

**GRAPHICAL SECTION  
FOR RFI TEST REPORT SERIAL NO:  
RFI/EMCB1/RP44012JD09A**

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001  
(Intentional Radiators)  
Section 15.247

## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

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**Graphical Test Results**

| Graph Reference Number | Title                                                                     |
|------------------------|---------------------------------------------------------------------------|
| GPH\44012JD09\002      | Scan of conducted emissions, receive mode                                 |
| GPH\44012JD09\003      | Scan of conducted emissions, hopping mode                                 |
| GPH\44012JD09\004      | Scan of conducted emissions, bottom channel                               |
| GPH\44012JD09\005      | Scan of conducted emissions, middle channel                               |
| GPH\44012JD09\006      | Scan of conducted emissions, top channel                                  |
| GPH\44012JD09\007      | Scan of conducted emissions, receive mode<br>(laptop supply test point)   |
| GPH\44012JD09\008      | Scan of conducted emissions, hopping mode<br>(laptop supply test point)   |
| GPH\44012JD09\009      | Scan of conducted emissions, bottom channel<br>(laptop supply test point) |
| GPH\44012JD09\011      | Scan of conducted emissions, top channel<br>(laptop supply test point)    |
| GPH\44012JD09\012      | Scan of conducted emissions, middle channel<br>(laptop supply test point) |
| GPH\44012JD09\023      | Scan of conducted emissions, receive mode<br>(EUT power lead)             |
| GPH\44012JD09\024      | Scan of conducted emissions, bottom channel<br>(EUT power lead)           |
| GPH\44012JD09\025      | Scan of conducted emissions, middle channel<br>(EUT power lead)           |
| GPH\44012JD09\026      | Scan of conducted emissions, top channel<br>(EUT power lead)              |
| GPH\44012JD09\027      | Scan of conducted emissions, hopping mode<br>(EUT power lead)             |
| GPH\44012JD09\028      | Scan of conducted emissions, receive mode<br>(laptop power lead)          |
| GPH\44012JD09\029      | Scan of conducted emissions, bottom channel<br>(laptop power lead)        |
| GPH\44012JD09\030      | Scan of conducted emissions, middle channel<br>(laptop power lead)        |
| GPH\44012JD09\031      | Scan of conducted emissions, top channel<br>(laptop power lead)           |
| GPH\44012JD09\032      | Scan of conducted emissions, hopping mode<br>(laptop power lead)          |

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**Graphical Test Results (continued)**

| Graph Reference Number | Title                                                                     |
|------------------------|---------------------------------------------------------------------------|
| GPH\44012JD09\CE001    | Peak output power, bottom channel 93.5 V AC                               |
| GPH\44012JD09\CE002    | Peak output power, bottom channel 110 V AC                                |
| GPH\44012JD09\CE003    | Peak output power, bottom channel 126.5 V AC                              |
| GPH\44012JD09\CE004    | Peak output power, middle channel 93.5 V AC                               |
| GPH\44012JD09\CE005    | Peak output power, middle channel 110 V AC                                |
| GPH\44012JD09\CE006    | Peak output power, middle channel 126.5 V AC                              |
| GPH\44012JD09\CE007    | Peak output power, top channel 93.5 V AC                                  |
| GPH\44012JD09\CE008    | Peak output power, top channel 110 V AC                                   |
| GPH\44012JD09\CE009    | Peak output power, top channel 126.5 V AC                                 |
| GPH\44012JD09\CE010    | Number of hopping frequencies, hopping all channels                       |
| GPH\44012JD09\CE011    | 20 dB Bandwidth, hopping all channels                                     |
| GPH\44012JD09\CE012    | Carrier frequency separation, hopping all channels                        |
| GPH\44012JD09\CE013    | Time of occupancy (dwell time), hopping all channels                      |
| GPH\44012JD09\CE014    | Time of occupancy (30 second period), hopping all channels                |
| GPH\44012JD09\CE015    | Band edge, bottom channel                                                 |
| GPH\44012JD09\CE016    | Band edge, top channel                                                    |
| GPH\44012JD09a\001     | Conducted spurious emissions, bottom channel<br>(2.4 GHz to 2.4835 GHz)   |
| GPH\44012JD09a\002     | Conducted spurious emissions, bottom channel<br>(30 MHz to 2.4 GHz)       |
| GPH\44012JD09a\003     | Conducted spurious emissions, middle channel<br>(30 MHz to 2.4 GHz)       |
| GPH\44012JD09a\004     | Conducted spurious emissions, top channel<br>(30 MHz to 2.4 GHz)          |
| GPH\44012JD09a\005     | Conducted spurious emissions, hopping all channels<br>(30 MHz to 2.4 GHz) |
| GPH\44012JD09a\006     | Conducted spurious emissions, receive mode<br>(30 MHz to 2.4 GHz)         |
| GPH\44012JD09a\007     | Conducted spurious emissions, receive mode<br>(2.4835 GHz to 12.5 GHz)    |

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**Graphical Test Results (continued)**

| Graph Reference Number | Title                                                                       |
|------------------------|-----------------------------------------------------------------------------|
| GPH\44012JD09a\008     | Conducted spurious emissions, hopping all channels (2.4835 GHz to 12.5 GHz) |
| GPH\44012JD09a\009     | Conducted spurious emissions, bottom channel (2.4835 GHz to 12.5 GHz)       |
| GPH\44012JD09a\010     | Conducted spurious emissions, middle channel (2.4835 GHz to 12.5 GHz)       |
| GPH\44012JD09a\011     | Conducted spurious emissions, top channel (2.4835 GHz to 12.5 GHz)          |
| GPH\44012JD09a\012     | Conducted spurious emissions, top channel (12.5 GHz to 26.5 GHz)            |
| GPH\44012JD09a\013     | Conducted spurious emissions, middle channel (12.5 GHz to 26.5 GHz)         |
| GPH\44012JD09a\014     | Conducted spurious emissions, bottom channel (12.5 GHz to 26.5 GHz)         |
| GPH\44012JD09a\015     | Conducted spurious emissions, hopping all channels (12.5 GHz to 26.5 GHz)   |
| GPH\44012JD09a\016     | Conducted spurious emissions, receive mode (12.5 GHz to 26.5 GHz)           |
| GPH\44012JD09\032      | Scan of radiated emissions, Tx hopping, bottom channel, band edge           |
| GPH\44012JD09\033      | Scan of radiated emissions, Tx hopping, top channel, band edge              |

## Operations Department

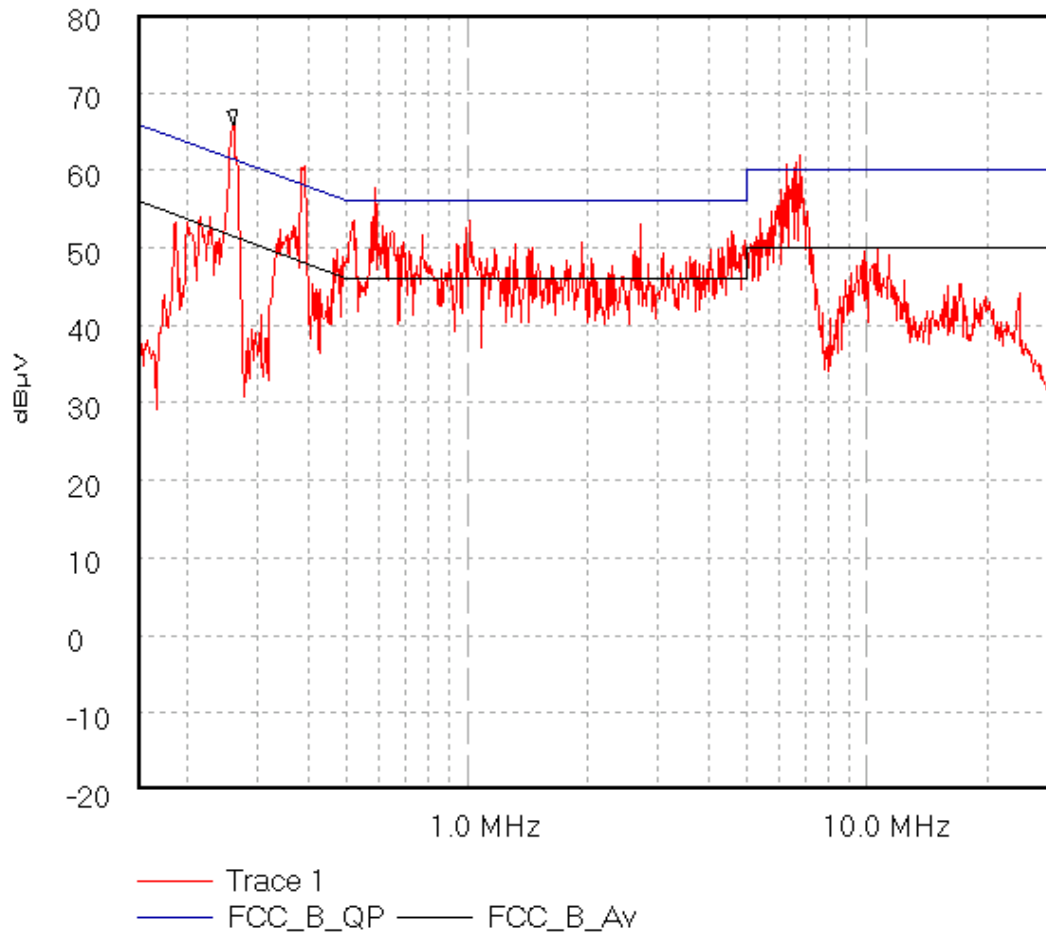
Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\002

AC Conducted Emissions. FCC Part 15. Test for Brain Boxes of BL510\642.  
Operating condition:- Receive Mode.

44012JD09 002



Start 150.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 1.94 S

Peak 260.868 kHz, 65.84 dBμV

Limit/Mask: FCC\_B\_QP; FCC\_B\_Av; ; Limit Test Failed

16/10/2002 2:17:58 PM

## Operations Department

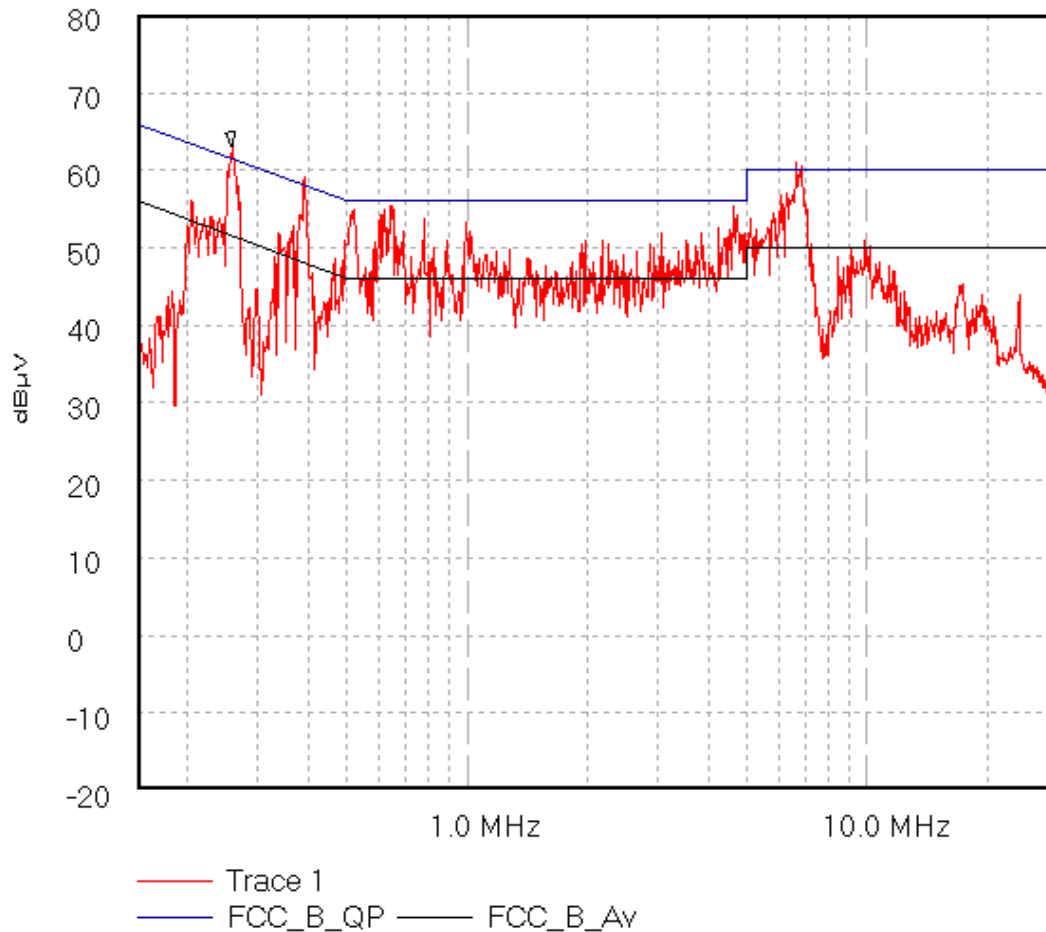
Test Of: Brain Boxes Ltd.  
BL-510

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GPH\44012JD09\003

AC Conducted Emissions. FCC Part 15. Test for Brain Boxes of BL510\642.  
Operating Condition:- Hopping Mode.

44012JD09 003



Start 150.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 340.0 mS

Peak 257.814 kHz, 62.94 dBμV

Limit/Mask: FCC\_B\_QP; FCC\_B\_Av; ; Limit Test Failed

16/10/2002 2:21:38 PM

## Operations Department

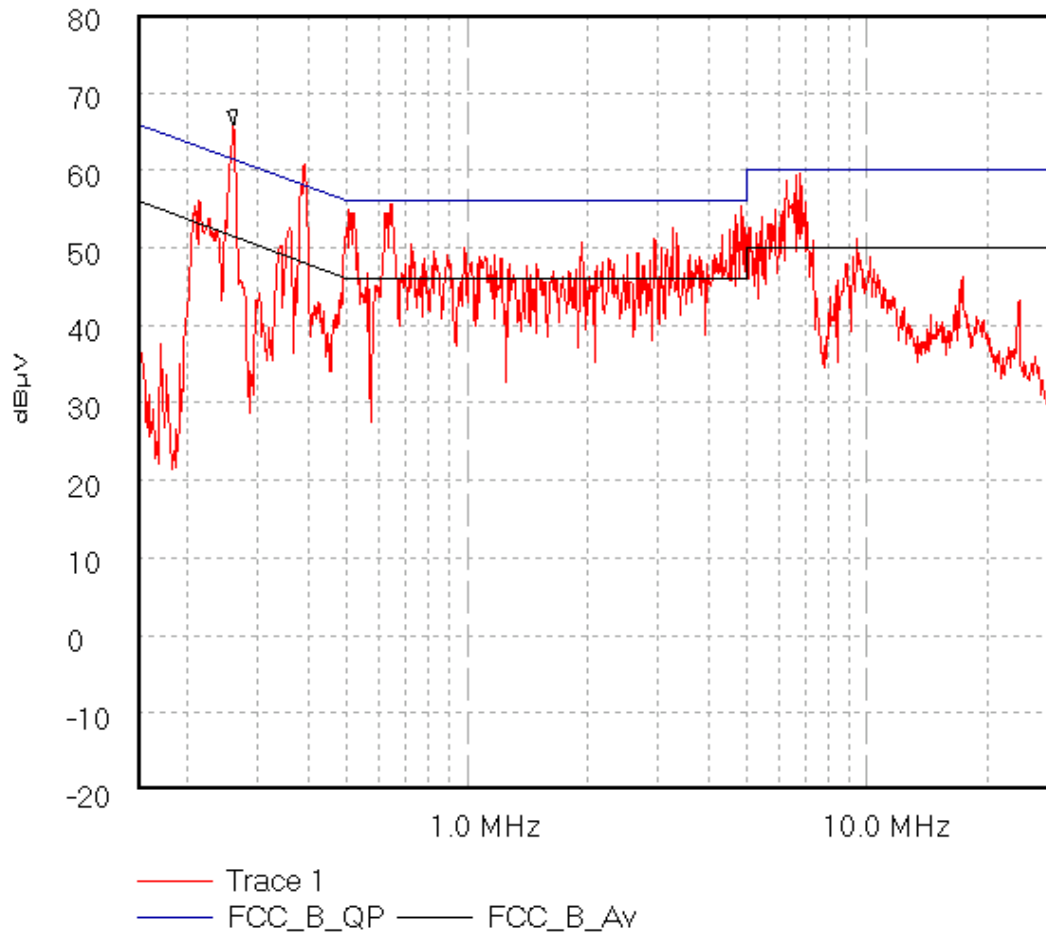
Test Of: Brain Boxes Ltd.  
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To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\004

AC Conducted Emissions. FCC Part 15. Test for Brain Boxes of BL510\642.  
Operating Condition:- Bottom Channel.

44012JD09 004



Start 150.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 1.94 S

Peak 259.336 kHz, 65.86 dBμV

Limit/Mask: FCC\_B\_QP; FCC\_B\_Av; ; Limit Test Failed

16/10/2002 2:25:51 PM

## Operations Department

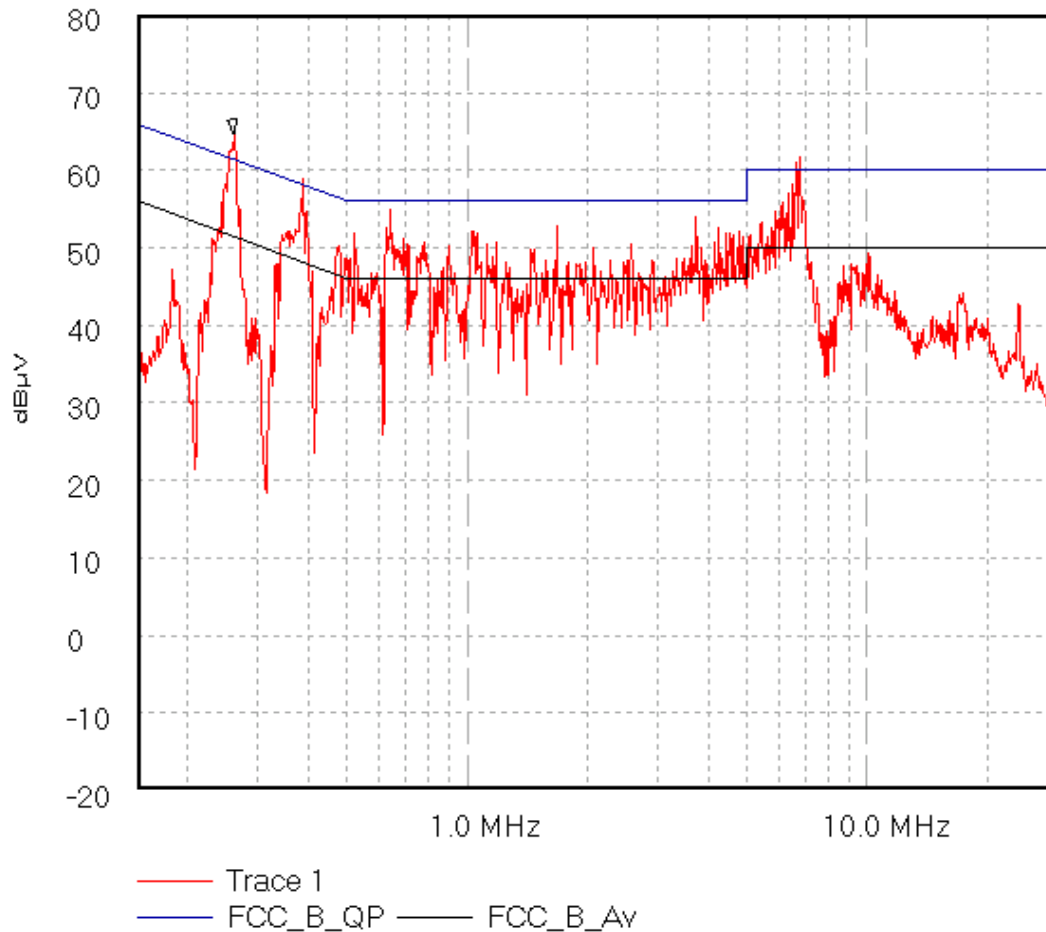
Test Of: Brain Boxes Ltd.  
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To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\005

AC Conducted Emissions. FCC Part 15. Test for Brain Boxes of BL510\642.  
Operating Condition:- Middle Channel

44012JD09 005



Start 150.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 60.0 mS

Peak 260.868 kHz, 64.69 dBμV

Limit/Mask: FCC\_B\_QP; FCC\_B\_Av; ; Limit Test Failed

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## Operations Department

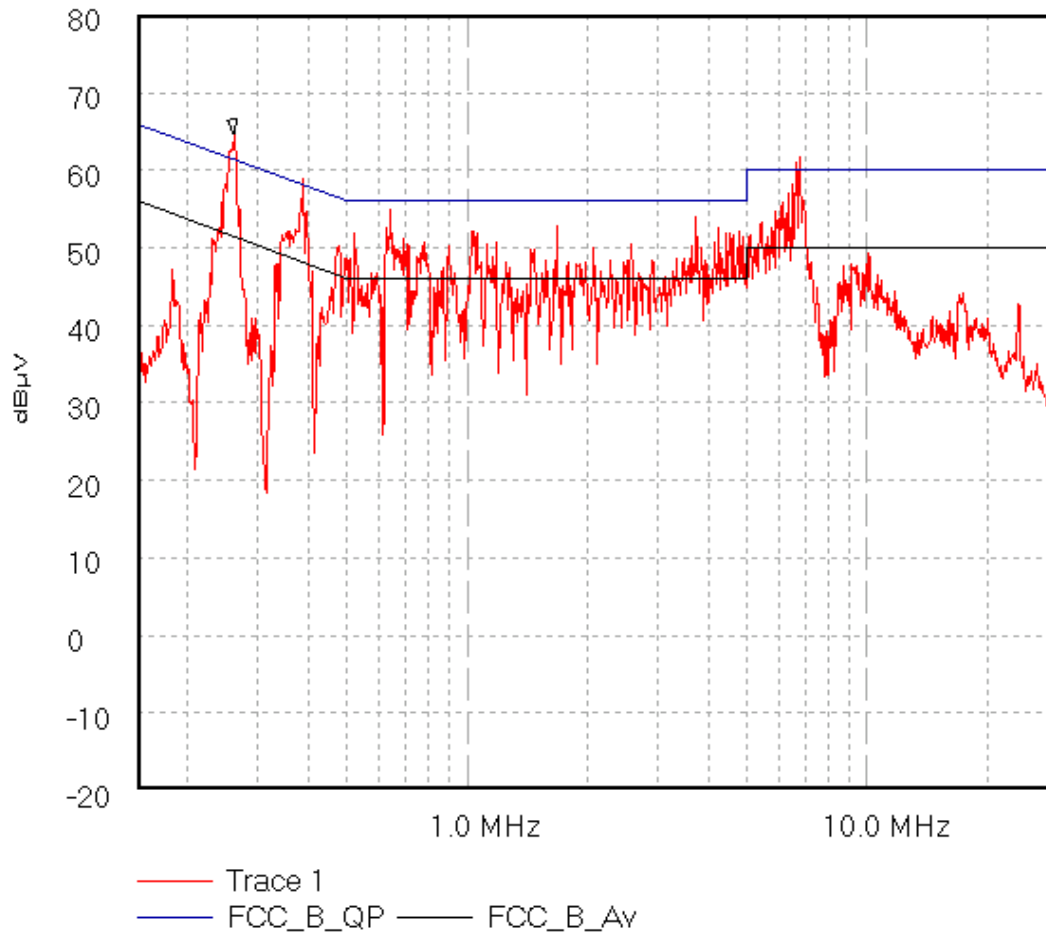
Test Of: Brain Boxes Ltd.  
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GPH\44012JD09\006

