

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

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Registered Office: Ewhurst Park, Ramsdell,
Basingstoke, Hampshire RG26 5RQ



Operations Department

Test Of: Brain Boxes Ltd.
BL-510

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

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 (laptop supply test point)
GPH\44012JD09\008	Scan of conducted emissions, hopping mode (laptop supply test point)
GPH\44012JD09\009	Scan of conducted emissions, bottom channel (laptop supply test point)
GPH\44012JD09\011	Scan of conducted emissions, top channel (laptop supply test point)
GPH\44012JD09\012	Scan of conducted emissions, middle channel (laptop supply test point)
GPH\44012JD09\023	Scan of conducted emissions, receive mode (EUT power lead)
GPH\44012JD09\024	Scan of conducted emissions, bottom channel (EUT power lead)
GPH\44012JD09\025	Scan of conducted emissions, middle channel (EUT power lead)
GPH\44012JD09\026	Scan of conducted emissions, top channel (EUT power lead)
GPH\44012JD09\027	Scan of conducted emissions, hopping mode (EUT power lead)
GPH\44012JD09\028	Scan of conducted emissions, receive mode (laptop power lead)
GPH\44012JD09\029	Scan of conducted emissions, bottom channel (laptop power lead)
GPH\44012JD09\030	Scan of conducted emissions, middle channel (laptop power lead)
GPH\44012JD09\031	Scan of conducted emissions, top channel (laptop power lead)
GPH\44012JD09\032	Scan of conducted emissions, hopping mode (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 (2.4 GHz to 2.4835 GHz)
GPH\44012JD09a\002	Conducted spurious emissions, bottom channel (30 MHz to 2.4 GHz)
GPH\44012JD09a\003	Conducted spurious emissions, middle channel (30 MHz to 2.4 GHz)
GPH\44012JD09a\004	Conducted spurious emissions, top channel (30 MHz to 2.4 GHz)
GPH\44012JD09a\005	Conducted spurious emissions, hopping all channels (30 MHz to 2.4 GHz)
GPH\44012JD09a\006	Conducted spurious emissions, receive mode (30 MHz to 2.4 GHz)
GPH\44012JD09a\007	Conducted spurious emissions, receive mode (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

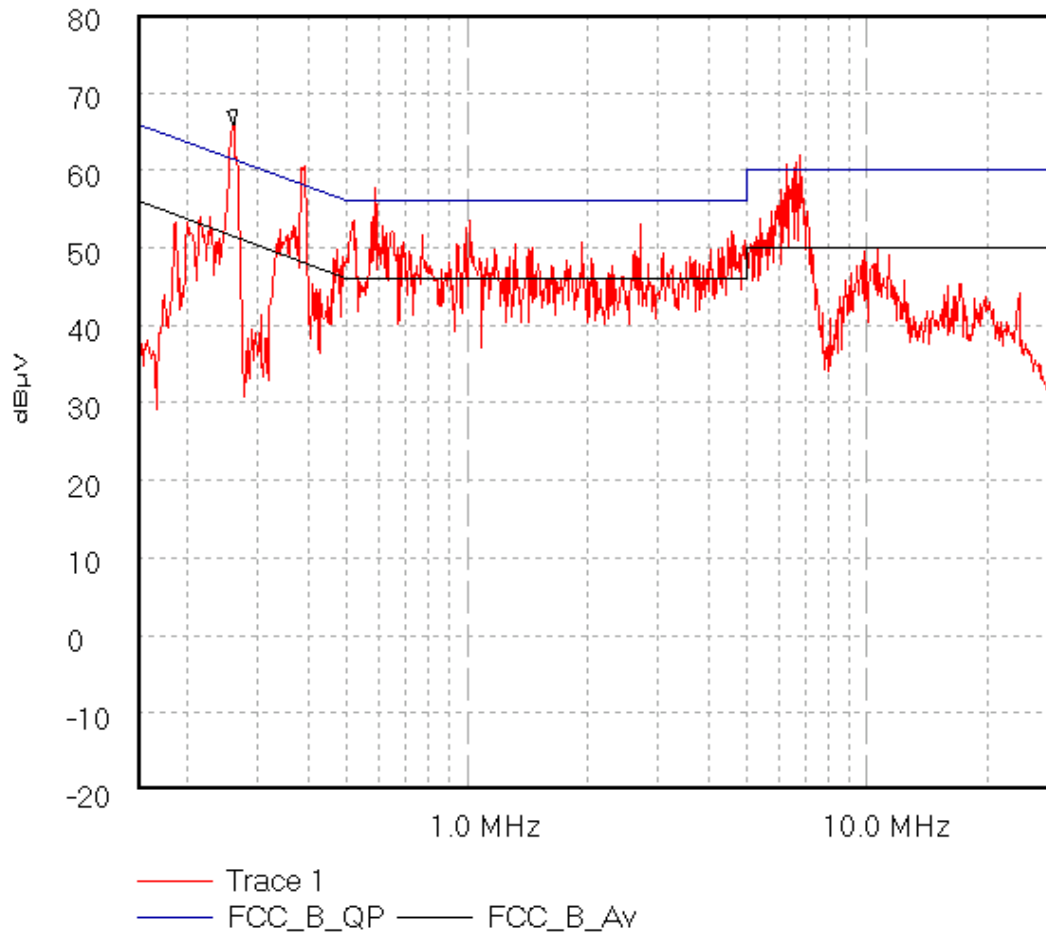
Test Of: Brain Boxes Ltd.
BL-510

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

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Operations Department

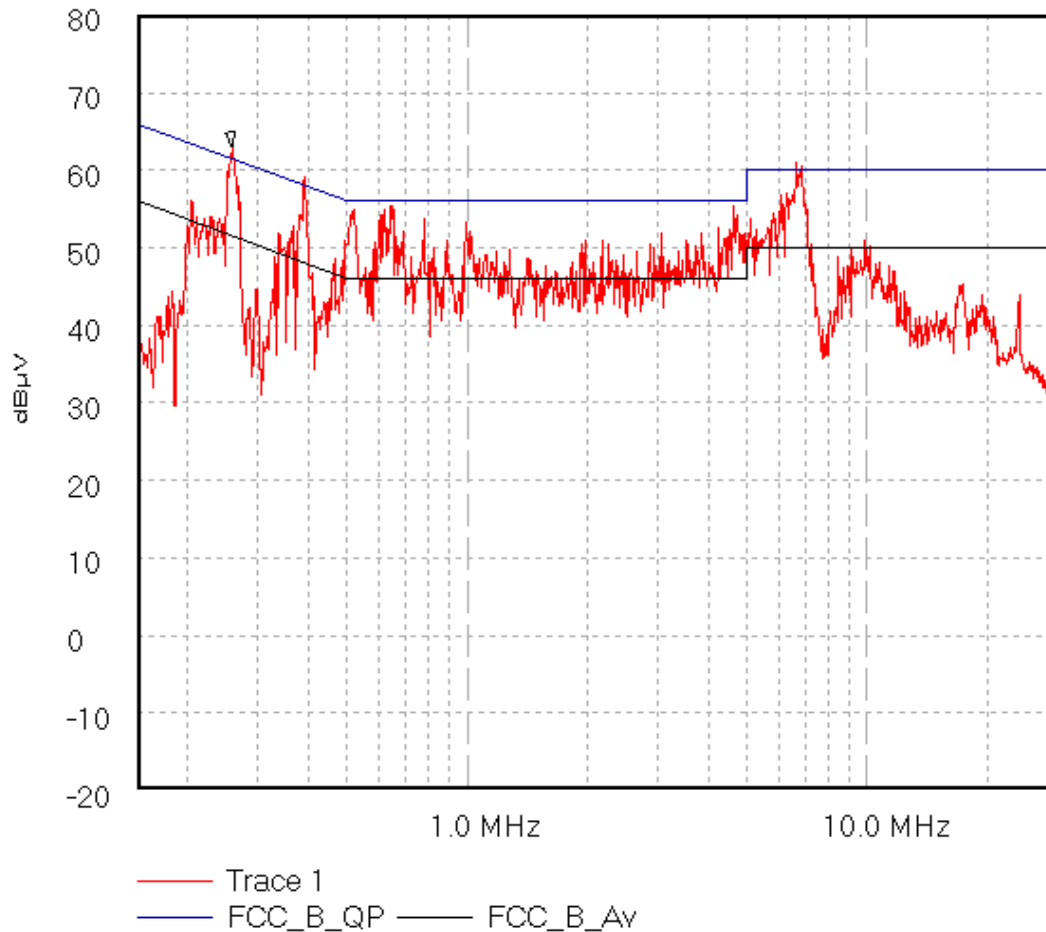
Test Of: Brain Boxes Ltd.
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To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

GPH\44012JD09\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

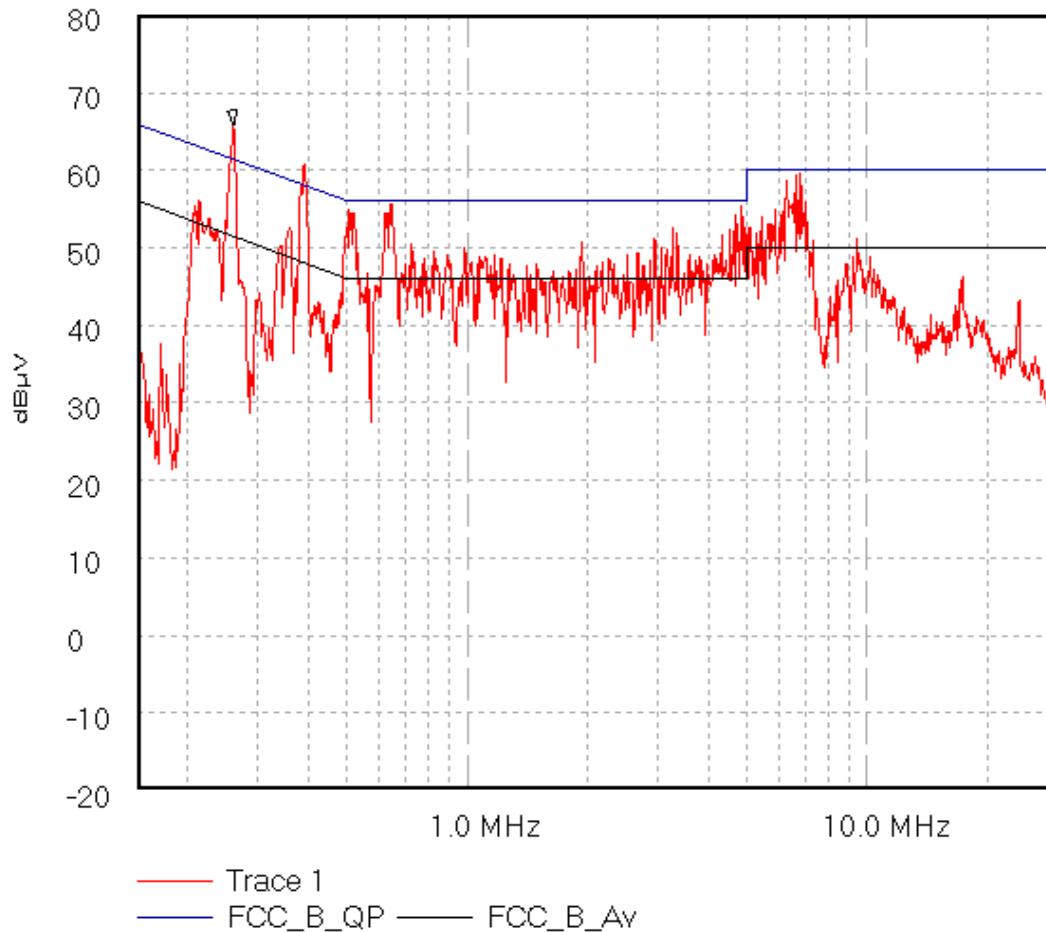
Test Of: Brain Boxes Ltd.
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To: F.C.C. Part 15 Subpart C: 2001 (Intentional Radiators) Section 15.247

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

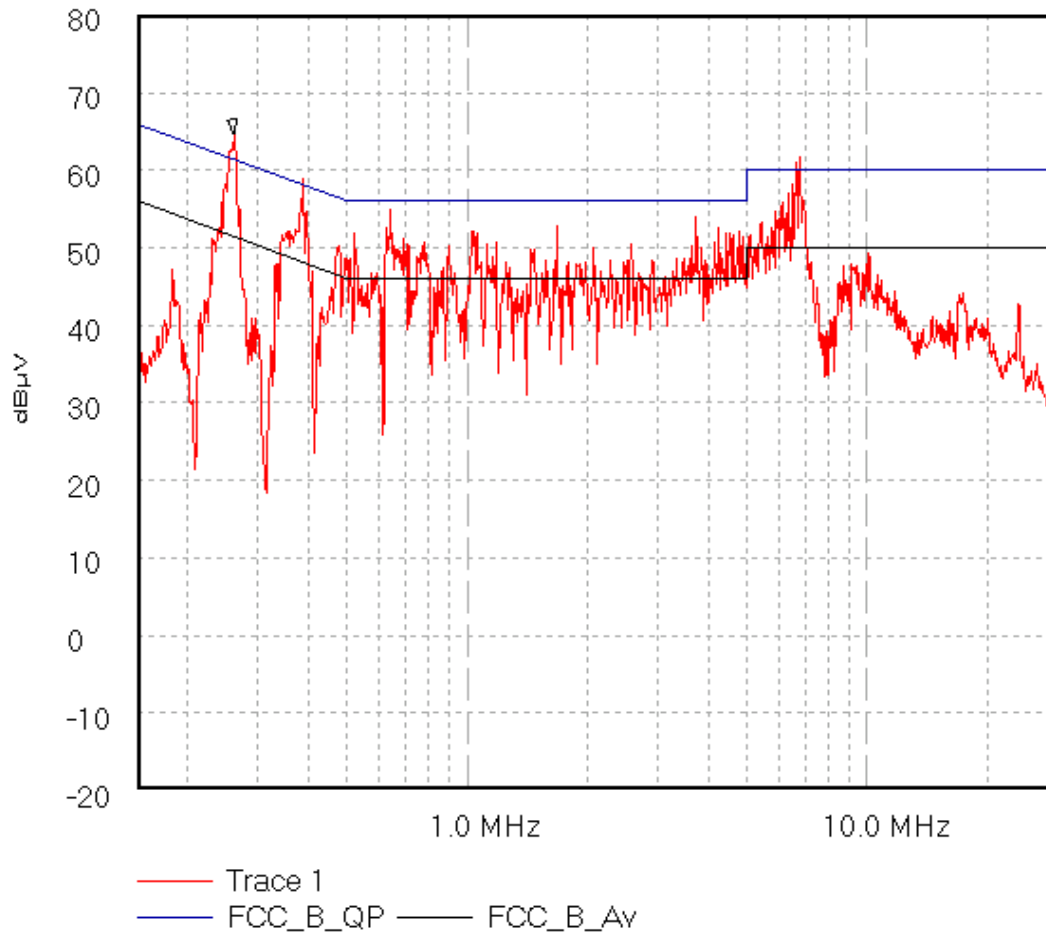
Test Of: Brain Boxes Ltd.
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GPH\44012JD09\005

