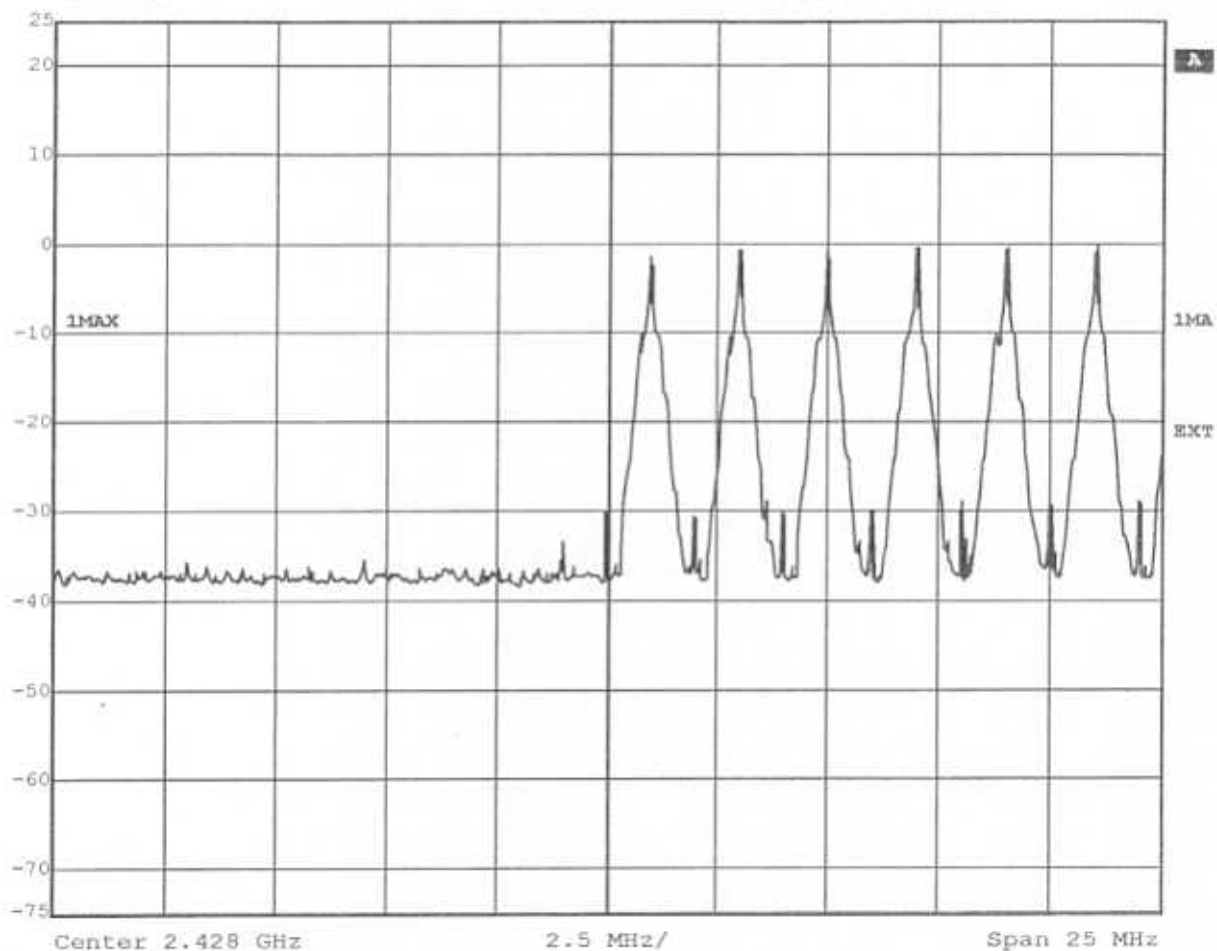


Title: Number of Hopping Frequencies (Inquiry Mode)
Comment A: Bluetooth Module UGP22
Date: 29.AUG.2002 13:06:21



Ref Lvl
25 dBm

RBW	50 kHz	RF Att	50 dB
VBW	50 kHz		
SWT	25 ms	Unit	dBm

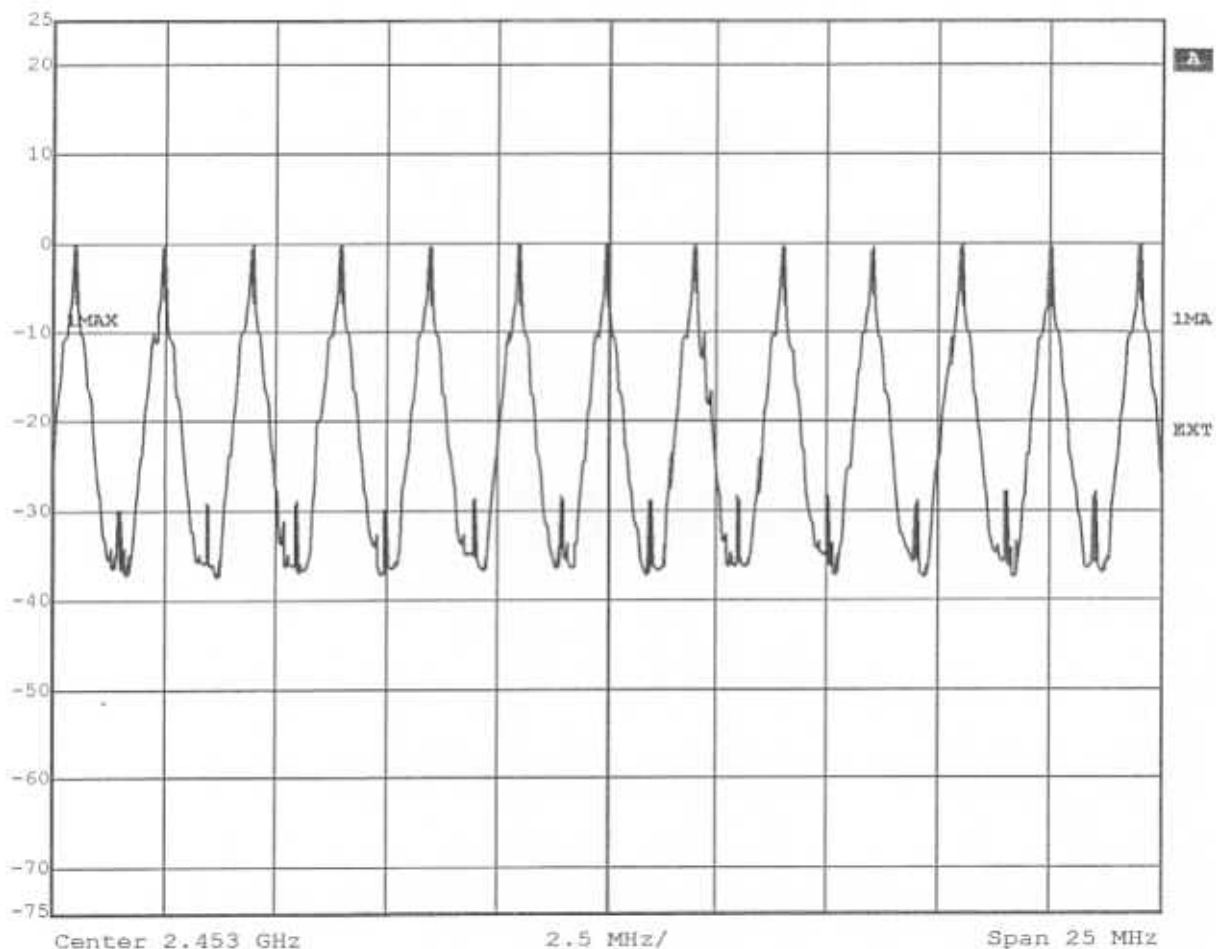


Title: Number of Hopping Frequencies (Inquiry Mode)
Comment A: Bluetooth Module UGP22
Date: 29.AUG.2002 13:12:14



