

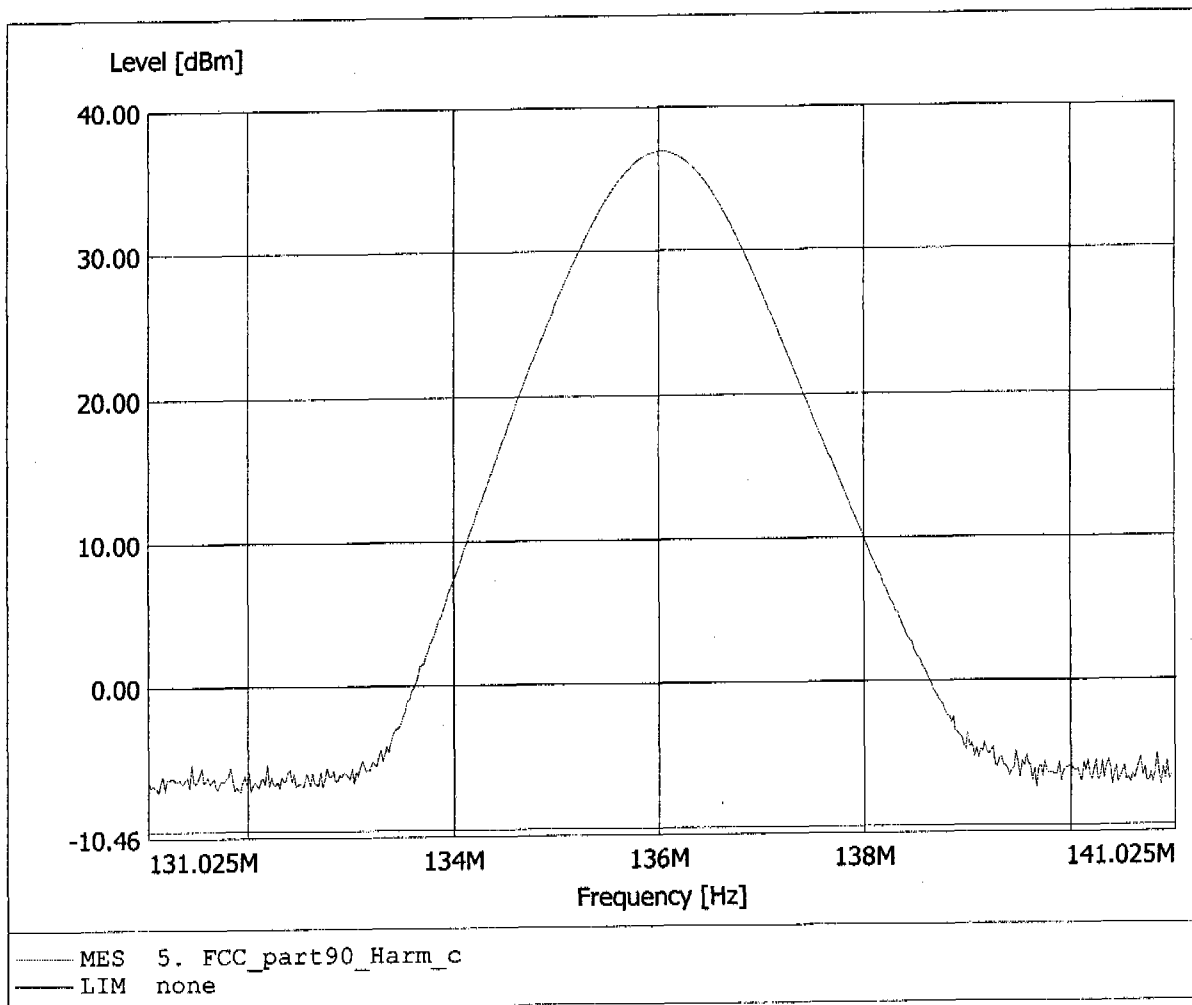


## Appendix B

Output Power conducted

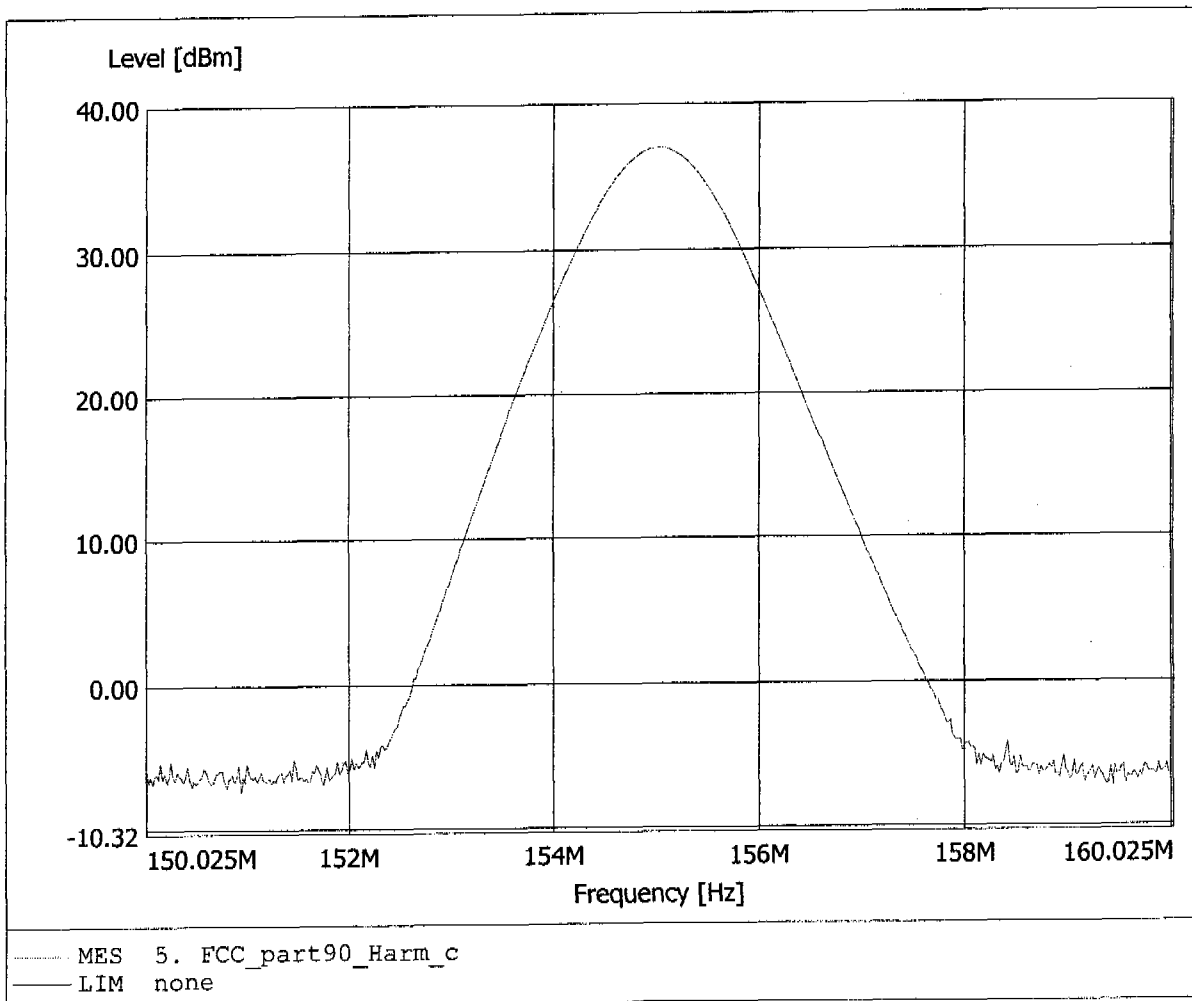
**Output power conducted**  
**FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 136.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:136.015MHz Pmax:36.92dBm RBW: 1MHz



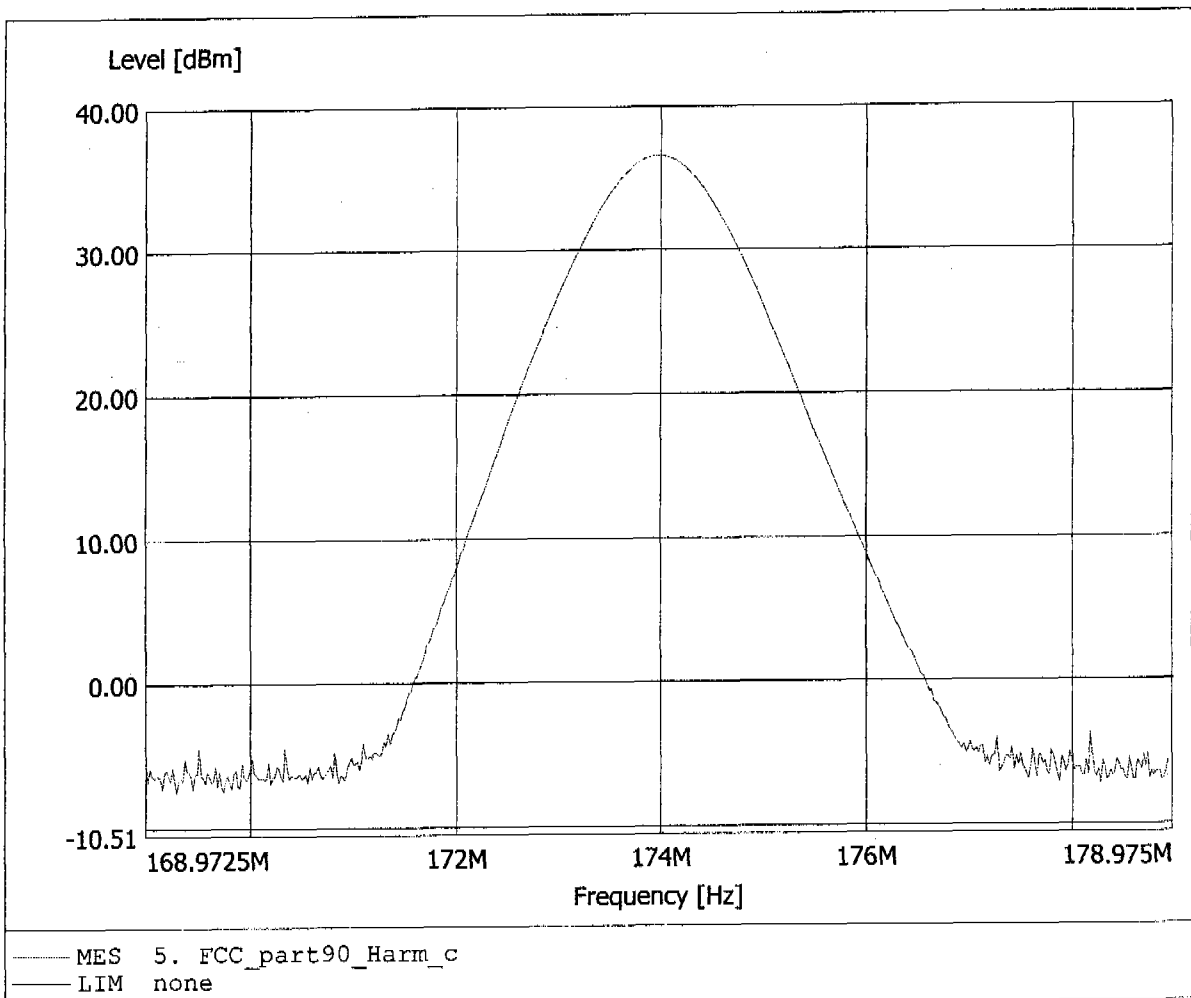
**Output power conducted**  
**FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:155.015MHz Pmax:36.95dBm RBW: 1MHz



**Output power conducted**  
**FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 173.975 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:173.984MHz Pmax:36.58dBm RBW: 1MHz



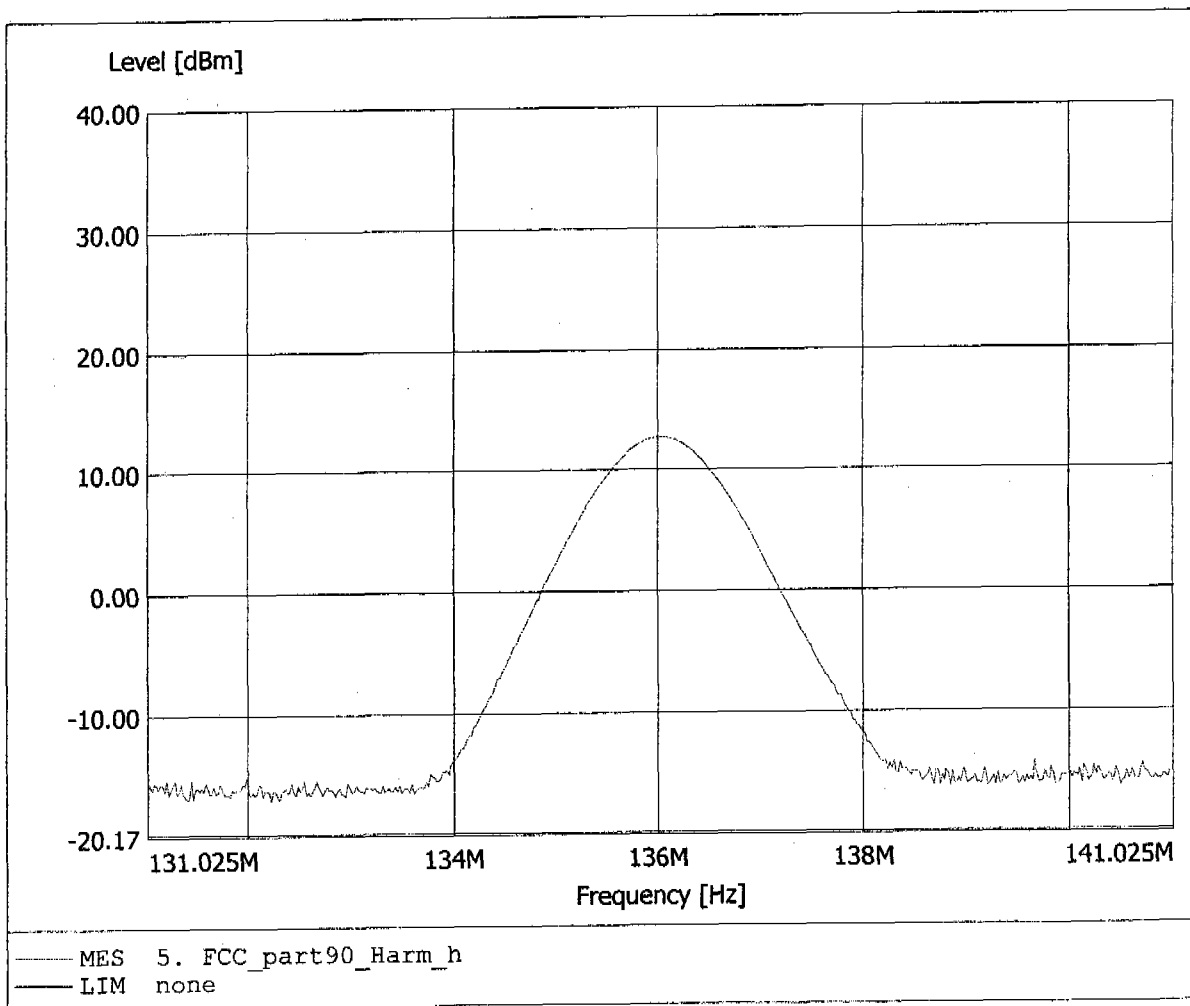


## Appendix C

Output Power radiated

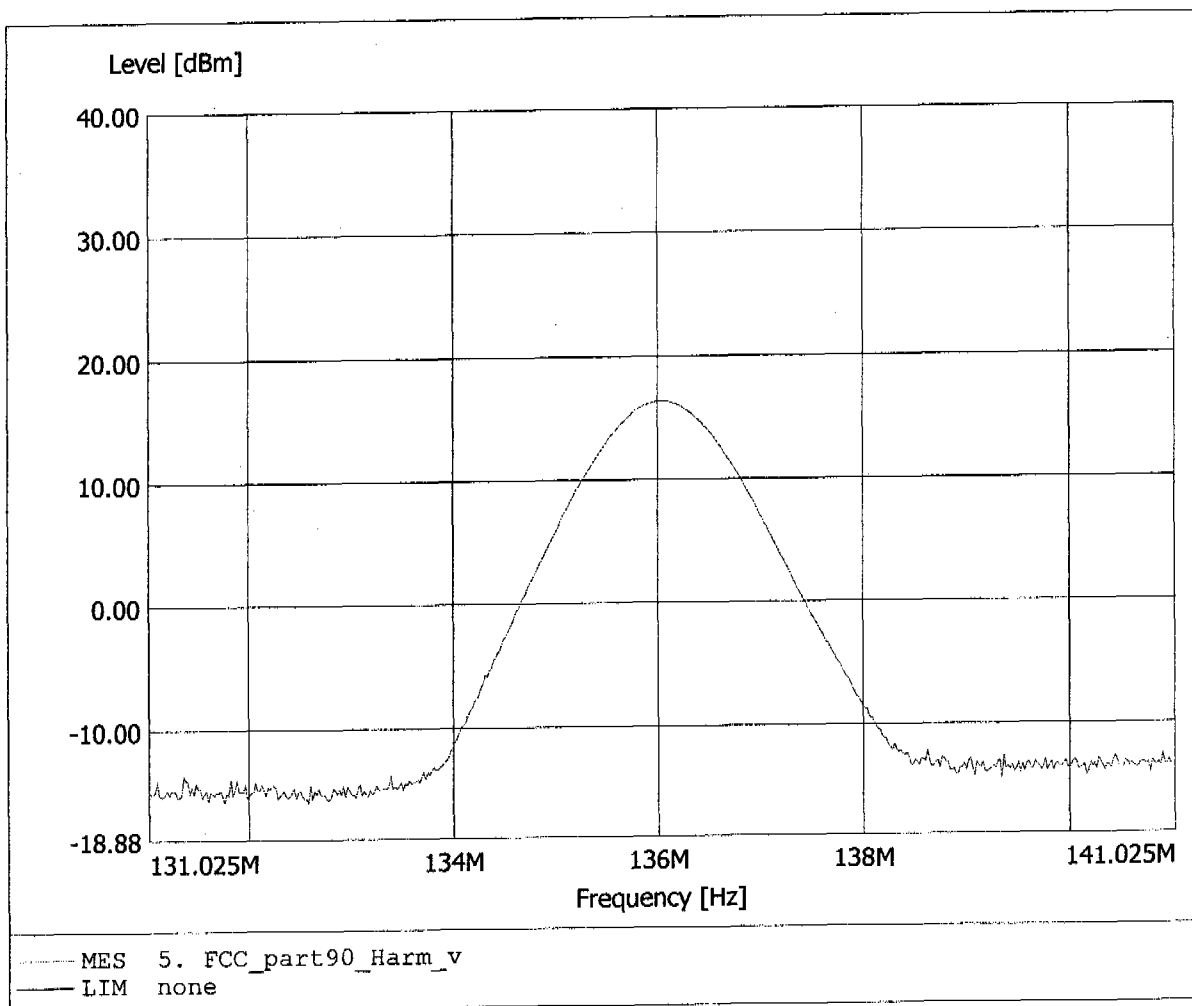
**Radiated power under normal conditions  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 136.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: HK 116,  
Comment 2: Freq:136.015MHz Pmax:12.71dBm RBW: 1 MHz