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
16/10/2002 2:28:27 PM

Operations Department

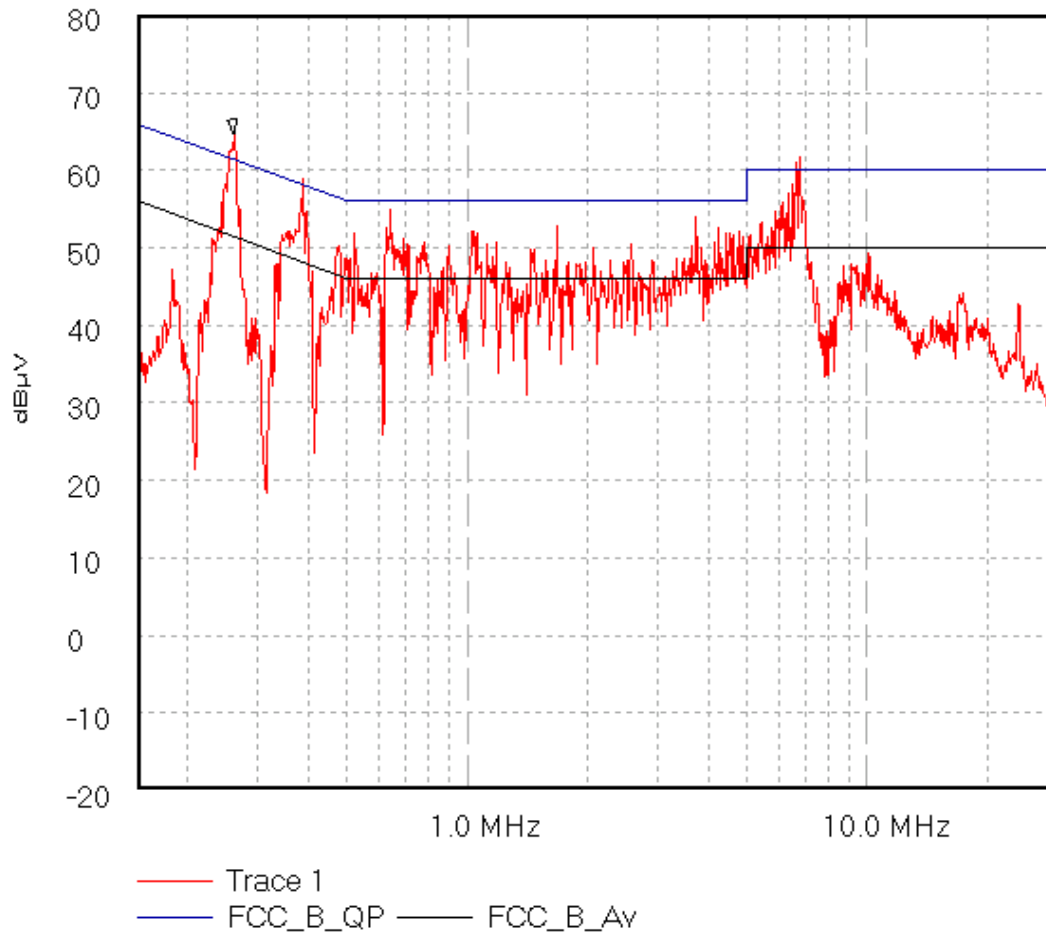
Test Of: Brain Boxes Ltd.
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GPH\44012JD09\006

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 μV ; 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 μV
Limit/Mask: FCC_B_QP; FCC_B_Av; ; Limit Test Failed
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Test Of: Brain Boxes Ltd.
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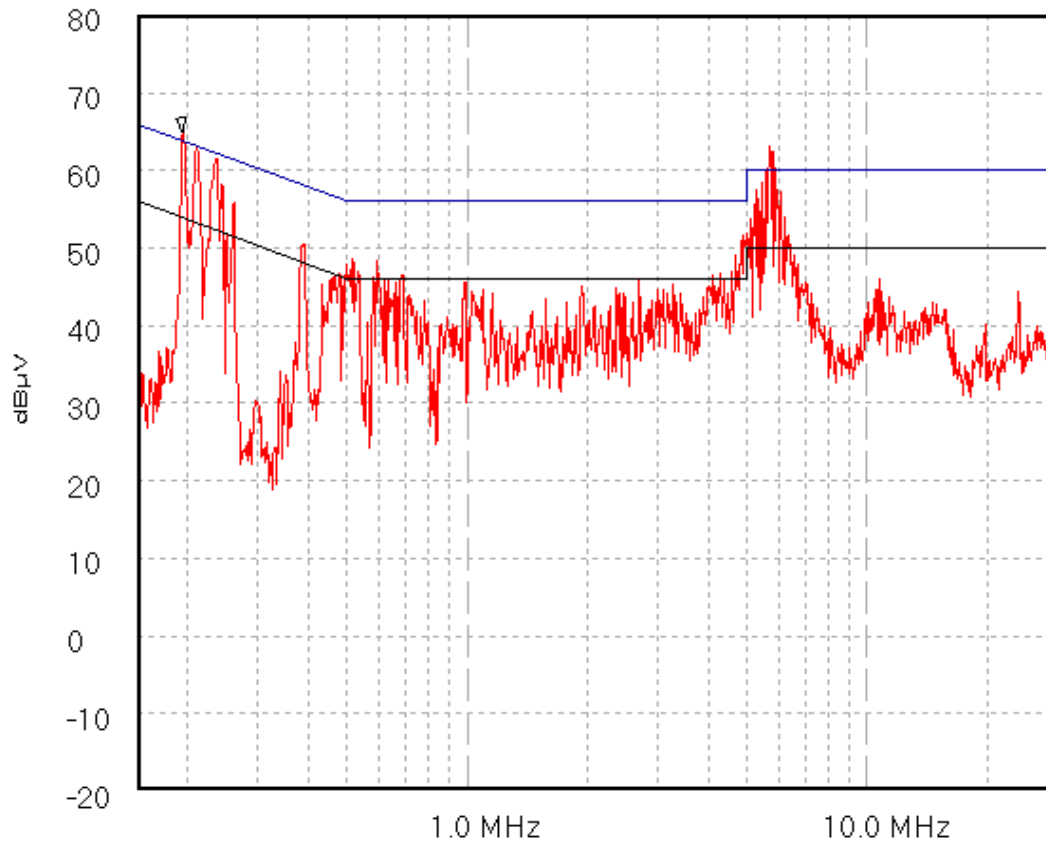
GPH\44012JD09\007

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.
BL-510

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

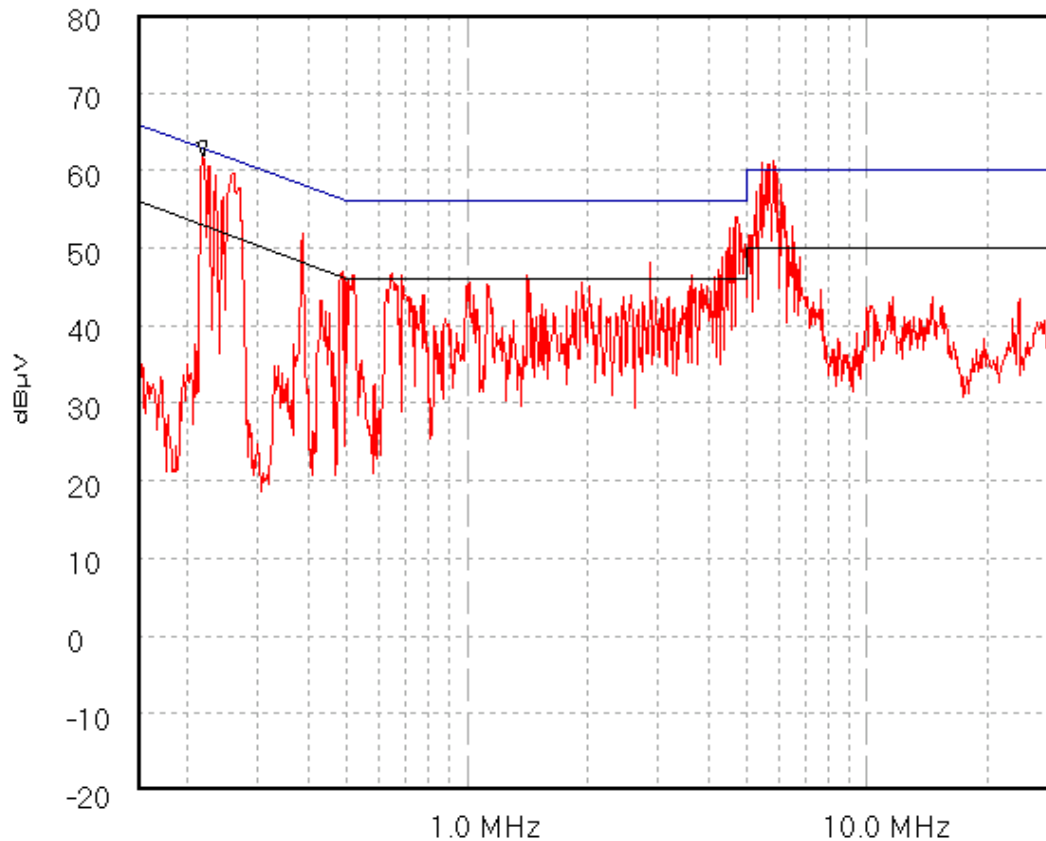
GPH\44012JD09\008

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.
BL-510

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

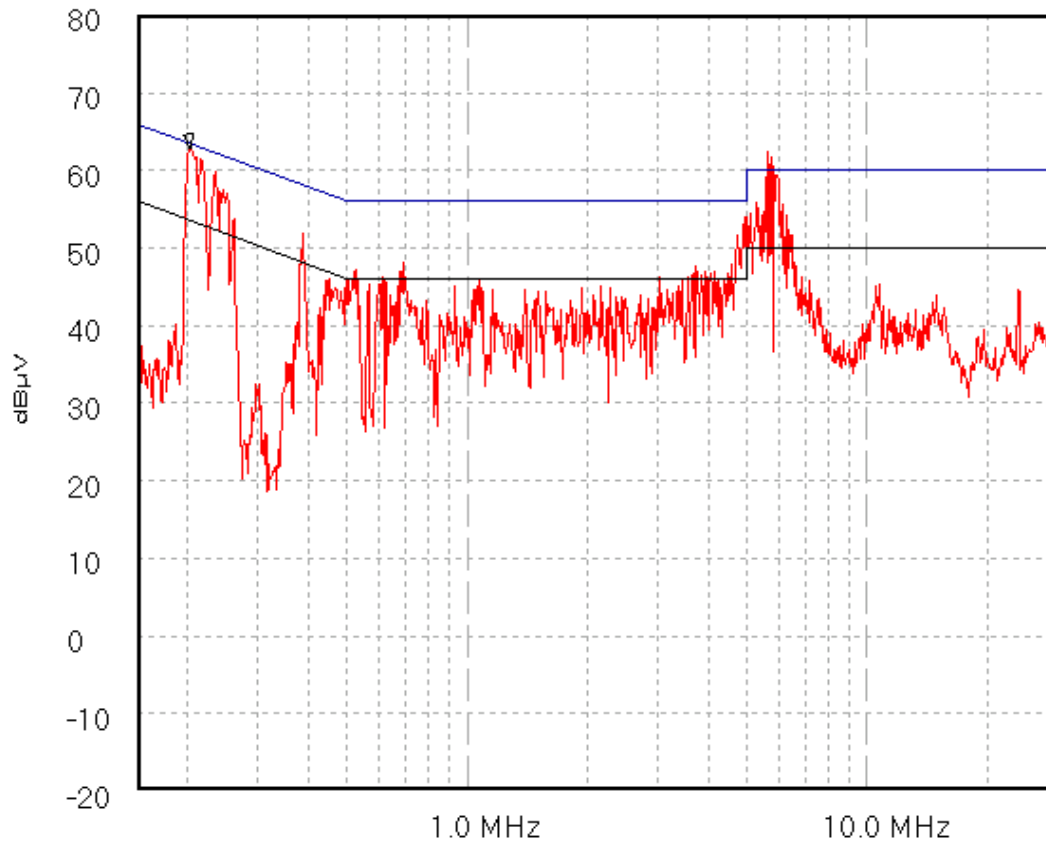
GPH\44012JD09\009

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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Operations Department

Test Of: Brain Boxes Ltd.
BL-510

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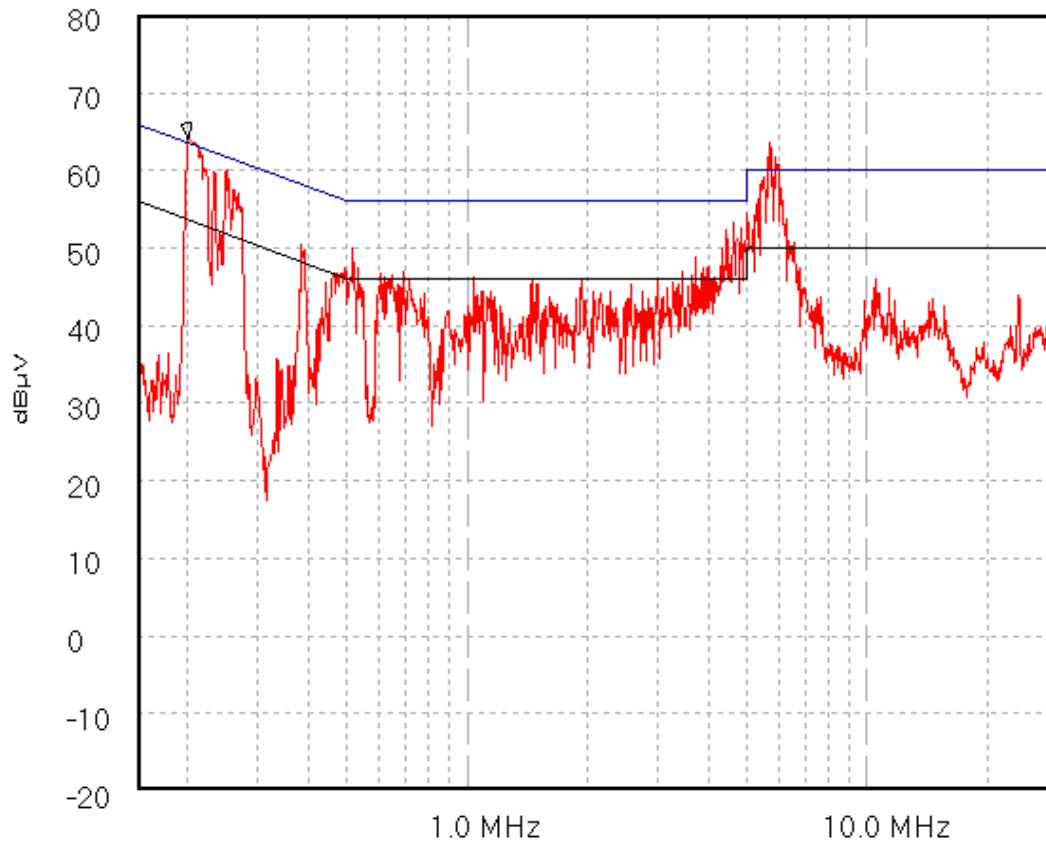
GPH\44012JD09\011