Ref Lvl
25 dBm

RBW 50 kHz RF Att 50 dB
VBW 50 kHz
SWT 25 ms Unit dBm

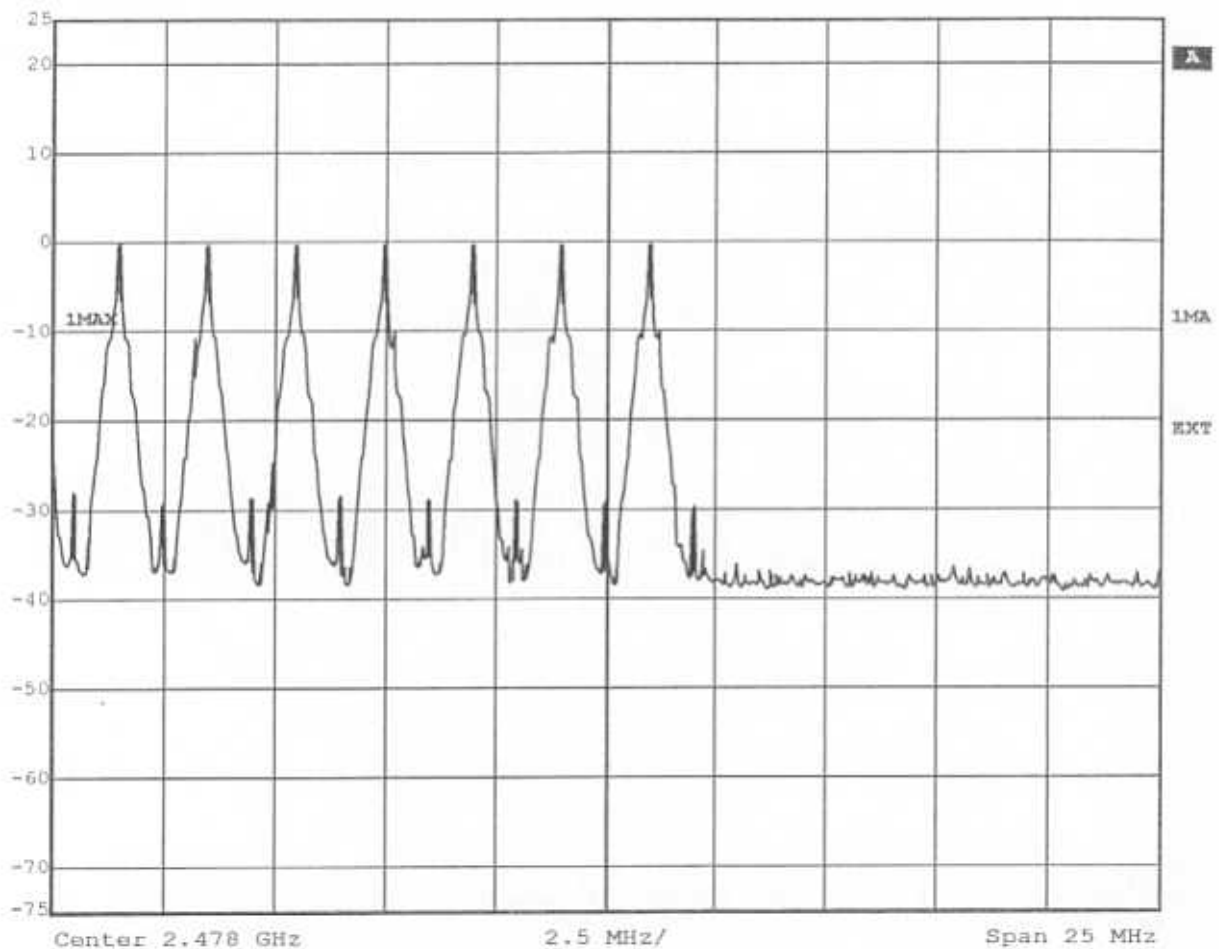


Title: Number of Hopping Frequencies (Inquiry Mode)
Comment A: Bluetooth Module UGP22
Date: 29.AUG.2002 13:27:38



Ref Lvl
25 dBm

RBW 50 kHz RF Att 50 dB
VBW 50 kHz
SWT 25 ms Unit dBm



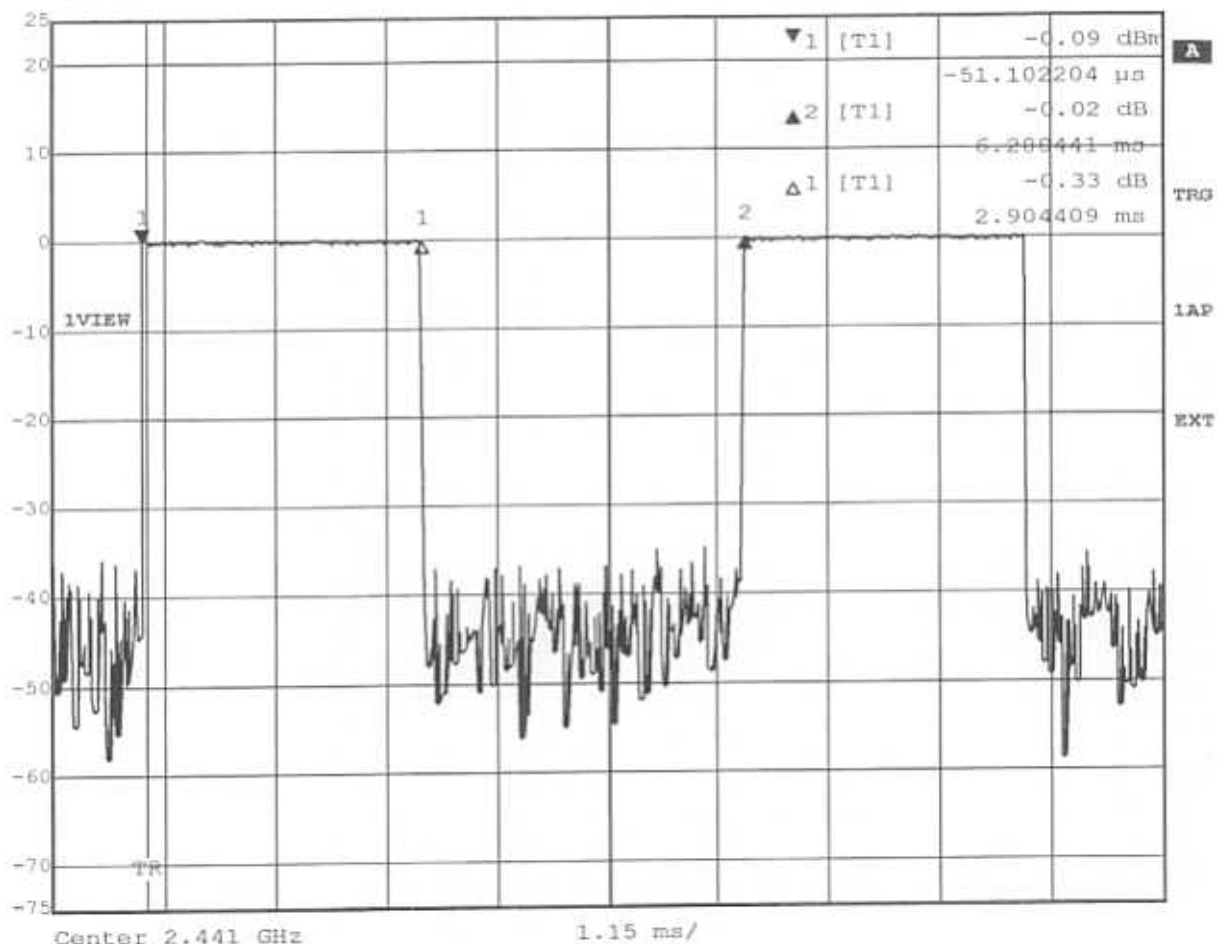
Title: Number of Hopping Frequencies (Inquiry Mode)
Comment A: Bluetooth Module UGPZ2
Date: 29.AUG.2002 13:30:49