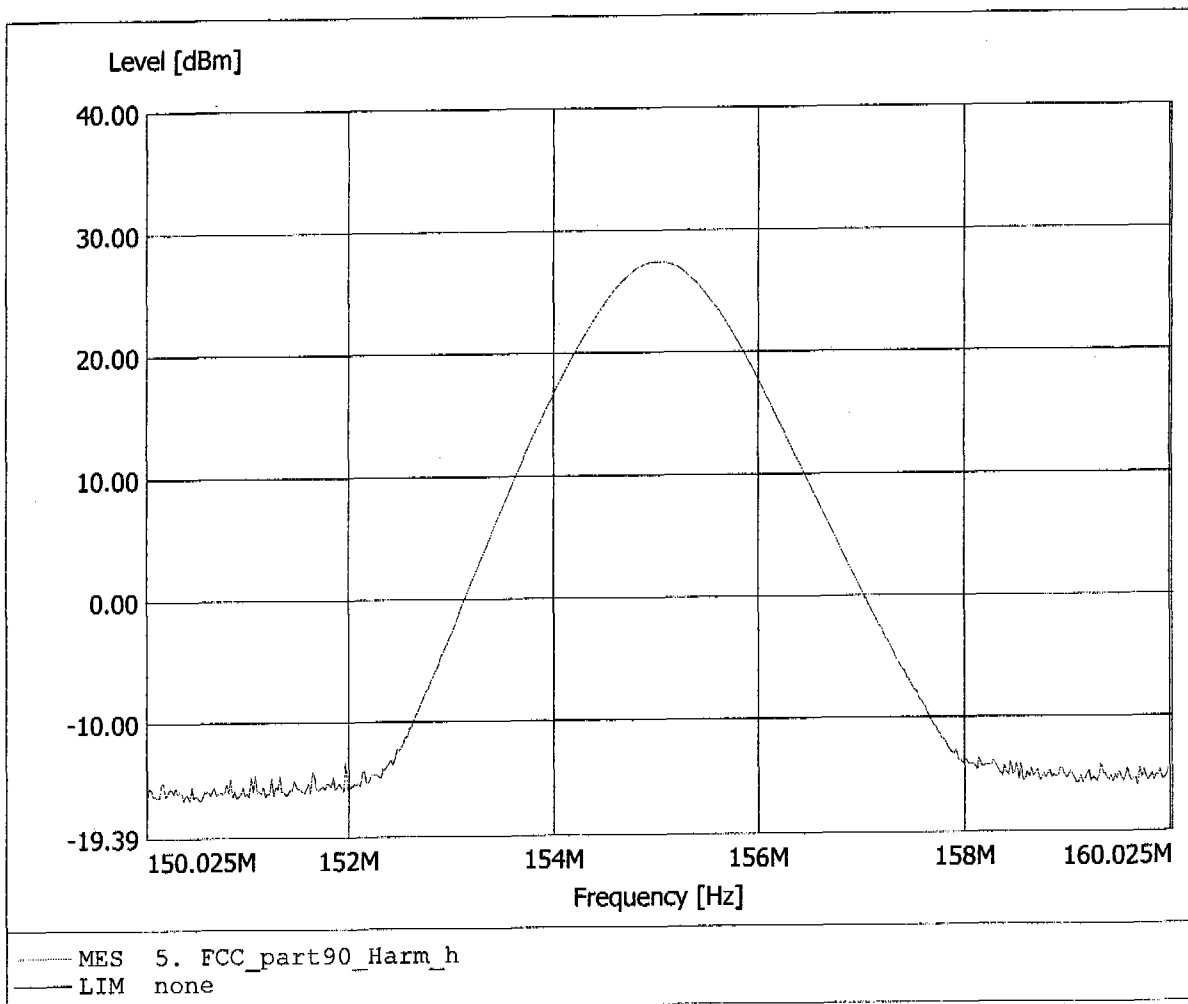
**Radiated power under normal conditions  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 136.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: HK 116,  
Comment 2: Freq:136.055MHz Pmax:16.36dBm RBW: 1 MHz



**Radiated power under normal conditions  
FCC RULES PART 90**

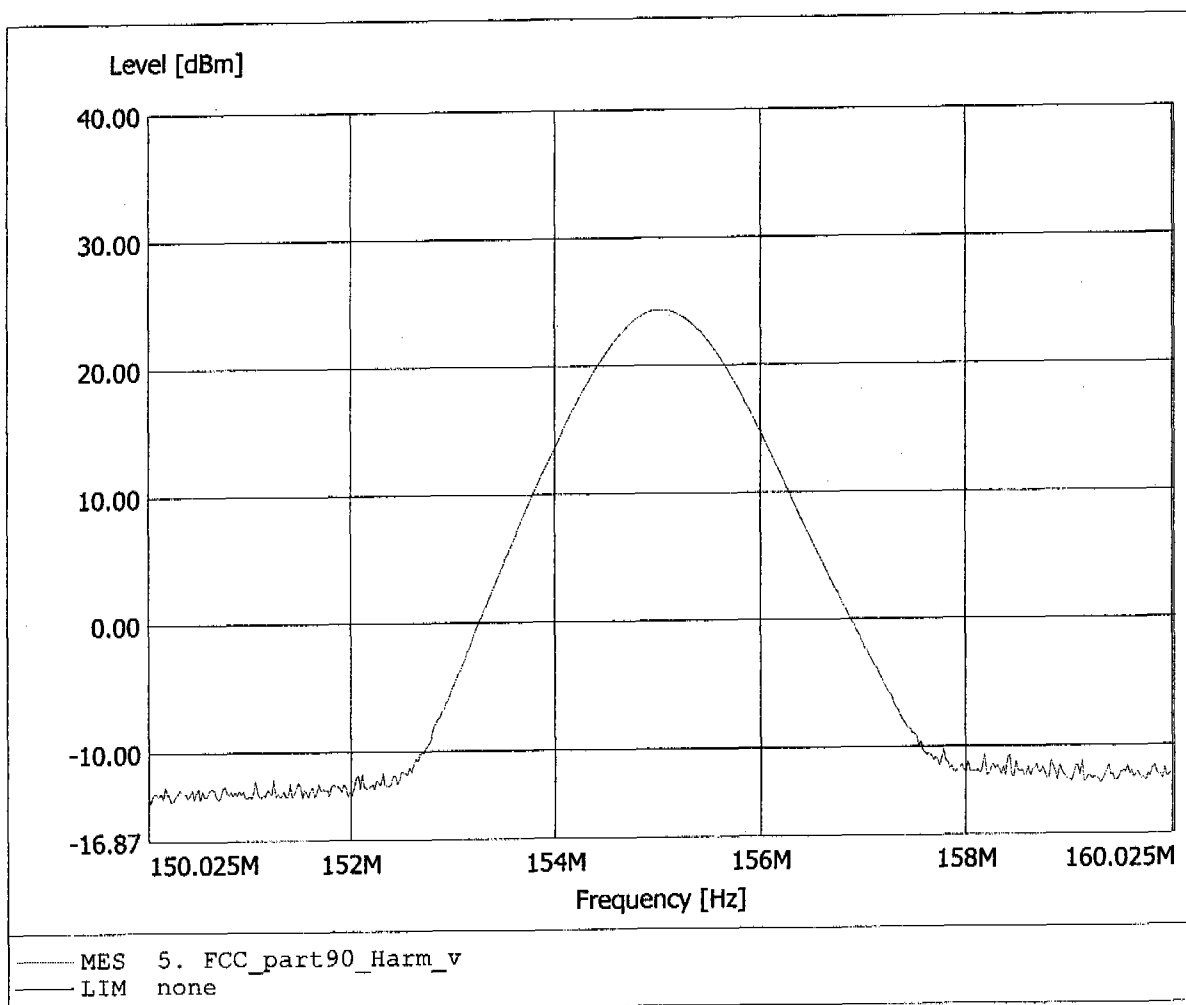
EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: HK 116,  
Comment 2: Freq:155.075MHz Pmax:27.43dBm RBW: 1 MHz





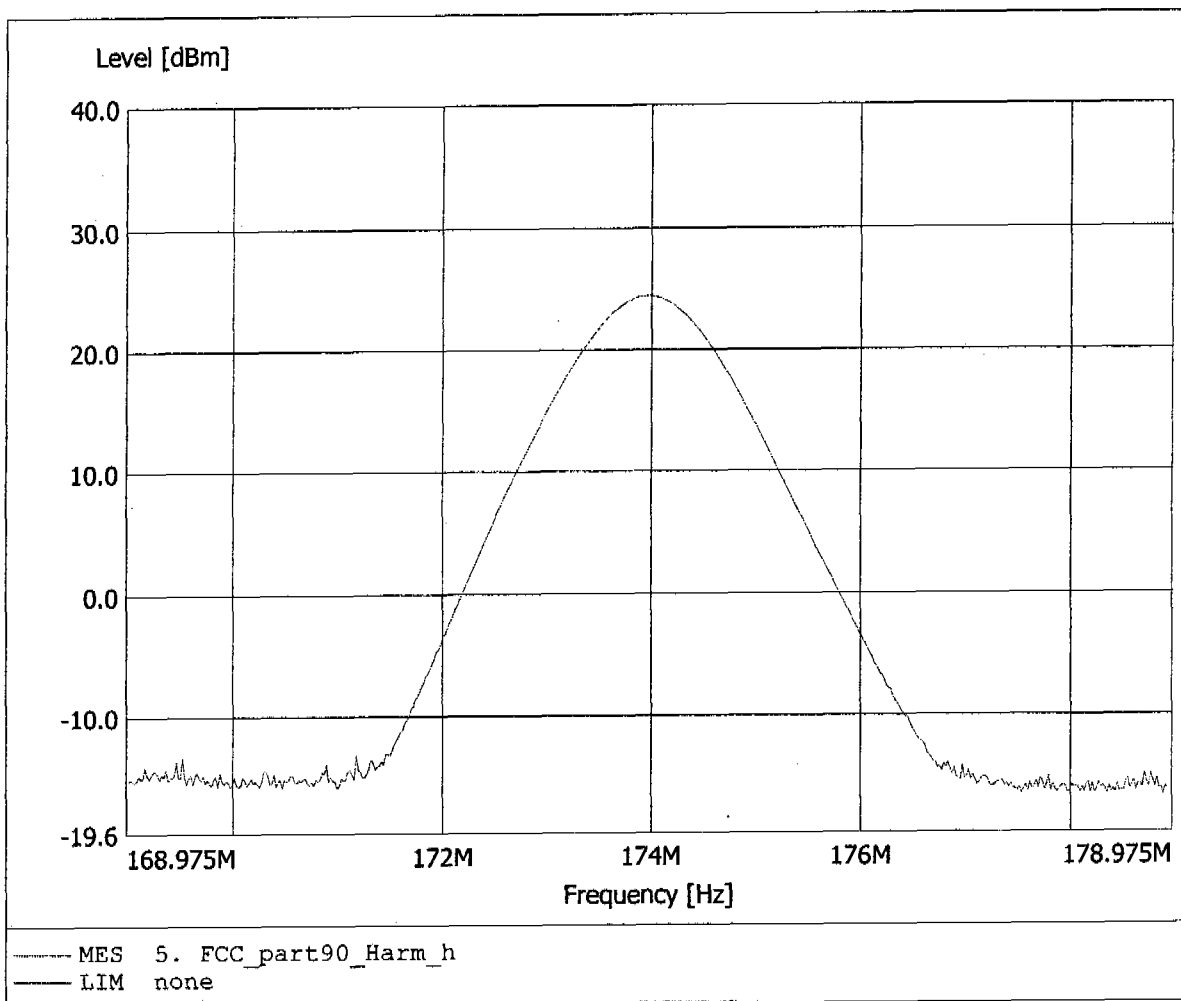
**Radiated power under normal conditions  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: HK 116,  
Comment 2: Freq:155.035MHz Pmax:24.34dBm RBW: 1 MHz



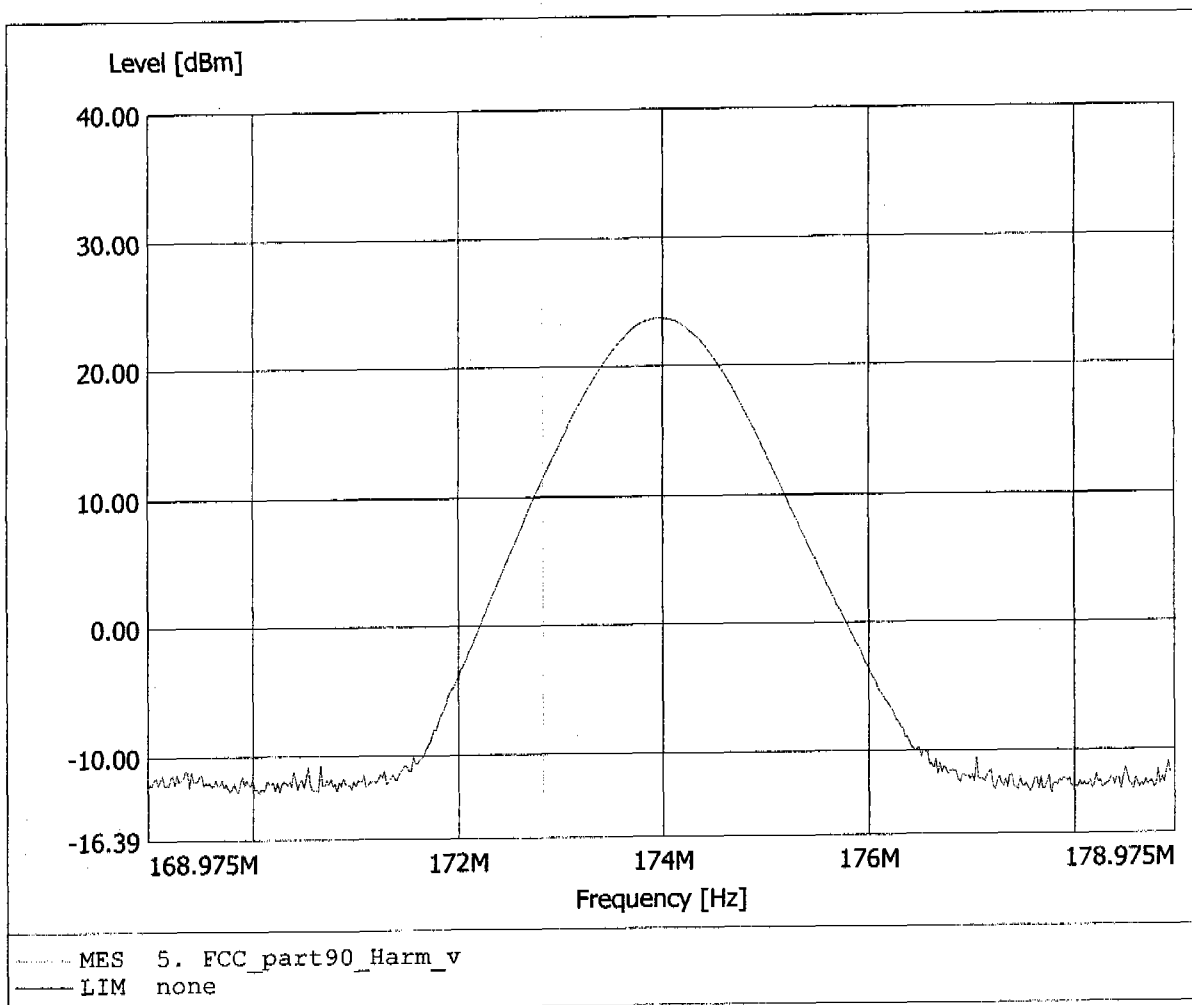
**Radiated power under normal conditions  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 173.975 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: HK 116,  
Comment 2: Freq:173.965MHz Pmax:24.46dBm RBW: 1 MHz



**Radiated power under normal conditions  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 173.975 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: HK 116,  
Comment 2: Freq:173.965MHz Pmax:23.70dBm RBW: 1 MHz