AC Conducted Emissions. FCC Part 15. Test for Brain Boxes of BL510\642.  
Operating condition: Top Channel

44012JD09 005



Start 150.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 60.0 mS

Peak 260.868 kHz, 64.69 dBμV

Limit/Mask: FCC\_B\_QP; FCC\_B\_Av; ; Limit Test Failed

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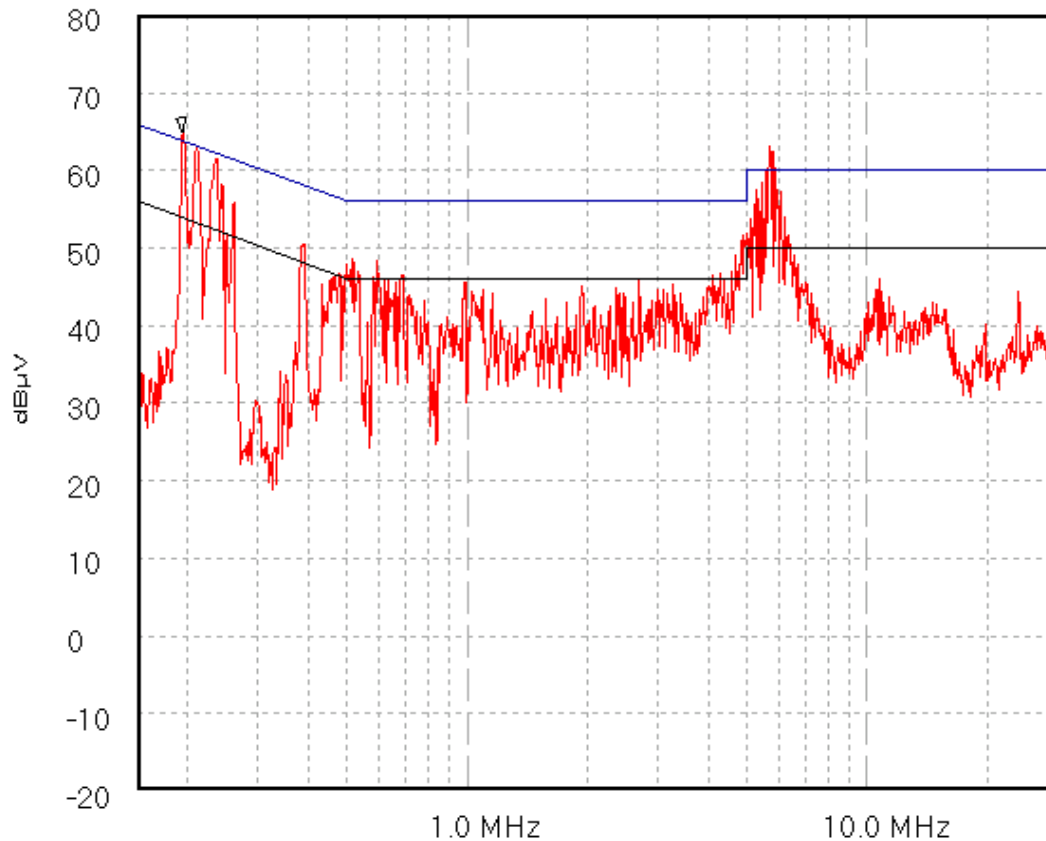
GPH\44012JD09\007

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL510\642, (Laptop supply test point)

Operating condition: Receive Mode

44012JD09 007



Trace 1  
FCC\_B\_QP — FCC\_B\_Av

Start 150.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 1.94 S

Peak 194.35 kHz, 64.79 dBμV

Limit/Mask: FCC\_B\_QP; FCC\_B\_Av; ; Limit Test Failed

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## Operations Department

Test Of: Brain Boxes Ltd.  
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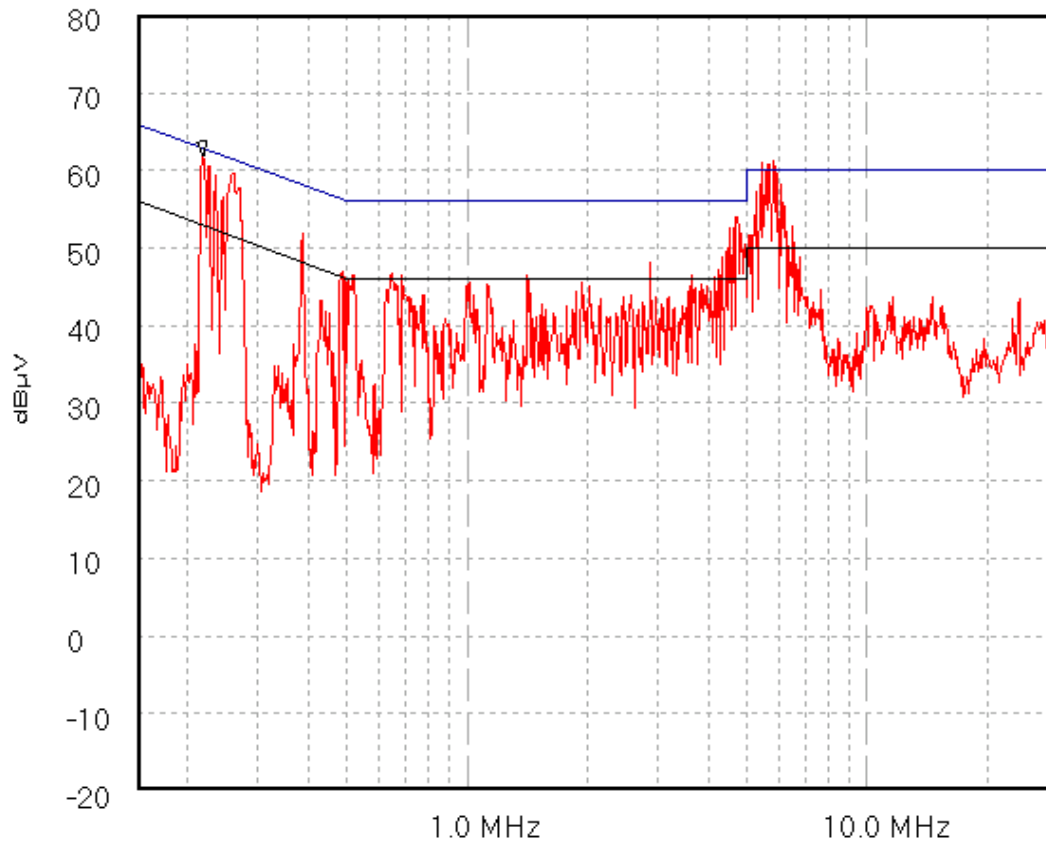
GPH\44012JD09\008

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL510\642, (Laptop supply test point)

Operating condition: Hopping mode

44012JD09 008



Trace 1  
FCC\_B\_QP — FCC\_B\_Av

Start 150.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 1.94 S

Peak 218.635 kHz, 61.9 dBμV

Limit/Mask: FCC\_B\_QP; FCC\_B\_Av; ; Limit Test Failed

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## Operations Department

Test Of: Brain Boxes Ltd.  
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To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

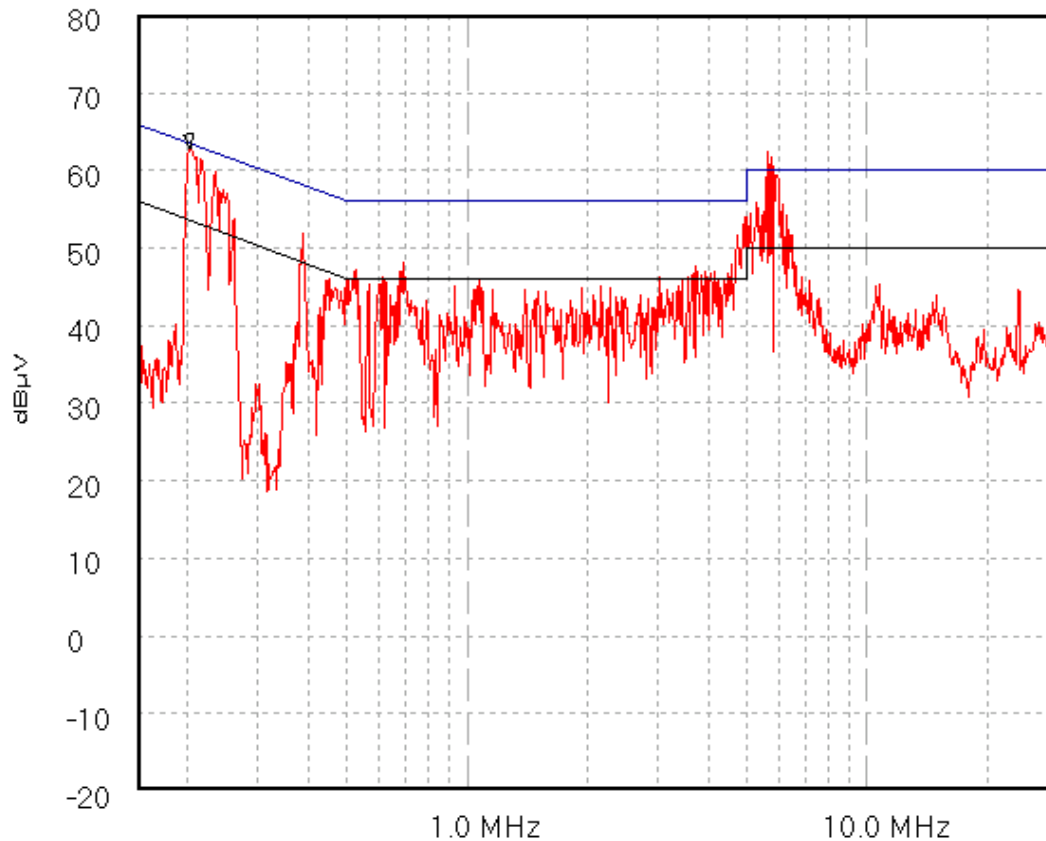
GPH\44012JD09\009

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL510\642, (Laptop supply test point)

Operating condition: Bottom Channel

44012JD09 009



Trace 1

FCC\_B\_QP — FCC\_B\_Av

Start 150.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 60.0 mS

Peak 202.527 kHz, 62.74 dBμV

Limit/Mask: FCC\_B\_QP; FCC\_B\_Av; ; Limit Test Failed

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Test Of: Brain Boxes Ltd.  
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To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

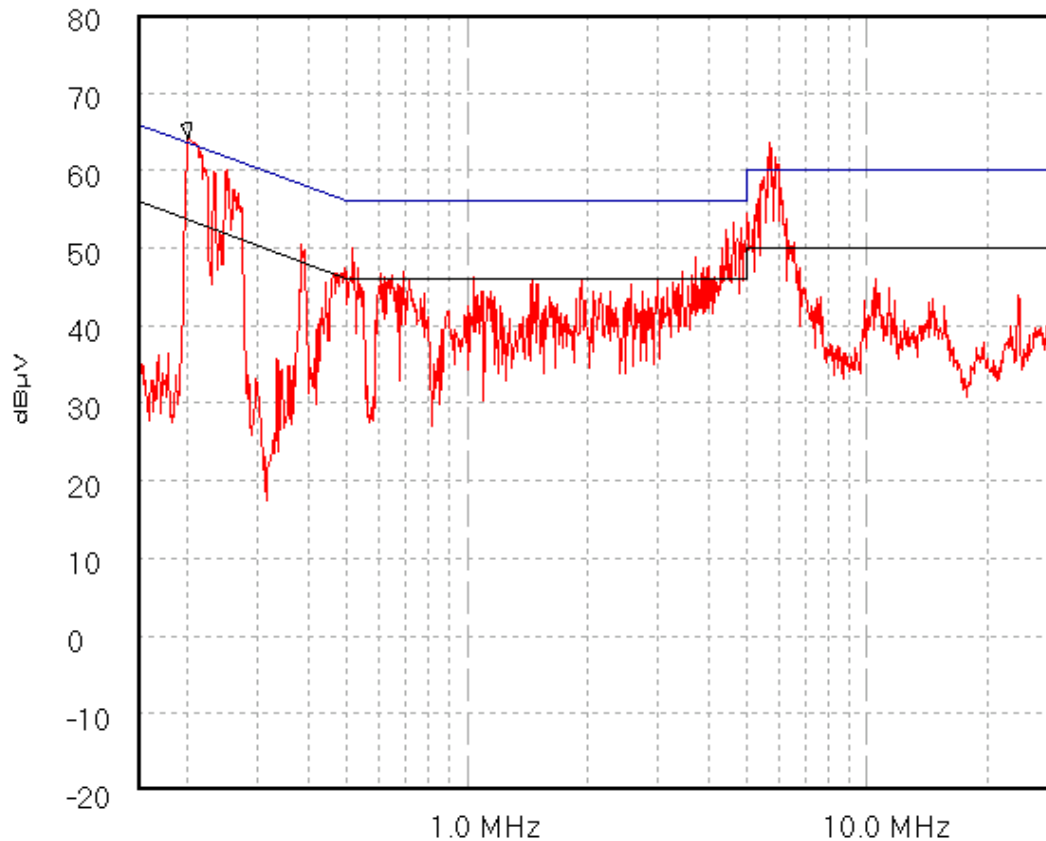
GPH\44012JD09\011

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL510\642, (Laptop supply test point)

Operating condition: Top Channel

44012JD09 011



Trace 1

FCC\_B\_QP — FCC\_B\_Av

Start 150.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 1.94 S

Peak 201.338 kHz, 64.08 dBμV

Limit/Mask: FCC\_B\_QP; FCC\_B\_Av; ; Limit Test Failed

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## Operations Department

Test Of: Brain Boxes Ltd.  
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To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

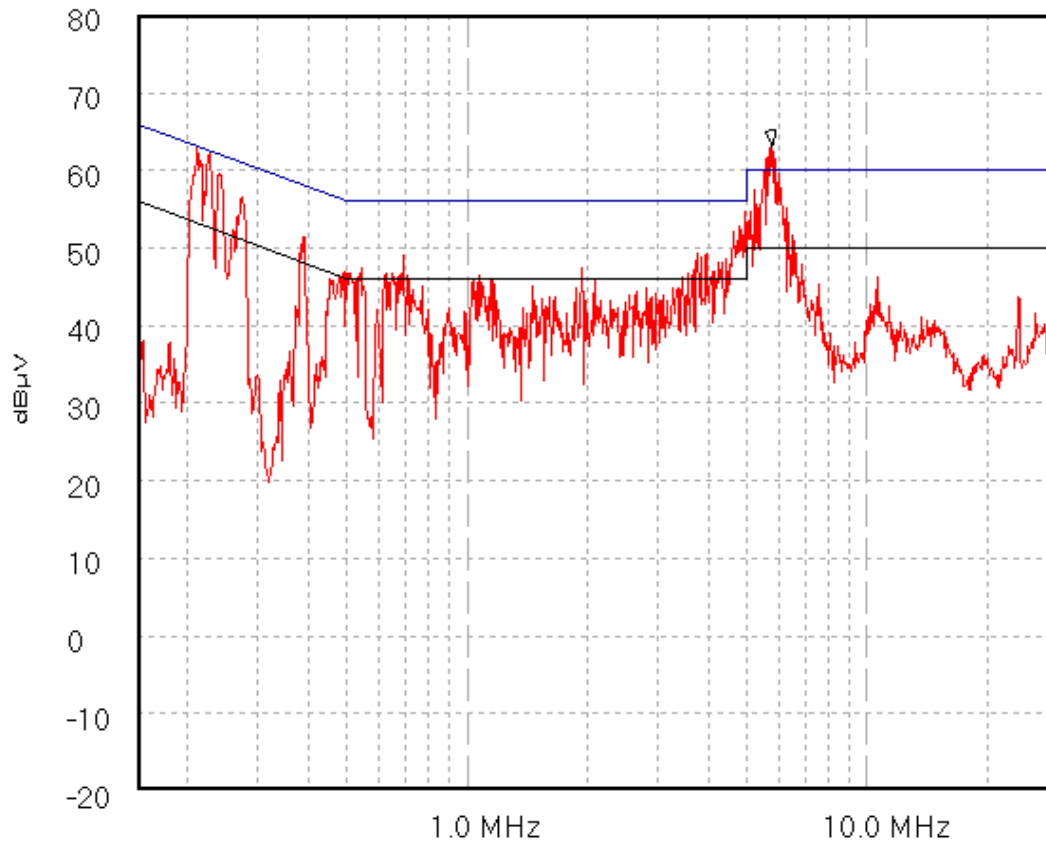
GPH\44012JD09\012

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL510\642, (Laptop supply test point)

Operating condition: Middle Channel

44012JD09 012



Trace 1

FCC\_B\_QP — FCC\_B\_Av

Start 150.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 1.94 S

Peak 5.771 MHz, 63.14 dBμV

Limit/Mask: FCC\_B\_QP; FCC\_B\_Av; ; Limit Test Failed

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## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

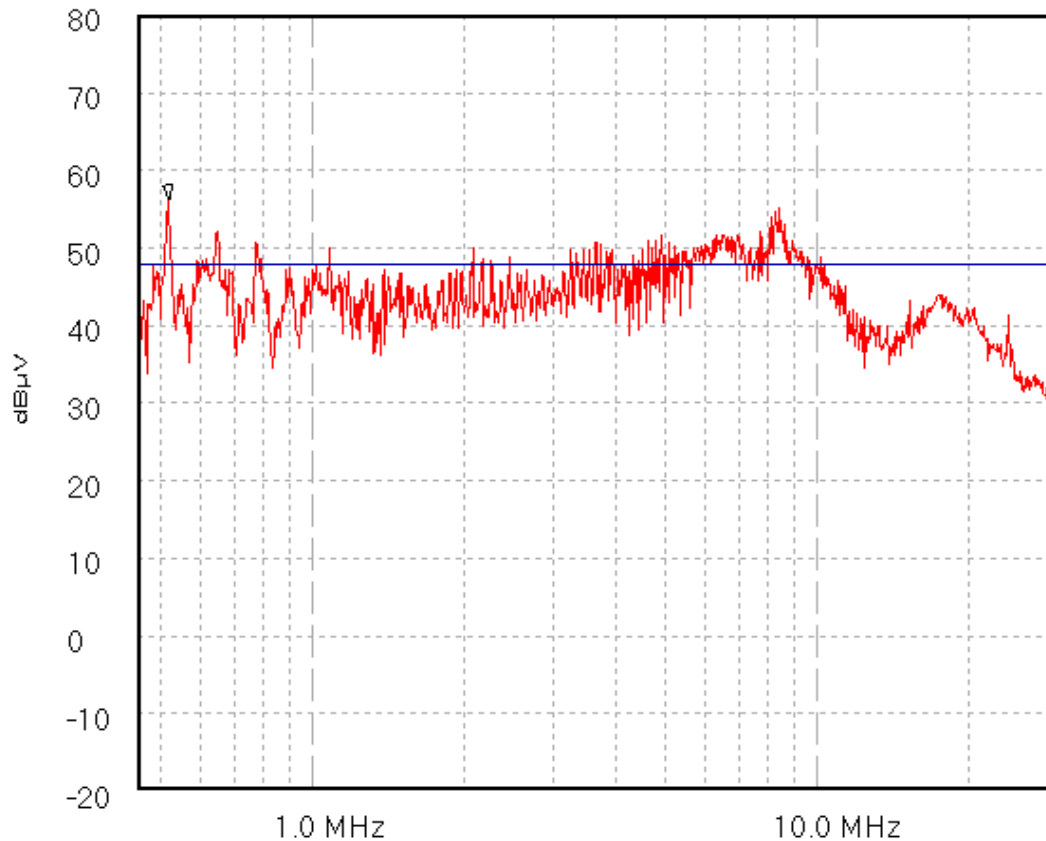
GPH\44012JD09\023

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL-510/642 RS232 Adaptor. EUT Power Lead.

Operating condition:- Receive Mode.

44012JD09 023



Trace 1  
15\_107\_Class\_B\_QP

Start 450.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 2.2 S

Peak 517.618 kHz, 56.26 dBμV

Limit/Mask: 15\_107\_Class\_B\_QP; ; Limit Test Failed

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## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

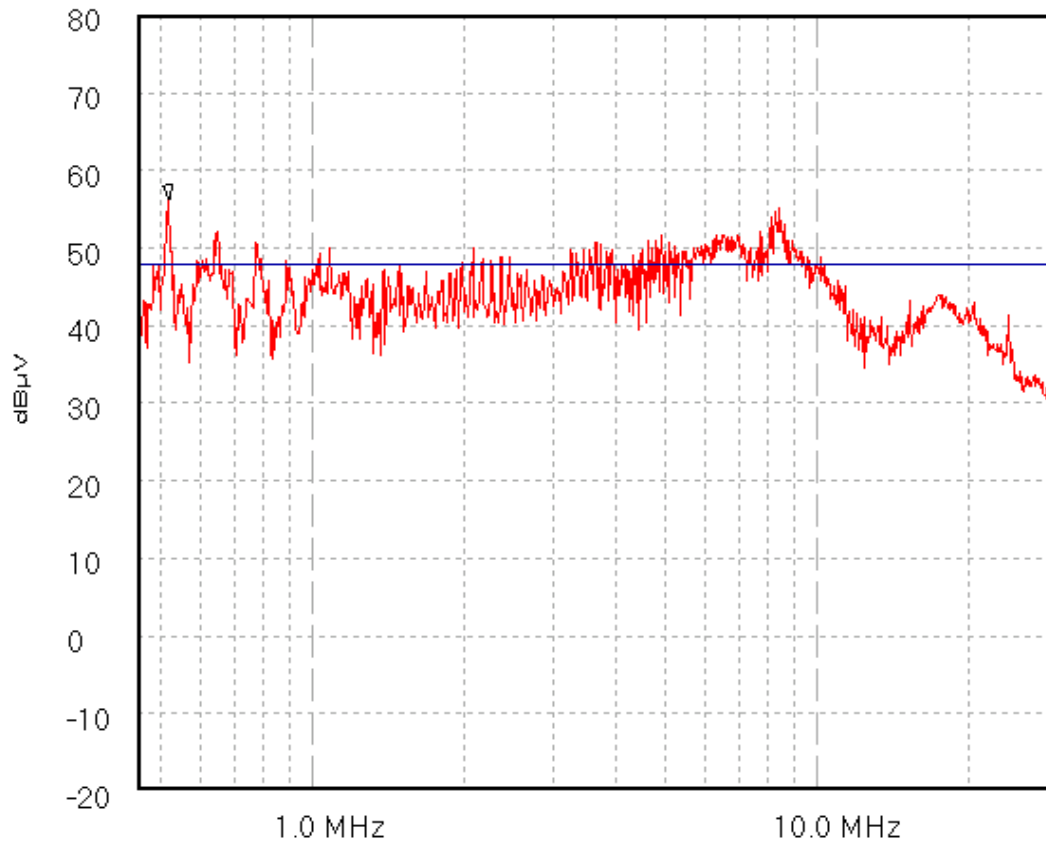
GPH\44012JD09\024

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL-510/642 RS232 Adaptor. EUT Power Lead.

Operating condition:- Bottom Channel.