Appendix G

Time of Occupancy (Dwell Time)



Delta 2 [T1] RBW 1 MHz RF Att 50 dB
Ref Lvl -0.02 dB VEW 1 MHz
25 dBm 6.280441 ms SWT 11.5 ms Unit dBm



Title: Dwell Time
Comment A: Alps Bluetooth Module UGPZ2
Date: 13.JUN.2002 12:59:16



Ref Lvl
10 dBm

Delta 1 [T1]

-0.12 dB

117.098196 μ s

RBW

1 MHz

VBW

1 MHz

SWT

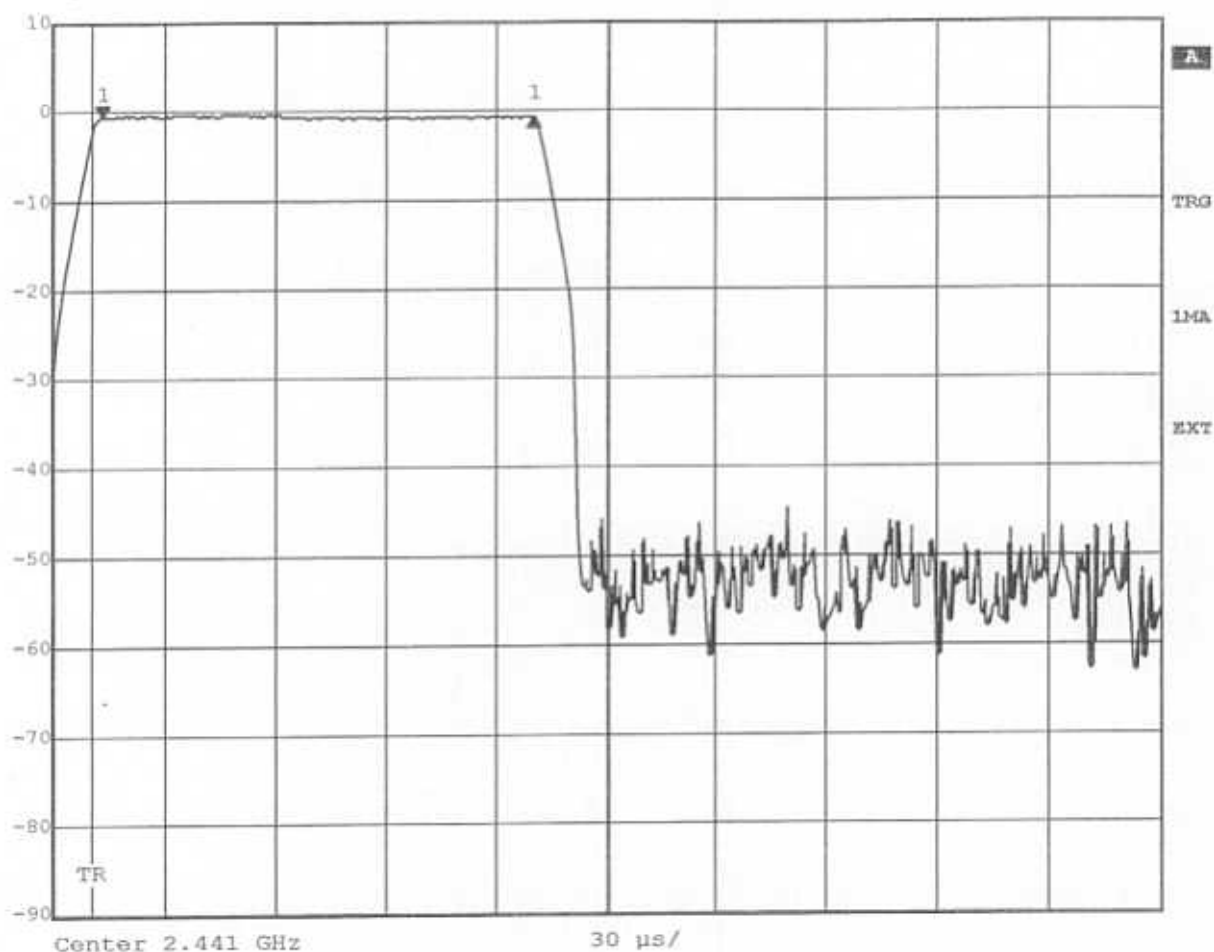
300 μ s

RF Att

40 dB

Unit

dBm