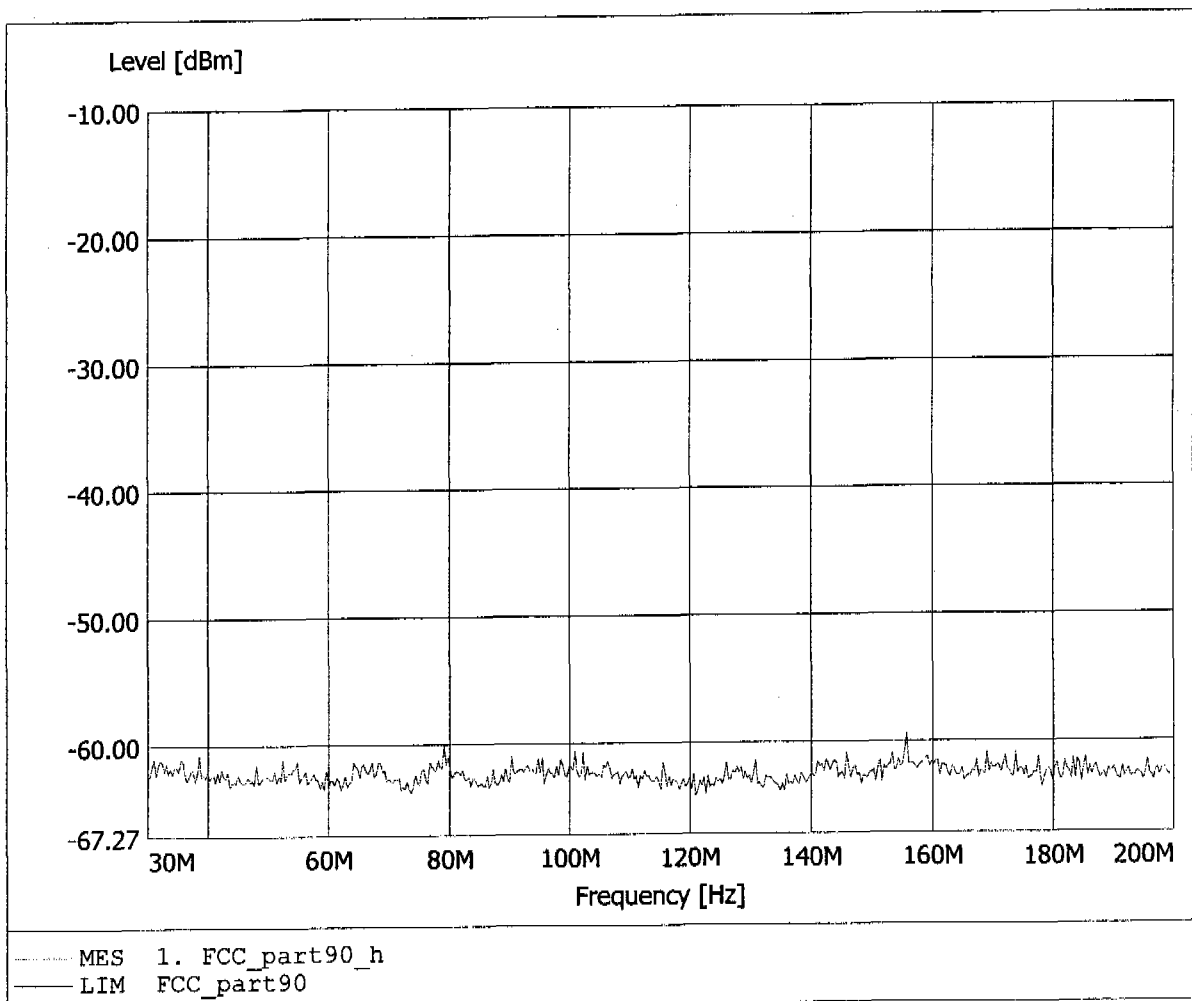


## Appendix D

Spurious Emissions radiated - Transmitter operating

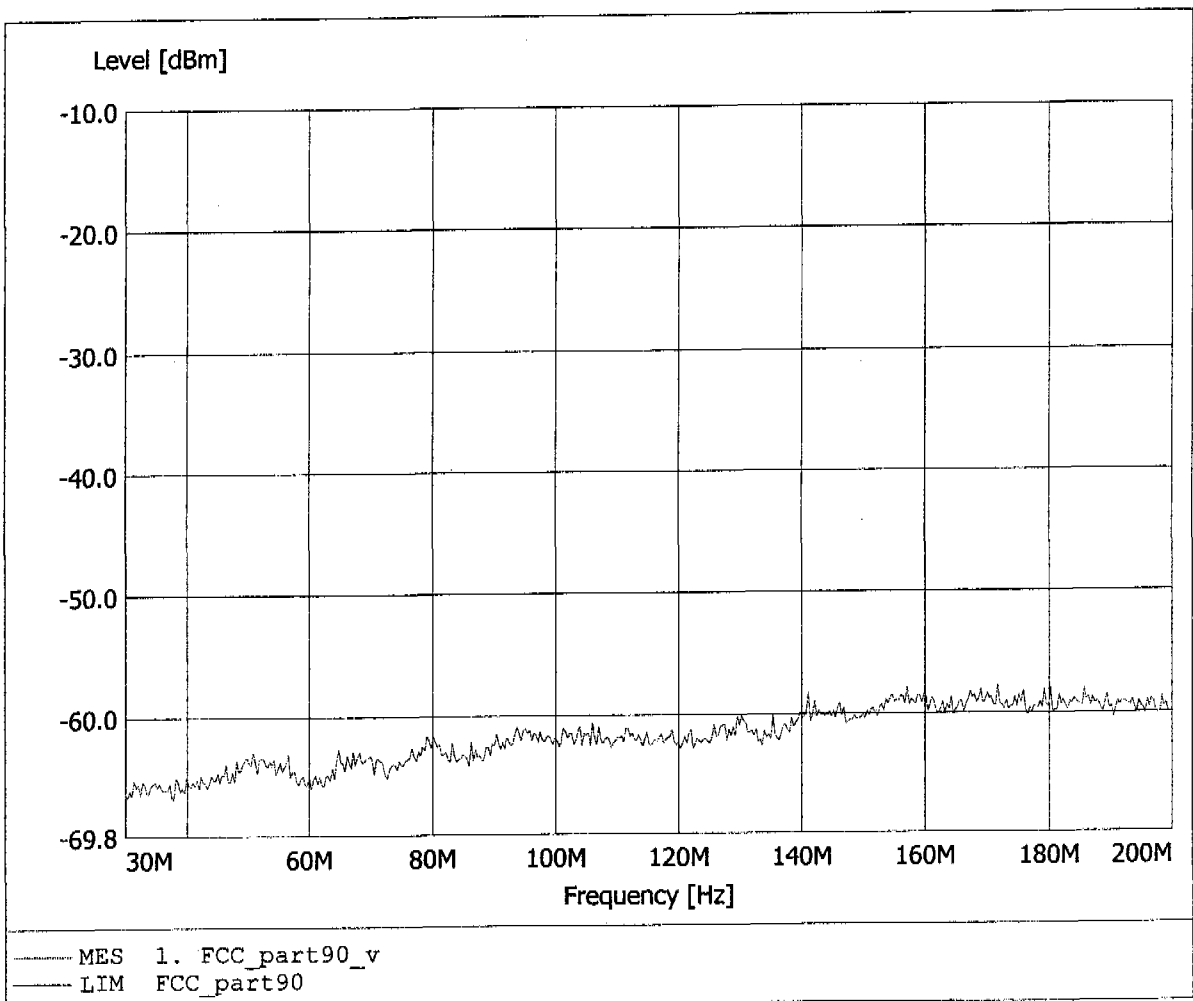
**Spurious emissions under normal conditions  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: HK 116,  
Comment 2: Freq:155.711MHz Pmax:-59.44dBm RBW: 100 kHz



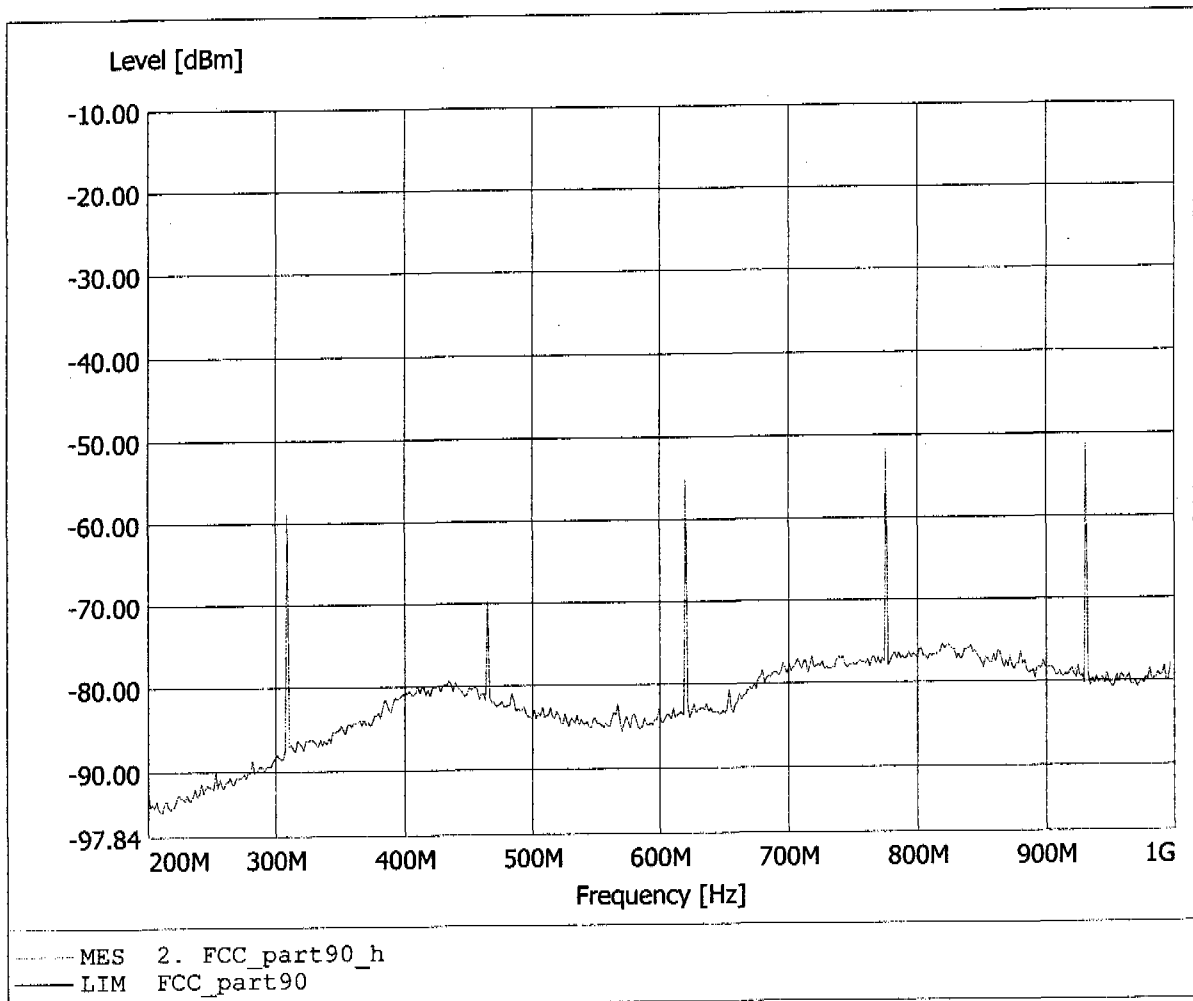
**Spurious emissions under normal conditions  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: HK 116,  
Comment 2: Freq:171.723MHz Pmax:-57.77dBm RBW: 100 kHz



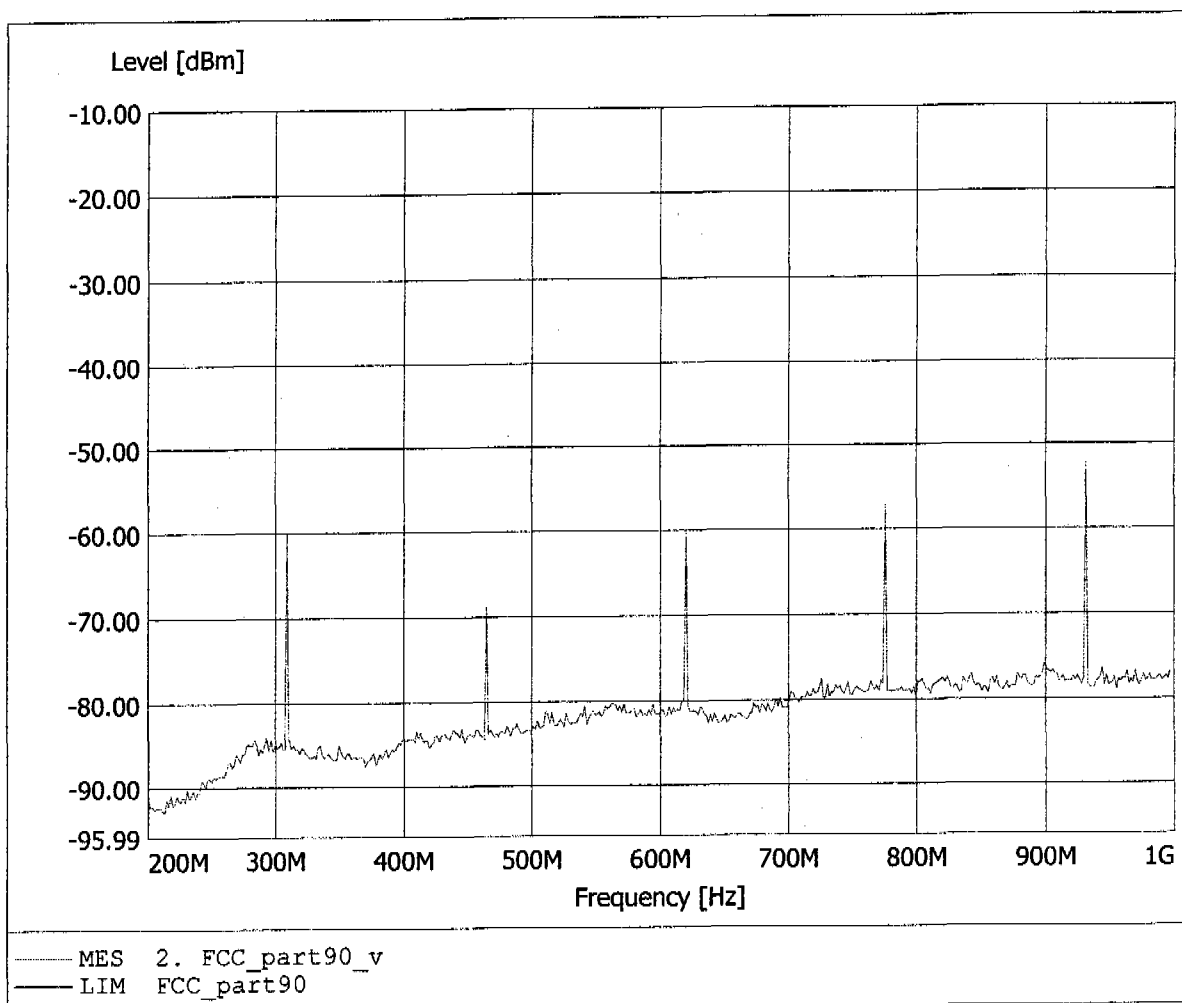
**Spurious emissions under normal conditions  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: HL 223,  
Comment 2: Freq:931.062MHz Pmax:-51.22dBm RBW: 100 kHz



**Spurious emissions under normal conditions  
FCC RULES PART 90**

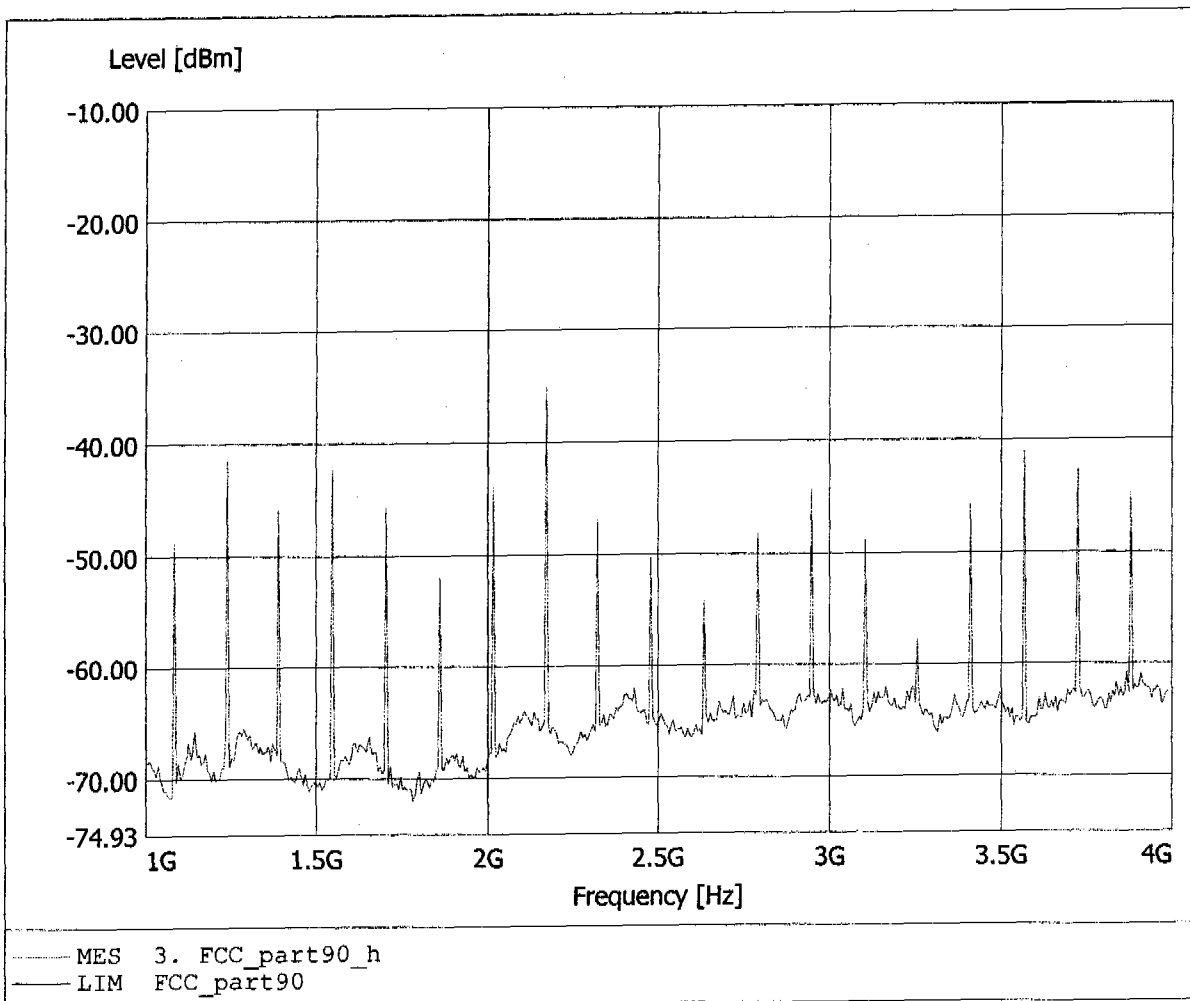
EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: HL 223,  
Comment 2: Freq:931.062MHz Pmax:-52.32dBm RBW: 100 kHz