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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Test Of: Brain Boxes Ltd.
BL-510

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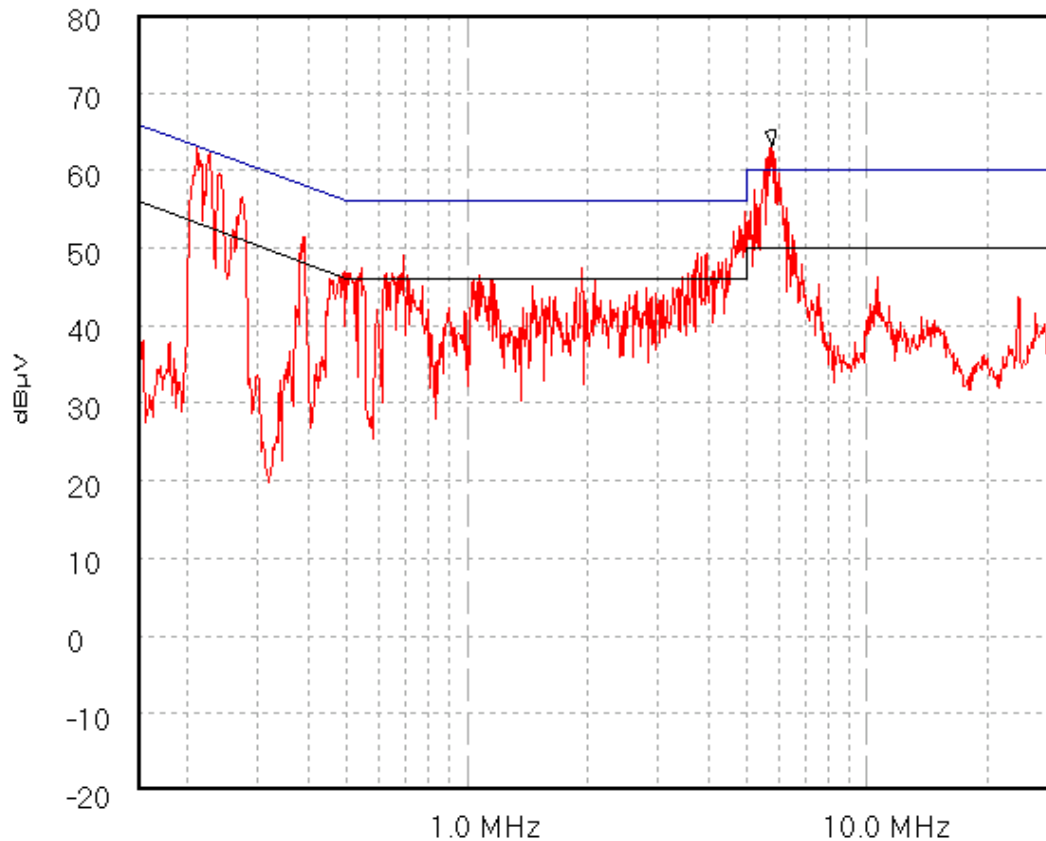
GPH\44012JD09\012

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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BL-510

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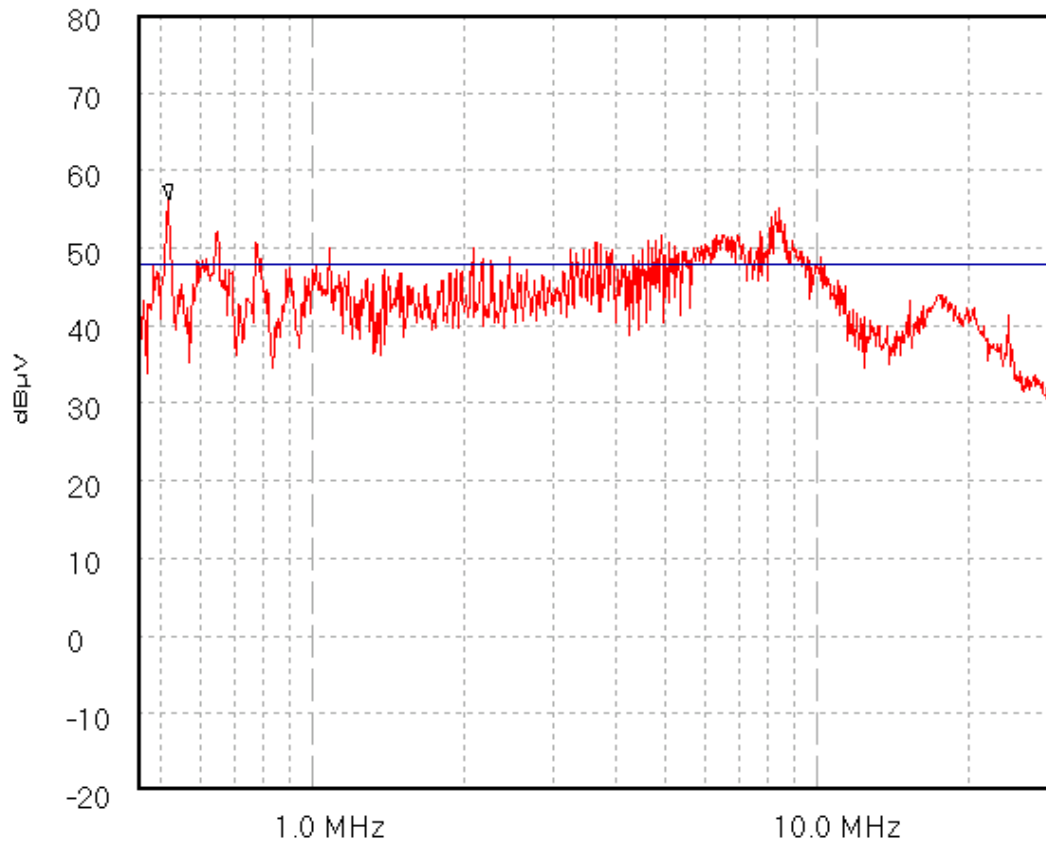
GPH\44012JD09\023