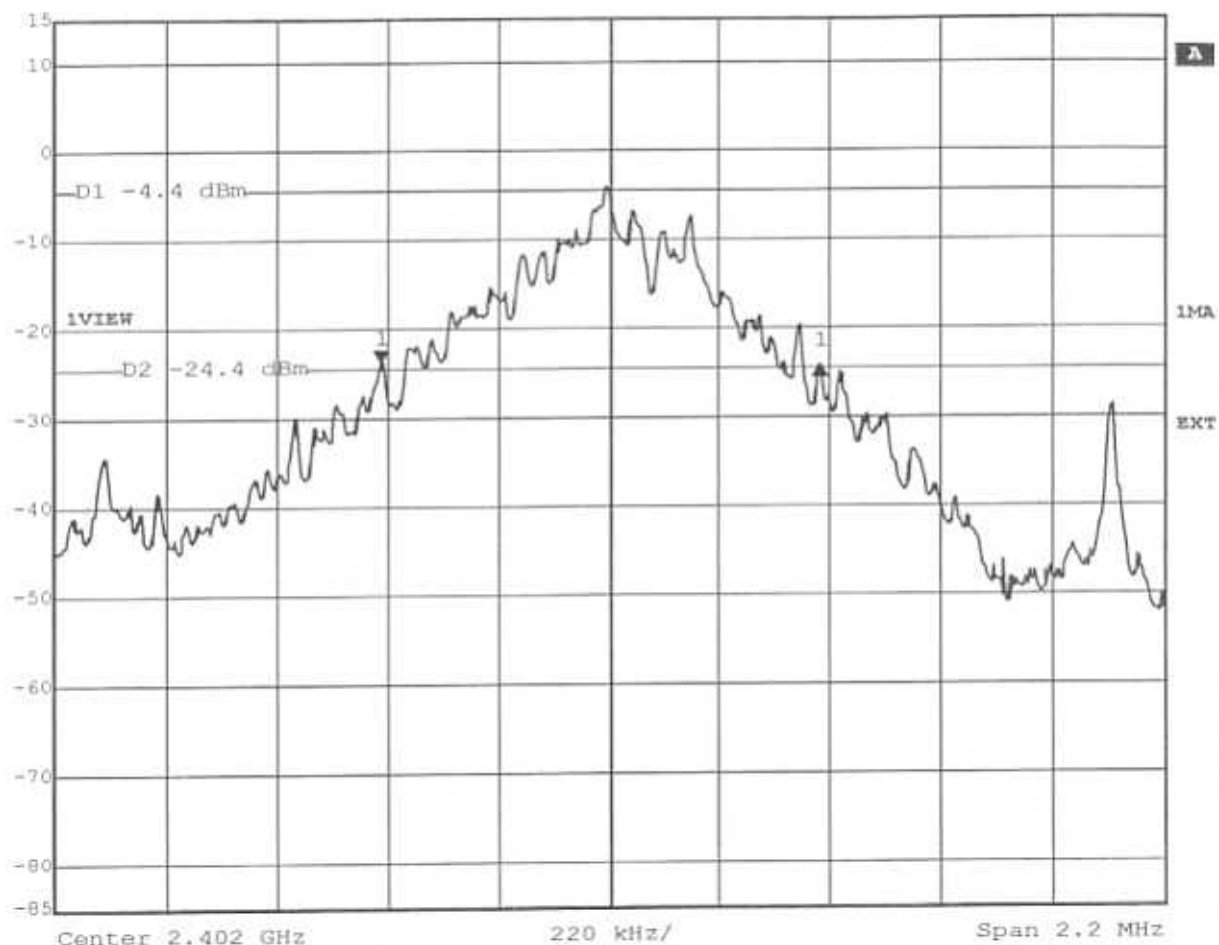
Title: Time of occupancy (Inquiry mode) 102 event * 0.117ms=11.9ms
Comment A: UGP22
Date: 30.AUG.2002 15:22:50

Appendix H

20dB Bandwidth



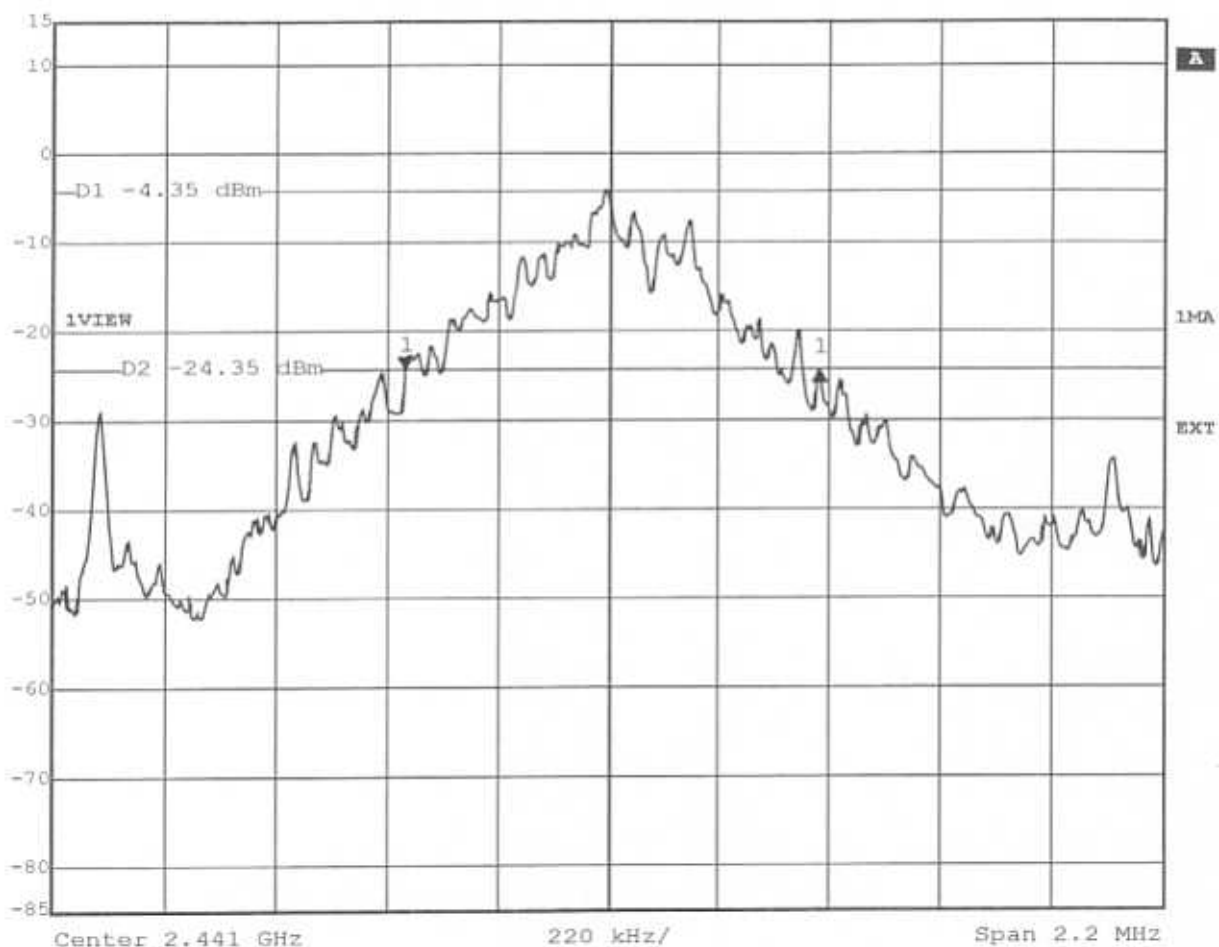
Delta 1 [T1] RBW 10 kHz RF Att 40 dB
Ref Lvl -0.50 dB VBW 10 kHz
15 dBm 872.94589178 kHz SWT 56 ms Unit dBm



Title: 20 dB Bandwidth Ch.: 0
Comment A: Alps Bluetooth Module UGPZ2
Date: 13.JUN.2002 12:40:17