44012JD09 024



Trace 1  
15\_107\_Class\_B\_QP

Start 450.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 2.2 S

Peak 517.618 kHz, 56.26 dBμV

Limit/Mask: 15\_107\_Class\_B\_QP; ; Limit Test Failed

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## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

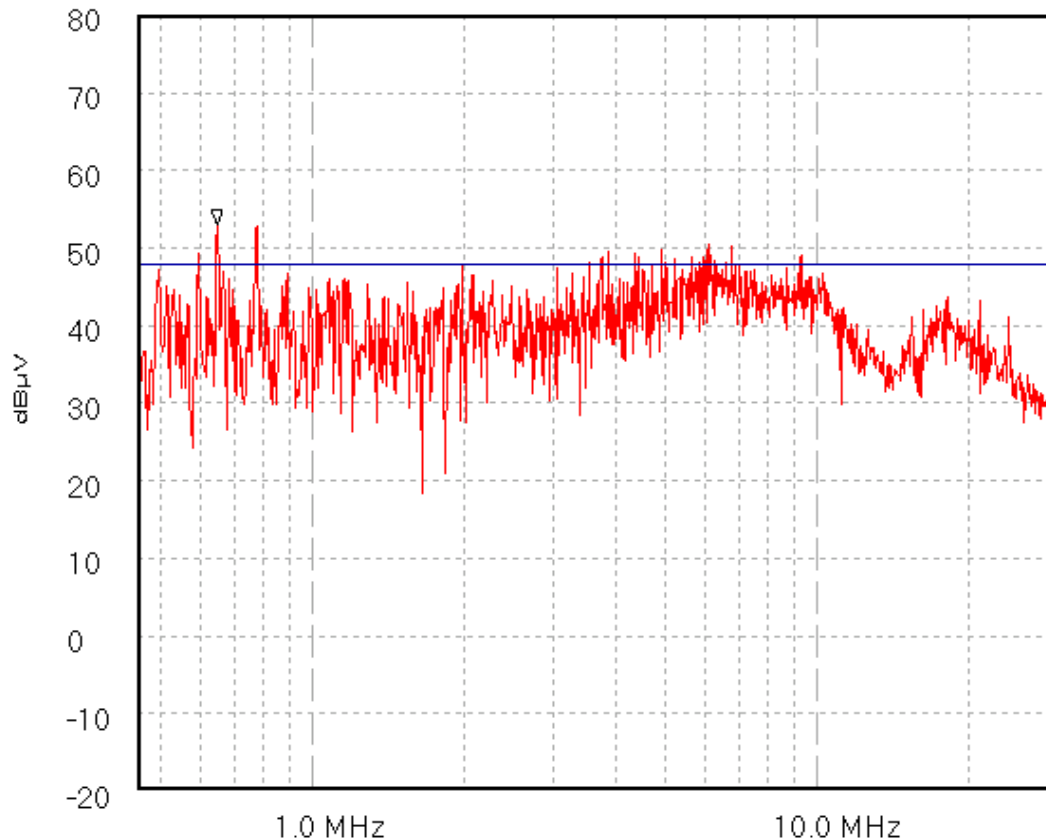
GPH\44012JD09\025

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL-510/642 RS232 Adaptor. EUT Power Lead.

Operating Condition:- Middle Channel.

44012JD09 025



Trace 1  
15\_107\_Class\_B\_QP

Start 450.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 2.2 S

Peak 647.566 kHz, 53.06 dBμV

Limit/Mask: 15\_107\_Class\_B\_QP; ; Limit Test Failed

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## Operations Department

Test Of: Brain Boxes Ltd.  
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To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

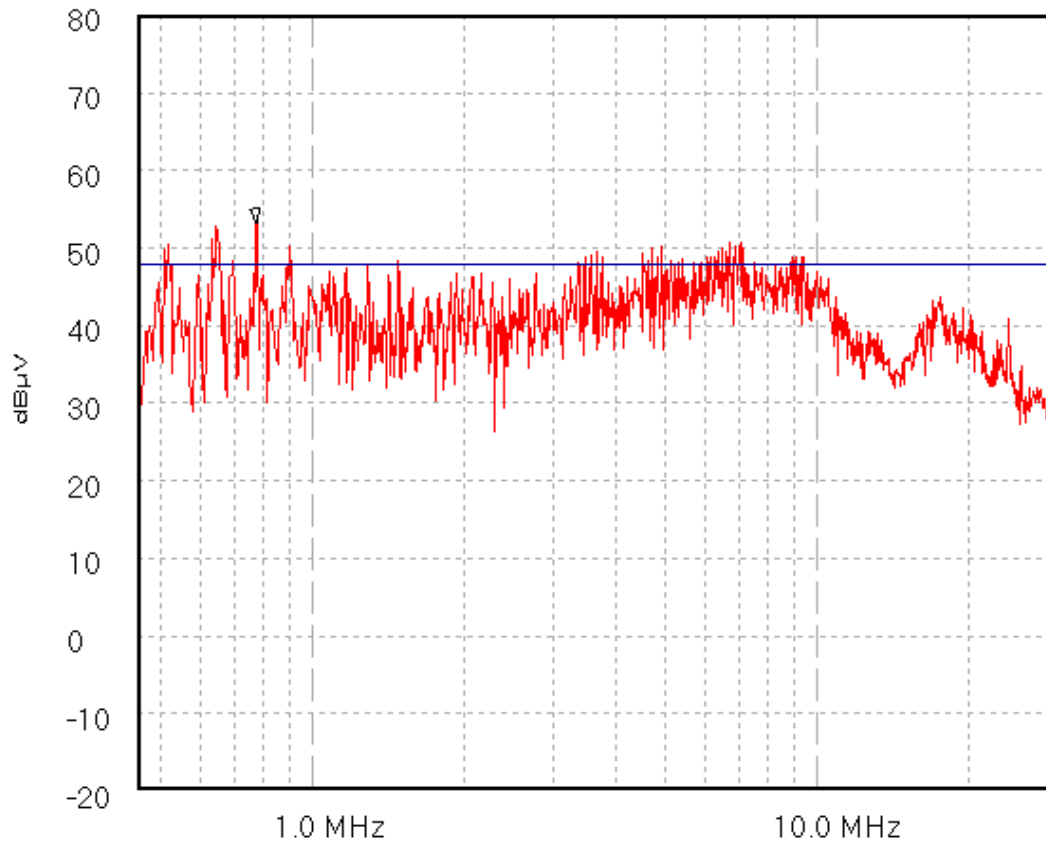
GPH\44012JD09\026

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL-510/642 RS232 Adaptor. EUT Power Lead.

Operating condition:- Top Channel.

44012JD09 026



Trace 1  
15\_107\_Class\_B\_QP

Start 450.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 2.2 S

Peak 773.204 kHz, 53.16 dBμV

Limit/Mask: 15\_107\_Class\_B\_QP; ; Limit Test Failed

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## Operations Department

Test Of: Brain Boxes Ltd.  
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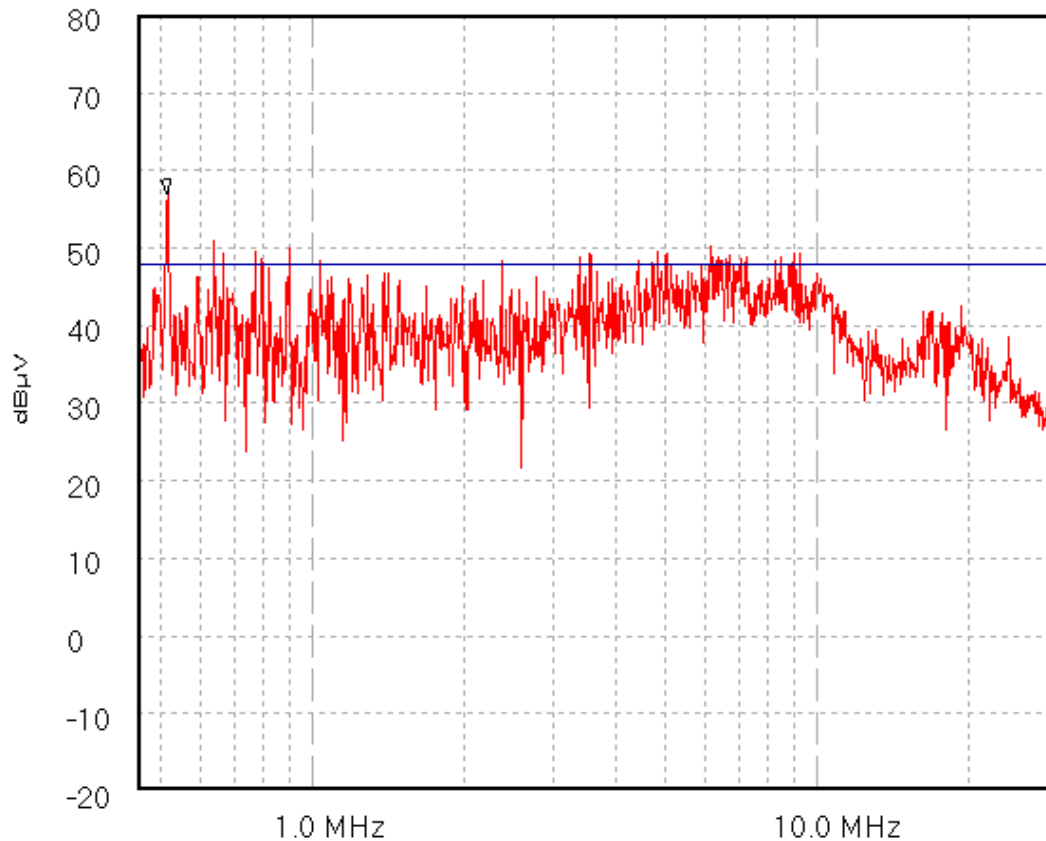
GPH\44012JD09\027

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL-510/642 RS232 Adaptor. EUT Power Lead.

Operating condition:- Hopping Mode.

44012JD09 027



Trace 1  
15\_107\_Class\_B\_QP

Start 450.0 kHz; Stop 30.0 MHz - Log Scale

Ref 80 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 2.2 S

Peak 515.208 kHz, 56.85 dBμV

Limit/Mask: 15\_107\_Class\_B\_QP; ; Limit Test Failed

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## Operations Department

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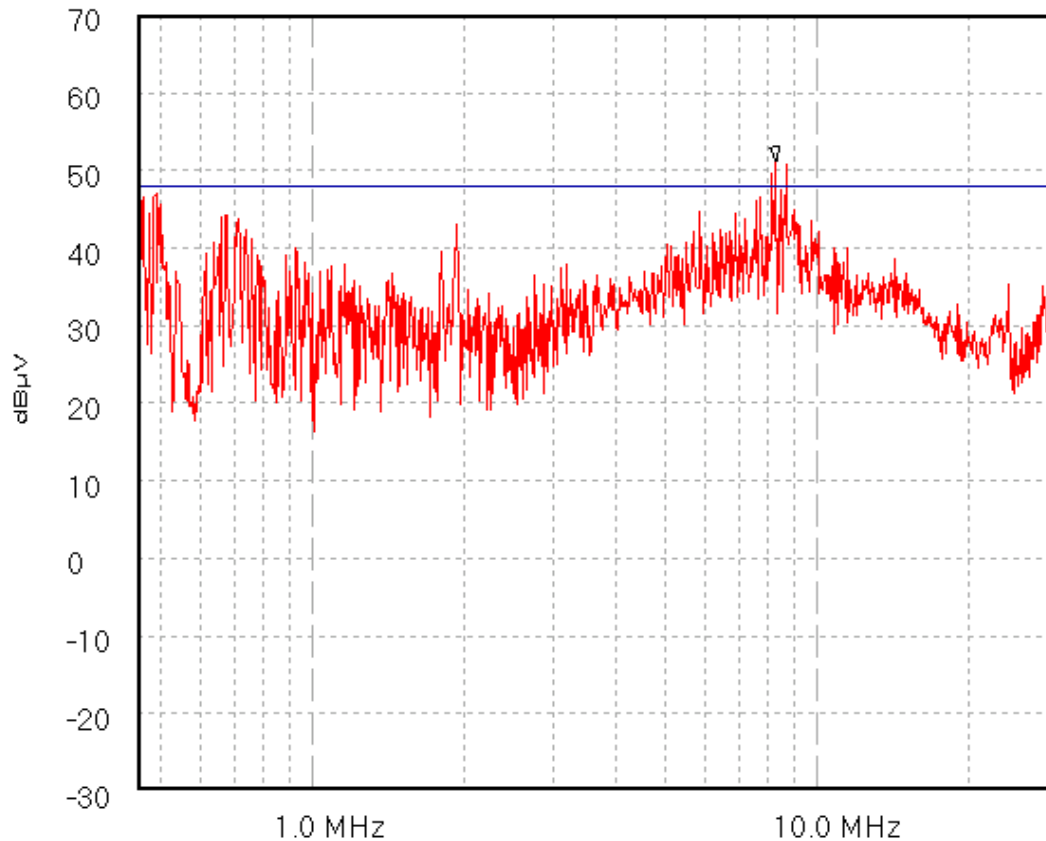
GPH\44012JD09\028

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL-510/642 RS232 Adaptor. Laptop power lead.

Operating Condition:- Receive Mode.

44012JD09 028



Trace 1  
15\_107\_Class\_B\_QP

Start 450.0 kHz; Stop 30.0 MHz - Log Scale

Ref 70 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 260.0 mS

Peak 8.314 MHz, 51.06 dBμV

Limit/Mask: 15\_107\_Class\_B\_QP; ; Limit Test Failed

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## Operations Department

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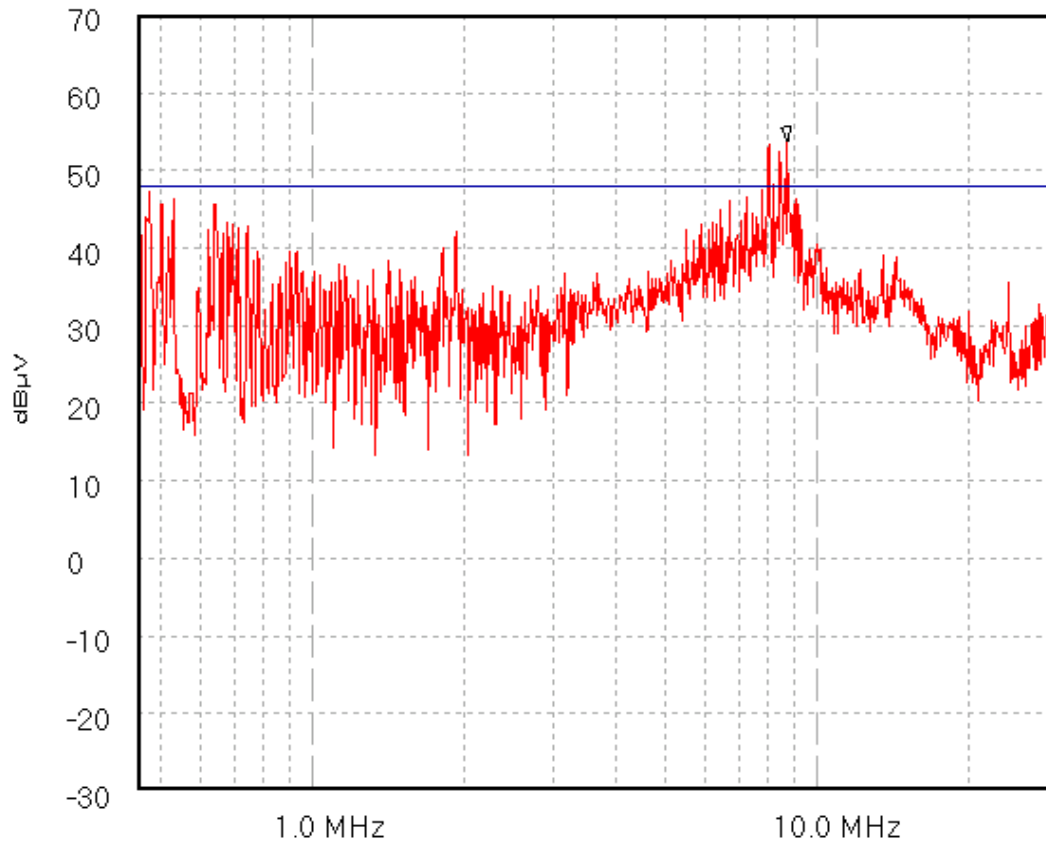
GPH\44012JD09\029

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL-510/642 RS232 Adaptor. Laptop power lead.

Operating Condition:- Bottom Channel.

44012JD09 029



Trace 1  
15\_107\_Class\_B\_QP

Start 450.0 kHz; Stop 30.0 MHz - Log Scale

Ref 70 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 2.2 S

Peak 8.752 MHz, 53.75 dBμV

Limit/Mask: 15\_107\_Class\_B\_QP; ; Limit Test Failed

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## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

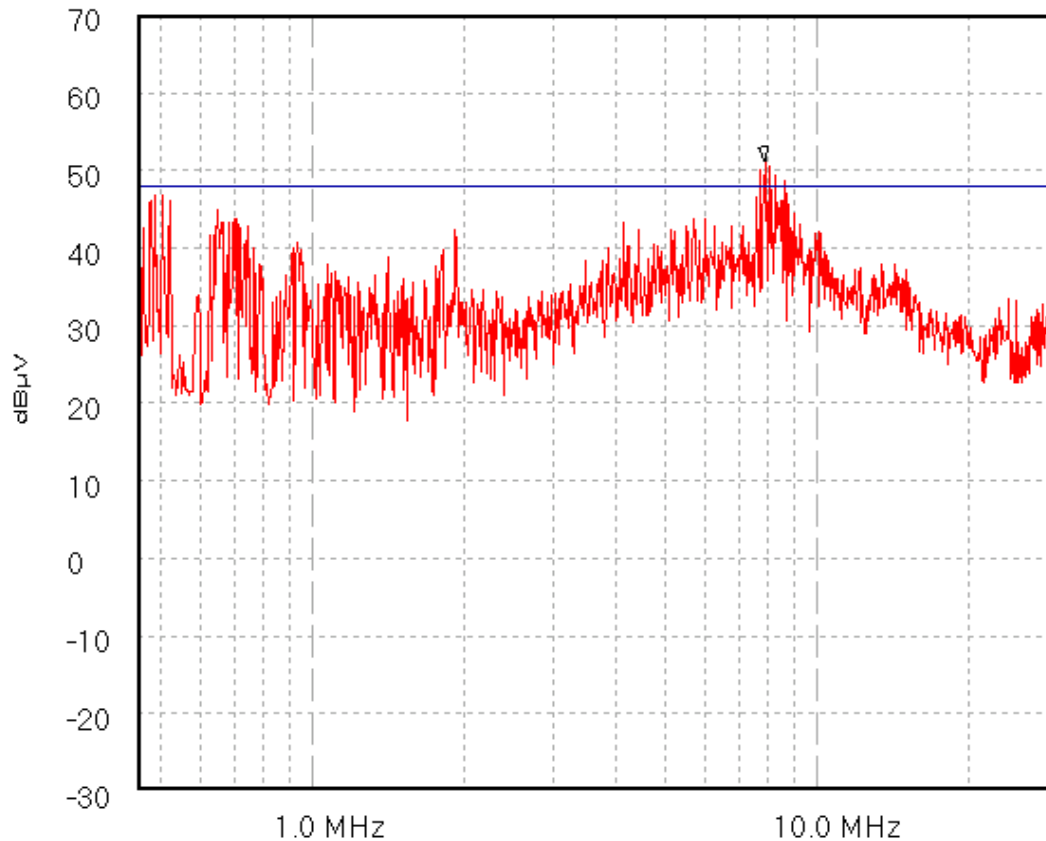
GPH\44012JD09\030

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL-510/642 RS232 Adaptor. Laptop power lead.

Operating Condition:- Middle Channel.

44012JD09 030



Trace 1  
15\_107\_Class\_B\_QP

Start 450.0 kHz; Stop 30.0 MHz - Log Scale

Ref 70 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 2.2 S

Peak 7.898 MHz, 51.04 dBμV

Limit/Mask: 15\_107\_Class\_B\_QP; ; Limit Test Failed

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## Operations Department

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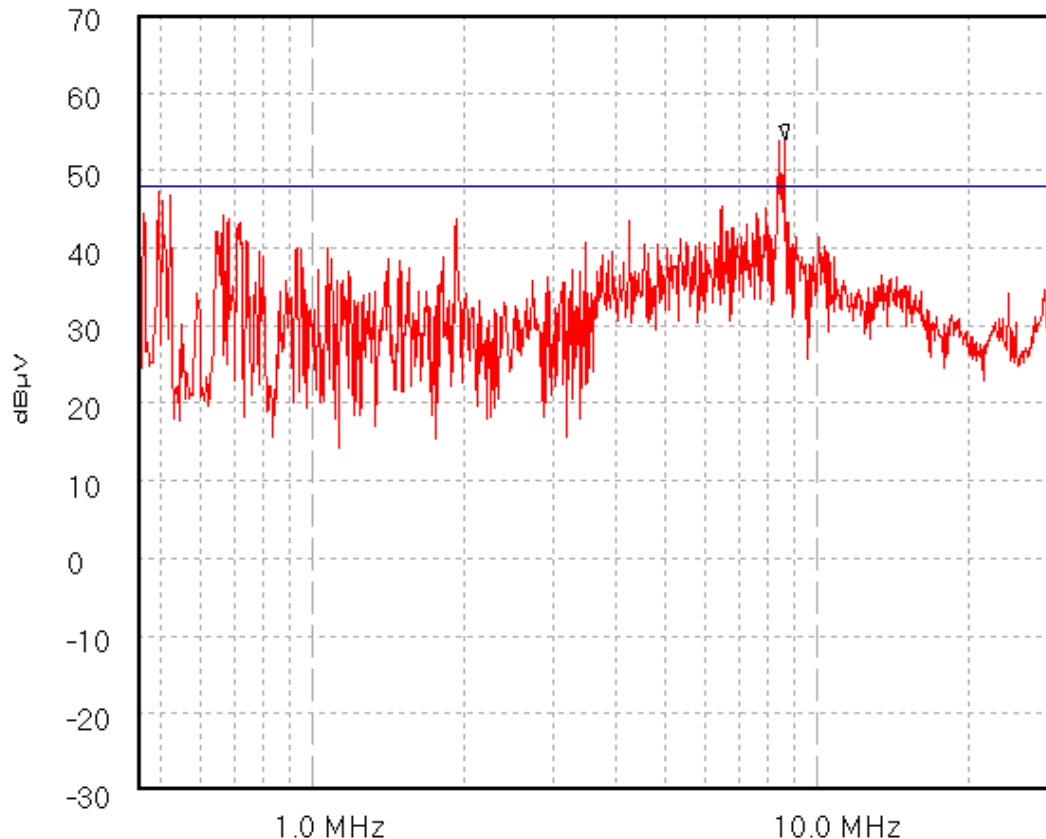
GPH\44012JD09\031

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL-510/642 RS232 Adaptor. Laptop power lead.

Operating Condition:- Top Channel.