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

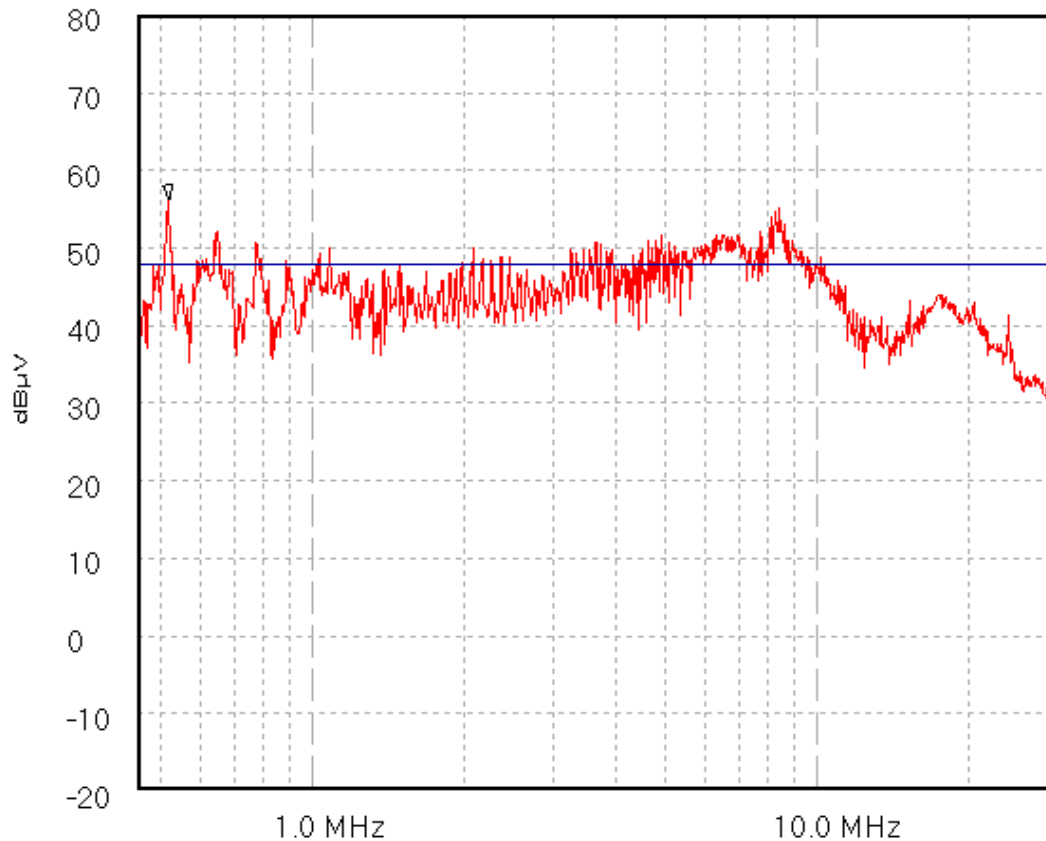
GPH\44012JD09\024

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

17/10/2002 09:24:54

Operations Department

Test Of: Brain Boxes Ltd.
BL-510

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

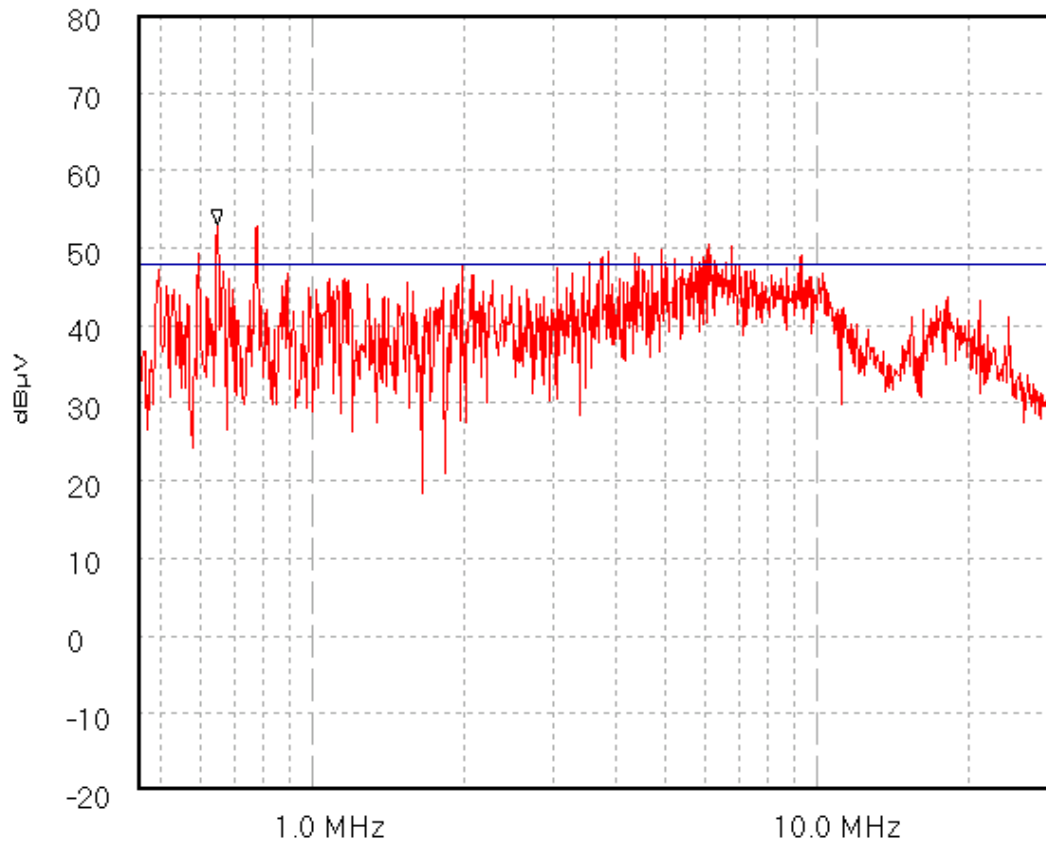
GPH\44012JD09\025

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.
BL-510

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

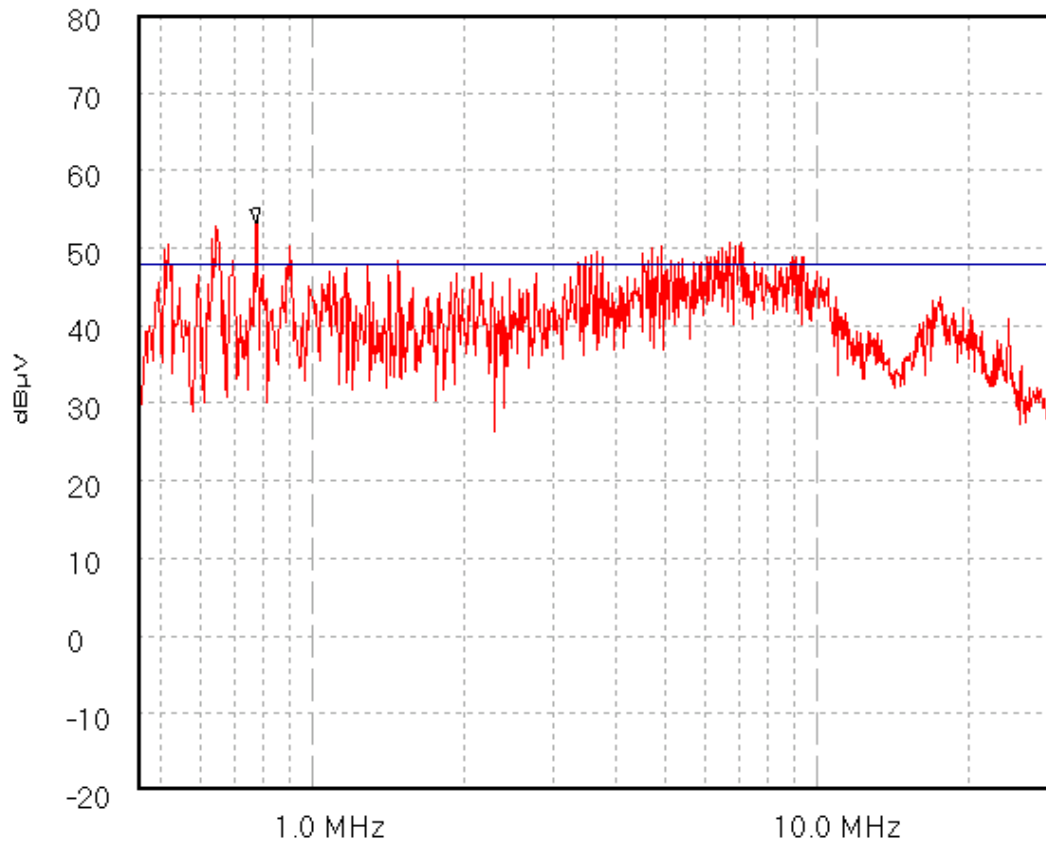
GPH\44012JD09\026

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.
BL-510

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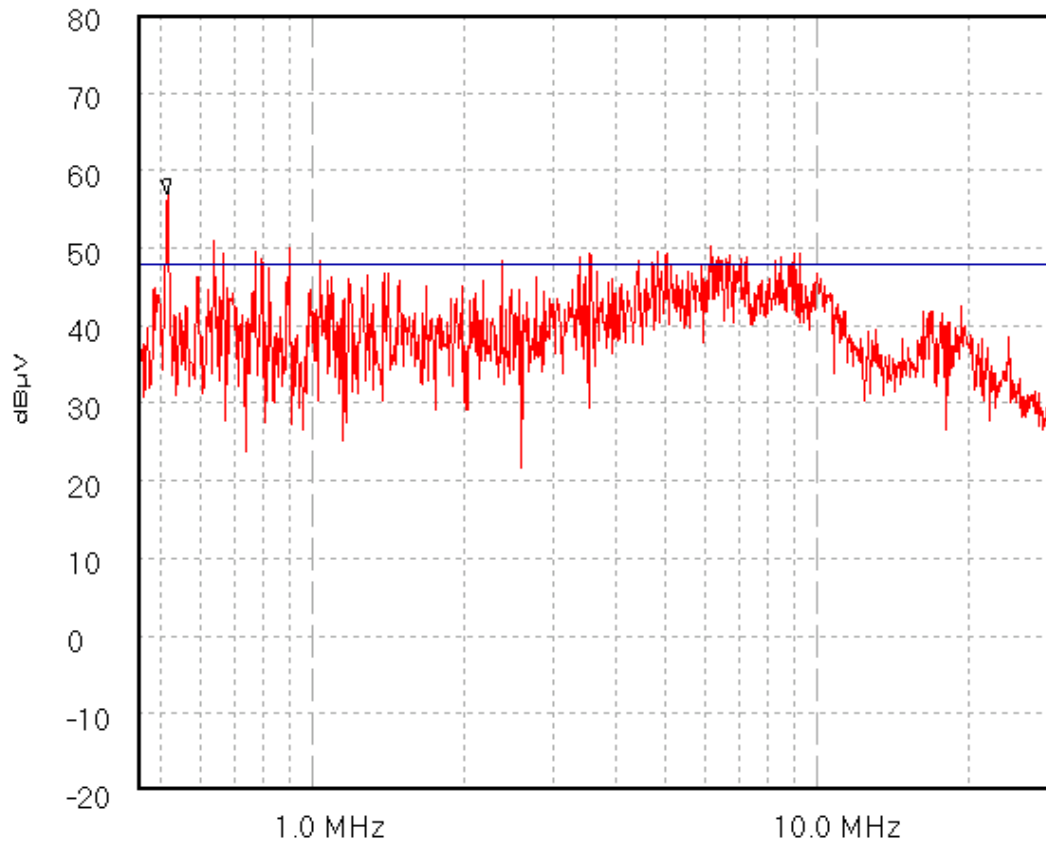
GPH\44012JD09\027

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

Test Of: Brain Boxes Ltd.
BL-510

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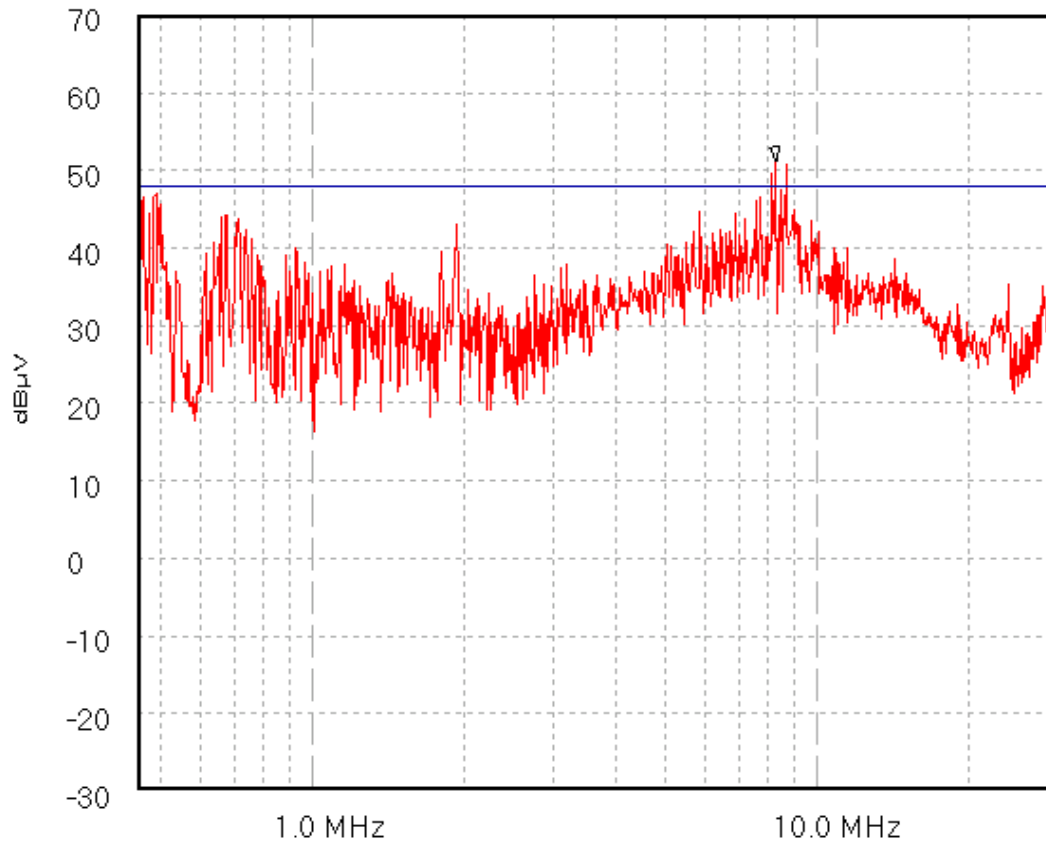
GPH\44012JD09\028

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

Test Of: Brain Boxes Ltd.
BL-510

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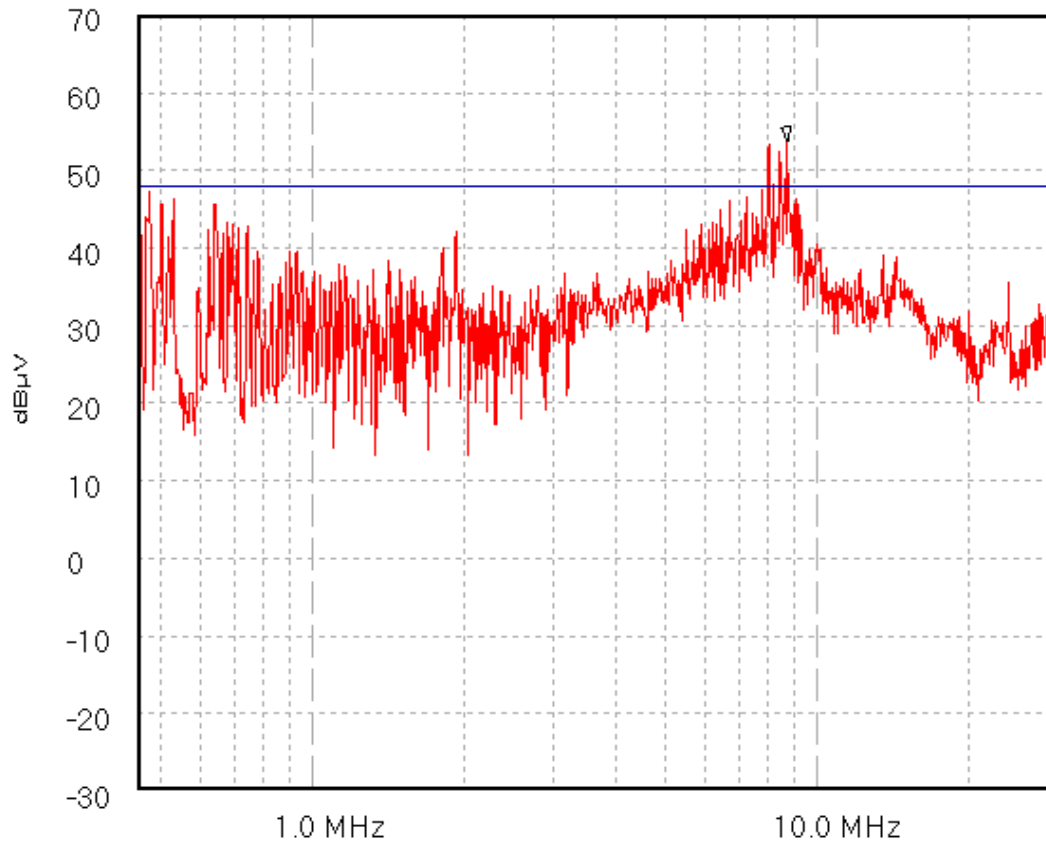
GPH\44012JD09\029

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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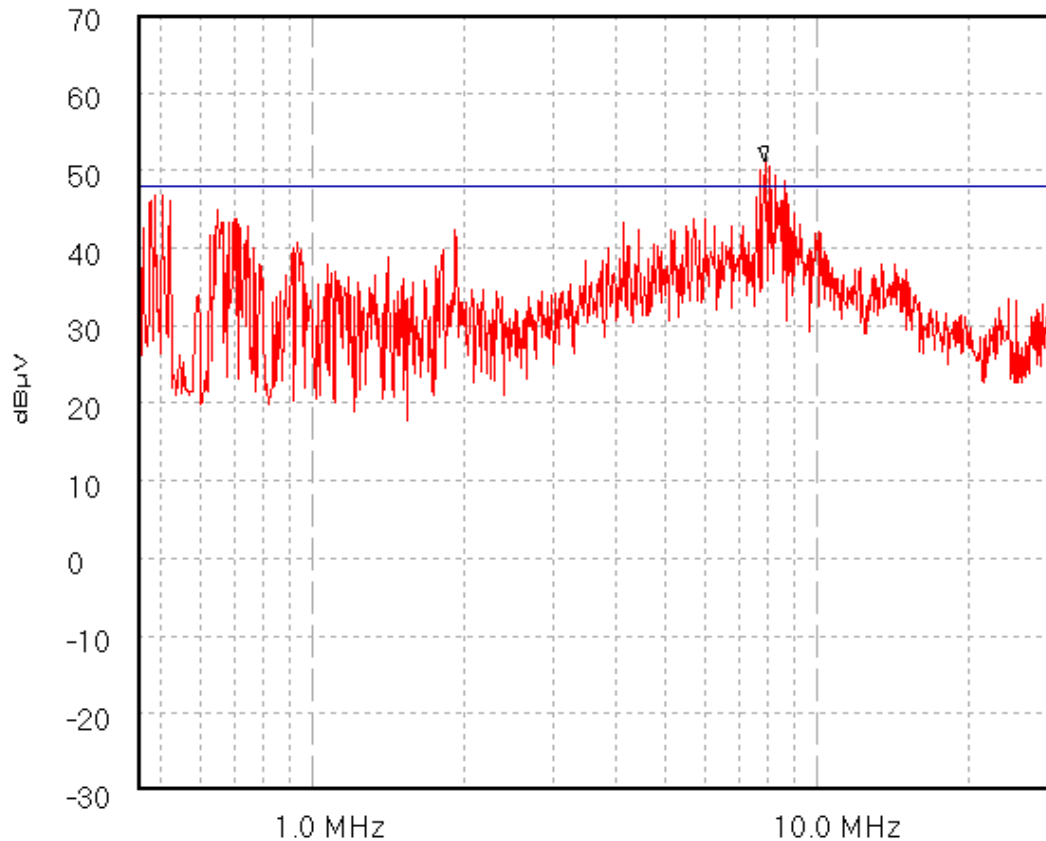
GPH\44012JD09\030

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

17/10/2002 09:54:13

Operations Department

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BL-510

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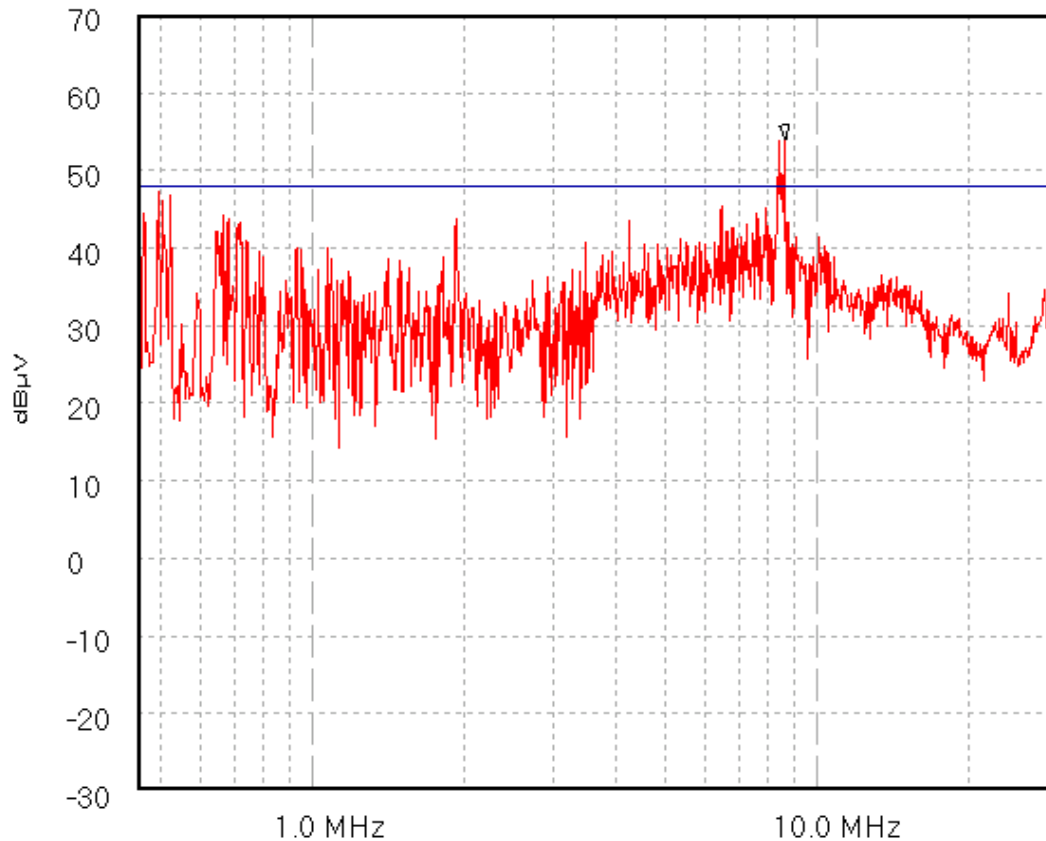
GPH\44012JD09\031