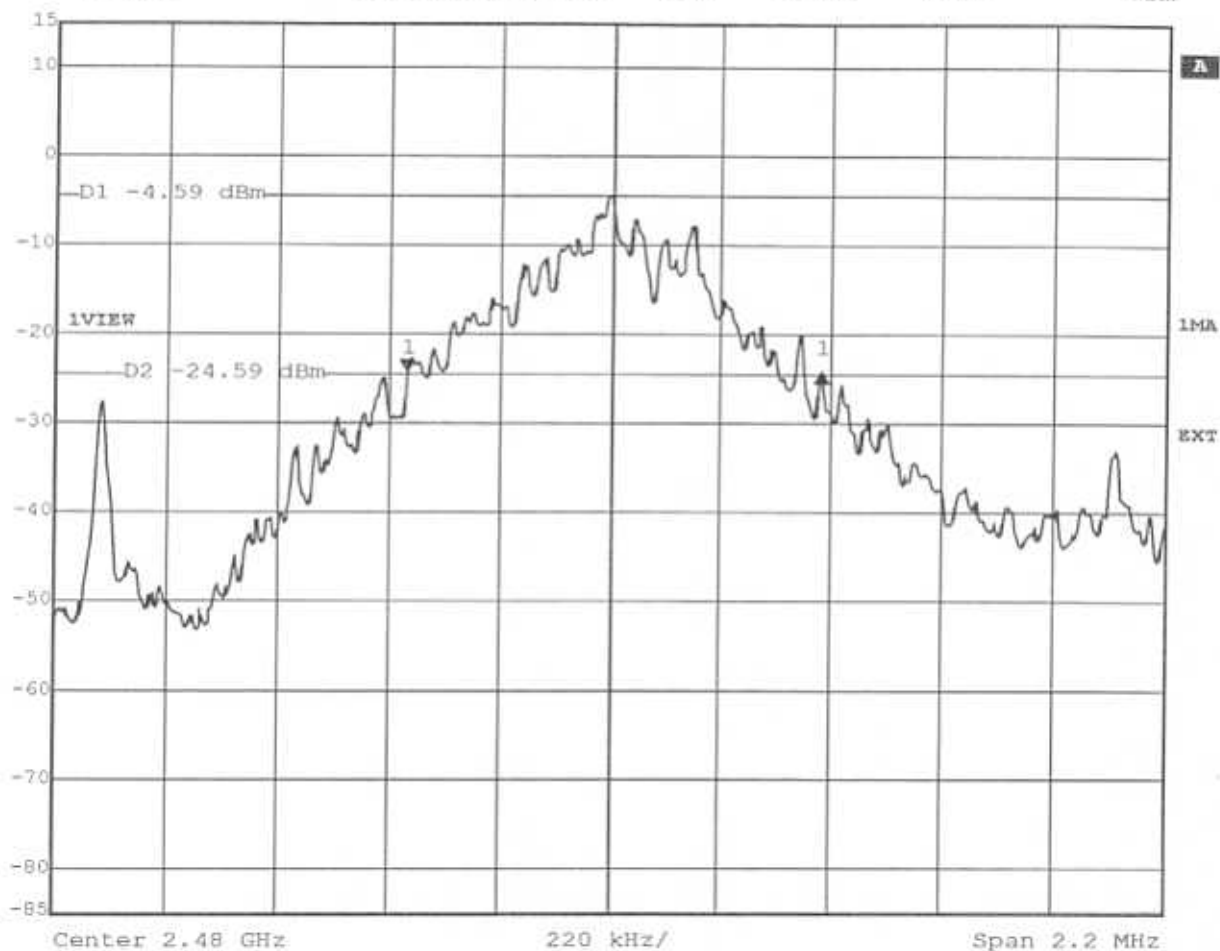
Delta 1 [T1] RBW 10 kHz RF Att 40 dB
Ref Lvl -0.22 dB VBW 10 kHz
15 dBm 824.44889780 kHz SWT 56 ms Unit dBm



Title: 20 dB Bandwidth Ch.: 39
Comment A: Alps Bluetooth Module UGP22
Date: 13.JUN.2002 12:44:57



Delta 1 [T1] RBW 10 kHz RF Att 40 dB
Ref Lvl -0.07 dB VSW 10 kHz
15 dBm 824.44889779 kHz SWT 56 ms Unit dBm



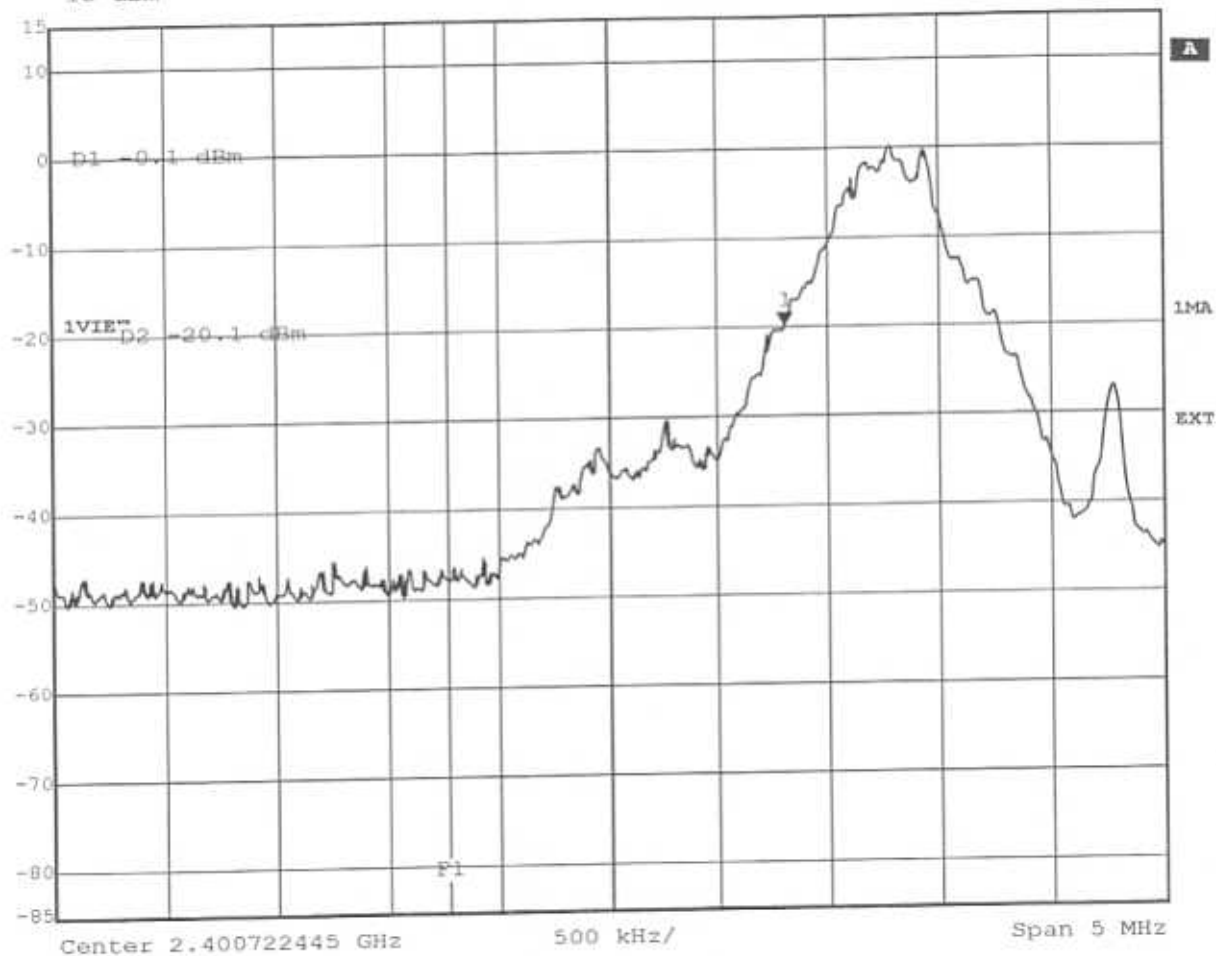
Title: 20 dB Bandwidth Ch.: 78
Comment A: Alps Bluetooth Module UGP22
Date: 13.JUN.2002 12:47:21