44012JD09 031



Trace 1  
15\_107\_Class\_B\_QP

Start 450.0 kHz; Stop 30.0 MHz - Log Scale

Ref 70 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 2.2 S

Peak 8.63 MHz, 53.96 dBμV

Limit/Mask: 15\_107\_Class\_B\_QP; ; Limit Test Failed

17/10/2002 09:55:23

## Operations Department

Test Of: Brain Boxes Ltd.  
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To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

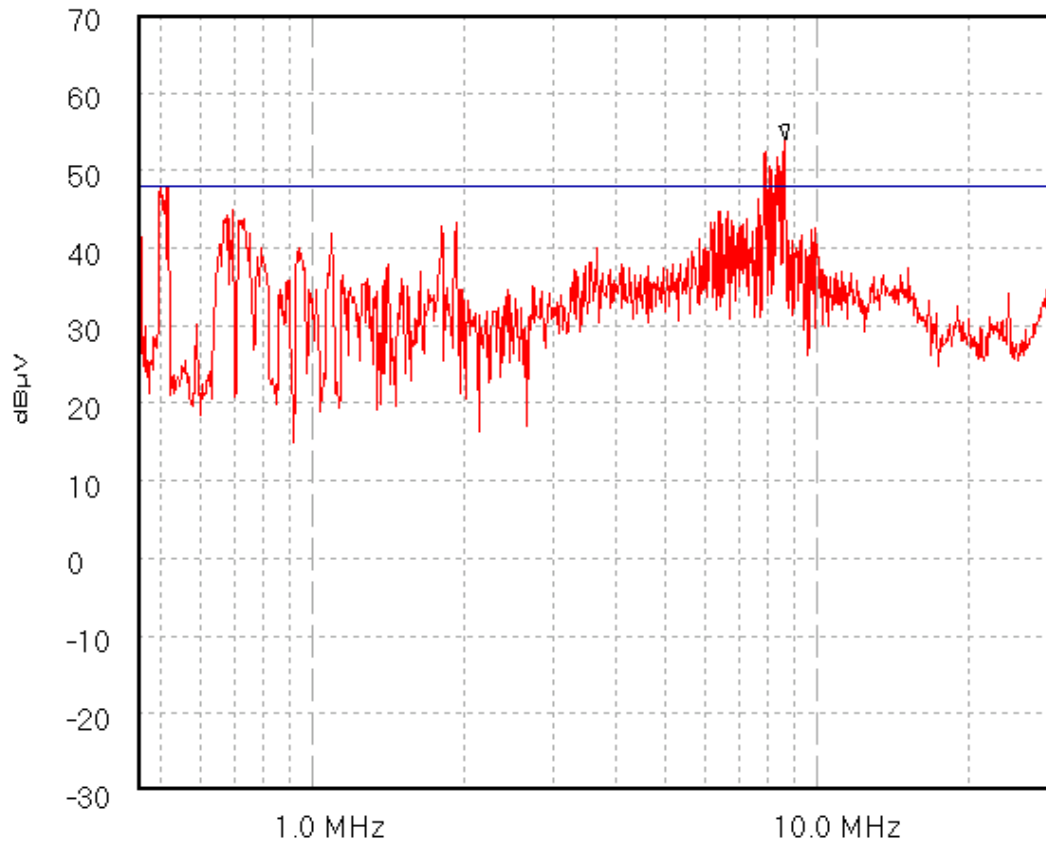
GPH\44012JD09\032

AC Conducted Emissions. FCC Part 15.

Test for Brain Boxes of BL-510/642 RS232 Adaptor. Laptop power lead.

Operating Condition:- Hopping Mode.

44012JD09 032



Trace 1  
15\_107\_Class\_B\_QP

Start 450.0 kHz; Stop 30.0 MHz - Log Scale

Ref 70 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 9.0 kHz; VBW 10.0 kHz; Att 10 dB; Swp 2.2 S

Peak 8.671 MHz, 54.01 dBμV

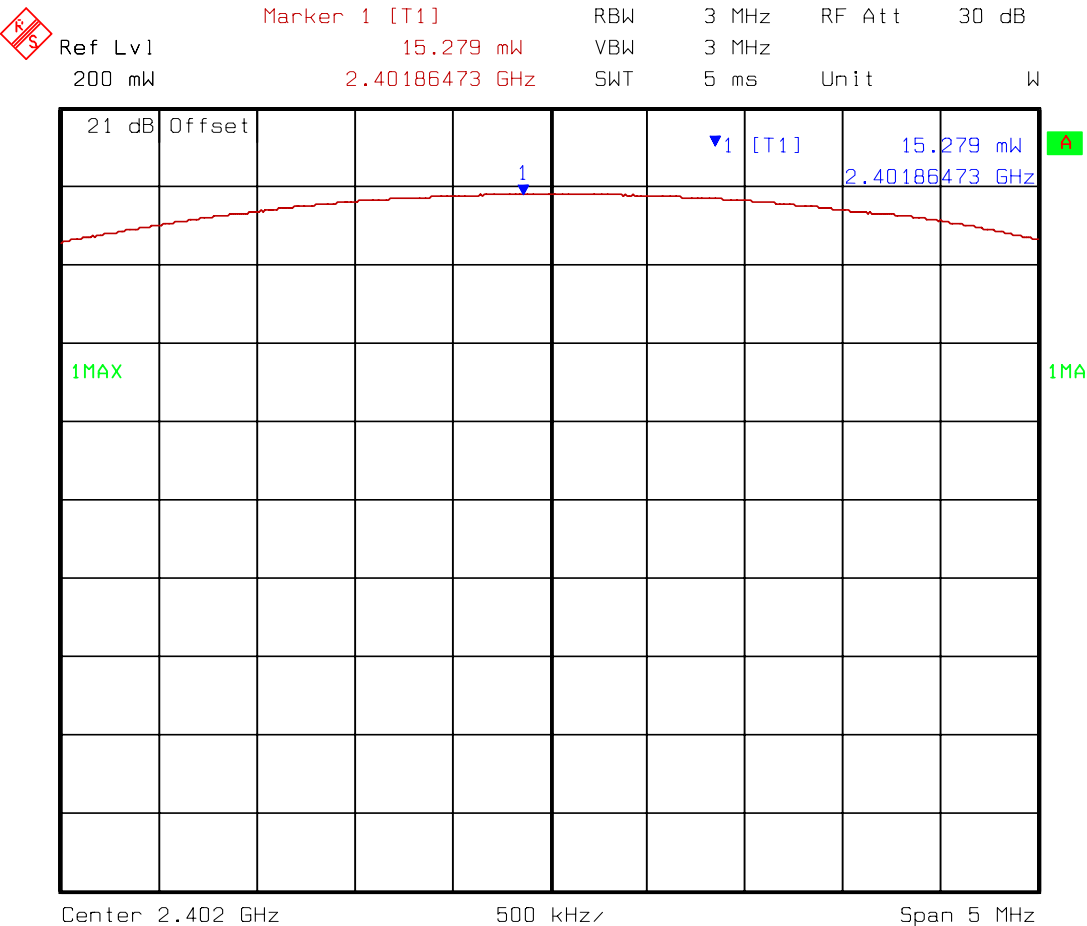
Limit/Mask: 15\_107\_Class\_B\_QP; ; Limit Test Failed

17/10/2002 09:56:38

Operations Department

Test Of: Brain Boxes Ltd.  
BL-510  
To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE001

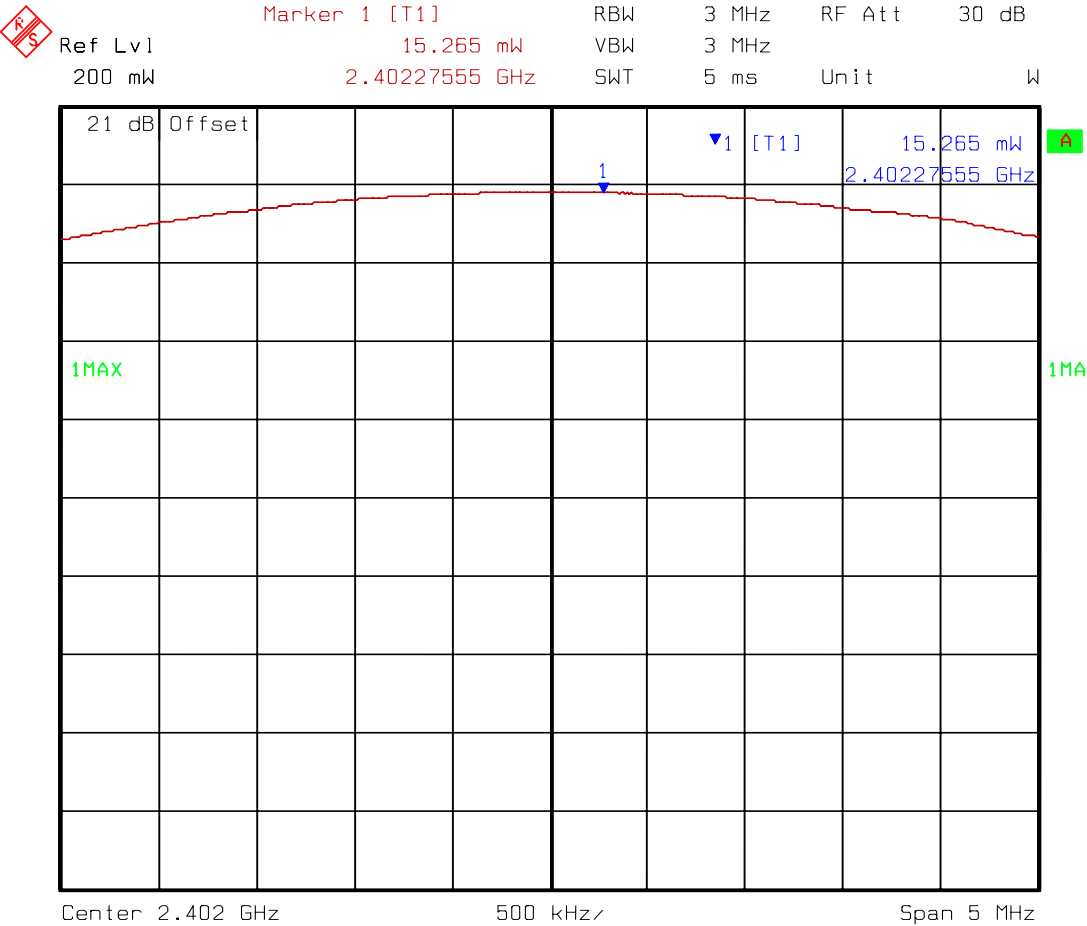


Title: Peak Output Power - Bottom Channel, 93.5Vac  
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247  
Date: 23.OCT.2002 10:50:40

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE002

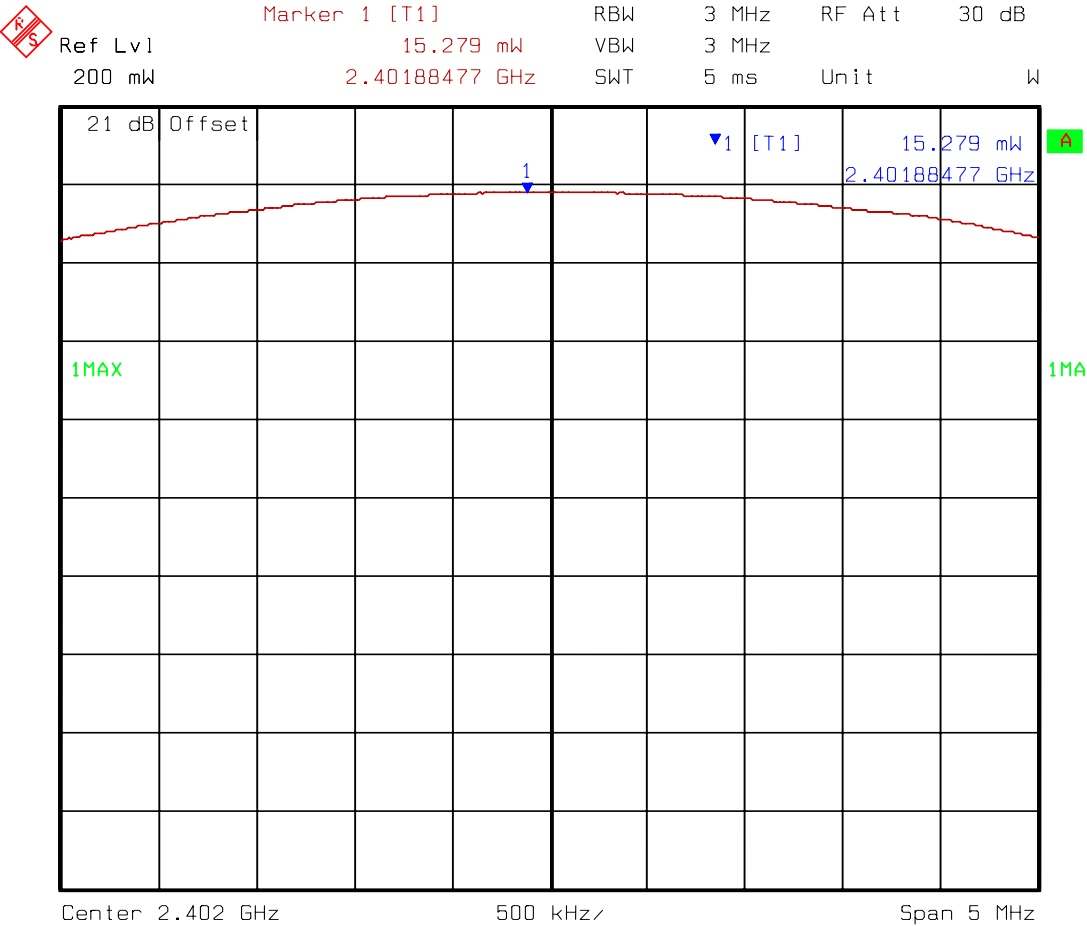


Title: Peak Output Power - Bottom Channel, 110Vac  
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247  
Date: 23.OCT.2002 10:47:12

Operations Department

Test Of: Brain Boxes Ltd.  
BL-510  
To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE003



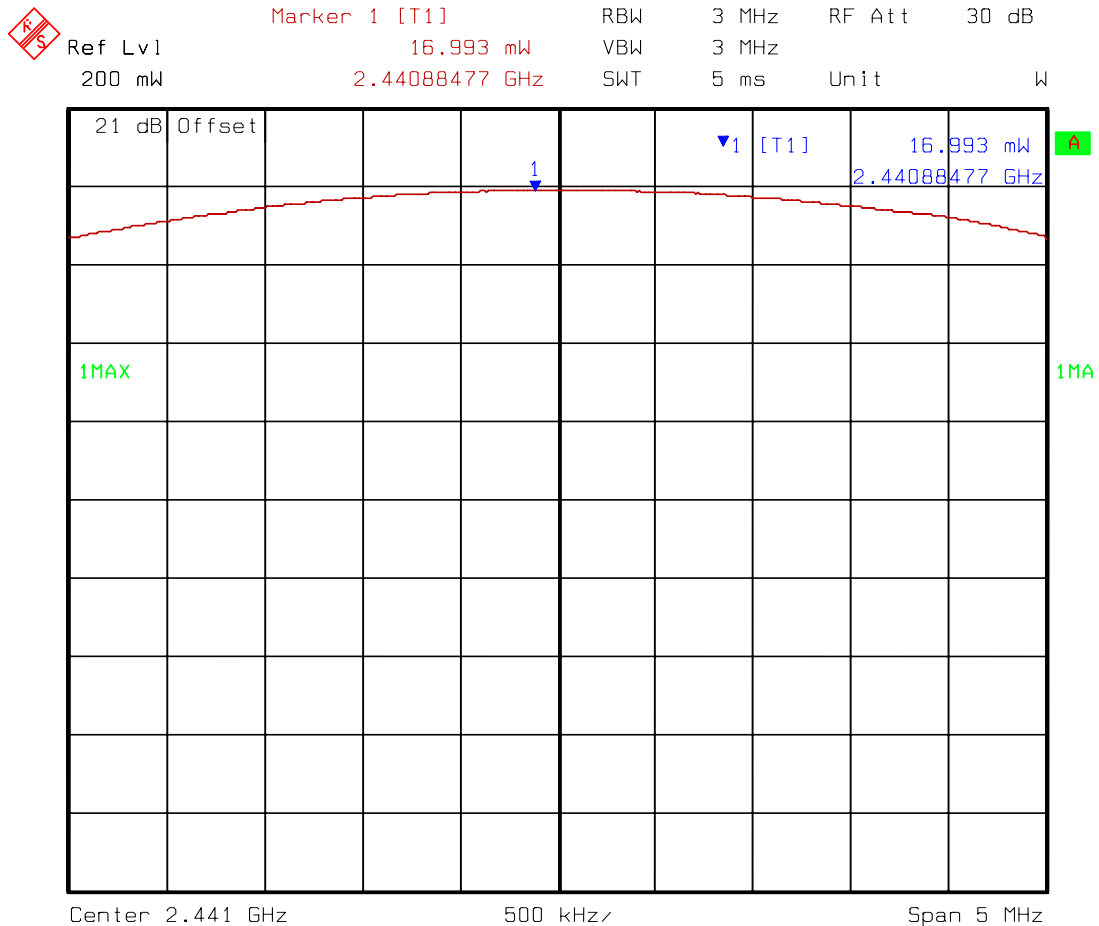
Title: Peak Output Power - Bottom Channel, 126.5Vac  
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247  
Date: 23.OCT.2002 11:03:30

## Operations Department

**Test Of: Brain Boxes Ltd.  
BL-510**

**To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247**

**GPH\44012JD09\CE004**

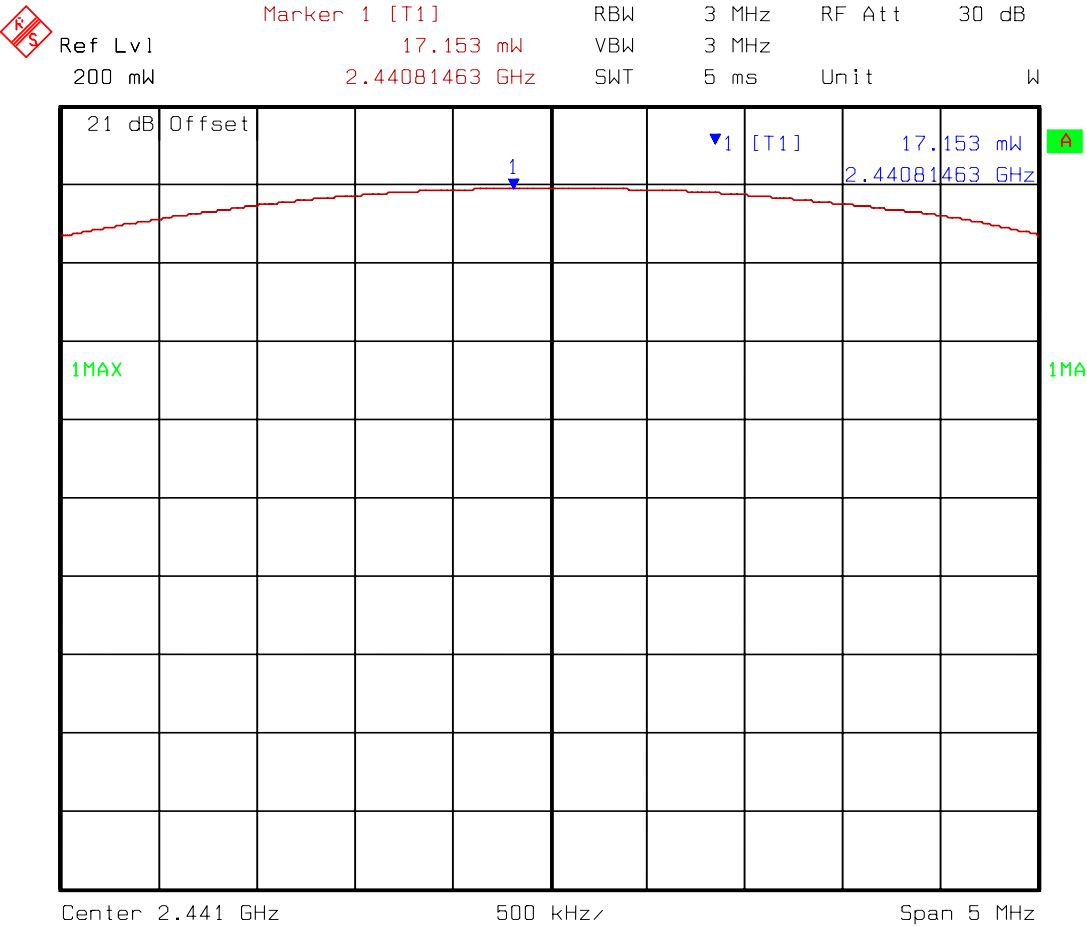


Title: Peak Output Power - Middle Channel, 93.5Vac  
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247  
Date: 23.OCT.2002 10:49:45

Operations Department

Test Of: Brain Boxes Ltd.  
BL-510  
To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE005

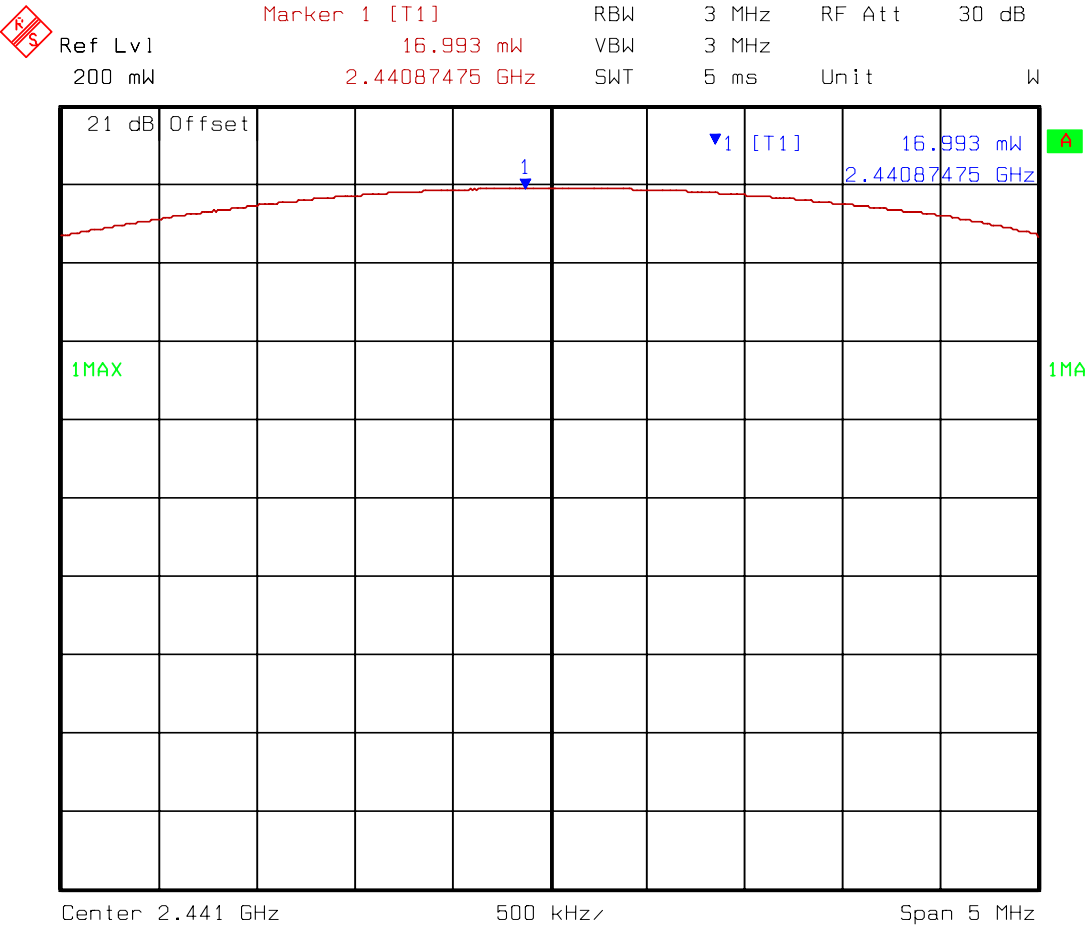


Title: Peak Output Power - Middle Channel, 110Vac  
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247  
Date: 23.OCT.2002 10:48:35