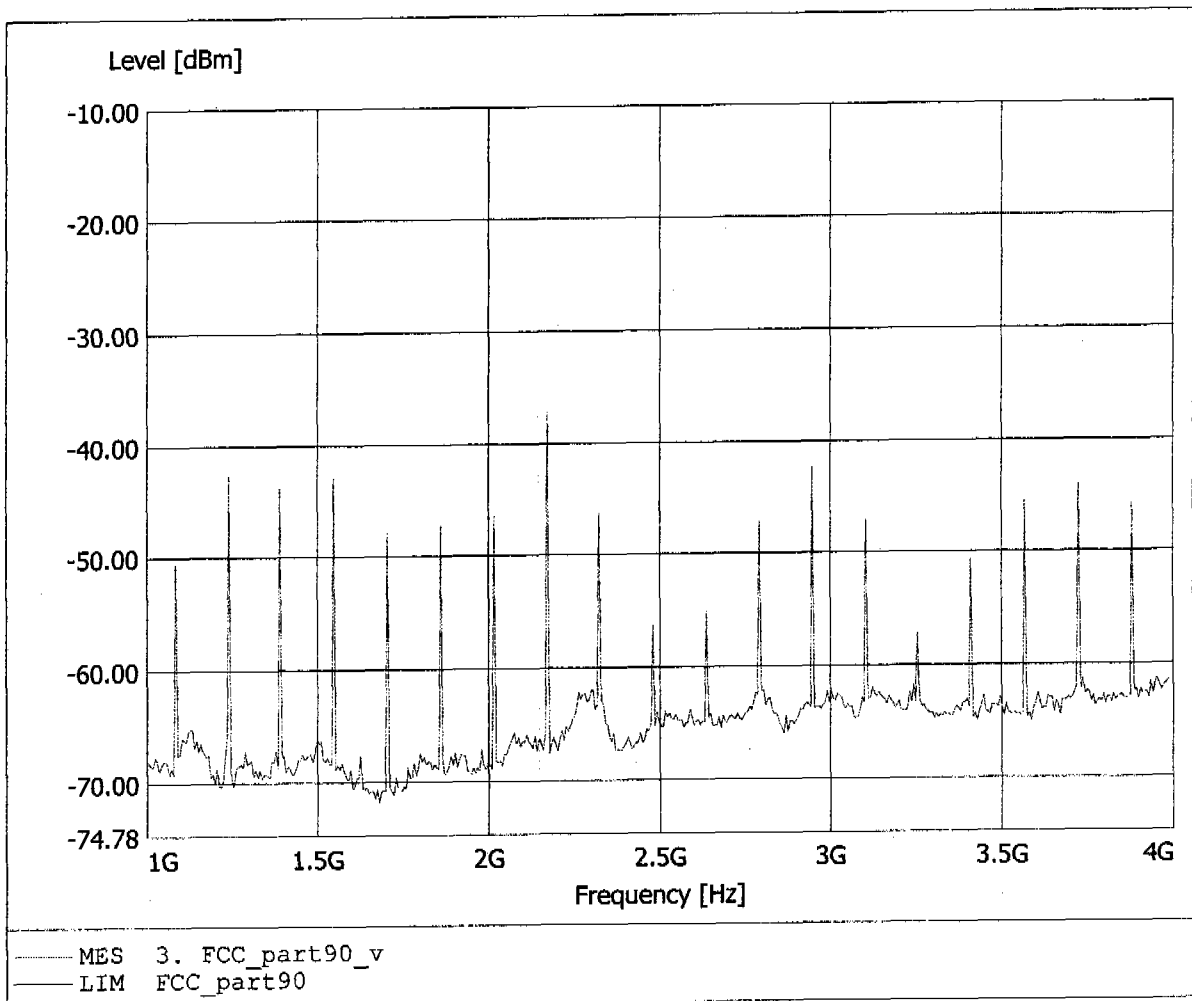
**Spurious emissions under normal conditions  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: BBHA 9120D, + HP, ampl.: 1-4 GHz  
Comment 2: Freq: 2.172GHz Pmax: -35.06dBm RBW: 1 MHz



**Spurious emissions under normal conditions  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC (rechargeable battery)  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: Fully anechoic chamber / mode: Tx  
Comment 1: Dist.: 3m, Ant.: BBHA 9120D, + HP, ampl.: 1-4 GHz  
Comment 2: Freq:2.172GHz Pmax:-37.19dBm RBW: 1 MHz



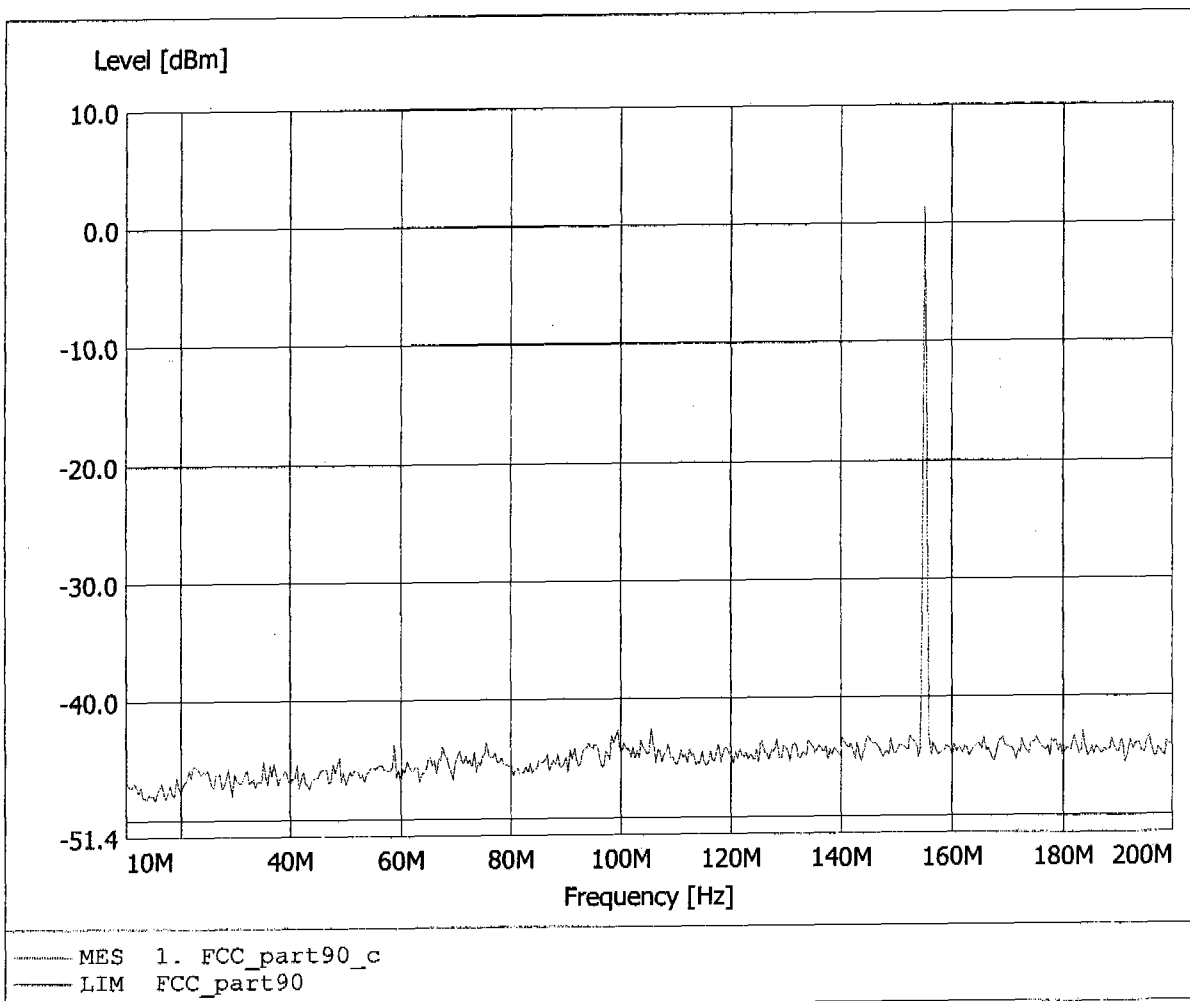


## Appendix E

Spurious Emissions at antenna terminal

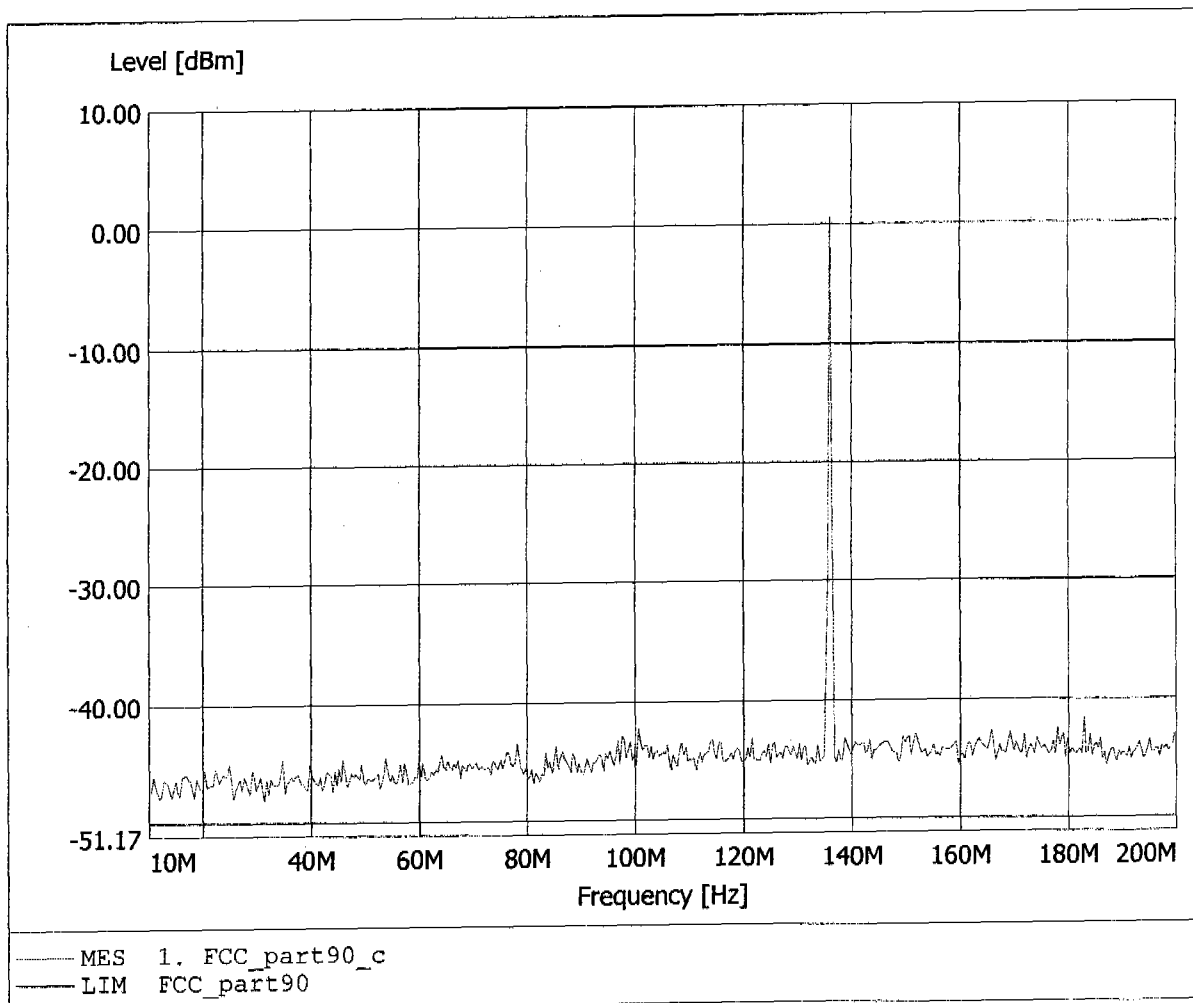
**Spurious emissions at antenna terminal  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:155.070MHz Pmax:1.35dBm RBW: 100kHz



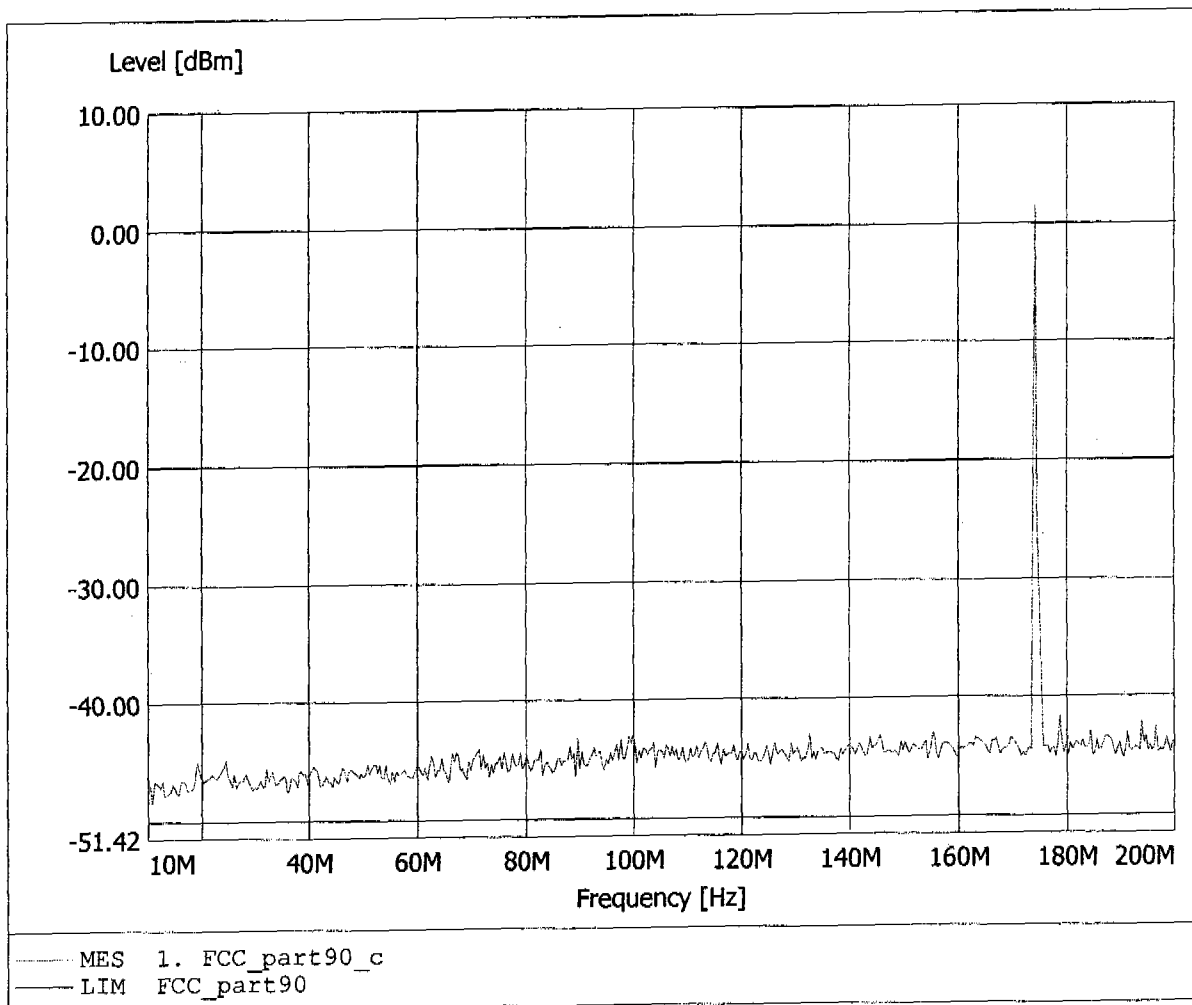
**Spurious emissions at antenna terminal  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 136.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:136.032MHz Pmax:0.50dBm RBW: 100kHz