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

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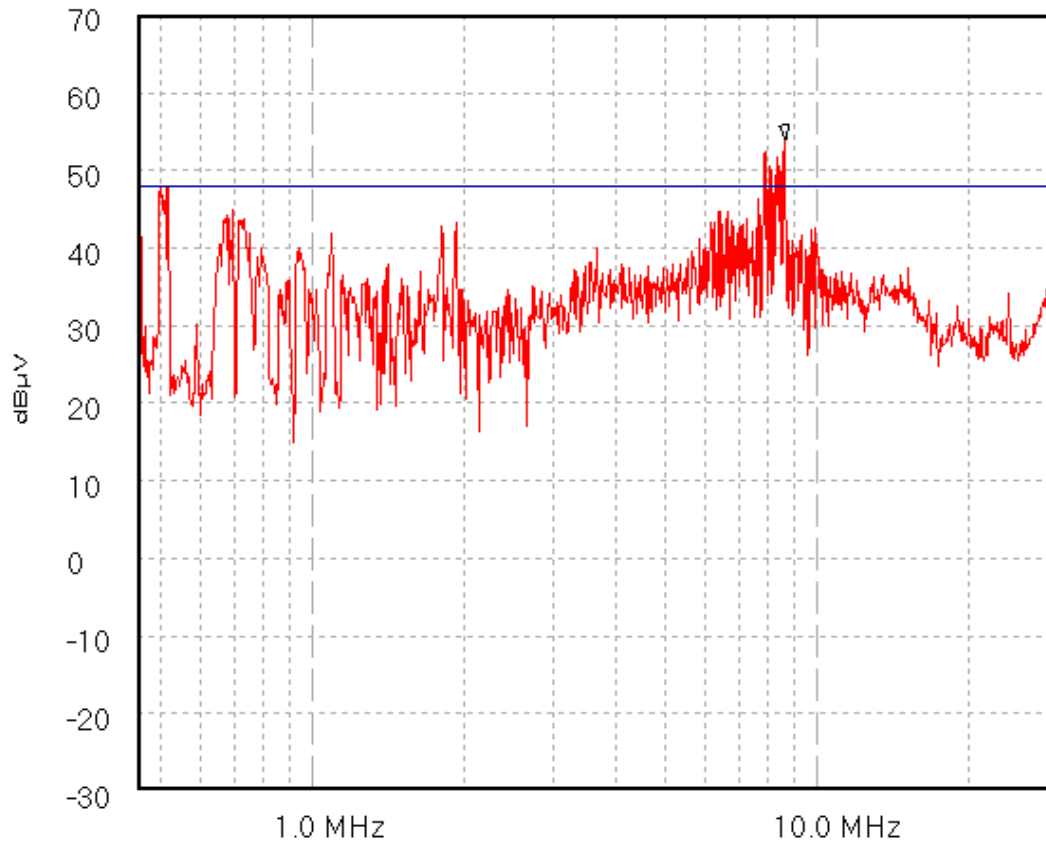
GPH\44012JD09\032

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

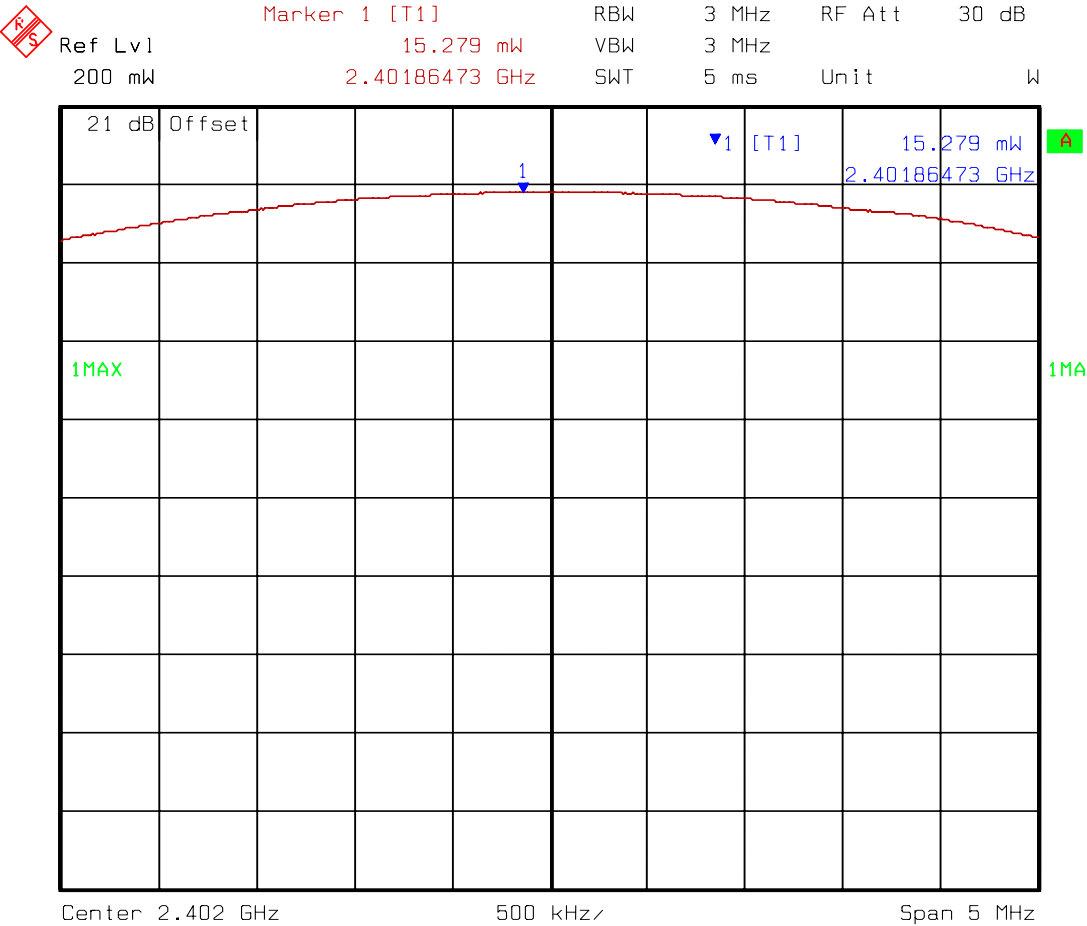
Limit/Mask: 15_107_Class_B_QP; ; Limit Test Failed

17/10/2002 09:56:38

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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\CE001

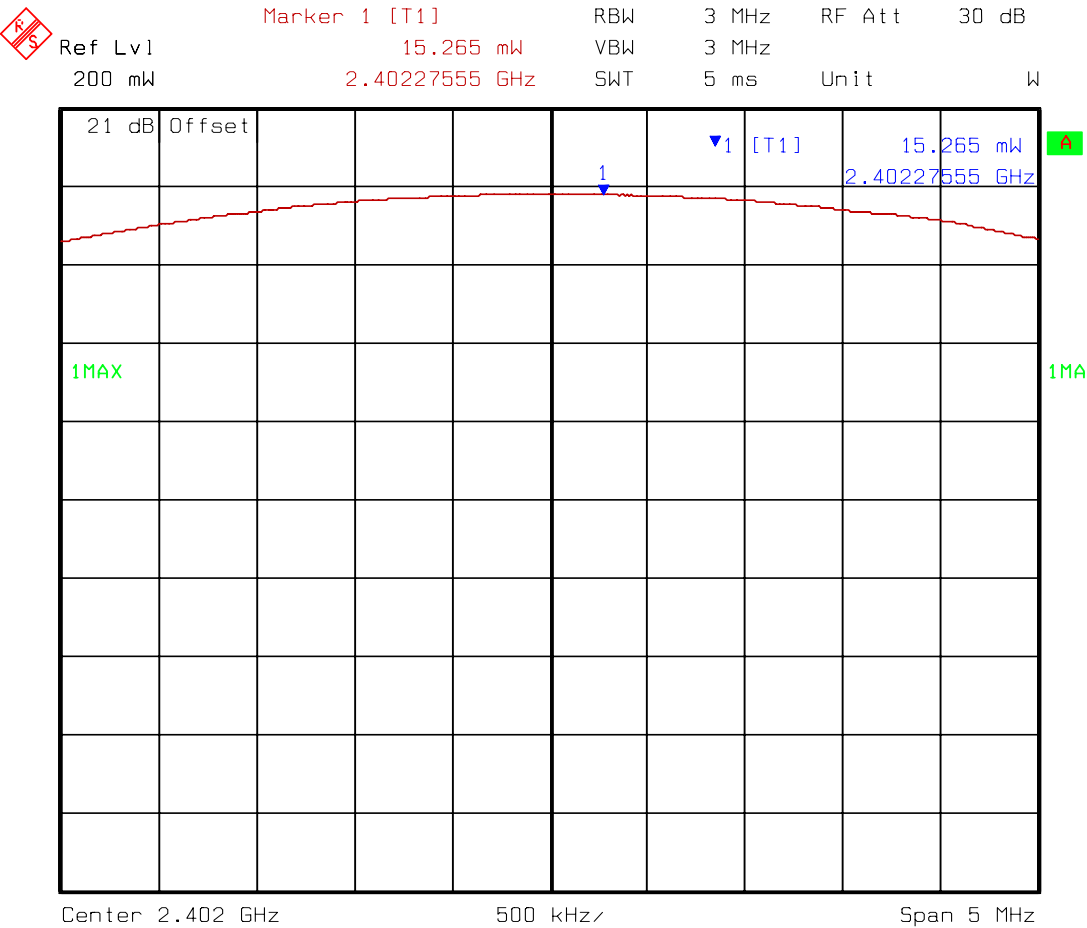


Title: Peak Output Power - Bottom Channel, 93.5Vac
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247
Date: 23.OCT.2002 10:50:40

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\CE002

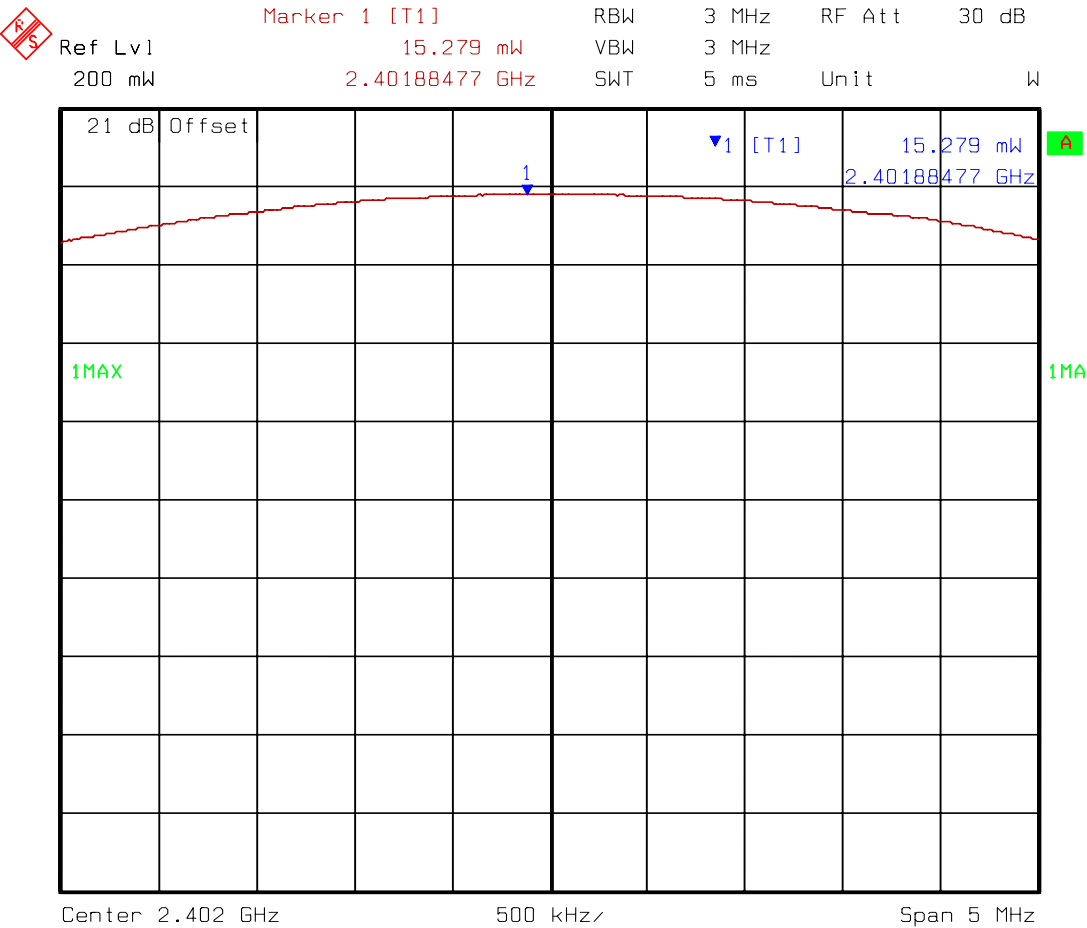


Title: Peak Output Power - Bottom Channel, 110Vac
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247
Date: 23.OCT.2002 10:47:12