Appendix I

Band-edge Compliance of RF Emissions



Marker 1 [T1] RBW 50 kHz RF Att 40 dB
-19.96 dBm VBW 50 kHz
2.40152906 GHz SWT 5 ms Unit dBm
Ref Lvl 15 dBm



Title: Band-edge Compliance of RF Conducted Emissions Ch.: 0
Comment A: Alps Bluetooth Module UGP22
Date: 13.JUN.2002 12:37:17



Ref Lvl
15 dBm

Marker 1 [T1]

-20.45 dBm
2.48048675 GHz

RBW 50 kHz

VBW 50 kHz

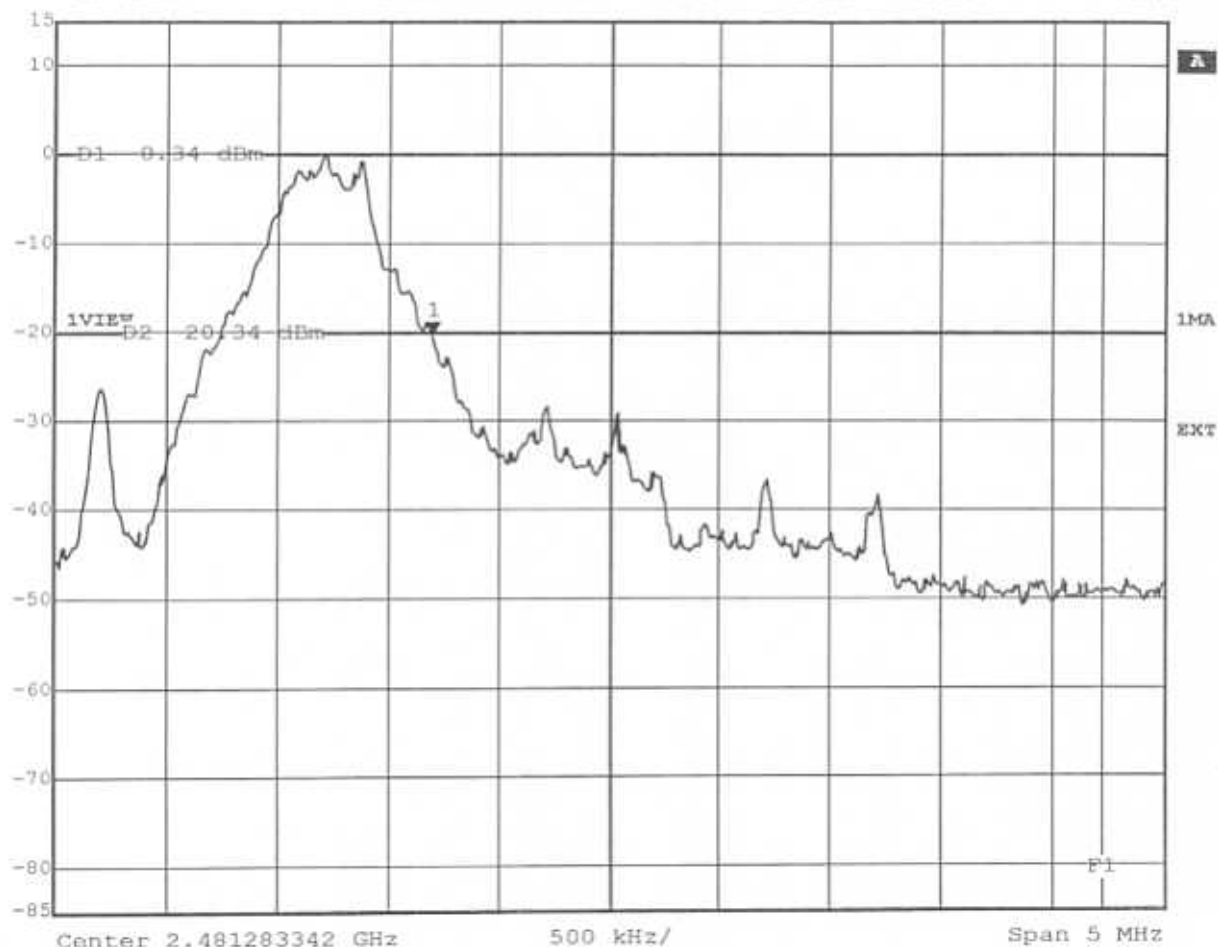
SWT 5 ms

RF Att

40 dB

Unit

dBm



Title: Band-edge Compliance of RF Conducted Emissions Ch.: 78
Comment A: Alps Bluetooth Module UGP22
Date: 13.JUN.2002 12:35:36

Appendix J

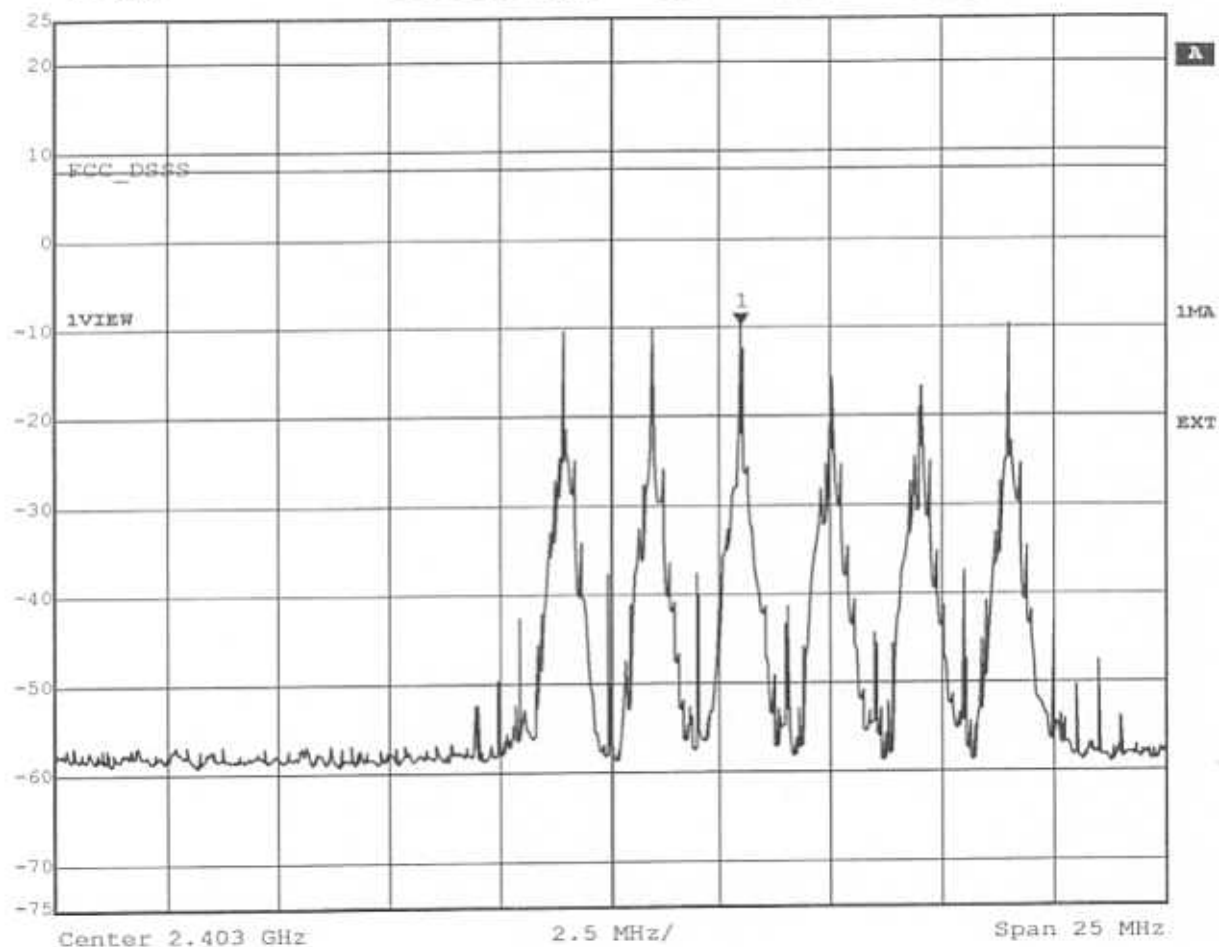
Conducted Measurement at (AC) Power Line