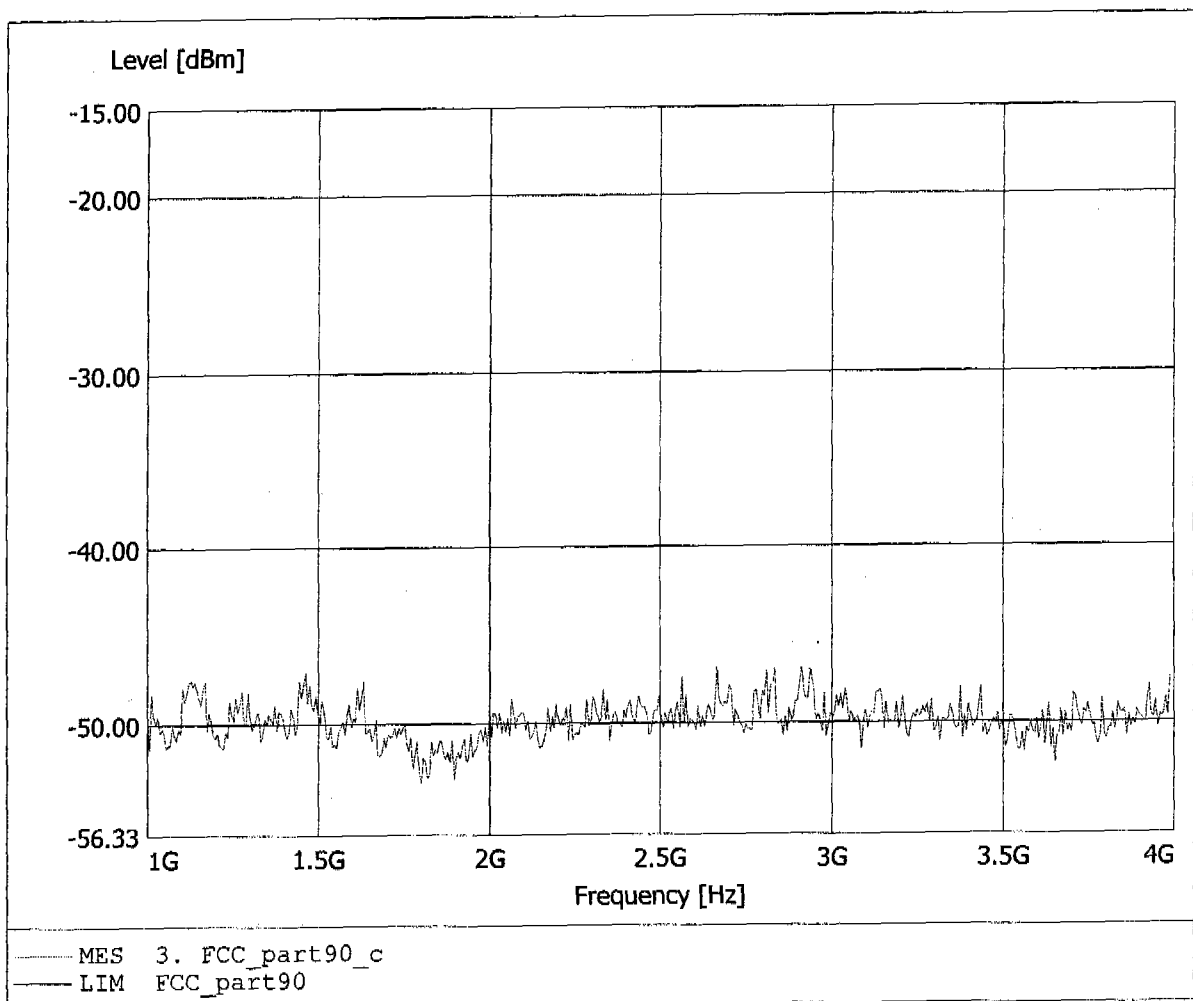
**Spurious emissions at antenna terminal  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 173.975 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:174.108MHz Pmax:1.43dBm RBW: 100kHz



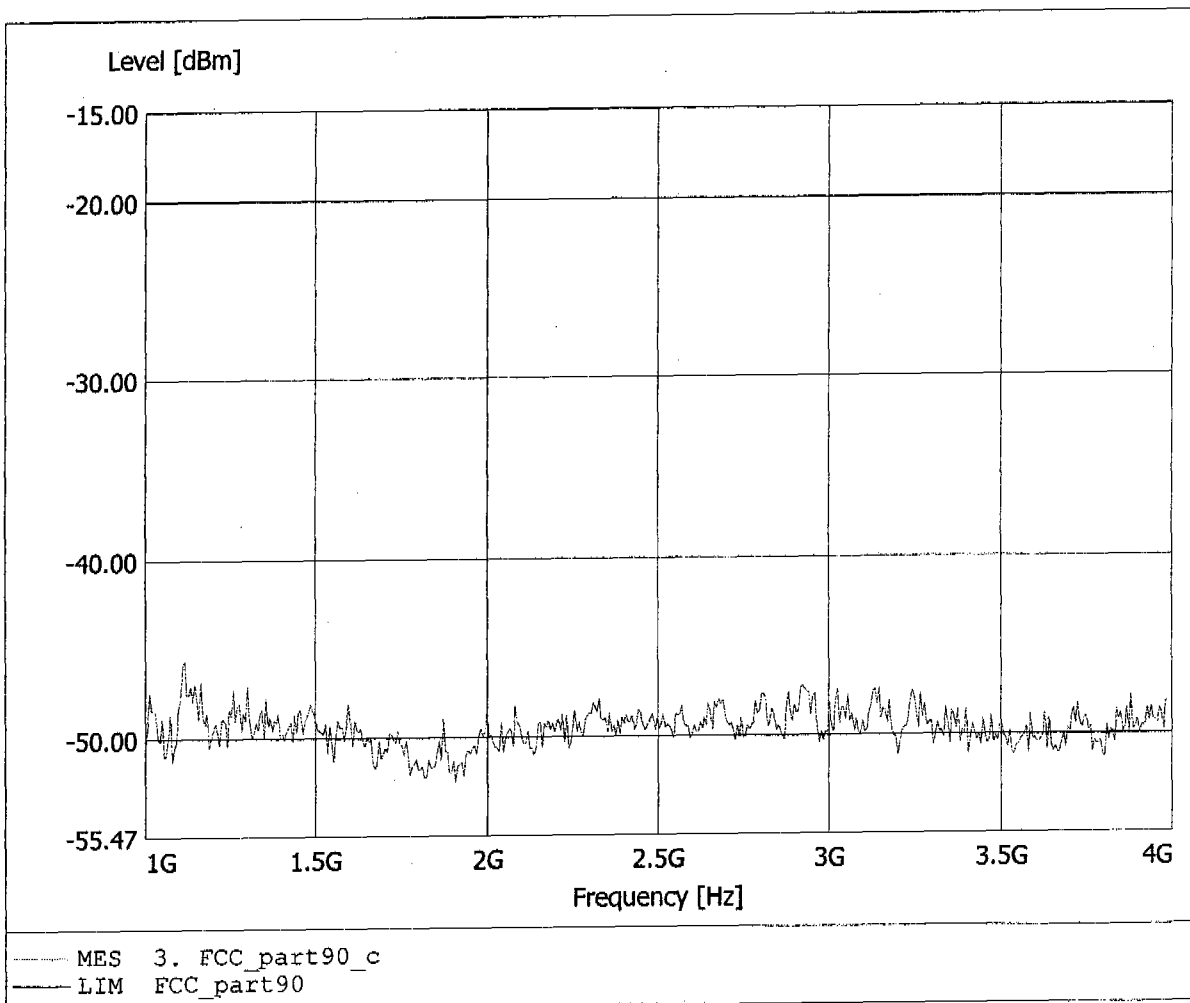
**Spurious emissions at antenna terminal  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:2.665GHz Pmax:-46.74dBm RBW: 1MHz



**Spurious emissions at antenna terminal  
FCC RULES PART 90**

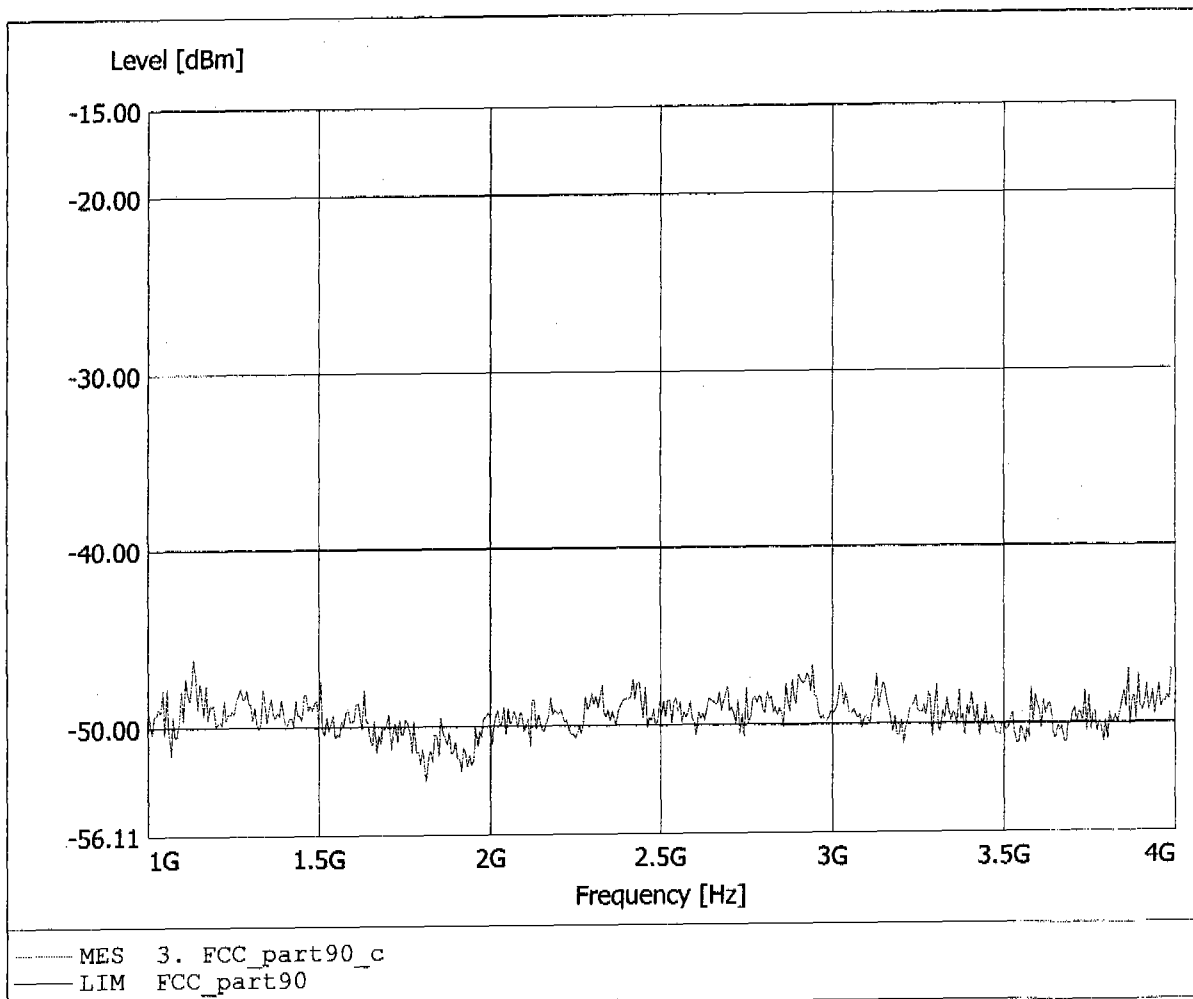
EUT: VHF TRANSCEIVER / 136.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:1.114GHz Pmax:-45.64dBm RBW: 1MHz





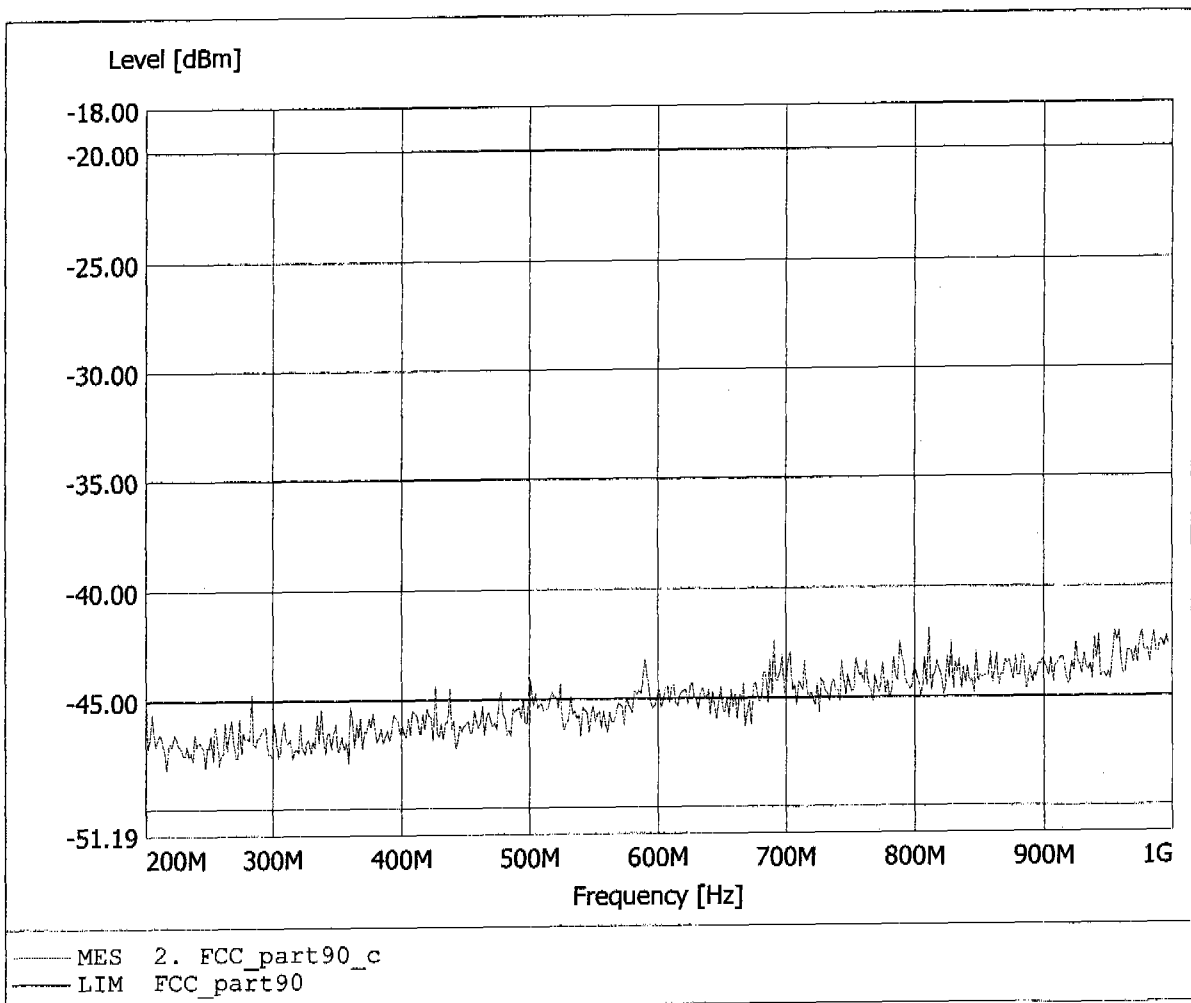
**Spurious emissions at antenna terminal  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 173.975 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:1.132GHz Pmax:-46.14dBm RBW: 1MHz