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



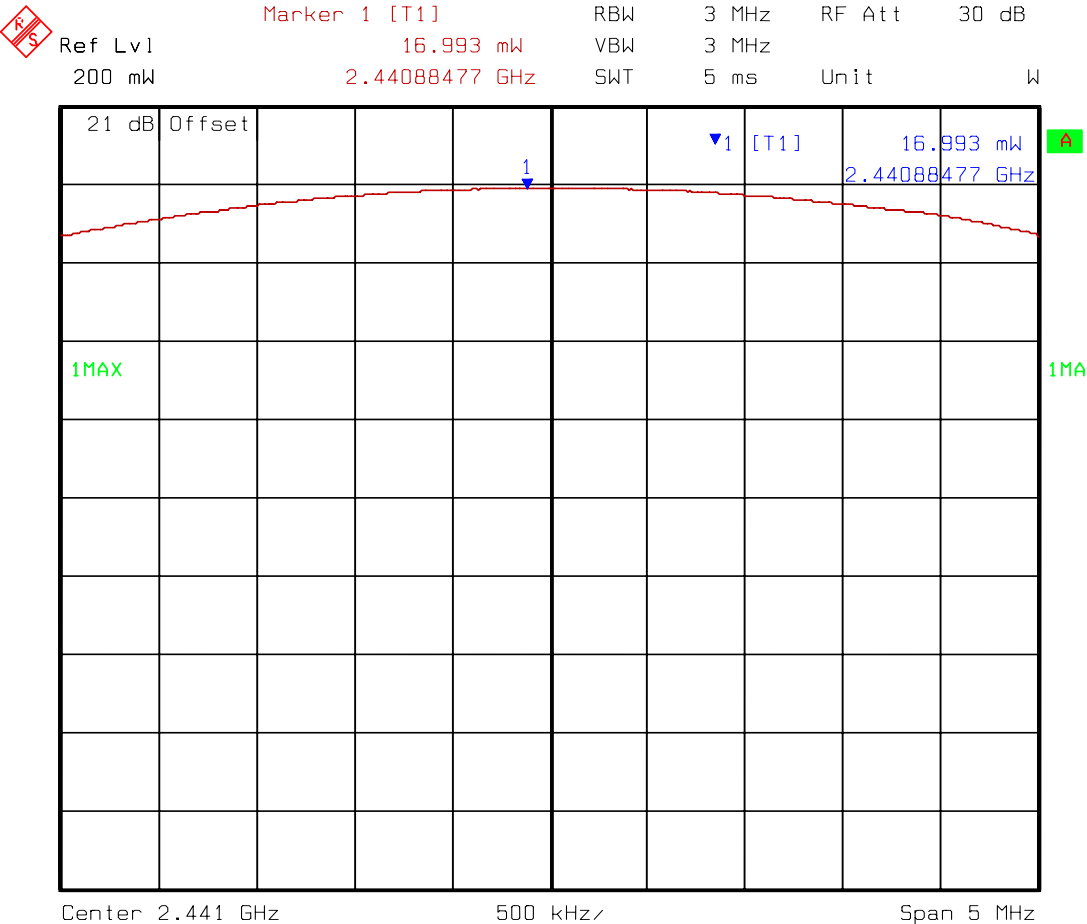
Title: Peak Output Power - Bottom Channel, 126.5Vac
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247
Date: 23.OCT.2002 11:03:30

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



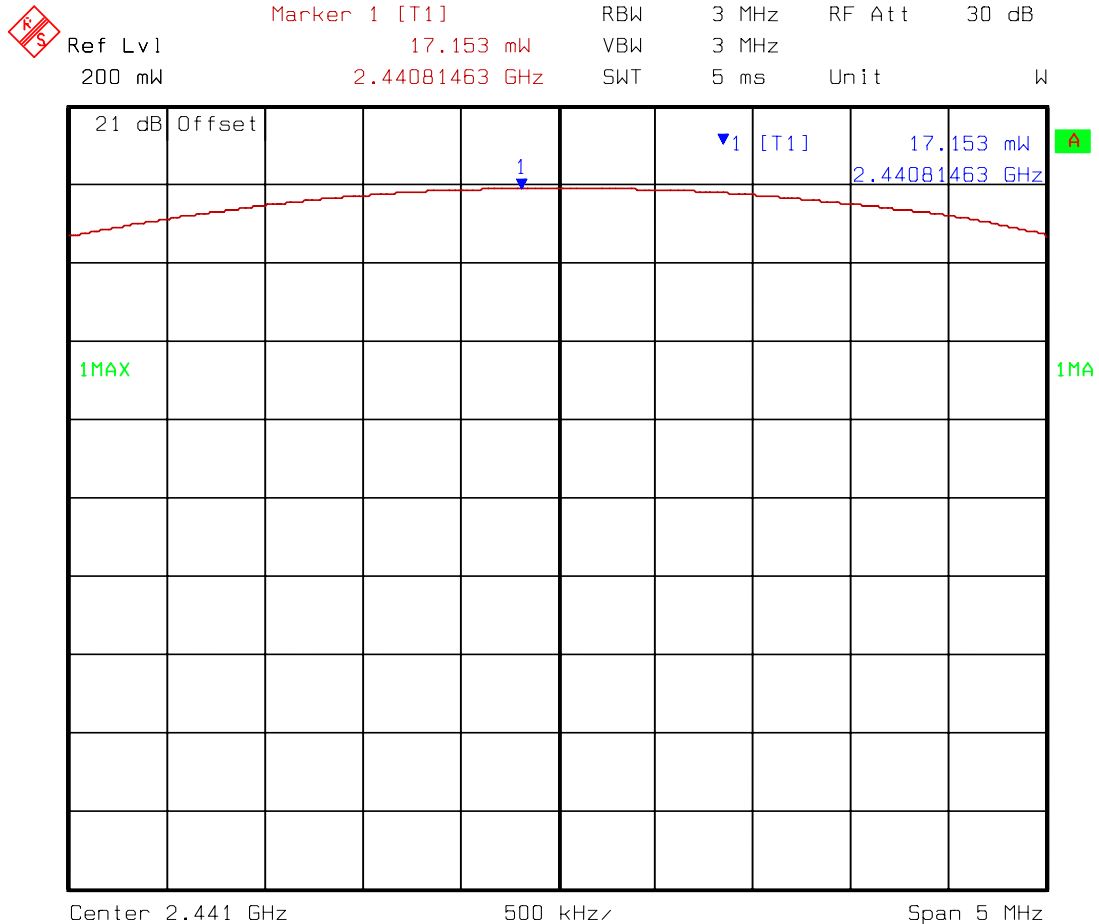
Title: Peak Output Power - Middle Channel, 93.5Vac
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247
Date: 23.OCT.2002 10:49:45

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

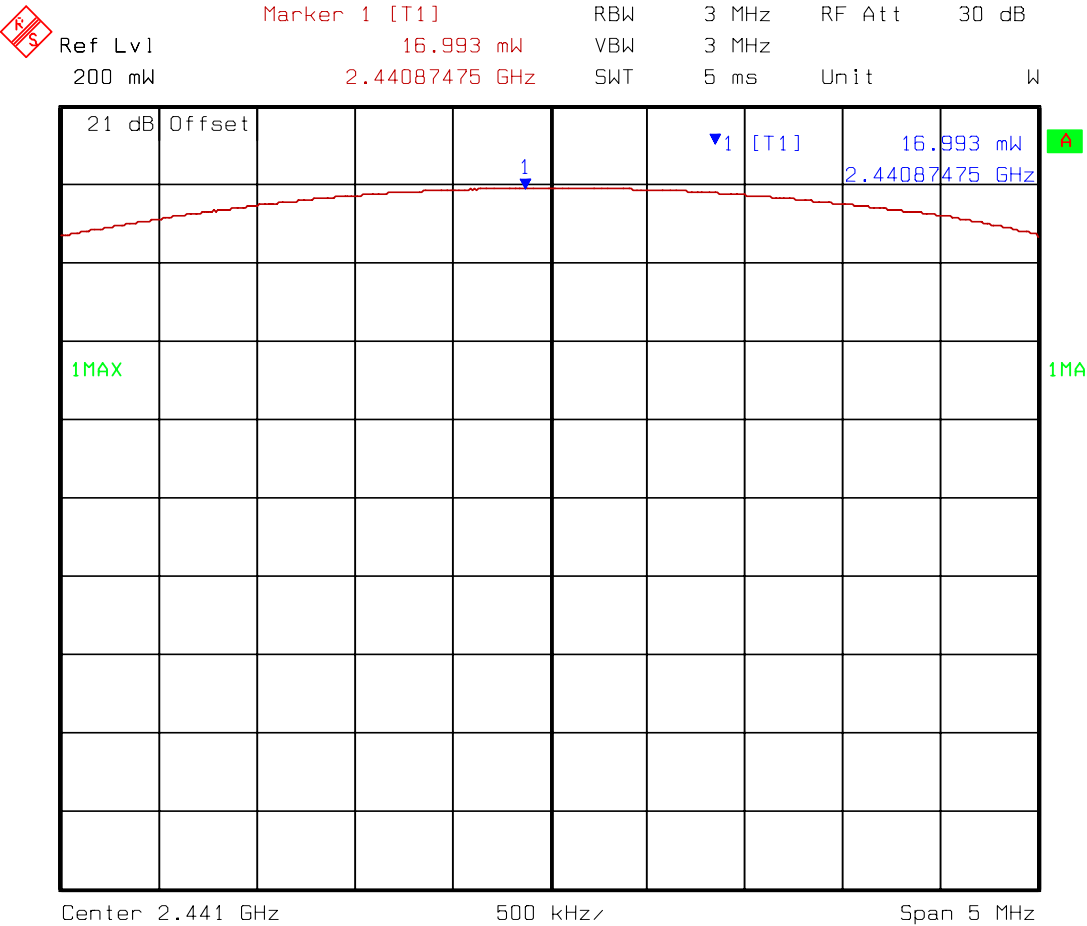
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247

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



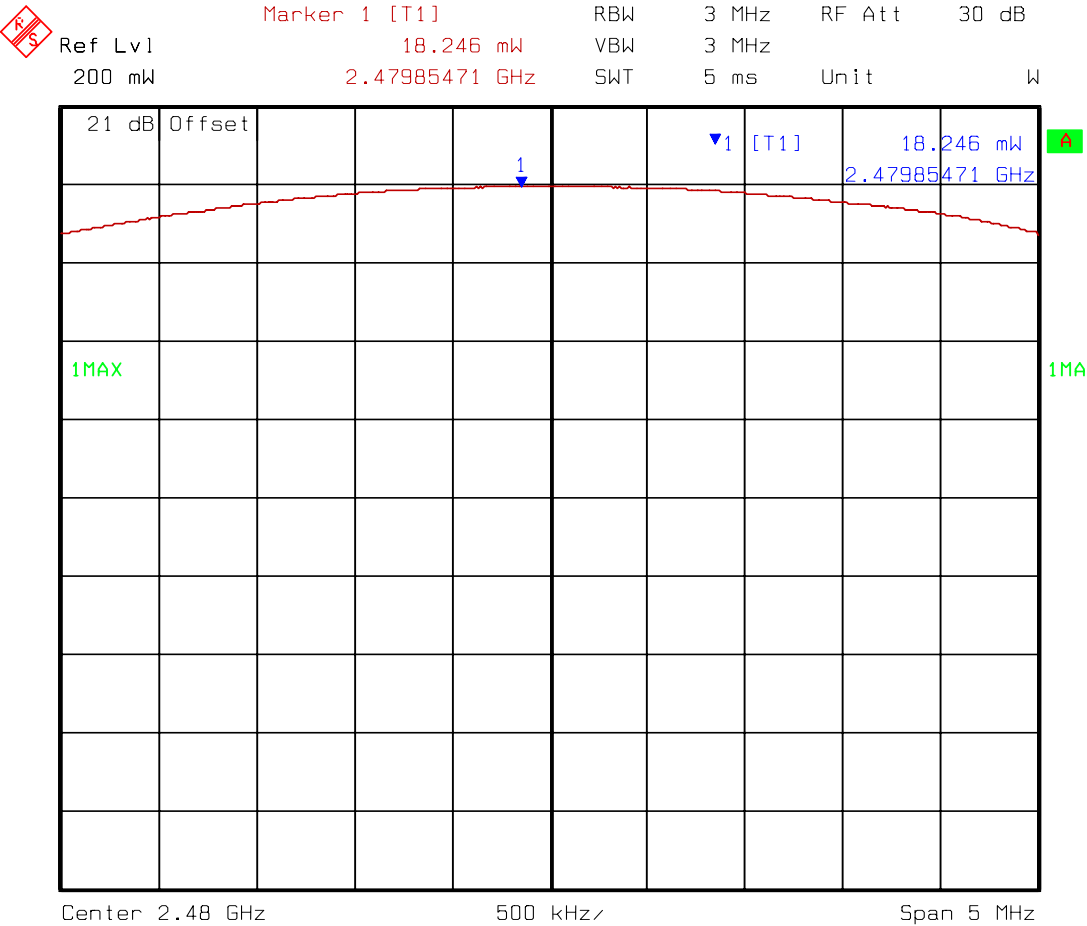
Title: Peak Output Power - Middle Channel, 126.5Vac
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247
Date: 23.OCT.2002 11:02:34