Operations Department

Test Of: Brain Boxes Ltd.  
BL-510  
To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE006

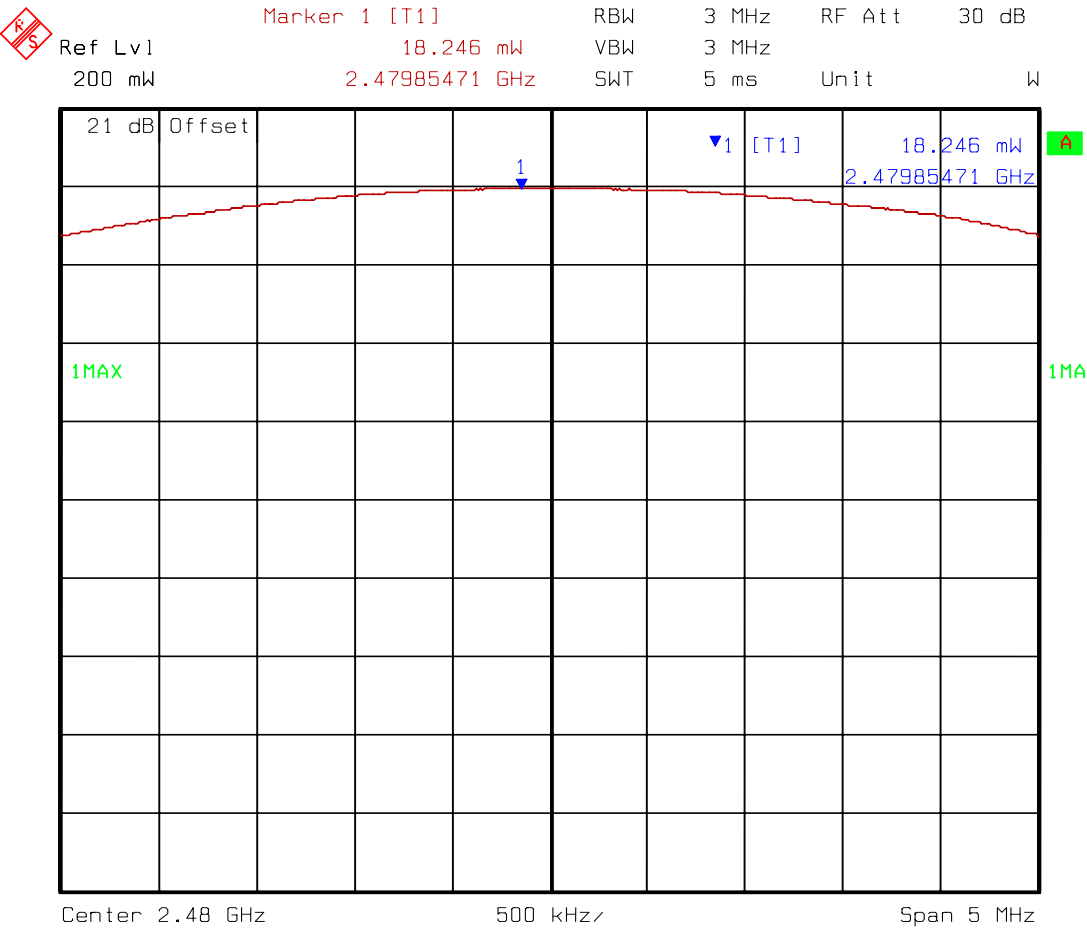


Title: Peak Output Power - Middle Channel, 126.5Vac  
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247  
Date: 23.OCT.2002 11:02:34

Operations Department

Test Of: Brain Boxes Ltd.  
BL-510  
To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE007



Title: Peak Output Power - Top Channel, 93.5Vac  
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247  
Date: 23.OCT.2002 10:51:35

Operations Department

Test Of: Brain Boxes Ltd.

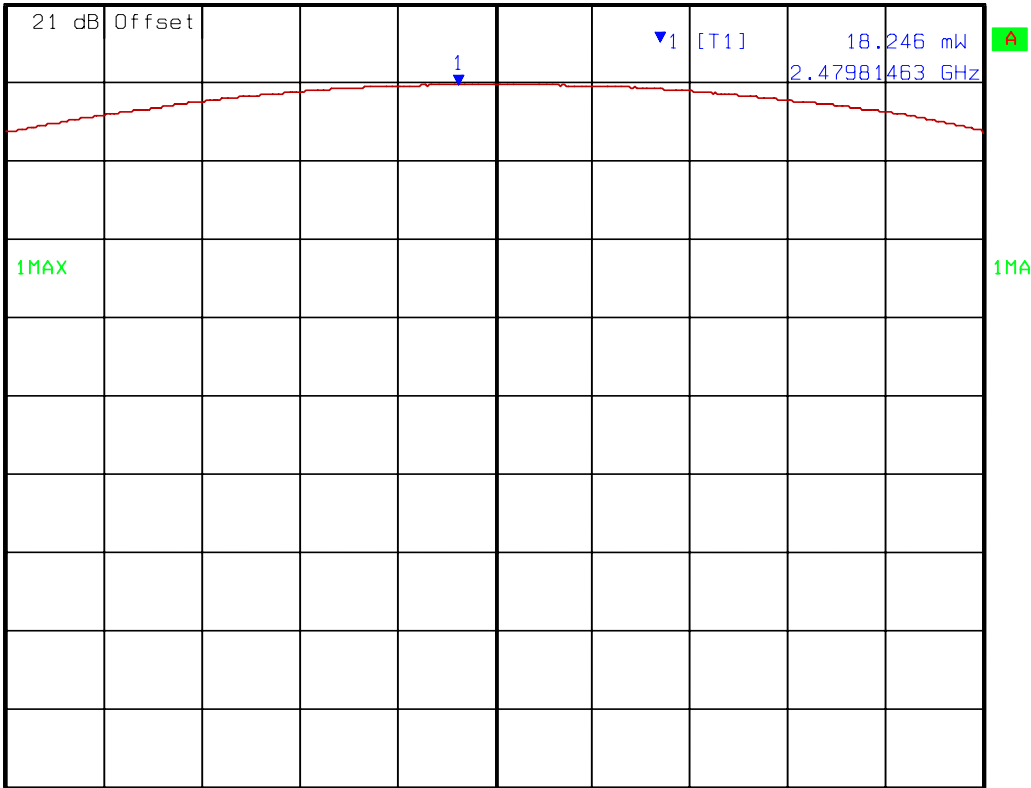
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE008



Marker 1 [T1] RBW 3 MHz RF Att 30 dB  
Ref Lvl 18.246 mW VBW 3 MHz  
200 mW 2.47981463 GHz SWT 5 ms Unit W



Center 2.48 GHz 500 kHz Span 5 MHz

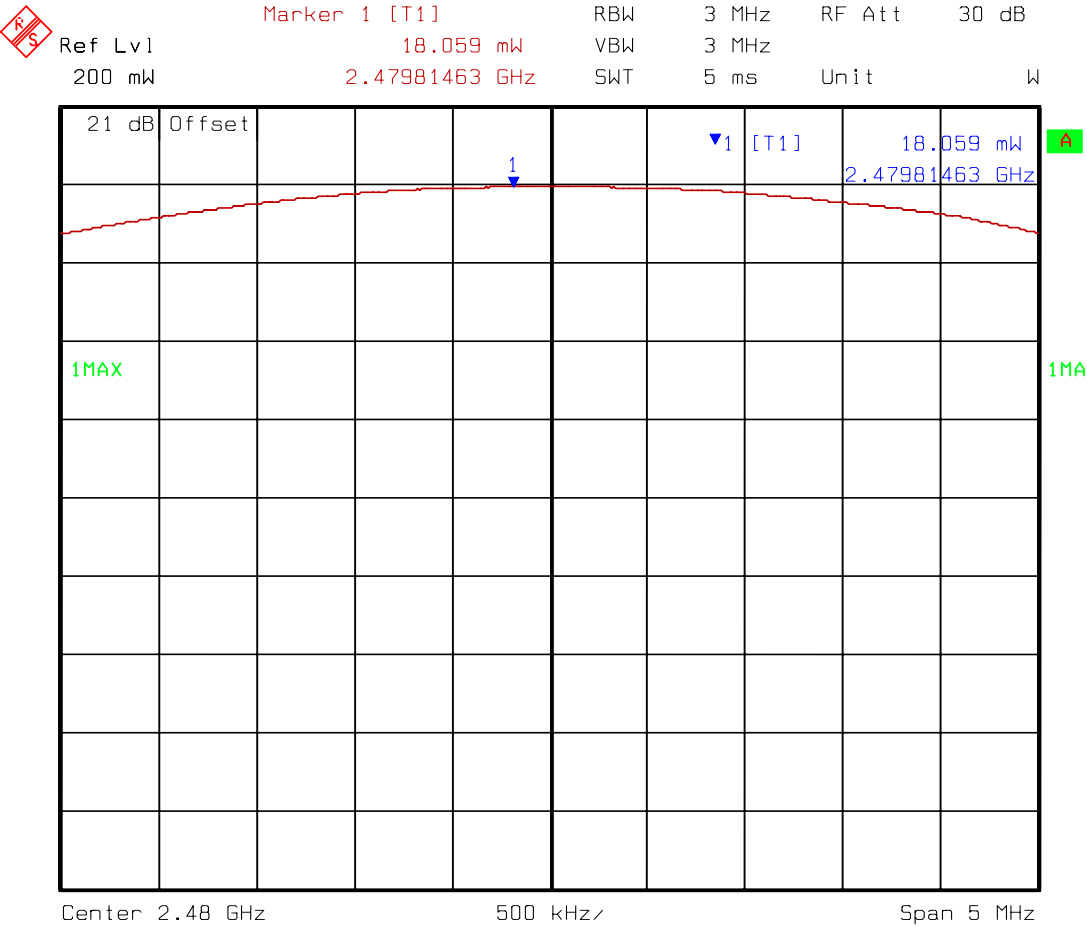
Title: Peak Output Power - Top Channel, 110Vac  
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247  
Date: 23.OCT.2002 10:52:41

Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE009



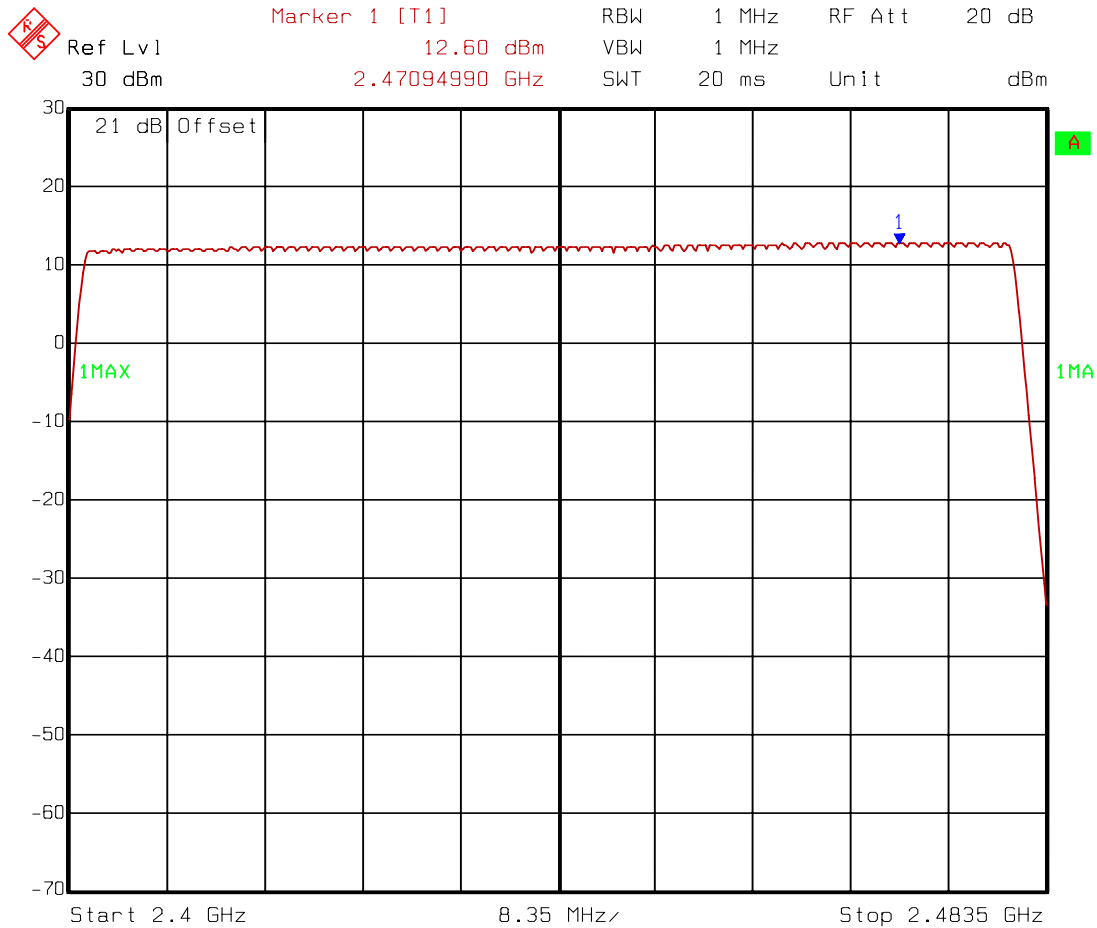
Title: Peak Output Power - Top Channel, 126.5Vac  
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247  
Date: 23.OCT.2002 10:53:43

## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE010



Title: Number of Hopping Frequencies - Hopping All Channels

Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247

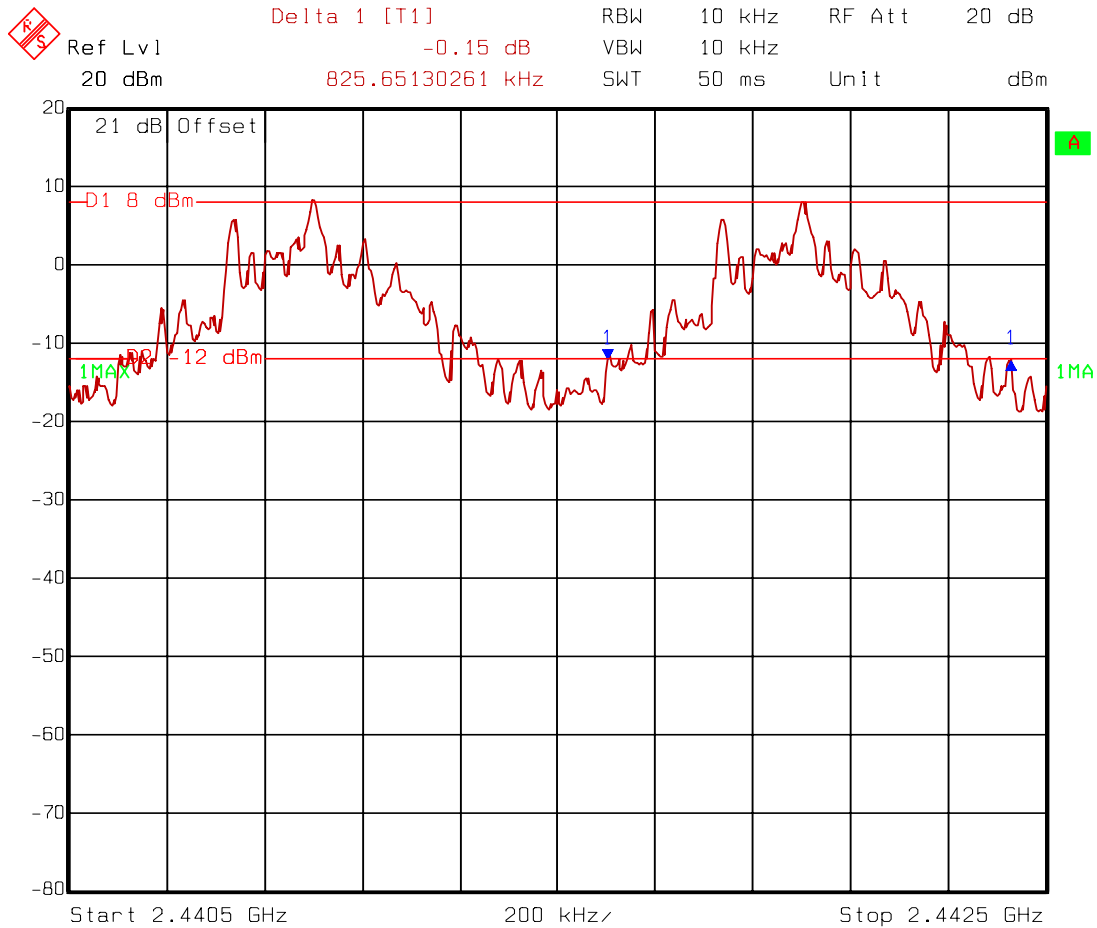
Date: 23.OCT.2002 13:48:32

## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE011



Title: 20dB Bandwidth - Hopping All Channels

Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247

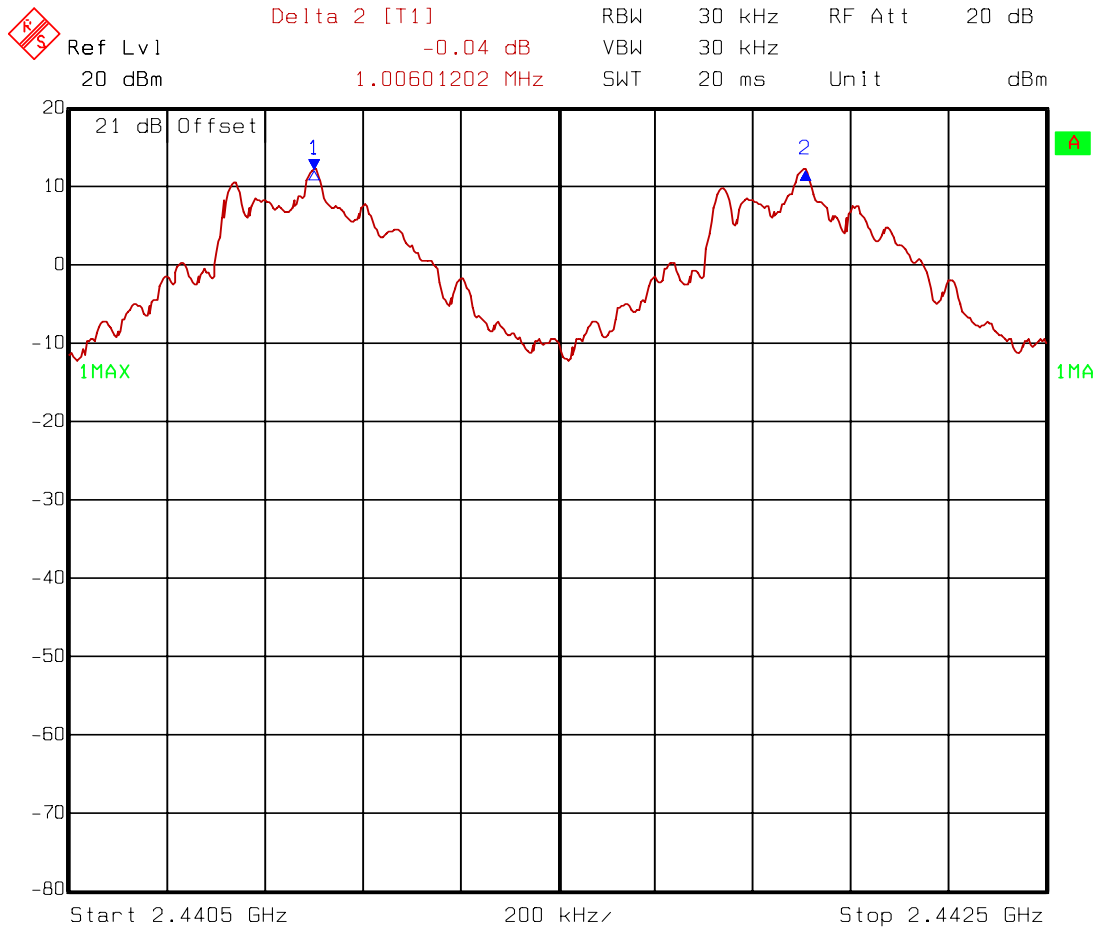
Date: 23.OCT.2002 14:53:49

## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE012



Title: Carrier Frequency Separation - Hopping All Channels

Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247

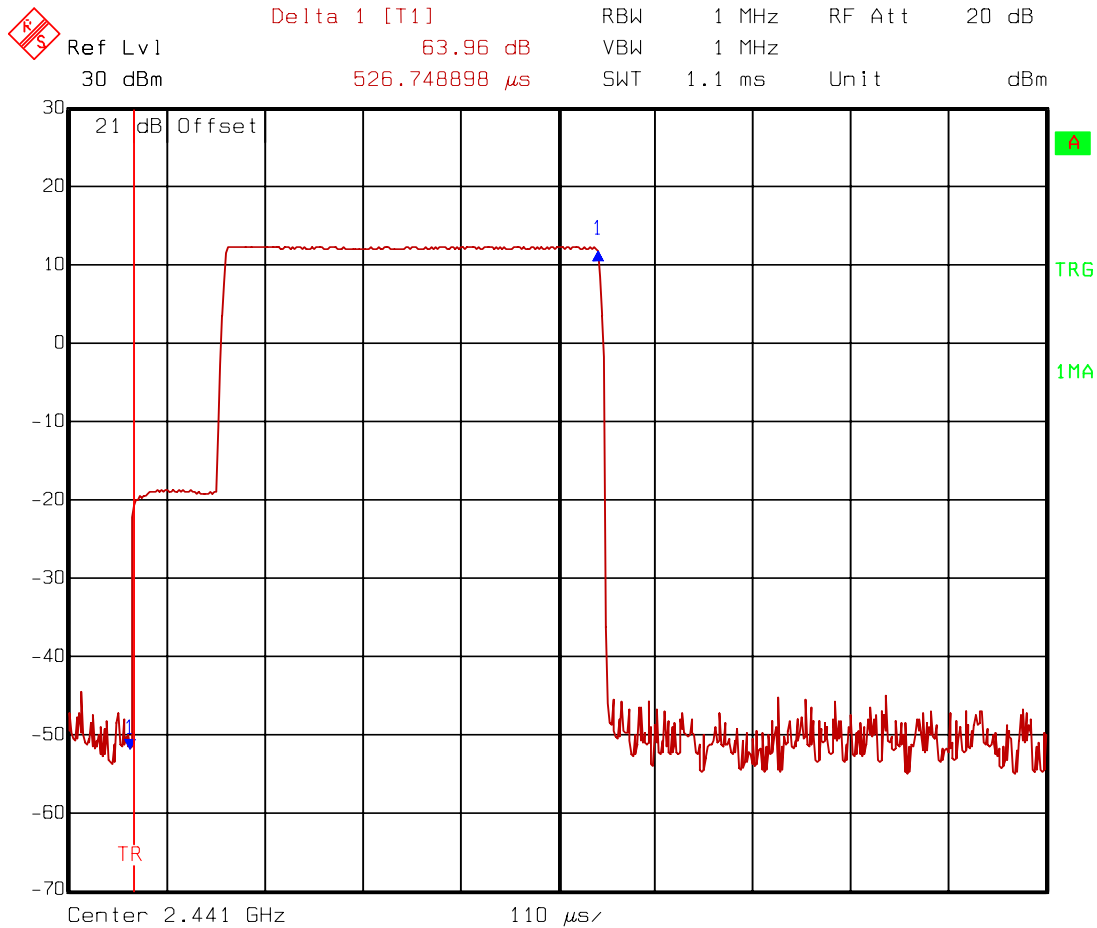
Date: 23.OCT.2002 11:27:52

## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE013



Title: Time of Occupancy (Dwell Time) - Hopping All Channels

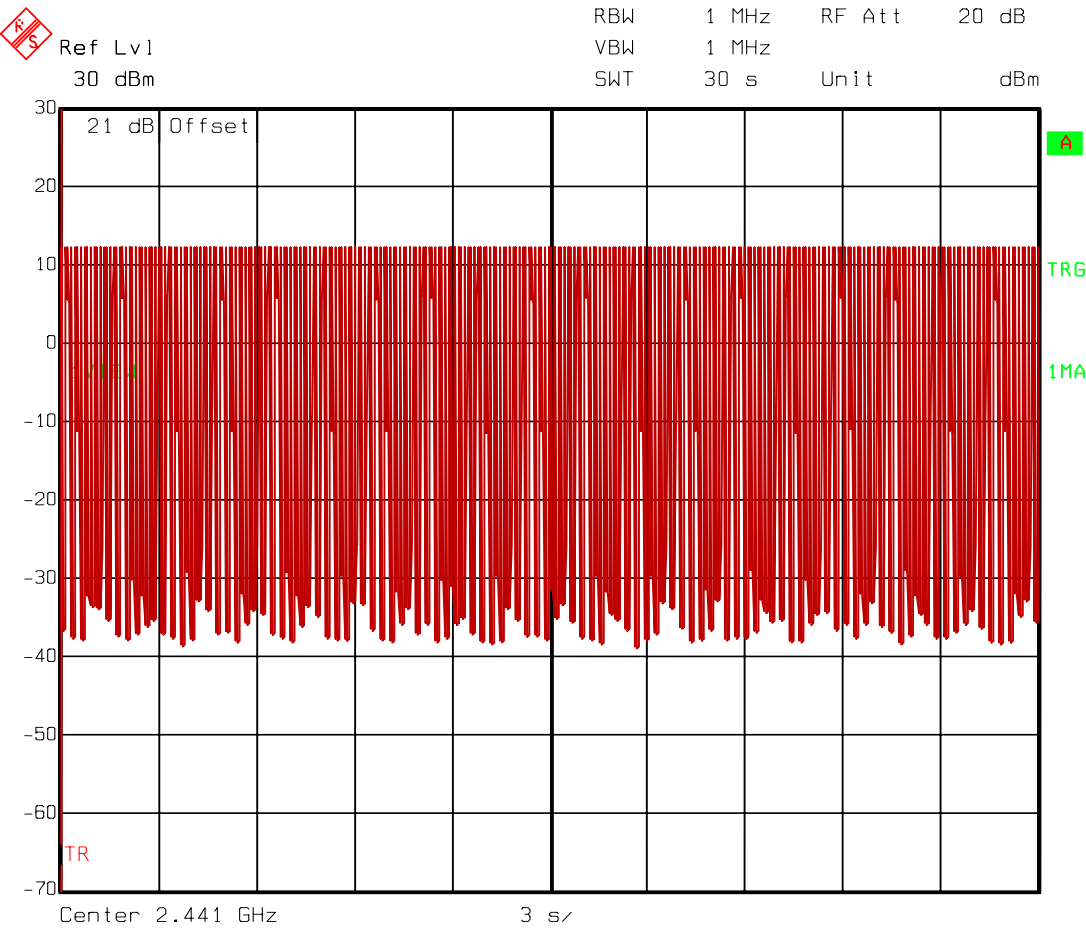
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247

Date: 23.OCT.2002 13:59:03

Operations Department

Test Of: Brain Boxes Ltd.  
BL-510  
To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE014



Title: Time of Occupancy 30 Second Period - Hopping All Channels  
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247  
Date: 23.OCT.2002 14:14:26

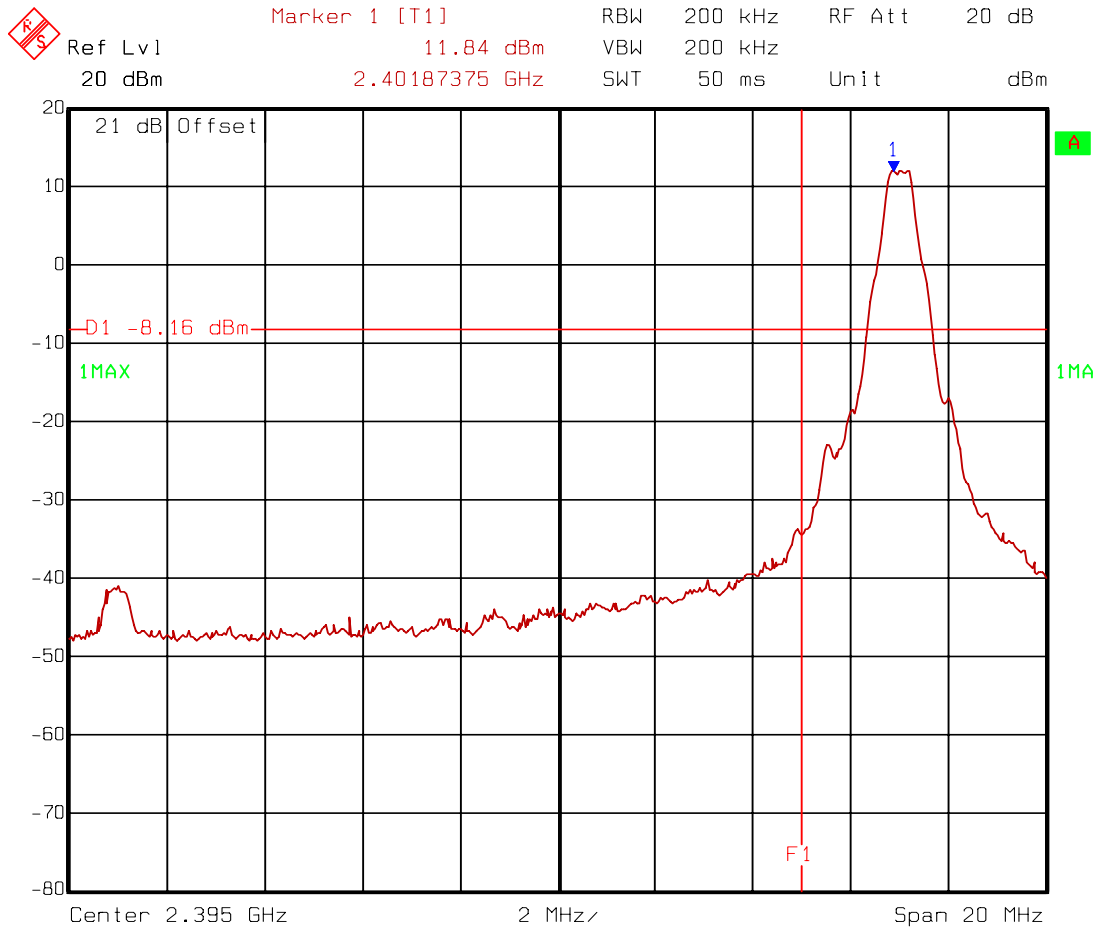
## Operations Department

Test Of: Brain Boxes Ltd.

BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE015



Title: Band Edge - Bottom Channel

Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247

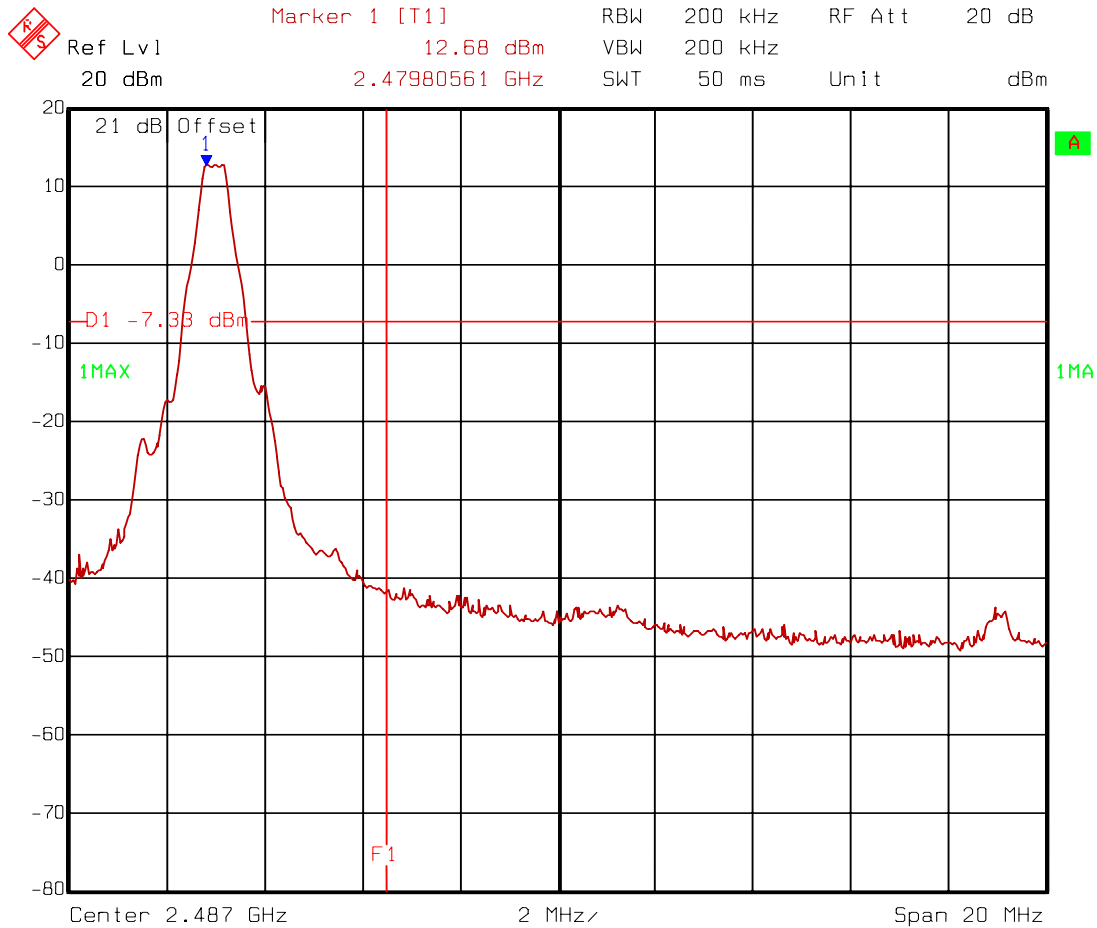
Date: 23.OCT.2002 15:44:49

## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\CE016



Title: Band Edge - Top Channel

Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247

Date: 23.OCT.2002 15:49:59

## Operations Department

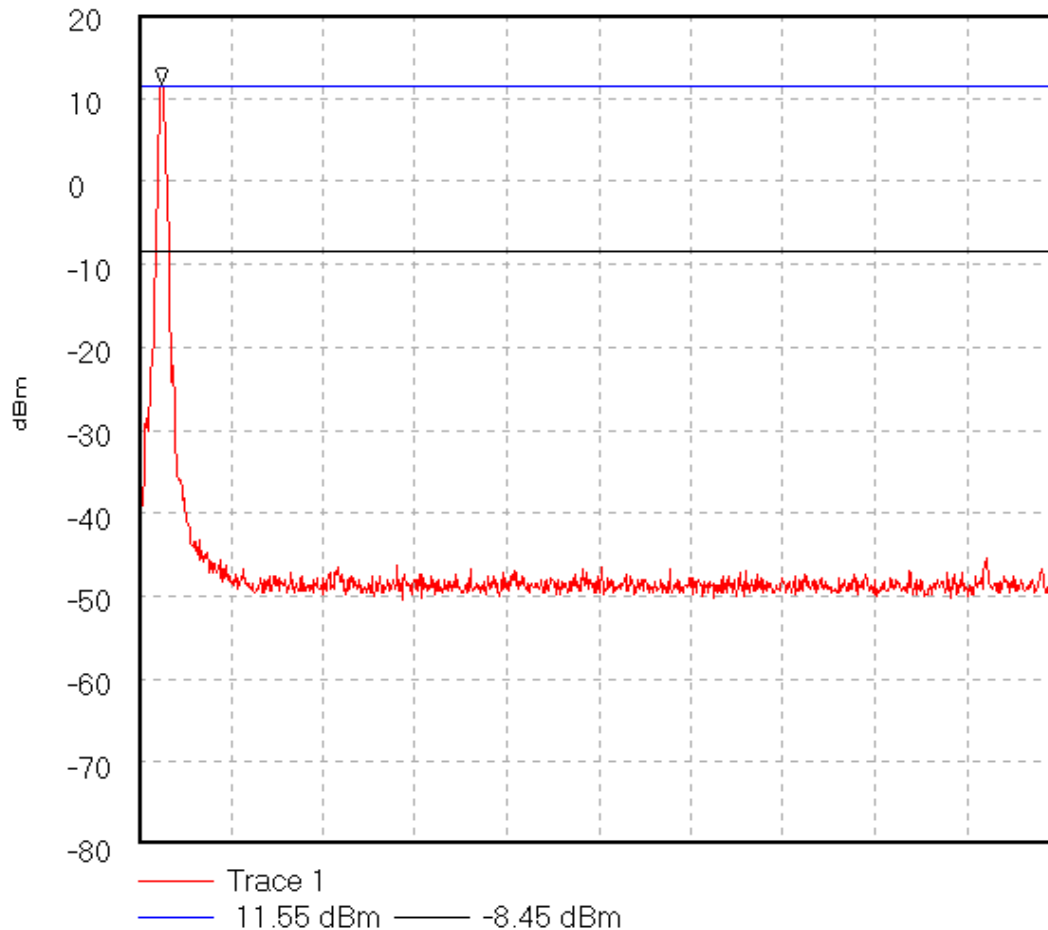
Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\001

Testing for Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Bottom Channel

44012JD09a 001



Start 2.4 GHz; Stop 2.4835 GHz

Ref 20 dBm; Ref Offset 21.0 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 10 dB; Swp 40.0 mS

Peak 2.402041 GHz, 11.73 dBm

Display Line: 11.55 dBm; -8.45 dBm; ; Limit Test Passed

04/01/80 00:12:32

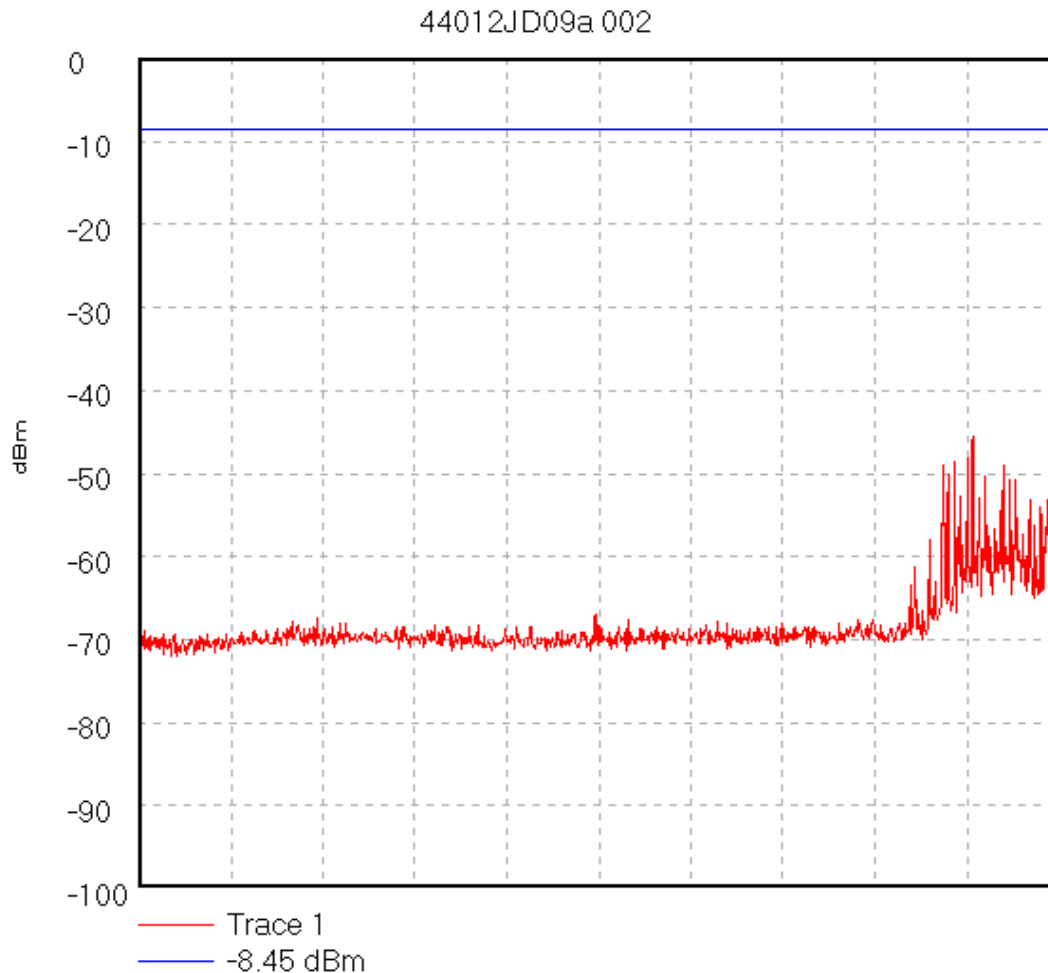
## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\002

Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Bottom Channel



Start 30.0 MHz; Stop 2.4 GHz

Ref 0 dBm; Ref Offset 21.0 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 720.0 mS

Peak 2.389467 GHz, -45.17 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 00:32:58

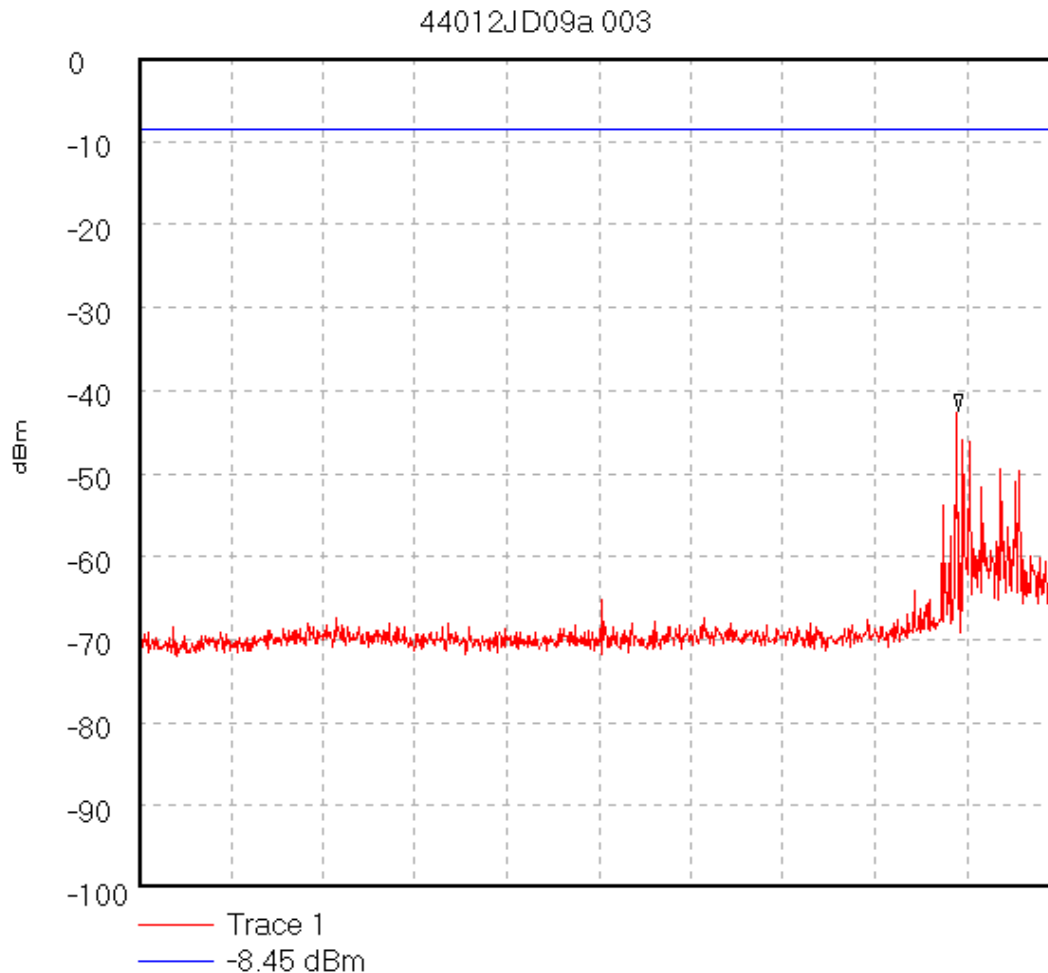
## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\003

Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Middle Channel



Start 30.0 MHz; Stop 2.4 GHz

Ref 0 dBm; Ref Offset 21.0 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 720.0 mS

Peak 2.1393 GHz, -42.58 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 00:34:26

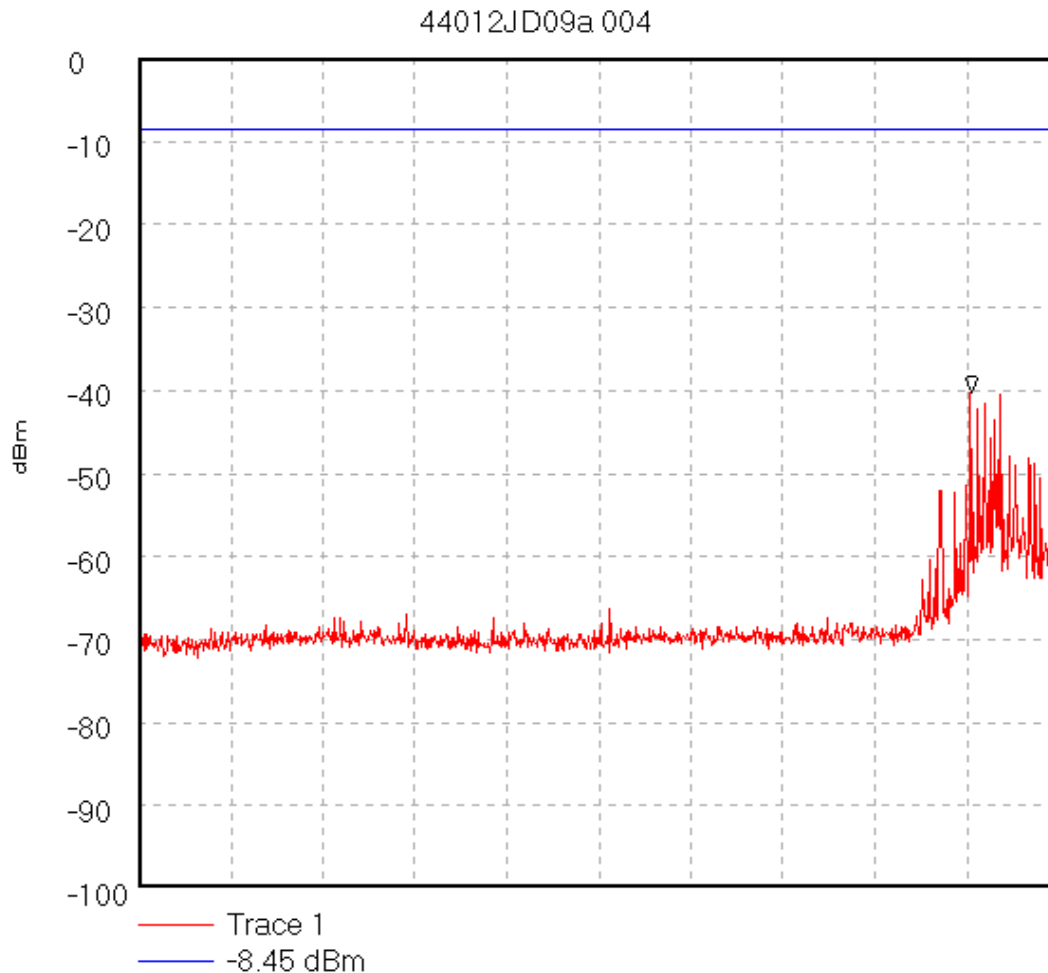
## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\004

Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Top Channel



Start 30.0 MHz; Stop 2.4 GHz

Ref 0 dBm; Ref Offset 21.0 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 720.0 mS

Peak 2.173533 GHz, -40.24 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 00:35:56

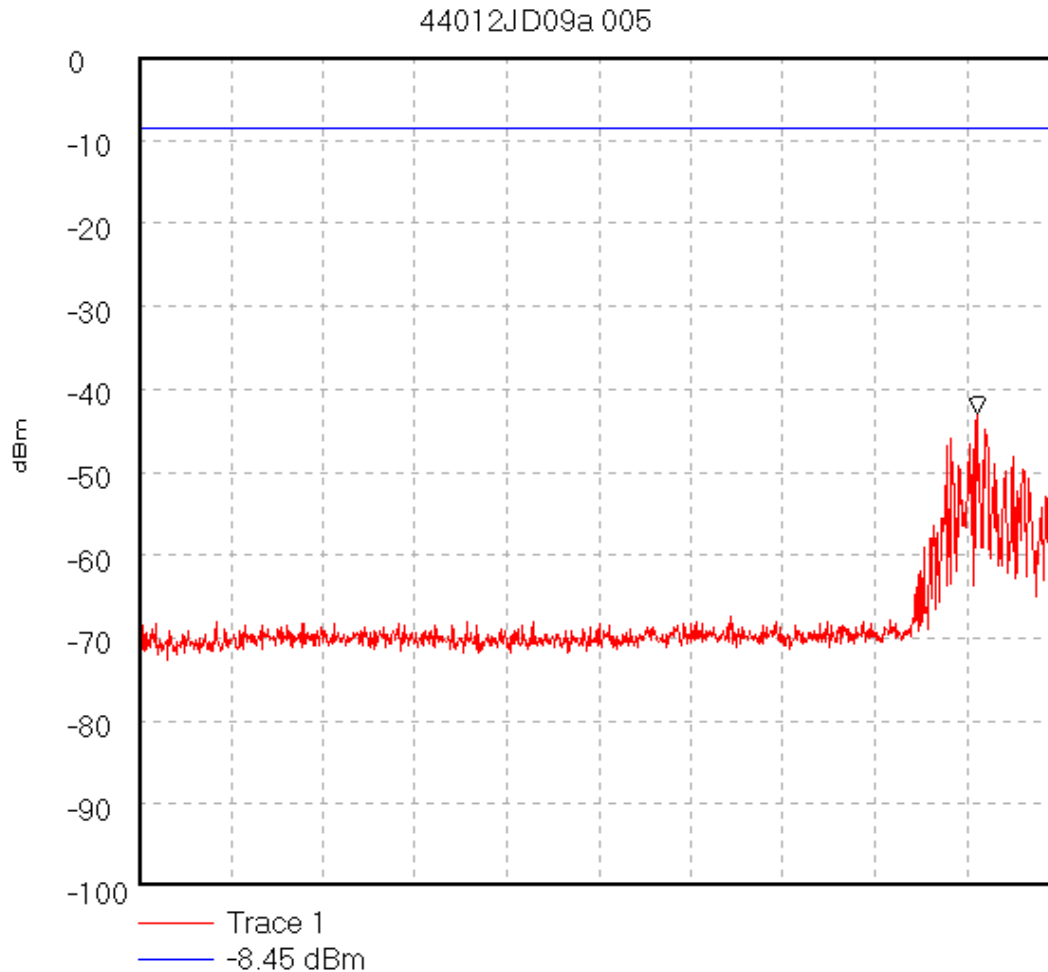
## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\005

Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Hopping All Channels



Start 30.0 MHz; Stop 2.4 GHz

Ref 0 dBm; Ref Offset 21.0 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 720.0 mS

Peak 2.191967 GHz, -42.96 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 00:37:02

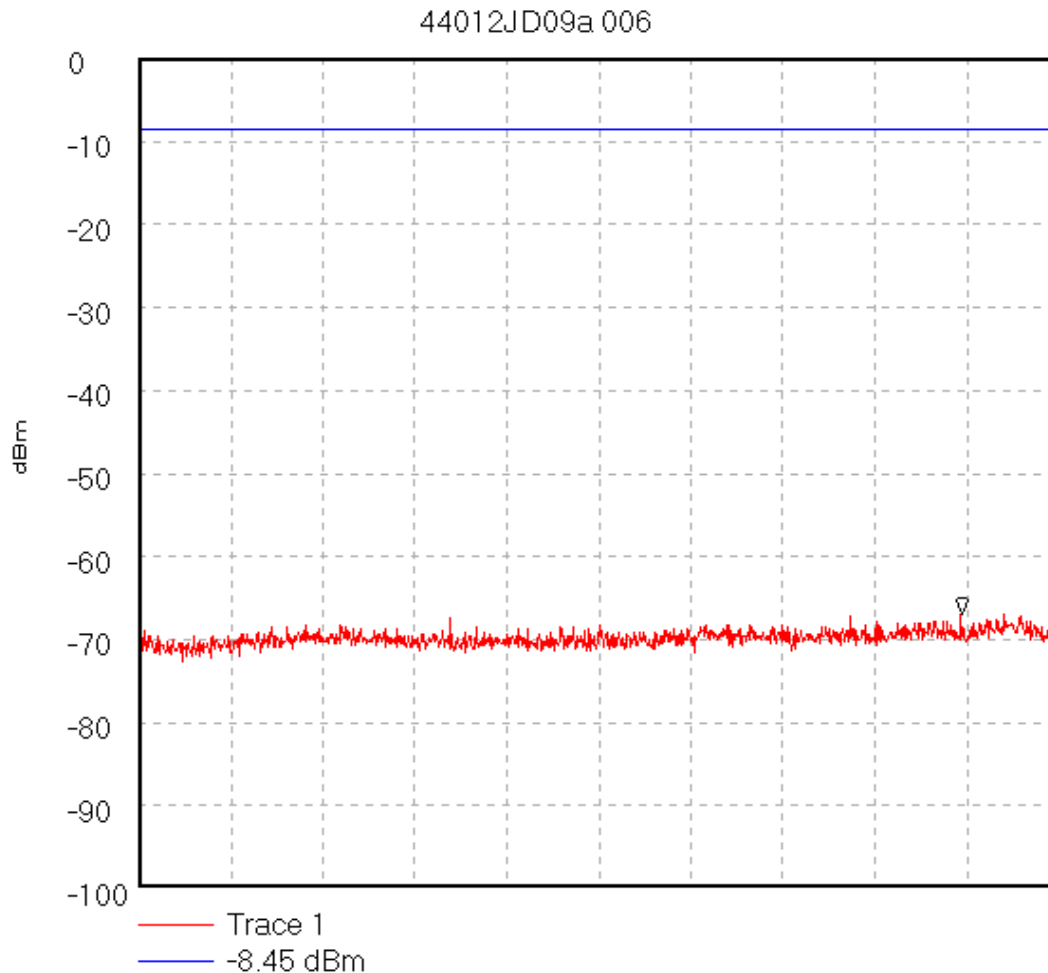
## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\006

Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Receive Mode



Start 30.0 MHz; Stop 2.4 GHz

Ref 0 dBm; Ref Offset 21.0 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 720.0 mS

Peak 2.149833 GHz, -66.96 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 00:39:26

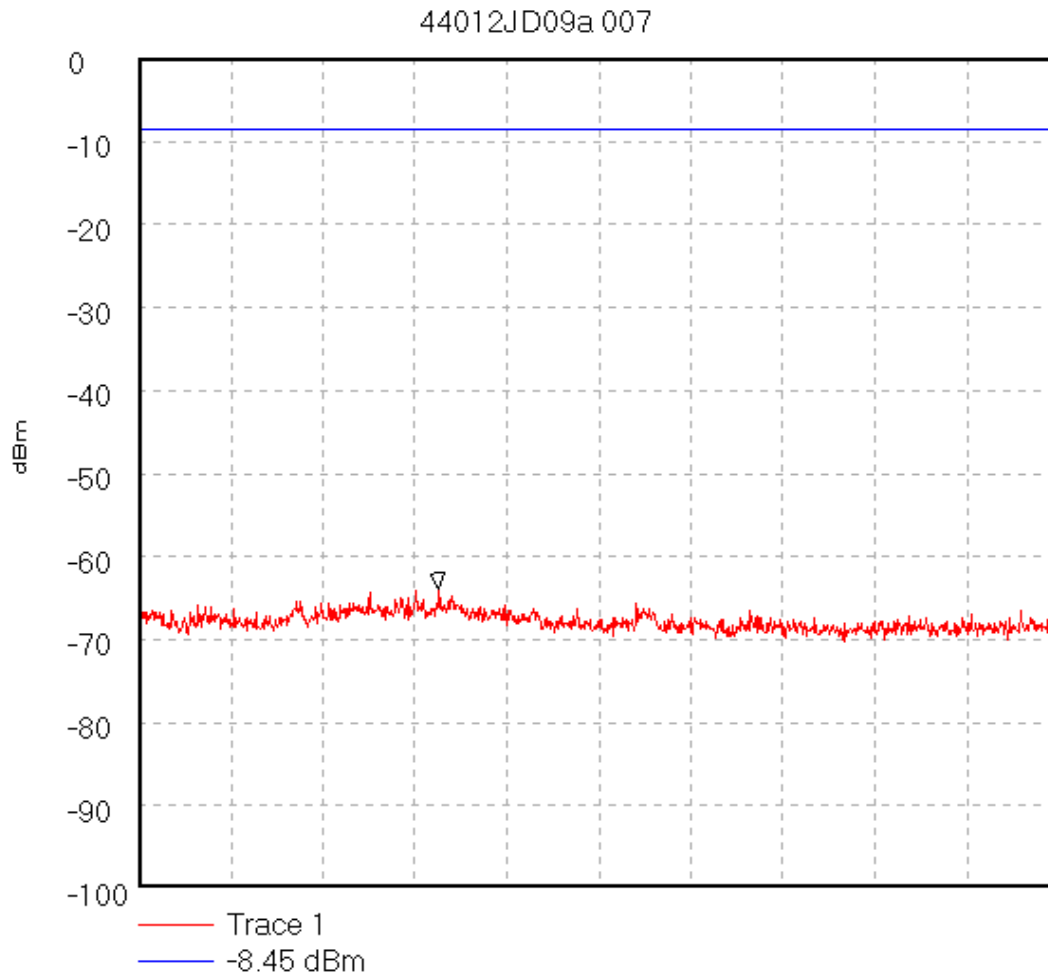
## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\007

Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Receive Mode



Start 2.4835 GHz; Stop 12.5 GHz

Ref 0 dBm; Ref Offset 22.1 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 3.2 S

Peak 5.755557 GHz, -64.01 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 00:49:00

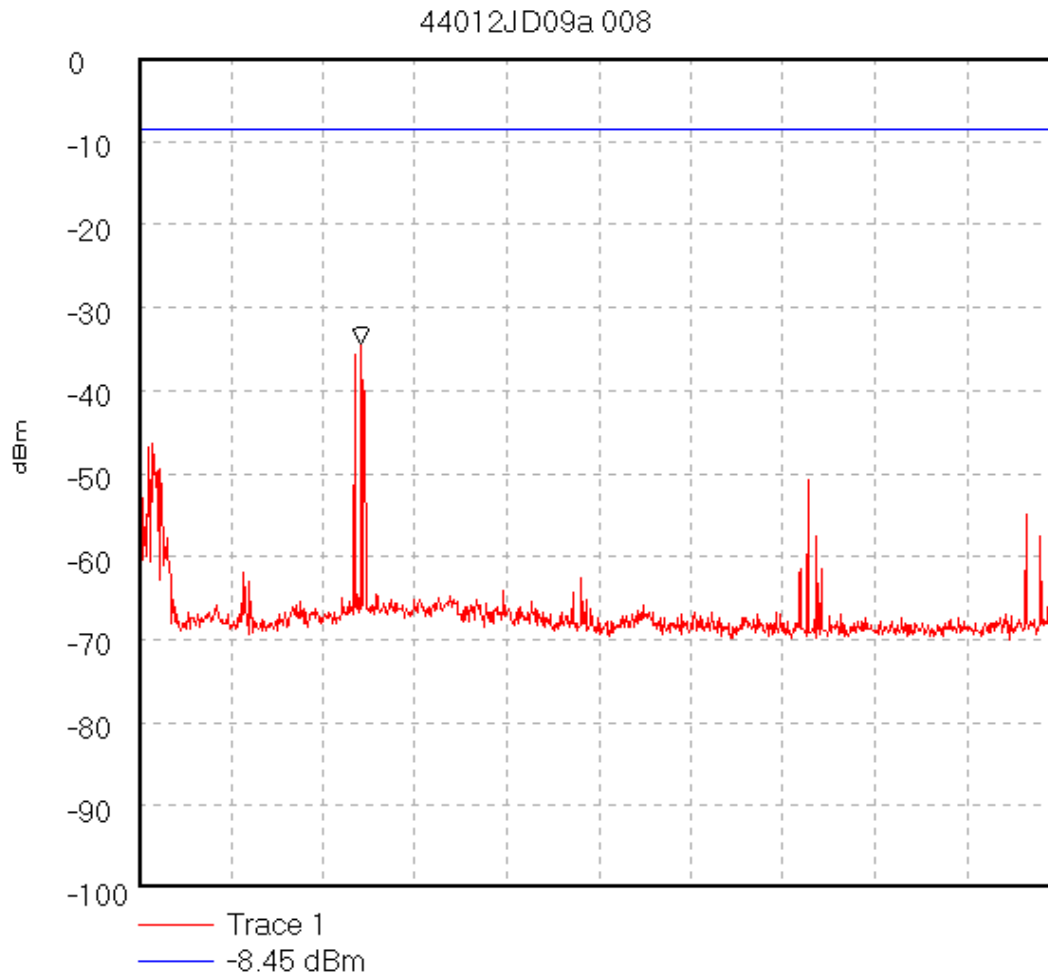
## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\008

Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Hopping All Channels



Start 2.4835 GHz; Stop 12.5 GHz

Ref 0 dBm; Ref Offset 22.1 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 3.2 S

Peak 4.909719 GHz, -34.33 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 00:51:59

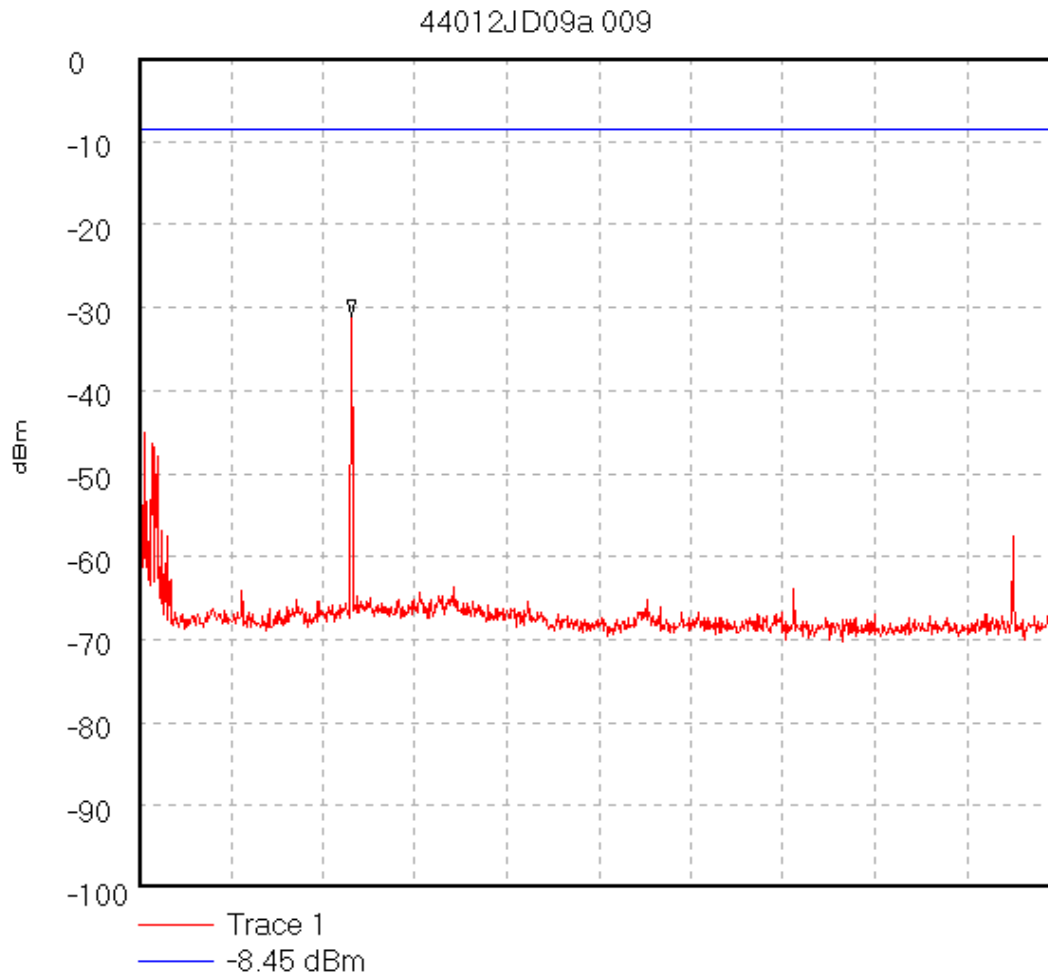
## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\009

Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Bottom Channel



Start 2.4835 GHz; Stop 12.5 GHz

Ref 0 dBm; Ref Offset 22.1 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 3.2 S

Peak 4.798424 GHz, -31.18 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

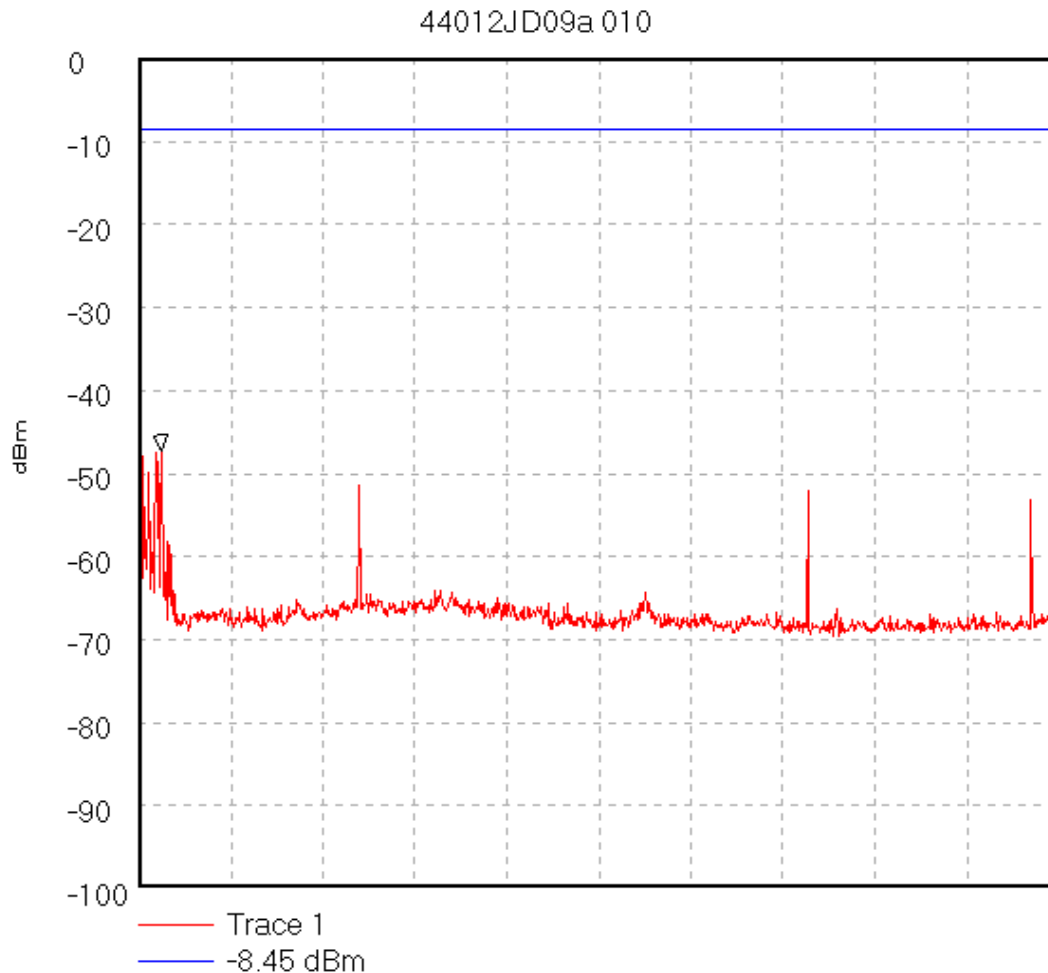
04/01/80 00:53:31

## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\010  
Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Middle Channel



Start 2.4835 GHz; Stop 12.5 GHz

Ref 0 dBm; Ref Offset 22.1 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 3.2 S

Peak 2.739477 GHz, -47.35 dBm

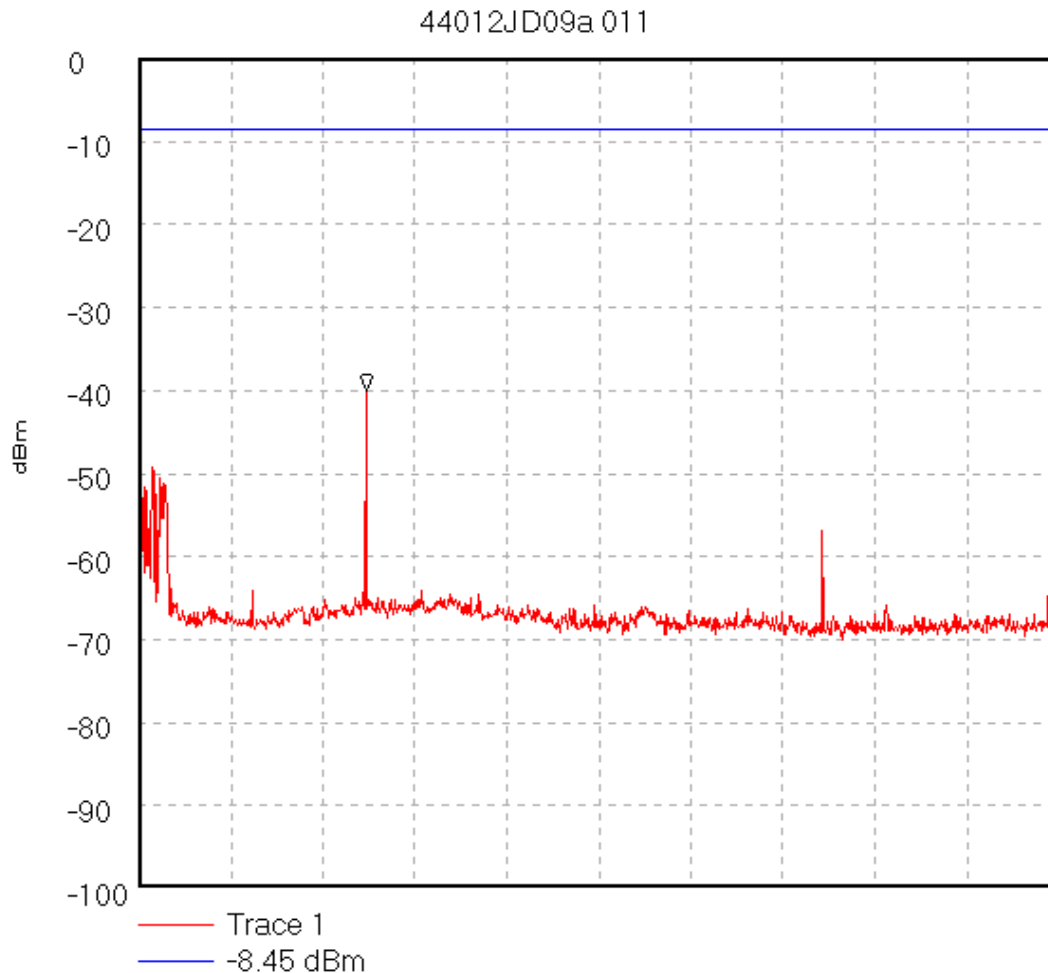
Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 00:58:16