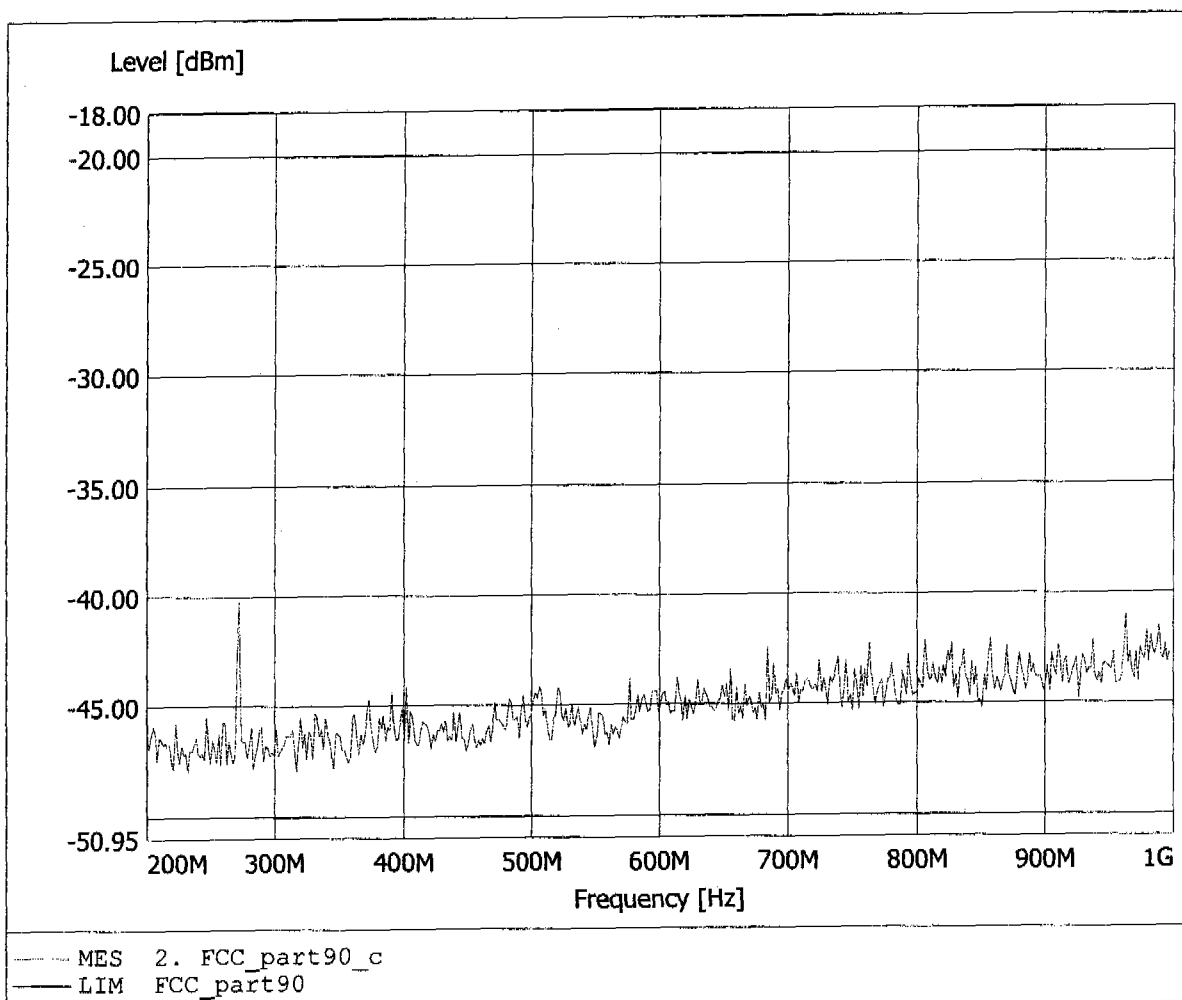
**Spurious emissions at antenna terminal  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:810.822MHz Fmax:-41.83dBm RBW: 100kHz



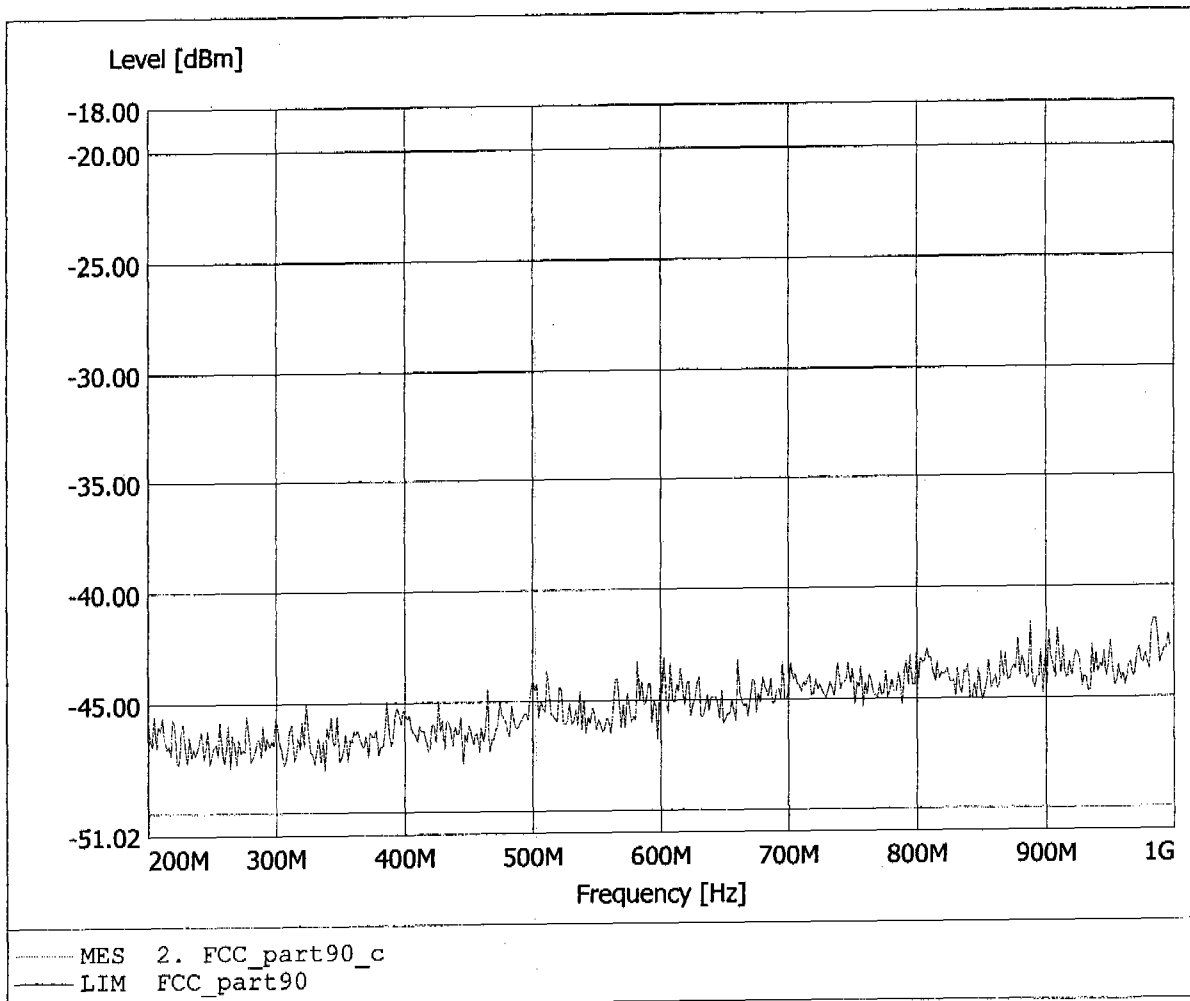
**Spurious emissions at antenna terminal  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 136.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:272.144MHz Pmax:-40.23dBm RBW: 100kHz



**Spurious emissions at antenna terminal  
FCC RULES PART 90**

EUT: VHF TRANSCEIVER / 173.975 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load  
Comment 2: Freq:983.968MHz Pmax:-41.46dBm RBW: 100kHz



## Appendix F

Audio frequency response

No diagrams  
Refer to point 3.5



## Appendix G

Audio low pass filter frequency response

No diagrams  
Refer to point 3.6



## Appendix H

### Modulation limiting

No diagrams  
Refer to point 3.7



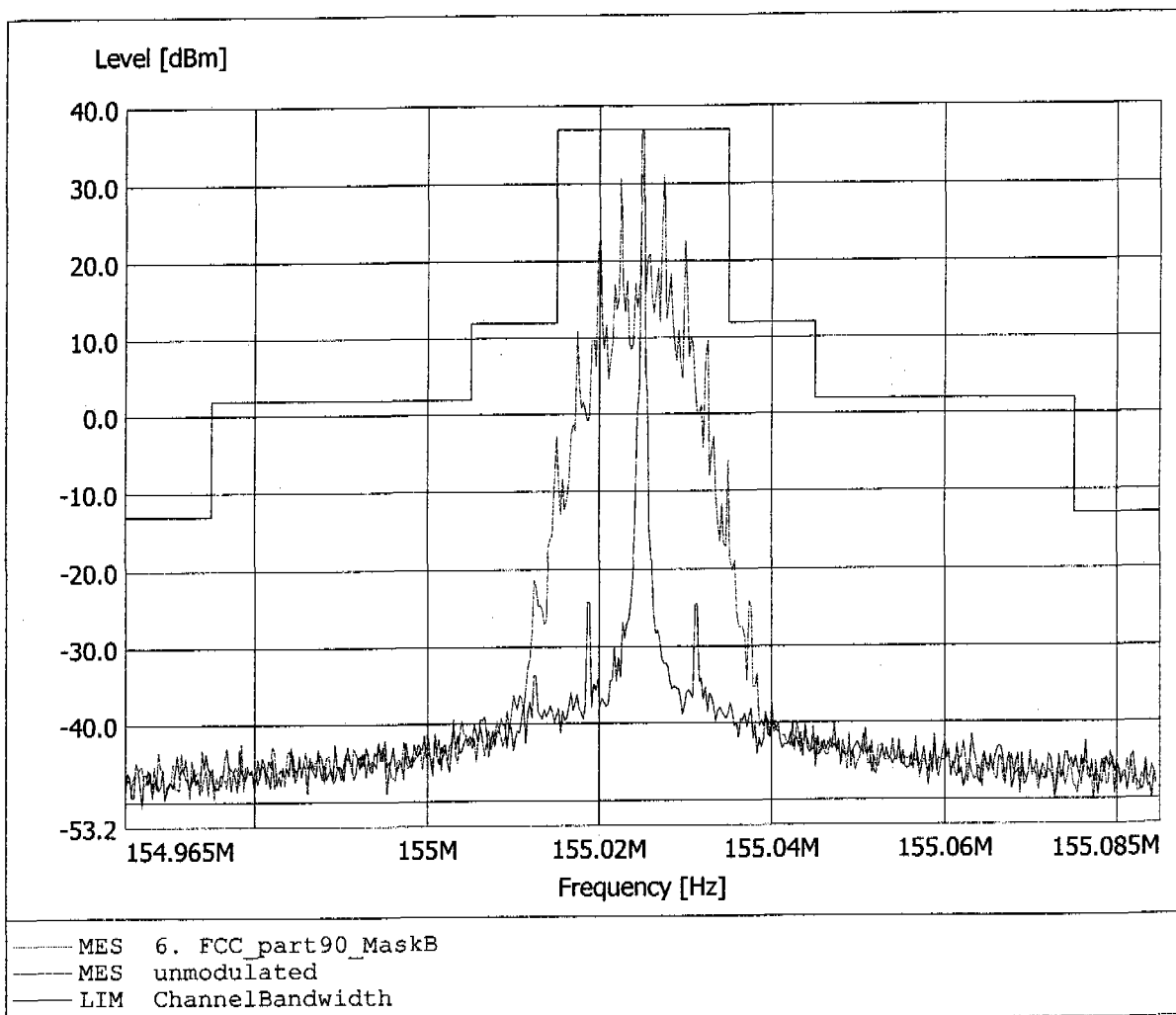
## Appendix I

Occupied Bandwidth



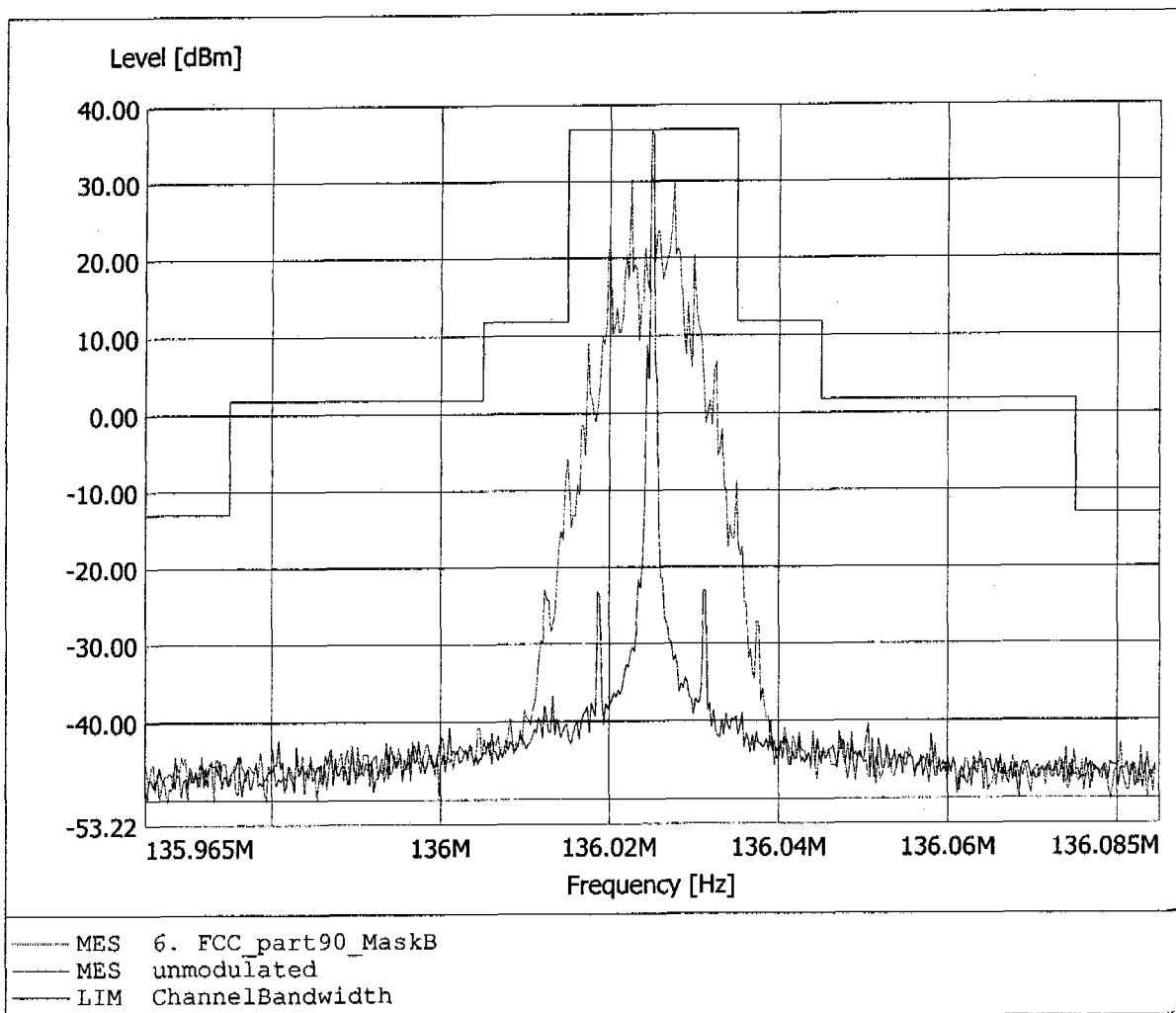
**Occupied Bandwidth Emission Mask B**  
**FCC RULES PART 90 §90.210**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load, Channel spacing 25 kHz  
Comment 2: Freq:155.025MHz Pmax:31.23dBm RBW: 100Hz



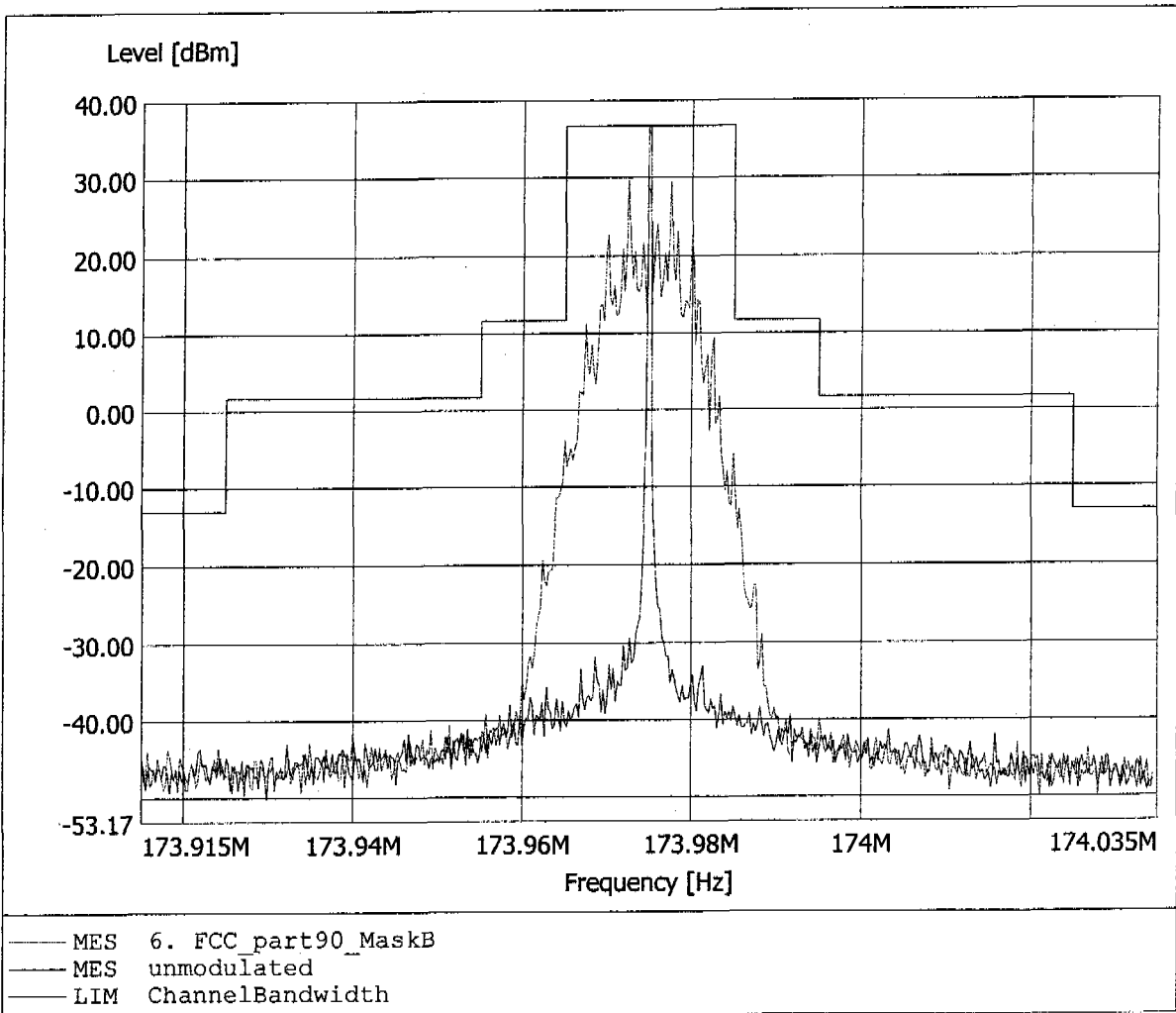
**Occupied Bandwidth Emission Mask B**  
**FCC RULES PART 90 §90.210**