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

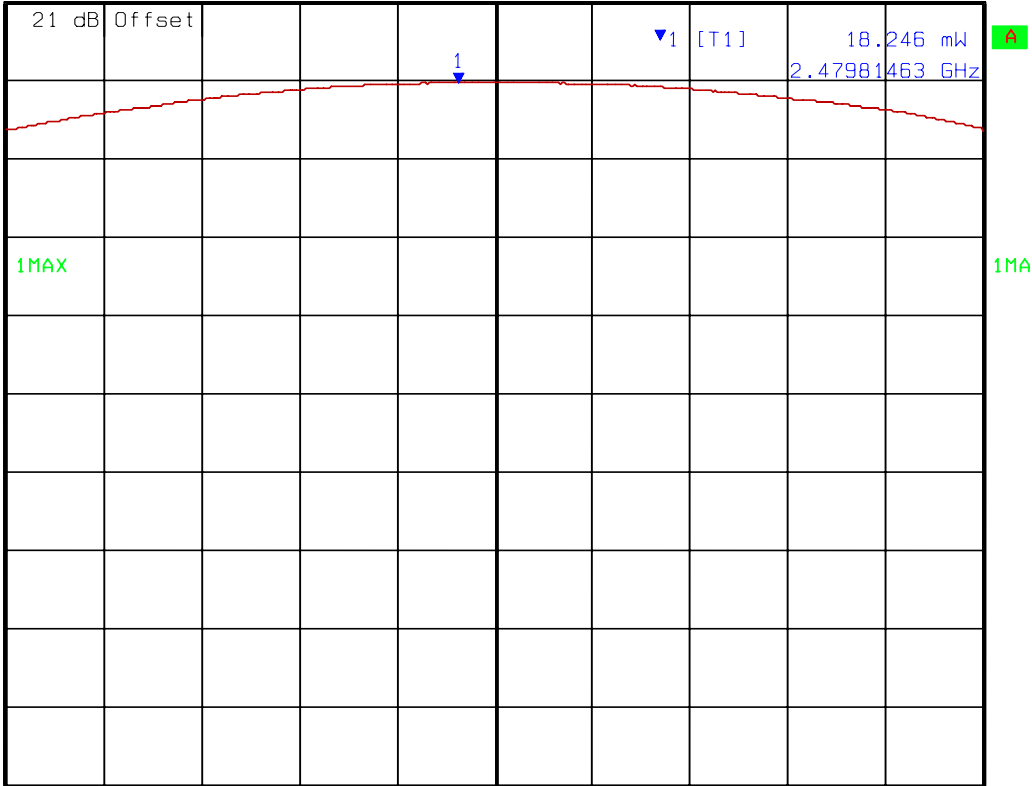
Test Of: Brain Boxes Ltd.
BL-510

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



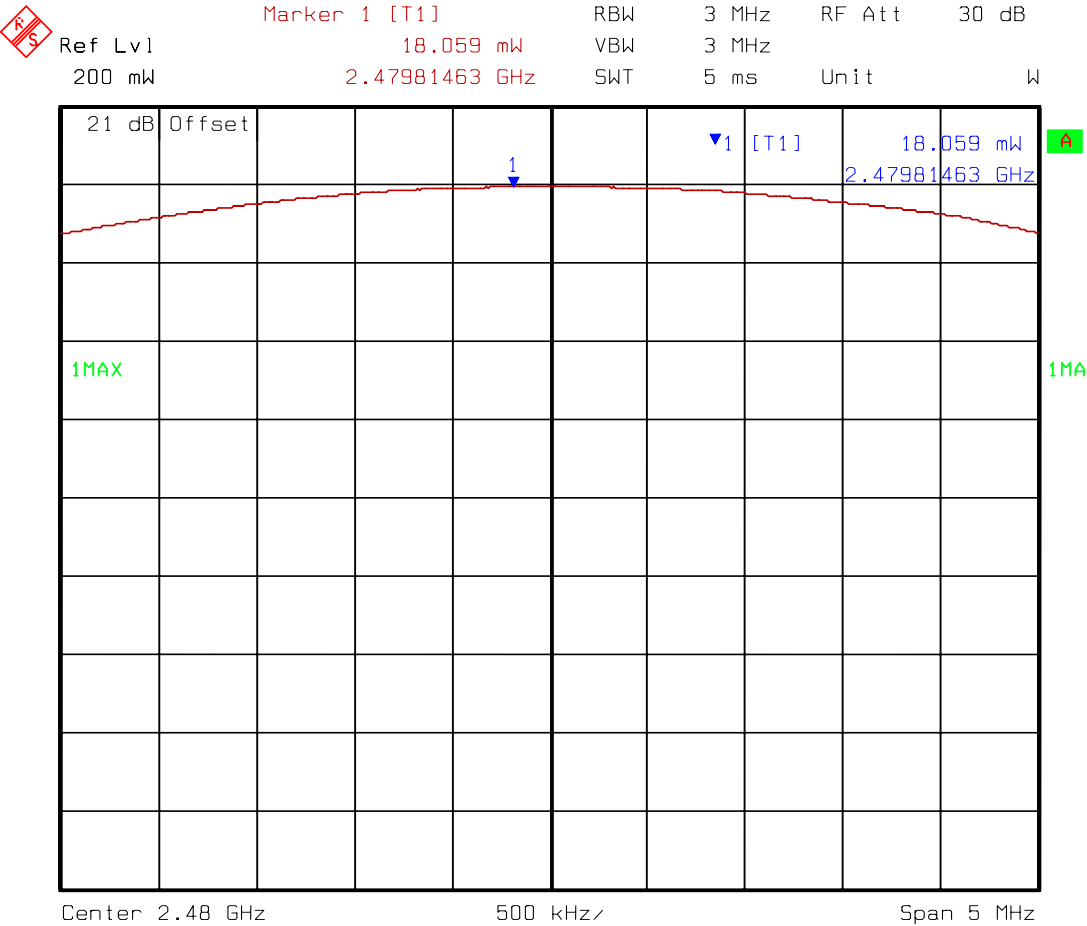
Center 2.48 GHz 500 kHz Span 5 MHz

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

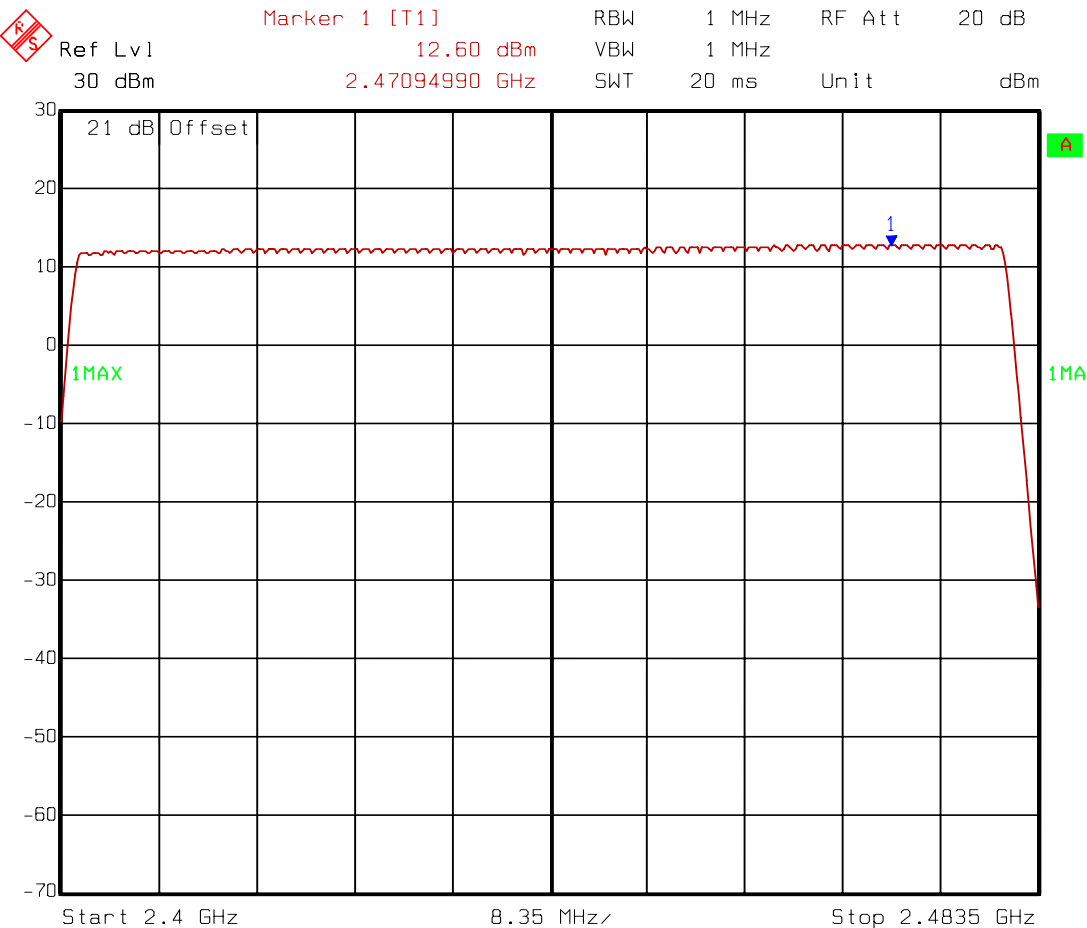
Operations Department

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

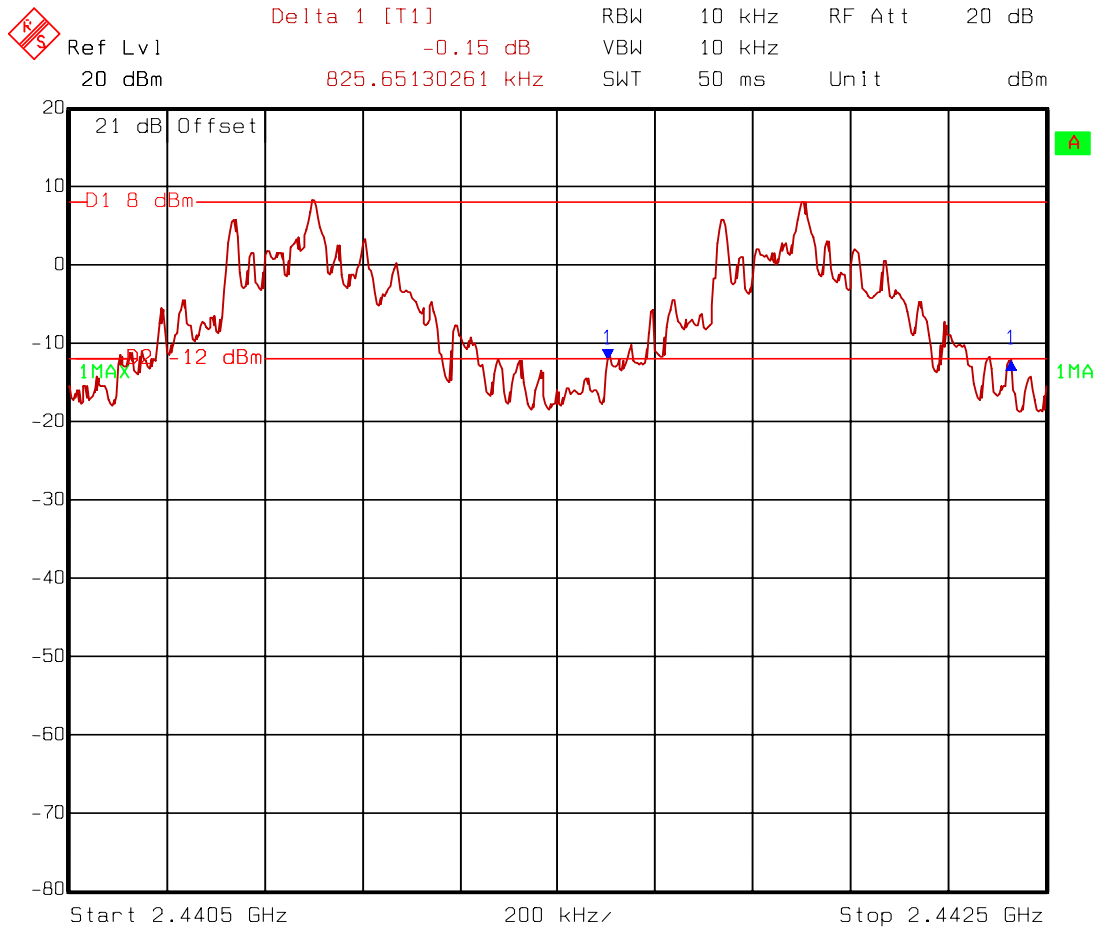
Date: 23.OCT.2002 13:48:32

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

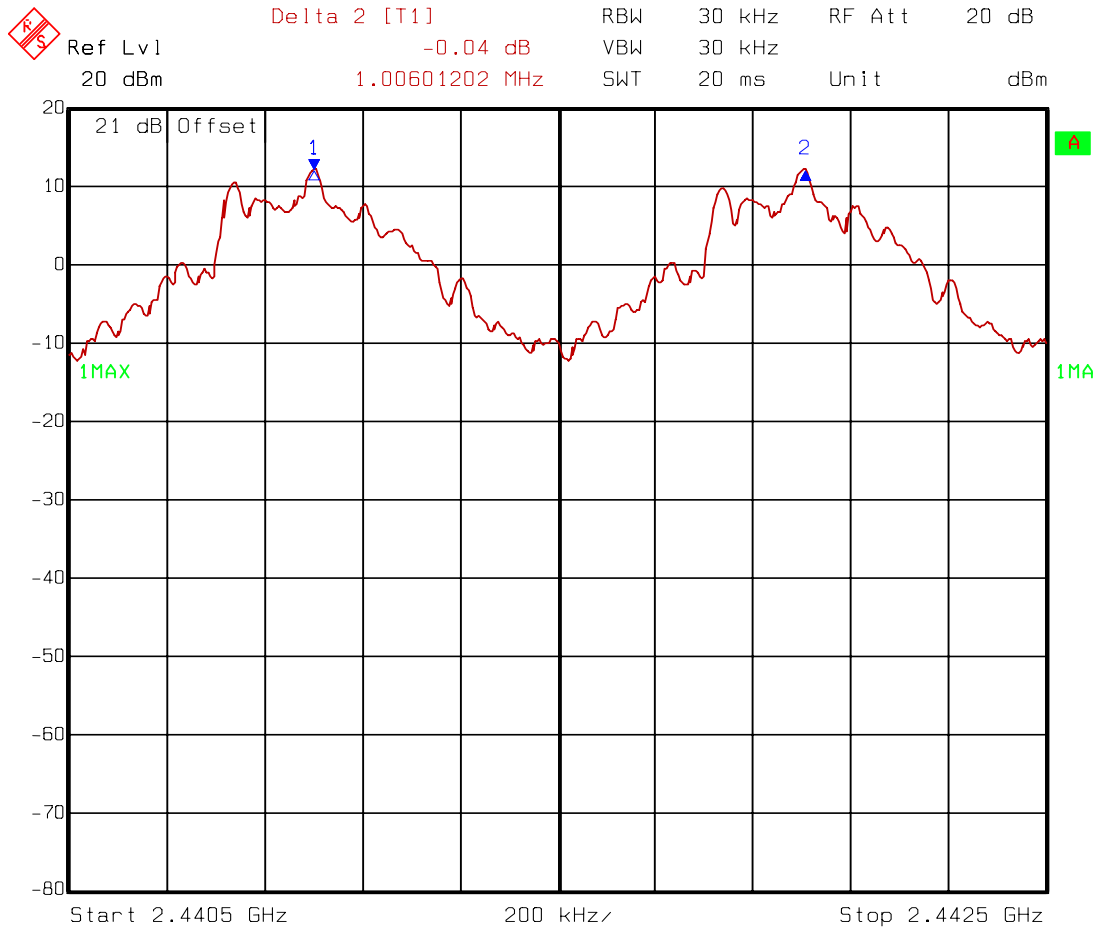
Date: 23.OCT.2002 14:53:49

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