Appendix K

Peak Power Spectral Density (Master Inquiry Mode)



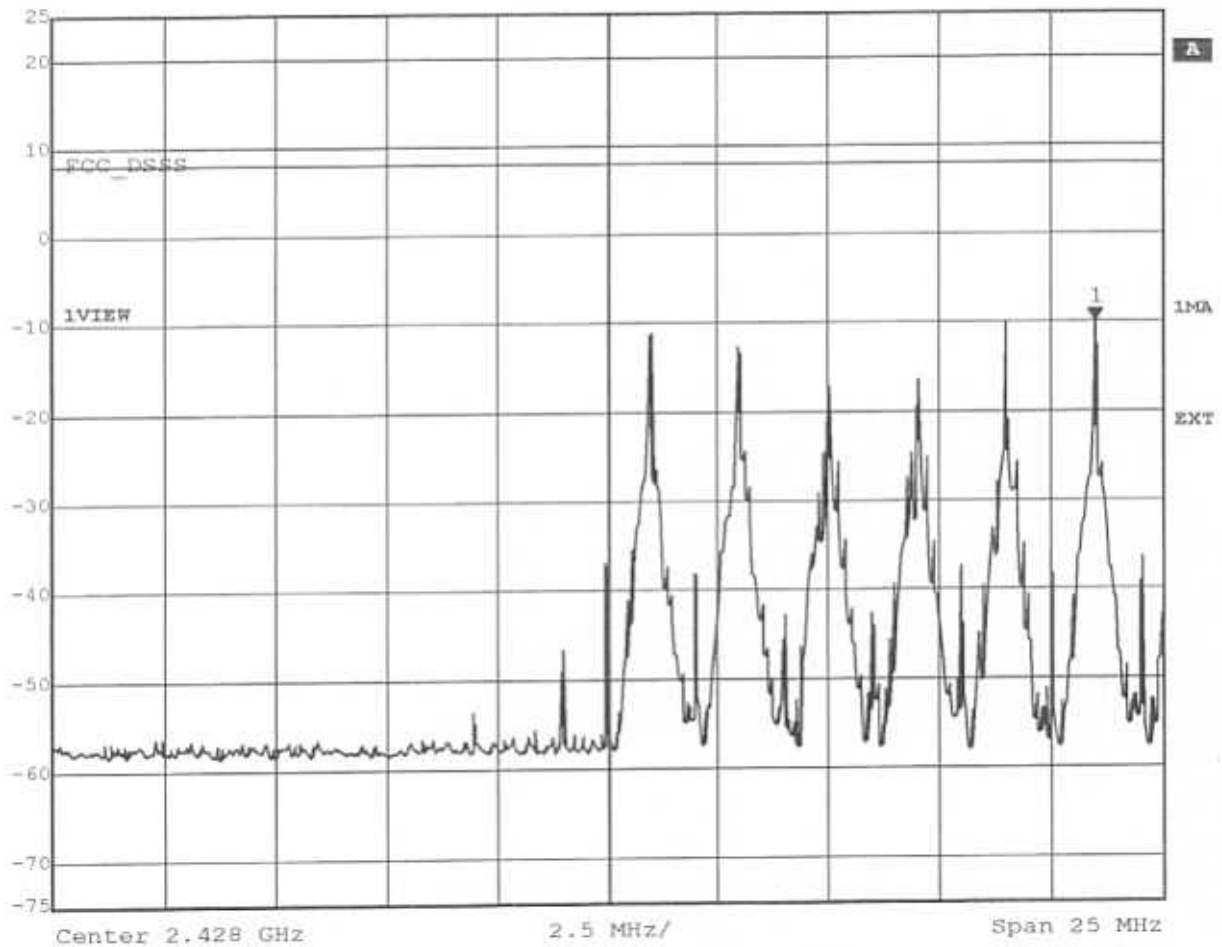
Marker 1 [T1] RBW 3 kHz RF Att 50 dB
Ref Lvl -9.81 dBm VBW 3 kHz
25 dBm 2.40598096 GHz SWT 10 s Unit dBm



Title: Peak Power Spectral Density (Master Inquiry Mode)
Comment A: Alps Bluetooth Module UGPZ2
Date: 13.JUN.2002 14:16:26