EUT: VHF TRANSCEIVER / 136.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load, Channel spacing 25 kHz  
Comment 2: Freq:136.025MHz Pmax:30.76dBm REW: 100Hz



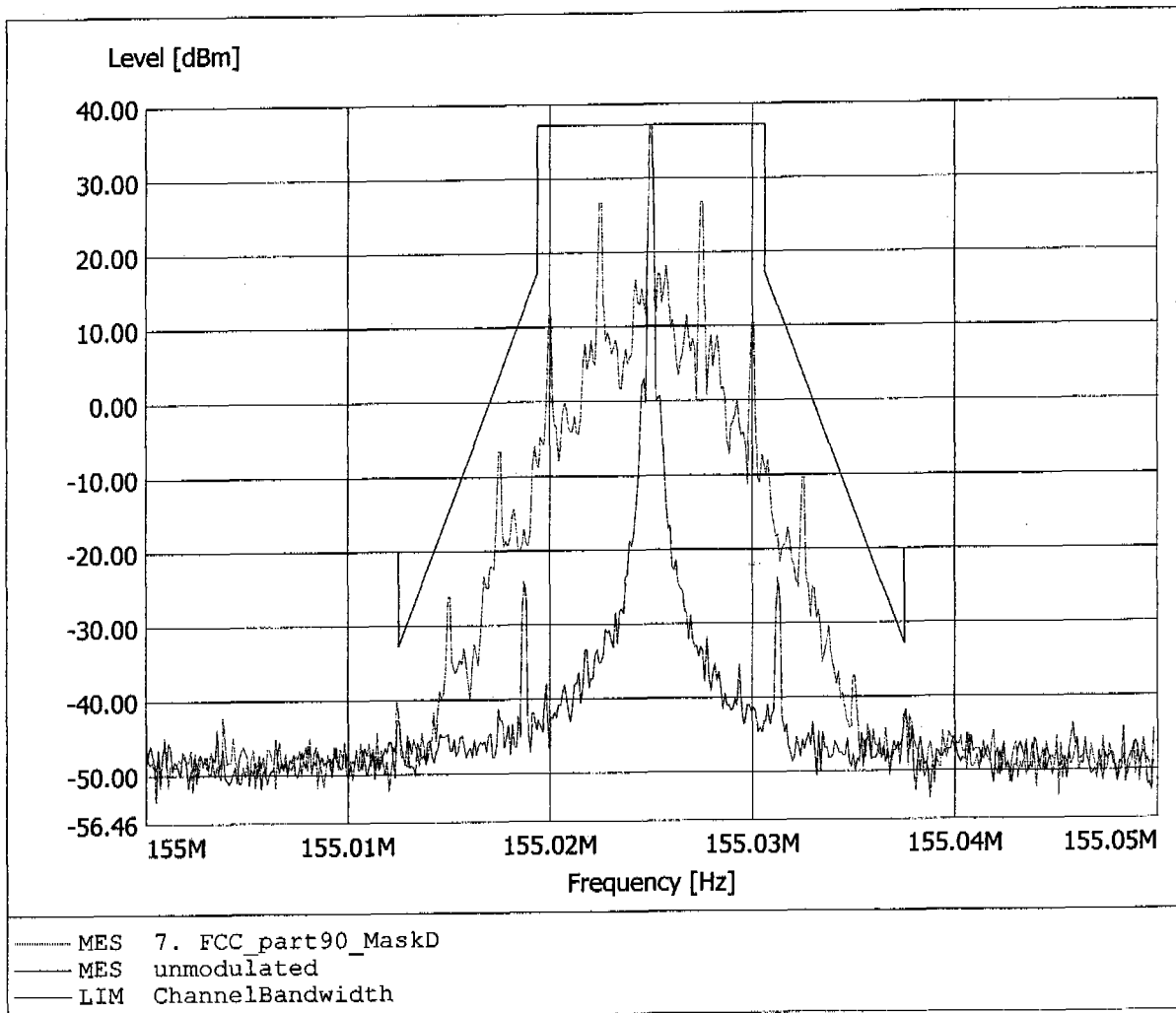
**Occupied Bandwidth Emission Mask B**  
**FCC RULES PART 90 §90.210**

EUT: VHF TRANSCEIVER / 173.975 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load, Channel spacing 25 kHz  
Comment 2: Freq:173.972MHz Pmax:30.04dBm RBW: 100Hz



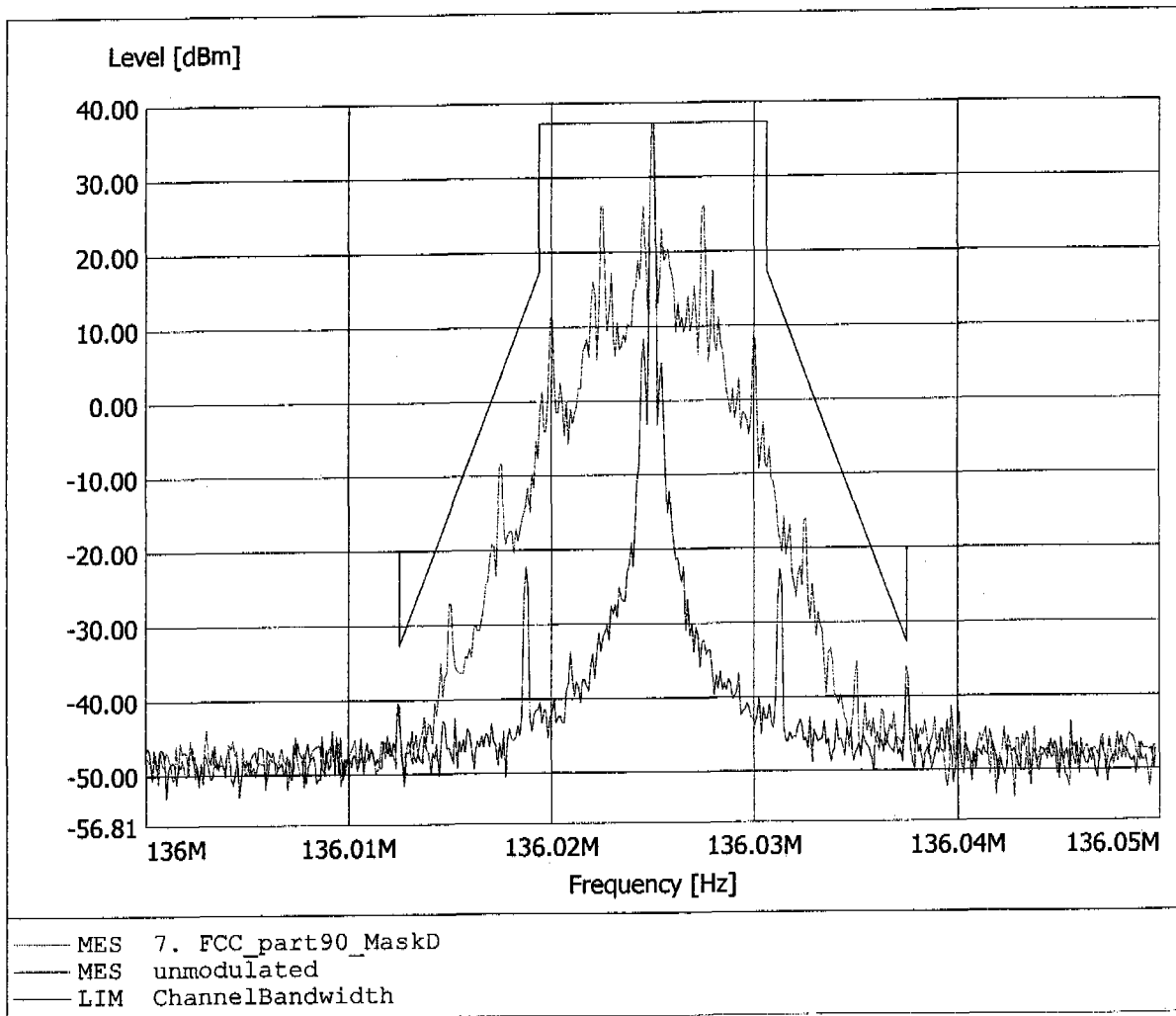
**Occupied Bandwidth Emission Mask D  
FCC RULES PART 90 §90.210**

EUT: VHF TRANSCEIVER / 155.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load, Channel spacing 12.5 kHz  
Comment 2: Freq:155.025MHz Pmax:35.93dBm RBW: 100Hz



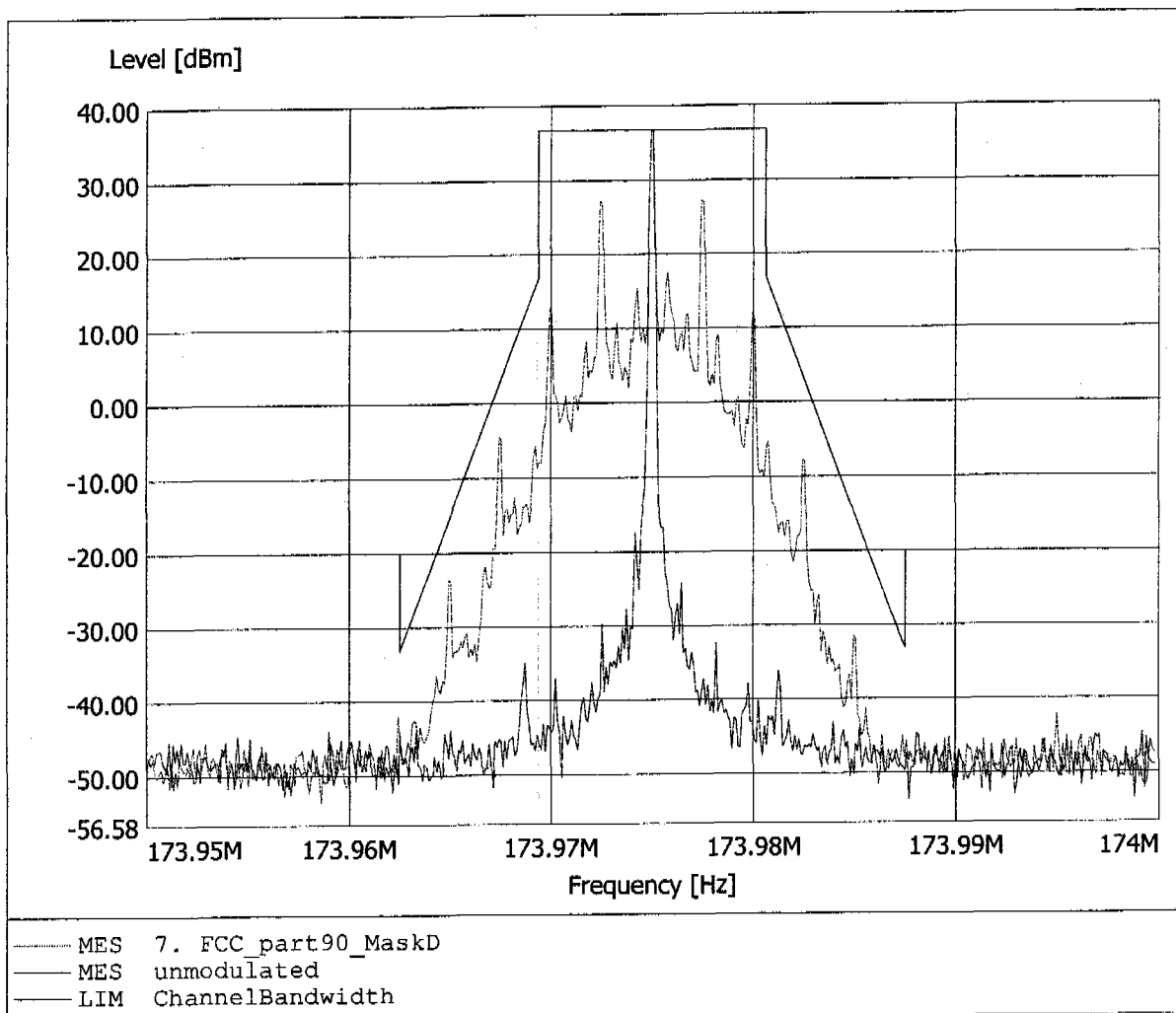
**Occupied Bandwidth Emission Mask D**  
**FCC RULES PART 90 §90.210**

EUT: VHF TRANSCEIVER / 136.025 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load, Channel spacing 12.5 kHz  
Comment 2: Freq:136.025MHz Pmax:36.02dBm RBW: 100Hz



**Occupied Bandwidth Emission Mask D  
FCC RULES PART 90 §90.210**

EUT: VHF TRANSCEIVER / 173.975 MHz  
Model: ATP-100  
Approval Holder: Aitech I & C Co., Ltd.  
Operating Condition: Tnom: 23°C / Unom: 7.5 V DC  
Test Site / Operator: ETS / Mr. Hoppe  
Test Specification: mode: Tx  
Comment 1: Conducted, 50 Ohm Load, Channel spacing 12.5 kHz  
Comment 2: Freq:173.975MHz Pmax:35.37dBm RBW: 100Hz





## Appendix J

Frequency stability

No diagrams

Refer to point 3.9



## Appendix K

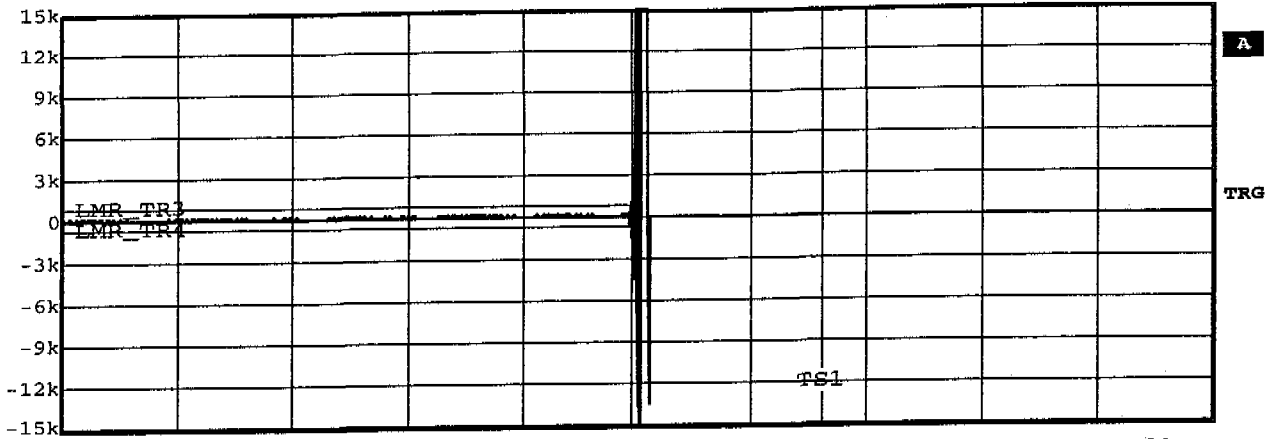
Transient frequency behaviour of the transmitter





Ref Lvl  
30 dBm

CF 155.025 MHz Real Time OFF  
DEMODO BW: 30 kHz AF-Signal  
FM [Hz]



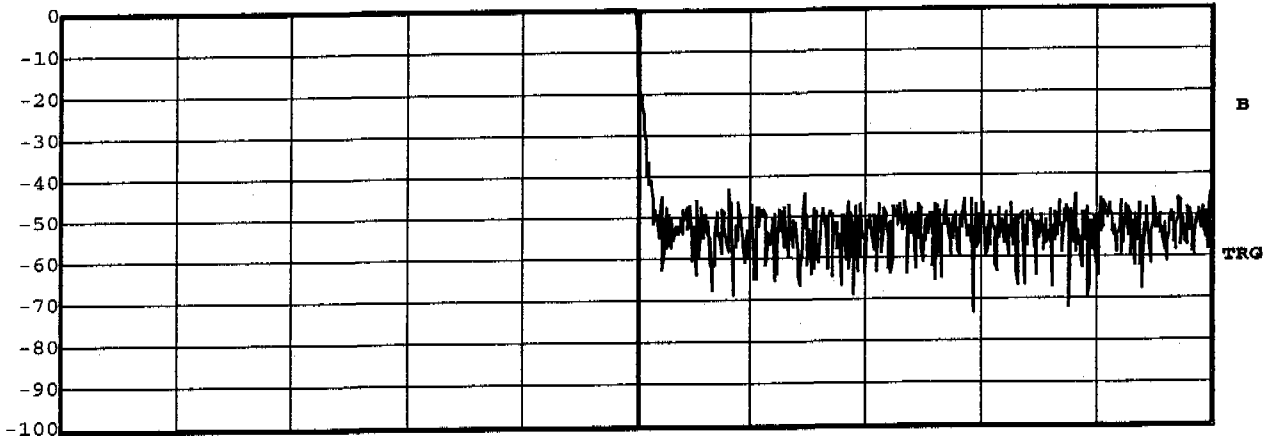
START 0 s

STOP 30 ms

EXT

Ref Lvl  
30 dBm

CF 155.025 MHz Real Time OFF  
DEMODO BW: 30 kHz AF-Signal  
AM [dBm]