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\011  
Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Top Channel



Start 2.4835 GHz; Stop 12.5 GHz

Ref 0 dBm; Ref Offset 22.1 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 3.2 S

Peak 4.954237 GHz, -40.04 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

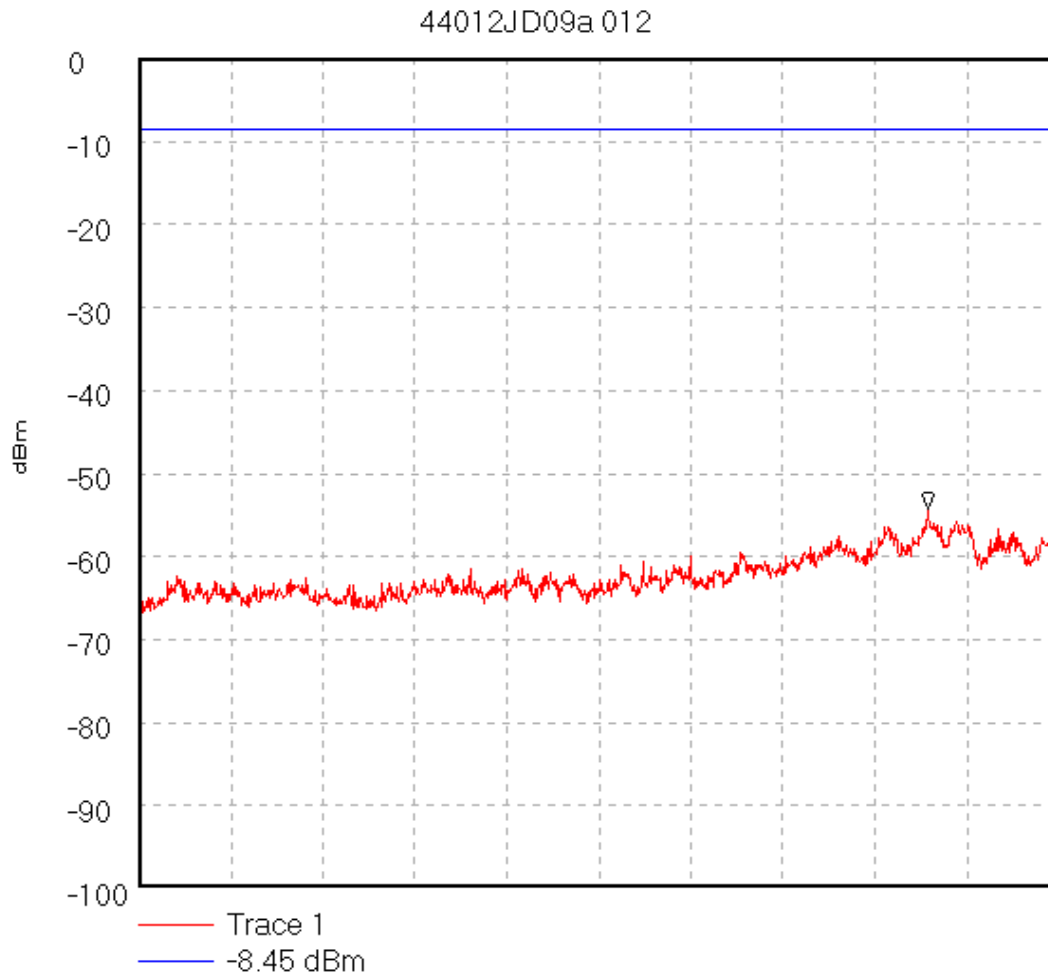
04/01/80 00:59:25

## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\012  
Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Top Channel



Start 12.5 GHz; Stop 26.5 GHz

Ref 0 dBm; Ref Offset 26.0 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 4.2 S

Peak 24.508889 GHz, -54.34 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 01:02:06

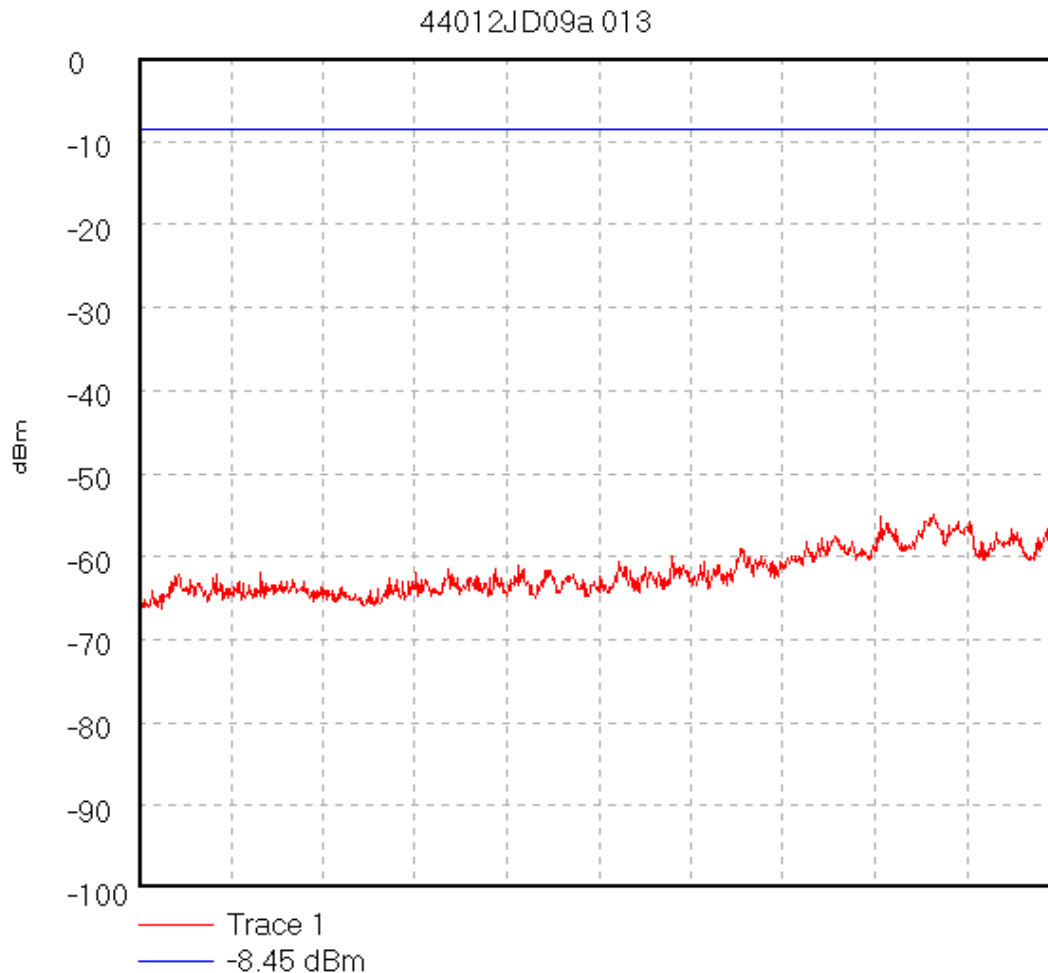
## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\013

Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Middle Channel



Start 12.5 GHz; Stop 26.5 GHz

Ref 0 dBm; Ref Offset 26.0 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 4.2 S

Peak 26.5 GHz, -54.34 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 01:03:34

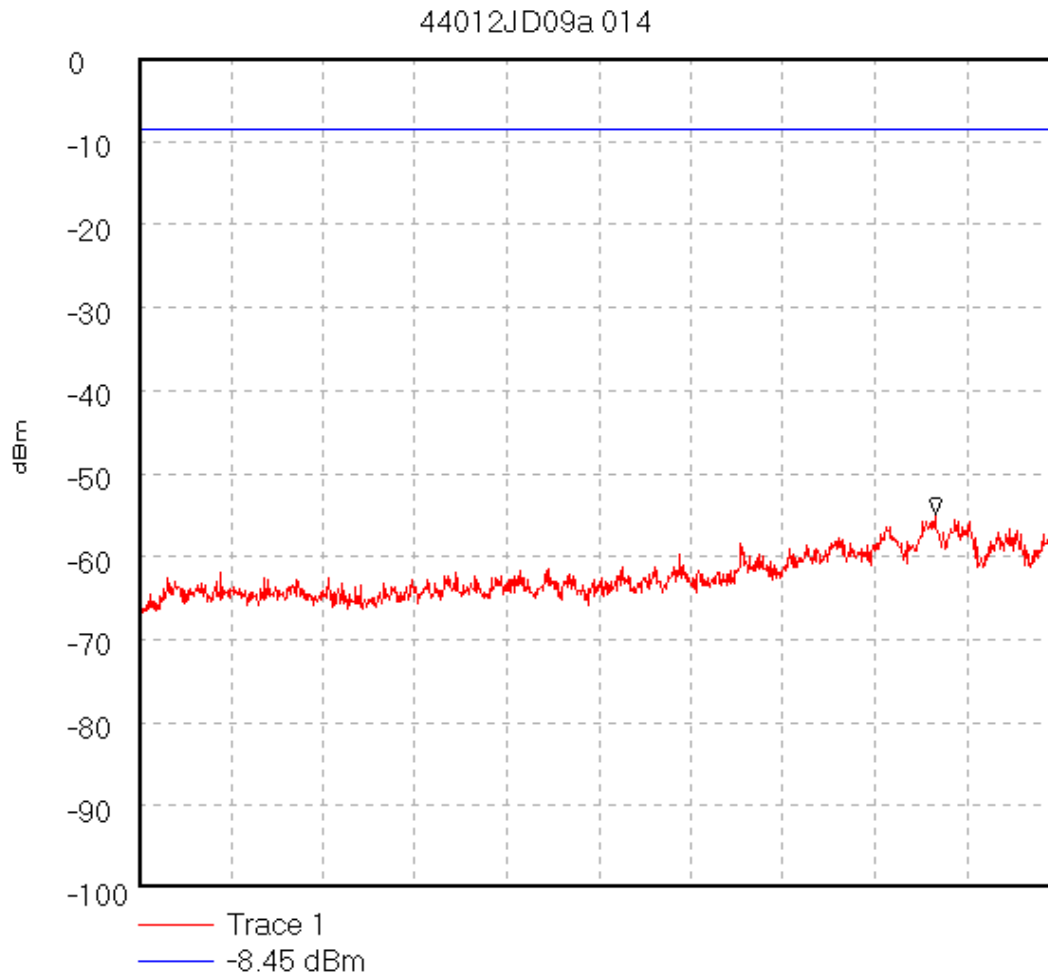
## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\014

Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Bottom Channel



Start 12.5 GHz; Stop 26.5 GHz

Ref 0 dBm; Ref Offset 26.0 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 4.2 S

Peak 24.633333 GHz, -54.85 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 01:04:43

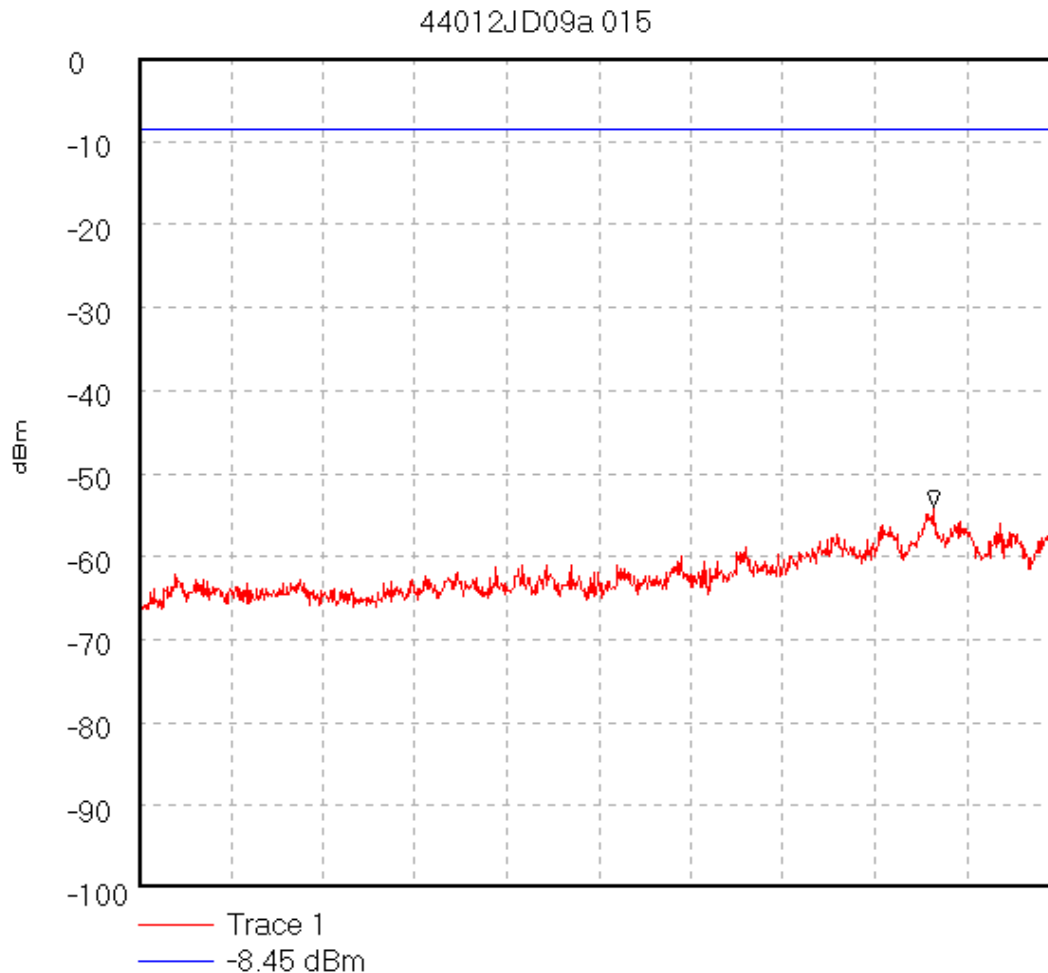
## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\015

Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
conducted Spurious Emissions - Hopping All Channels



Start 12.5 GHz; Stop 26.5 GHz

Ref 0 dBm; Ref Offset 26.0 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 4.2 S

Peak 24.602222 GHz, -54.11 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

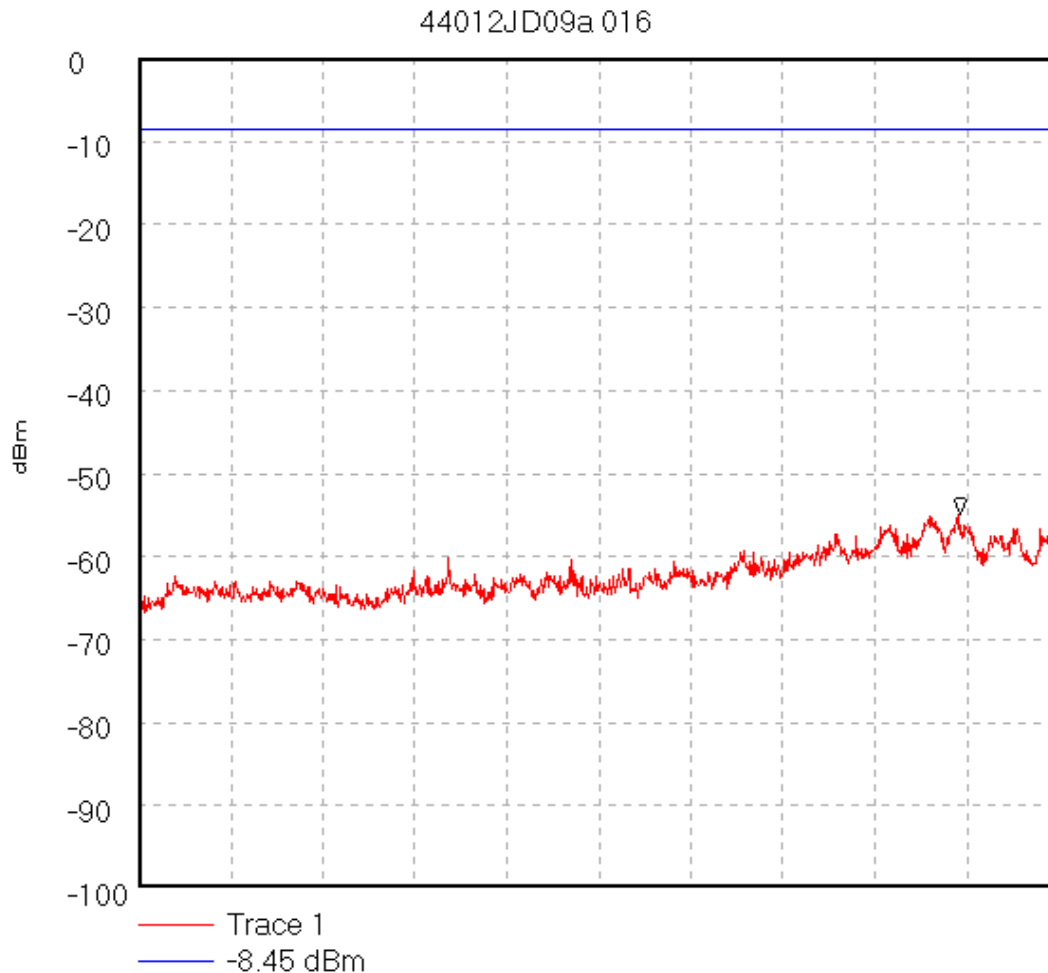
04/01/80 01:05:46

## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09a\016  
Testing of Brain Boxes BL-510/642. FCC Part 15.247.  
Conducted Spurious Emissions - Receive Mode



Start 12.5 GHz; Stop 26.5 GHz

Ref 0 dBm; Ref Offset 26.0 dB; 10 dB/div

RBW 100.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 4.2 S

Peak 24.991111 GHz, -54.9 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 01:11:07

## Operations Department

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

**GPH\44012JD09\032**  
**Radiated Emissions testing for Brain Boxes.**  
**TX Hopping - Bottom Channel - Band Edge**



Start 2.3985 GHz; Stop 2.4015 GHz

Ref 90 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 30.0 kHz; VBW 30.0 kHz; Att 0 dB; Swp 20.0 mS

Marker 2.4015 GHz, 77.87 dBμV

Display Line: 54 dBμV;

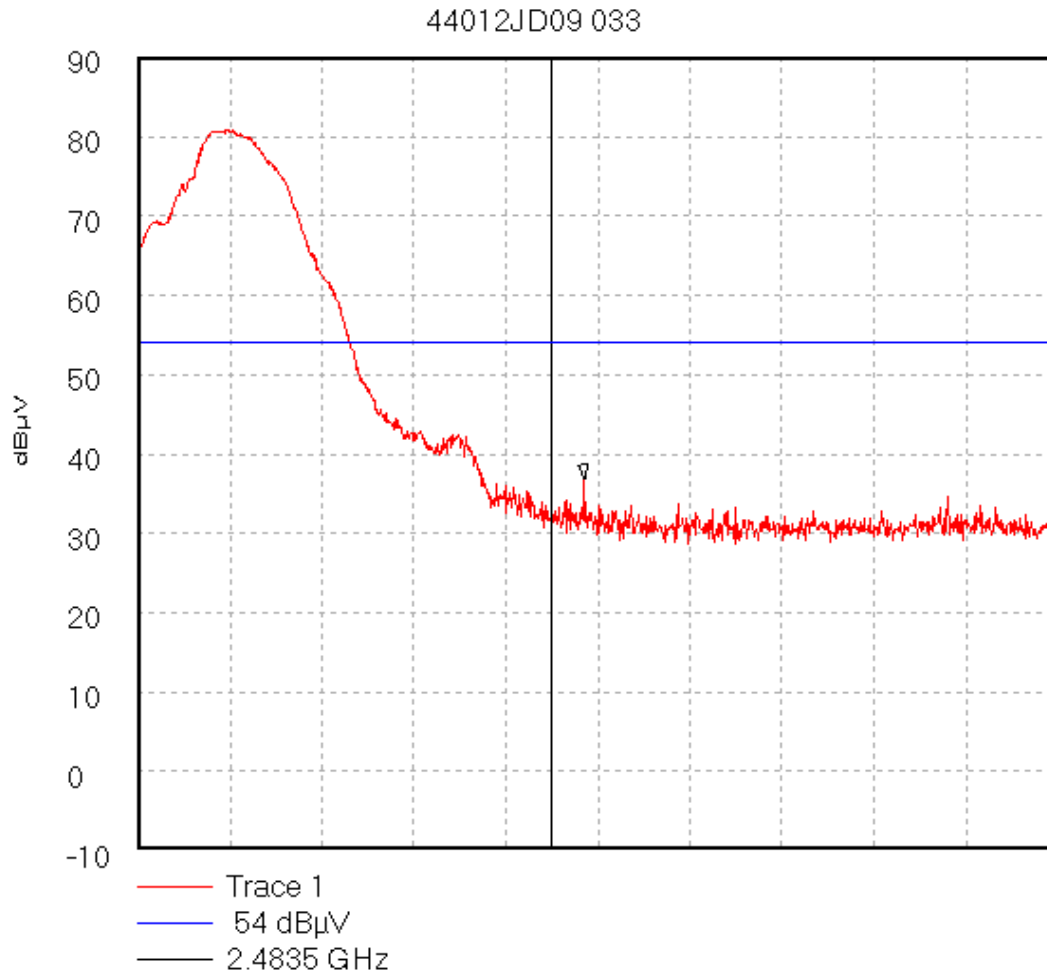
10/15/02 5:03:06 PM

Test Of: Brain Boxes Ltd.  
BL-510

To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\033

**Radiated Emissions testing for Brain Boxes  
TX Hopping - Top Channel - Band Edge**



Start 2.479 GHz; Stop 2.489 GHz

Ref 90 dBμV; Ref Offset 0.0 dB; 10 dB/div

RBW 300.0 kHz; VBW 300.0 kHz; Att 0 dB; Swp 20.0 mS

Marker 2.483856 GHz, 36.81 dBμV

Display Line: 54 dBμV;

10/15/02 5:09:53 PM