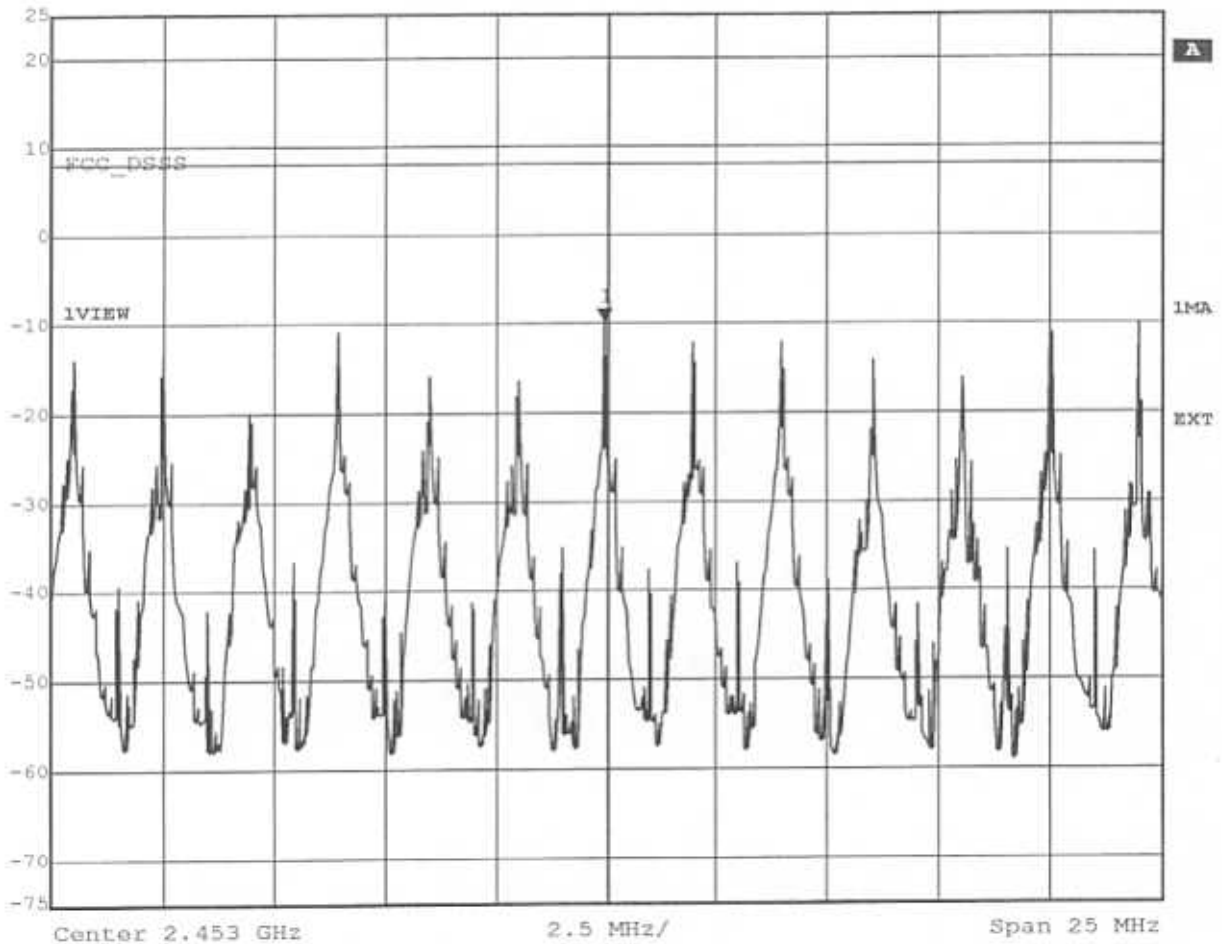
Marker 1 [T1] RBW 3 kHz RF Att 50 dB
Ref Lvl -10.06 dBm VBW 3 kHz
25 dBm 2.43899699 GHz SWT 10 s Unit dBm



Title: Peak Power Spectral Density (Master Inquiry Mode)
Comment A: Alps Bluetooth Module UGP22
Date: 13.JUN.2002 14:25:02



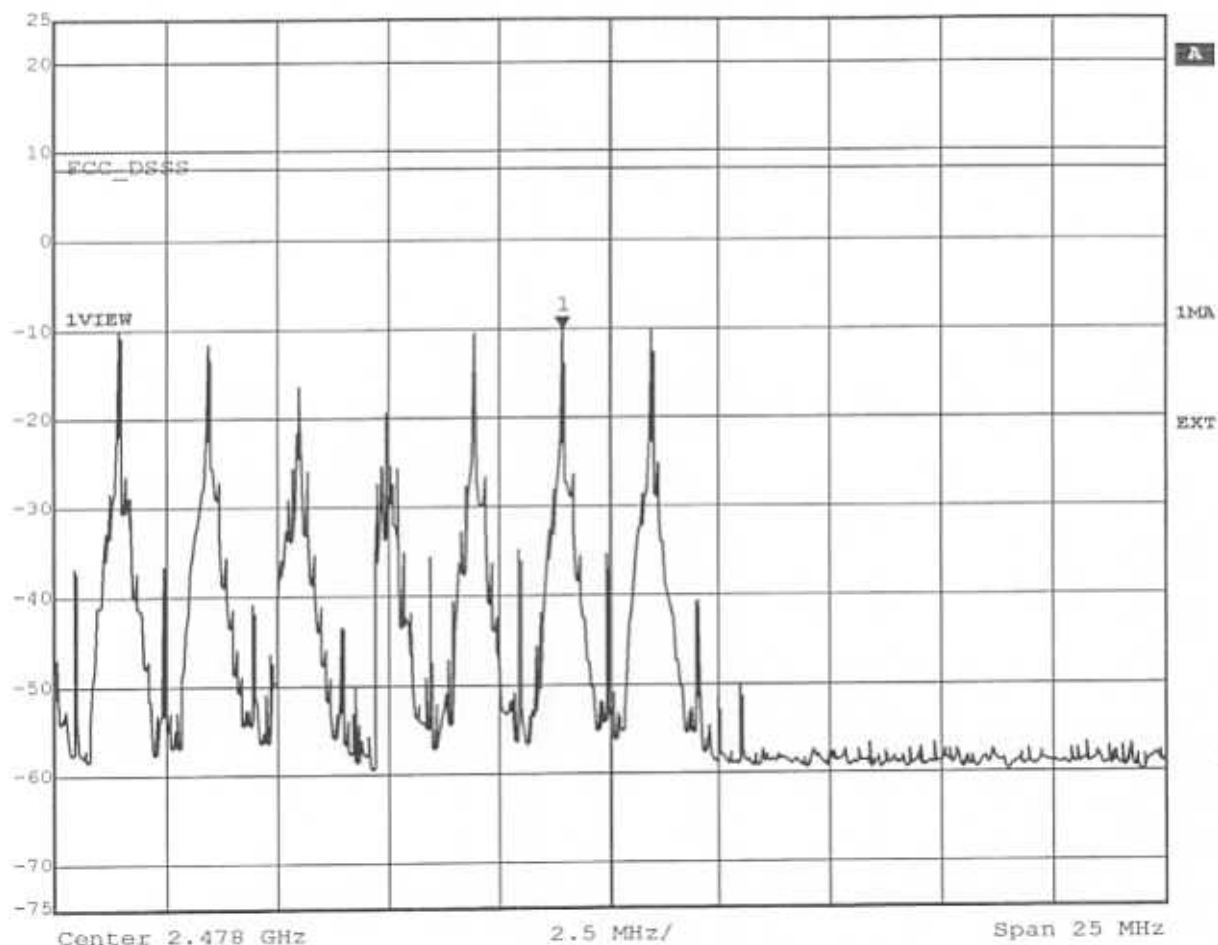
Marker 1 [T1] RBW 3 kHz RF Att 50 dB
Ref Lvl -9.81 dBm VBW 3 kHz
25 dBm 2.45297495 GHz SWT 10 s Unit dBm



Title: Peak Power Spectral Density (Master Inquiry Mode)
Comment A: Alps Bluetooth Module UGP22
Date: 13.JUN.2002 14:29:49



Marker 1 [T1] RBW 3 kHz RF Att 50 dB
Ref Lvl -10.04 dBm VEW 3 kHz
25 dBm 2.47697295 GHz SWT 10 s Unit dBm



Title: Peak Power Spectral Density (Master Inquiry Mode)
Comment A: Alps Bluetooth Module UGP22
Date: 13.JUN.2002 14:34:06