START 0 s

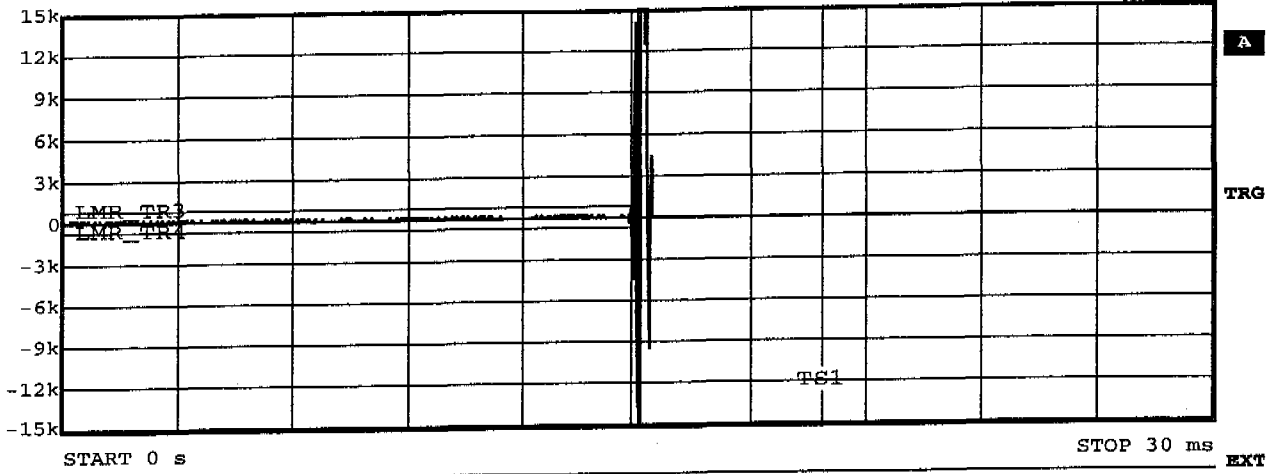
STOP 30 ms

Title: Transient frequency behaviour of the transmitter (switch off)  
Comment A: VHF TRANSCEIVER ATP-100 (12.5 kHz channel spacing)  
Date: 29.AUG.2003 15:29:05



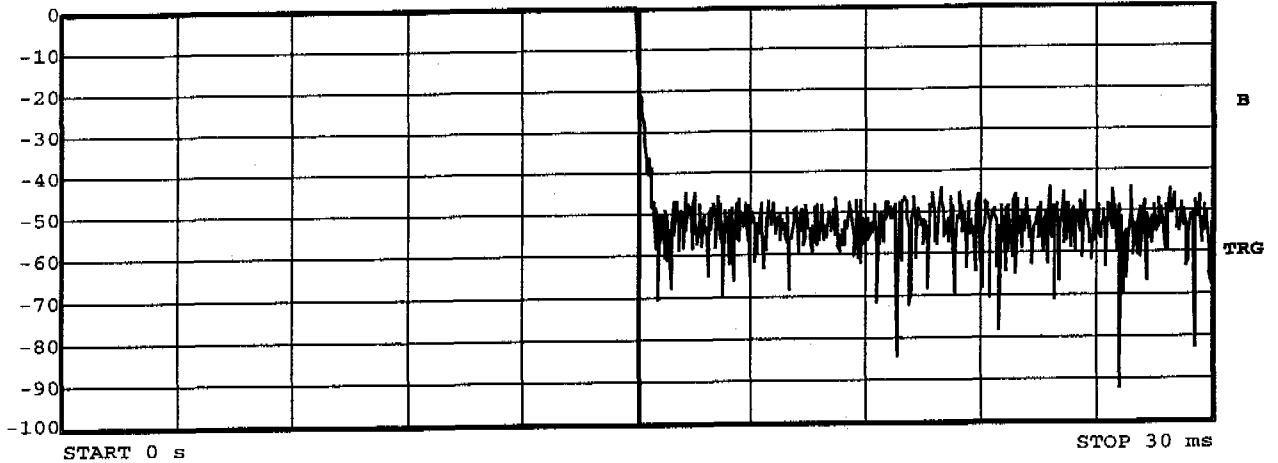
Ref Lvl  
30 dBm

CF 155.025 MHz Real Time OFF  
DEMOD BW: 30 kHz AF-Signal  
FM [Hz]



Ref Lvl  
30 dBm

CF 155.025 MHz Real Time OFF  
DEMOD BW: 30 kHz AF-Signal  
AM [dBm]

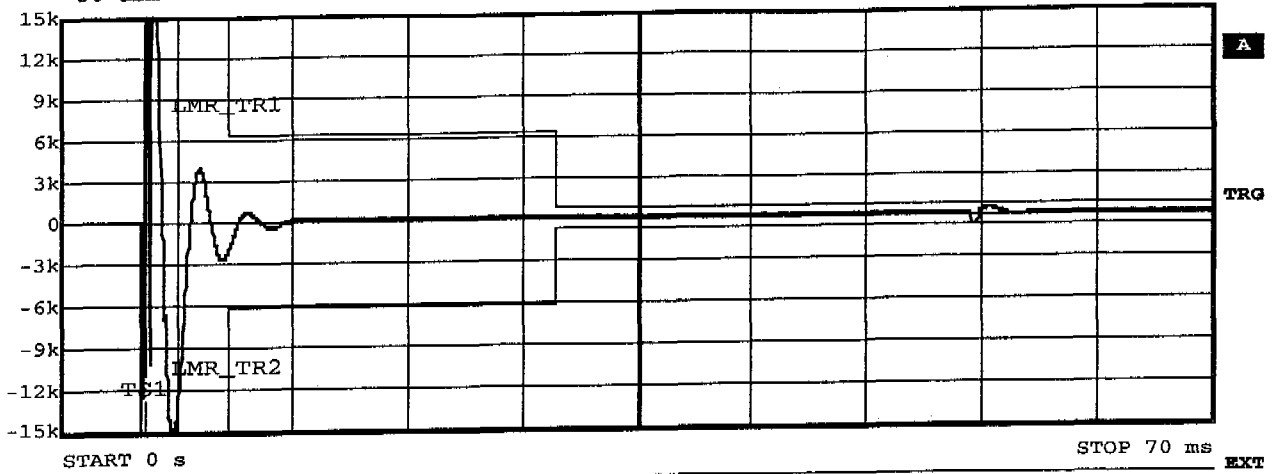


Title: Transient frequency behaviour of the transmitter (switch off)  
Comment A: VHF TRANSCEIVER ATP-100 (25 kHz channel spacing)  
Date: 29.AUG.2003 15:30:01



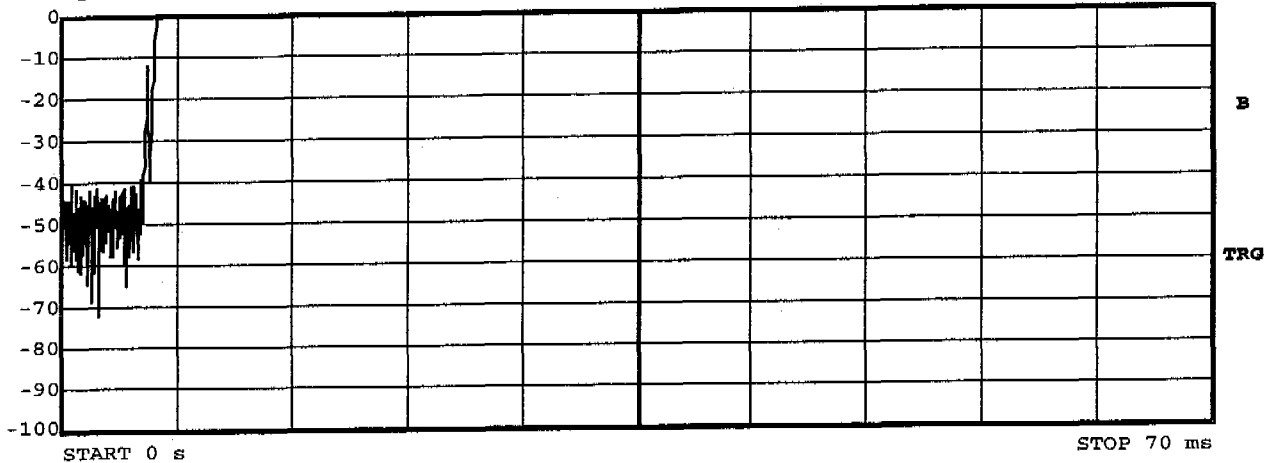
Ref Lvl  
30 dBm

CF 155.025 MHz Real Time OFF  
DEMODO BW: 30 kHz AF-Signal  
FM [Hz]



Ref Lvl  
30 dBm

CF 155.025 MHz Real Time OFF  
DEMODO BW: 30 kHz AF-Signal  
AM [dBm]

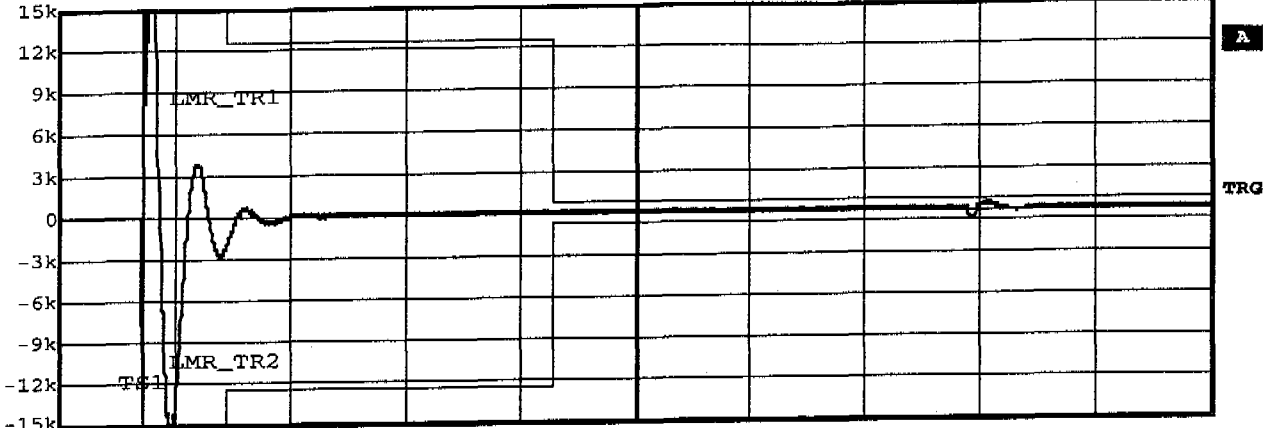


Title: Transient frequency behaviour of the transmitter (switch on)  
Comment A: VHF TRANSCEIVER ATP-100 (12.5 kHz channel spacing)  
Date: 29.AUG.2003 15:22:48



Ref Lvl  
30 dBm

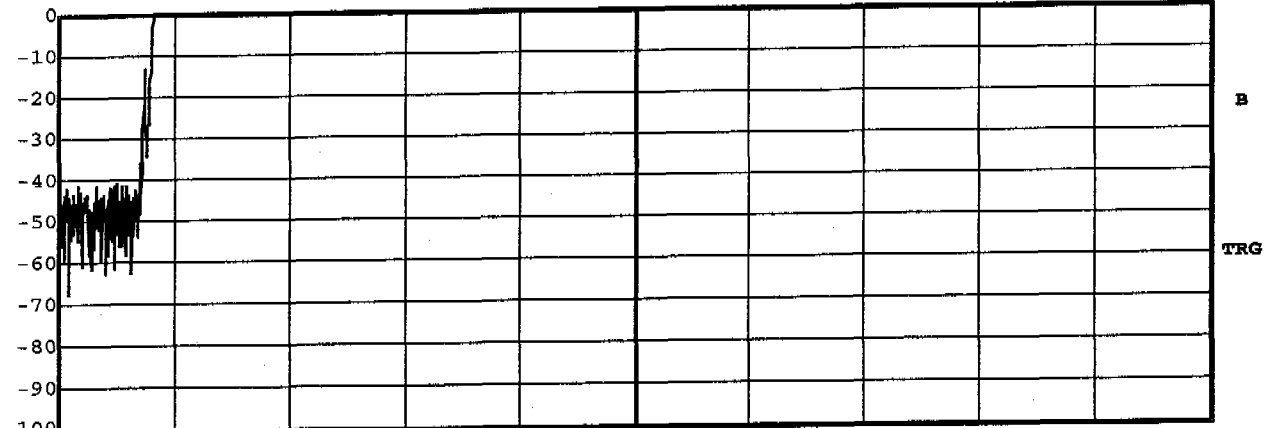
CF 155.025 MHz Real Time OFF  
DEMOD BW: 30 kHz AF-Signal  
FM [Hz]



START 0 s STOP 70 ms EXT

Ref Lvl  
30 dBm

CF 155.025 MHz Real Time OFF  
DEMOD BW: 30 kHz AF-Signal  
AM [dBm]



START 0 s STOP 70 ms

Title: Transient frequency behaviour of the transmitter (switch on)  
Comment A: VHF TRANSCEIVER ATP-100 (25 kHz channel spacing)  
Date: 29.AUG.2003 15:25:02

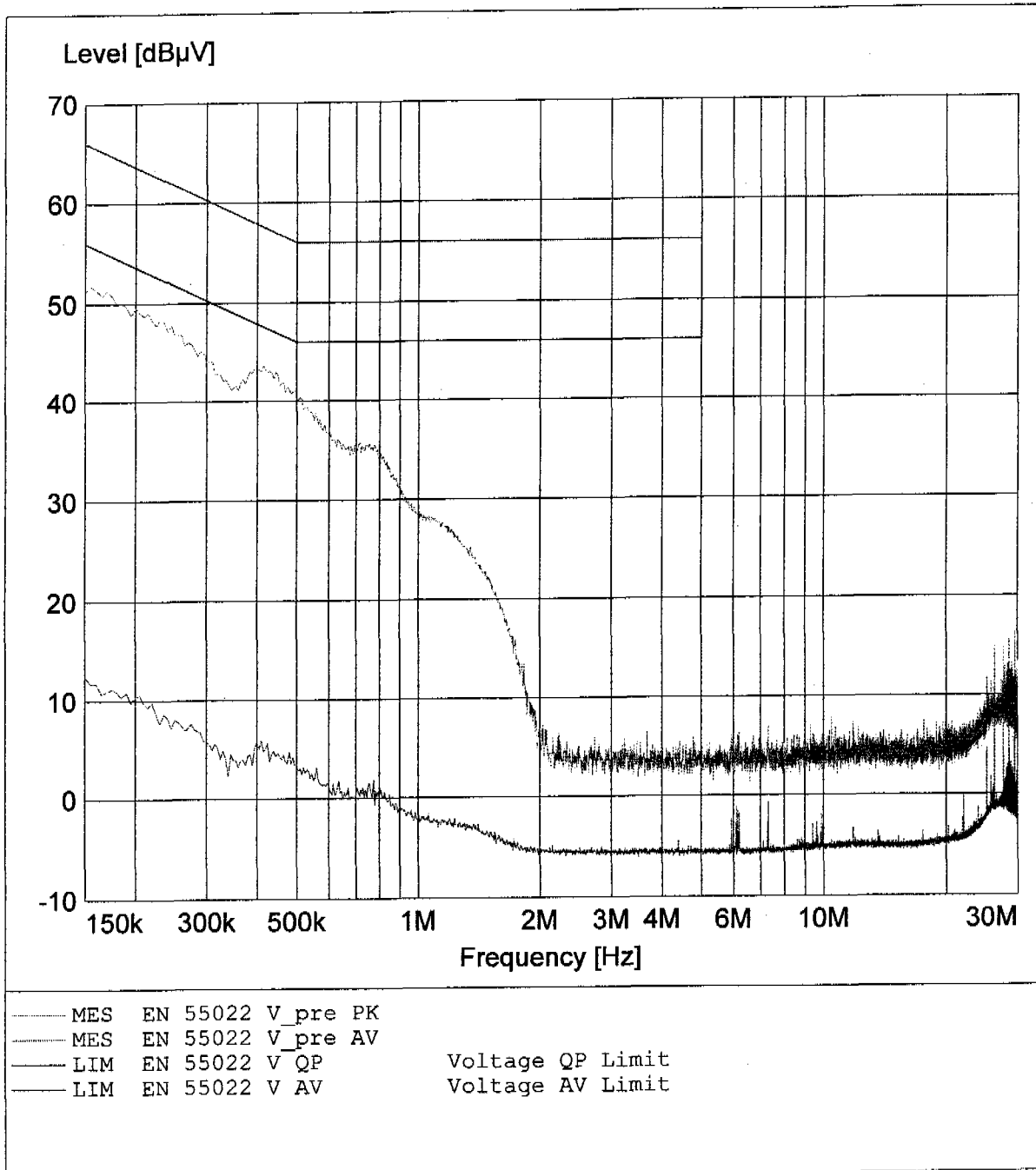


## Appendix L

Spurious emissions related to AC power line

**EMI voltage test in the ac-mains according to EN 55022**

EUT: VHF TRANSCEIVER  
Manufacturer: AIRTECH I & CO., LTD.  
Operating Condition: Unom: 230VAC(AC/DC-adaptor) , Tnom: 23°C  
Test Site: ETS  
Operator: Mr. Marquardt  
Test Specification: V-Network: ESH3-Z5  
Comment: model: ATP-100 mode: charging



**EMI voltage test in the dc-mains according to FCC part 15**

EUT: VHF TRANSCEIVER  
 Manufacturer: AIRTECH I & C CO.,LTD.  
 Operating Condition: Unom: 120 VAC(AC/DC-adaptor) , Tnom: 23°C  
 Test Site: ETS  
 Operator: Mr. Marquardt  
 Test Specification: V-Network: ESH2-25  
 Comment: model: ATP-100 mode: charging