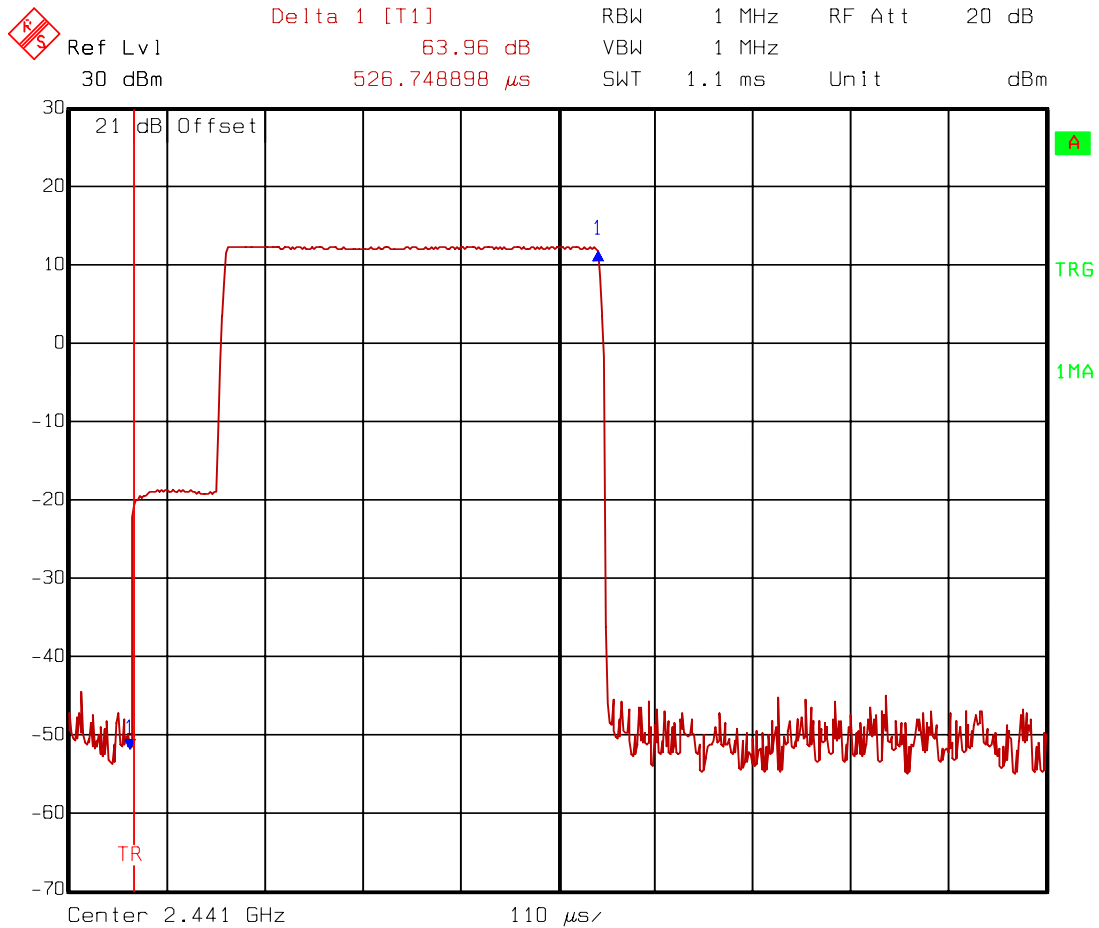
Date: 23.OCT.2002 11:27:52

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

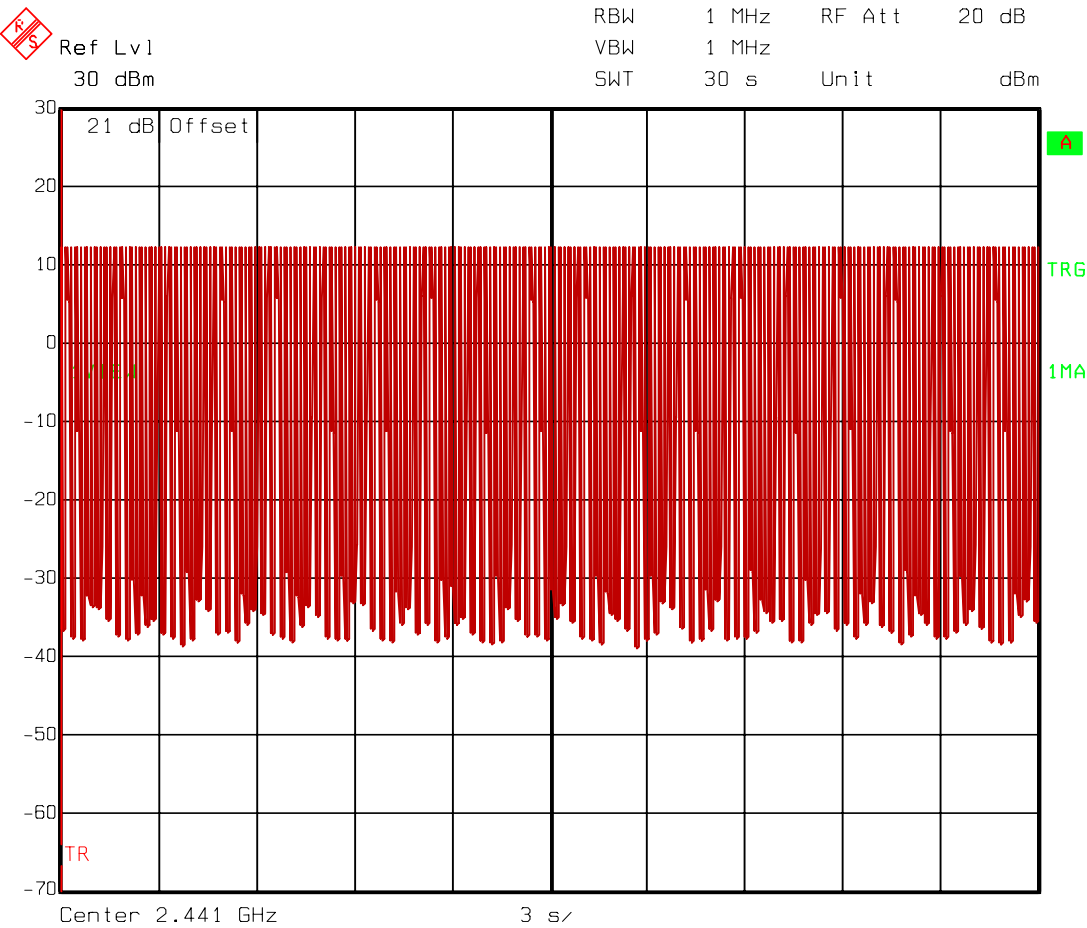
Comment A: Testing of Brain Boxes BL-510\642 to FCC Part 15.247

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

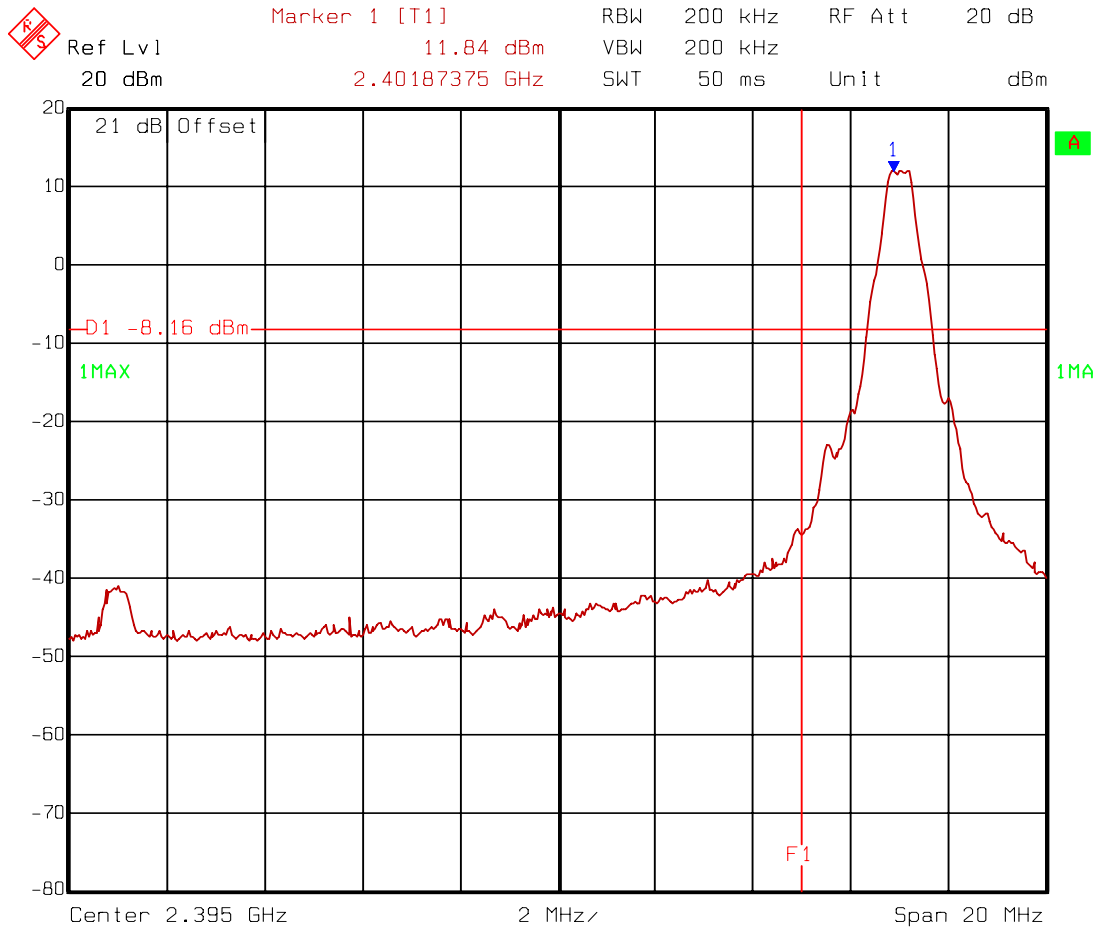
Operations Department

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

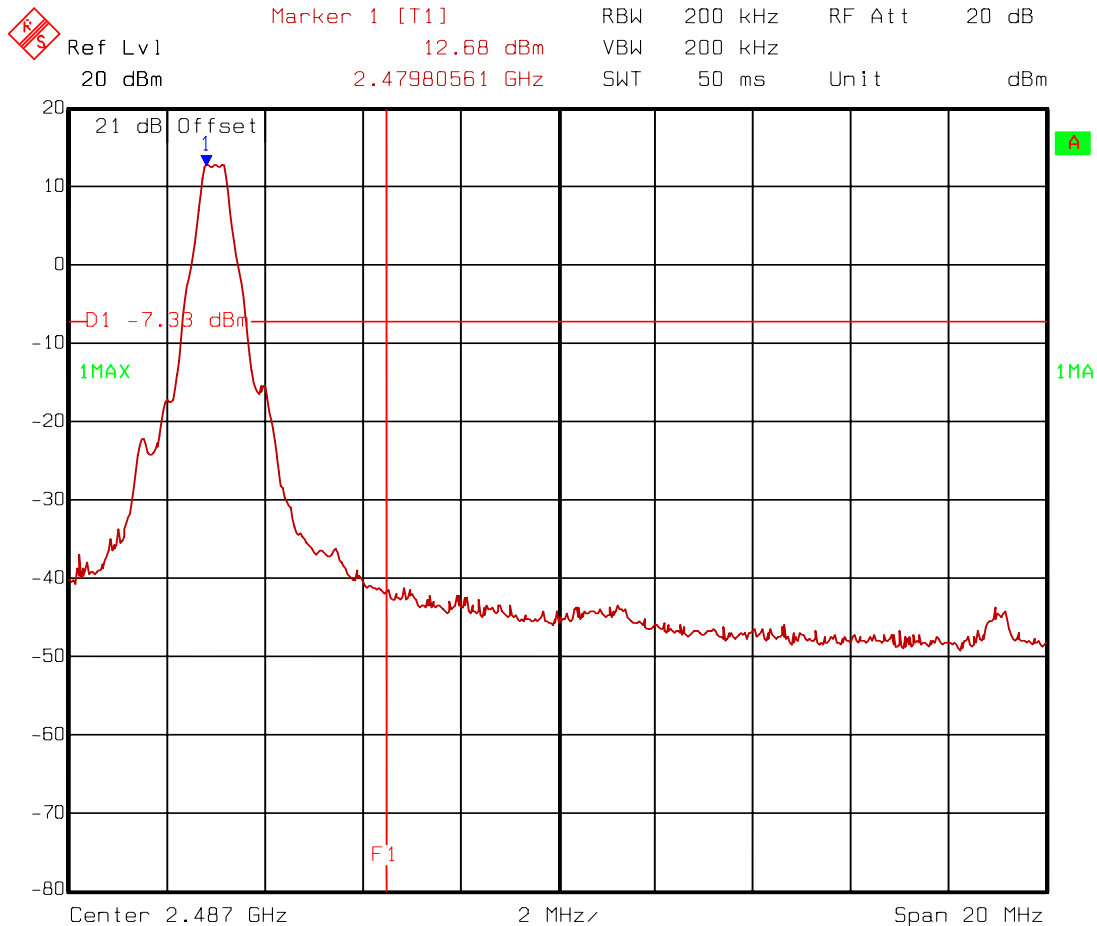
Operations Department

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

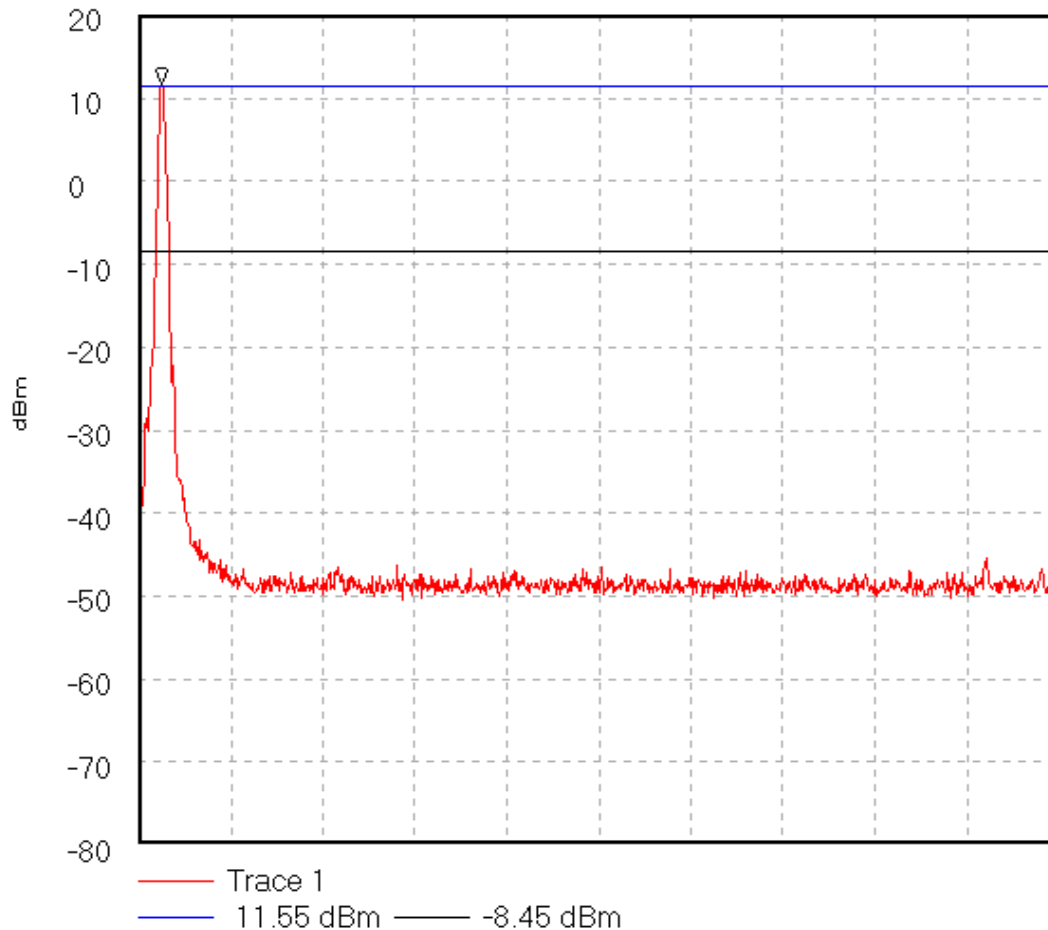
Test Of: Brain Boxes Ltd.
BL-510

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

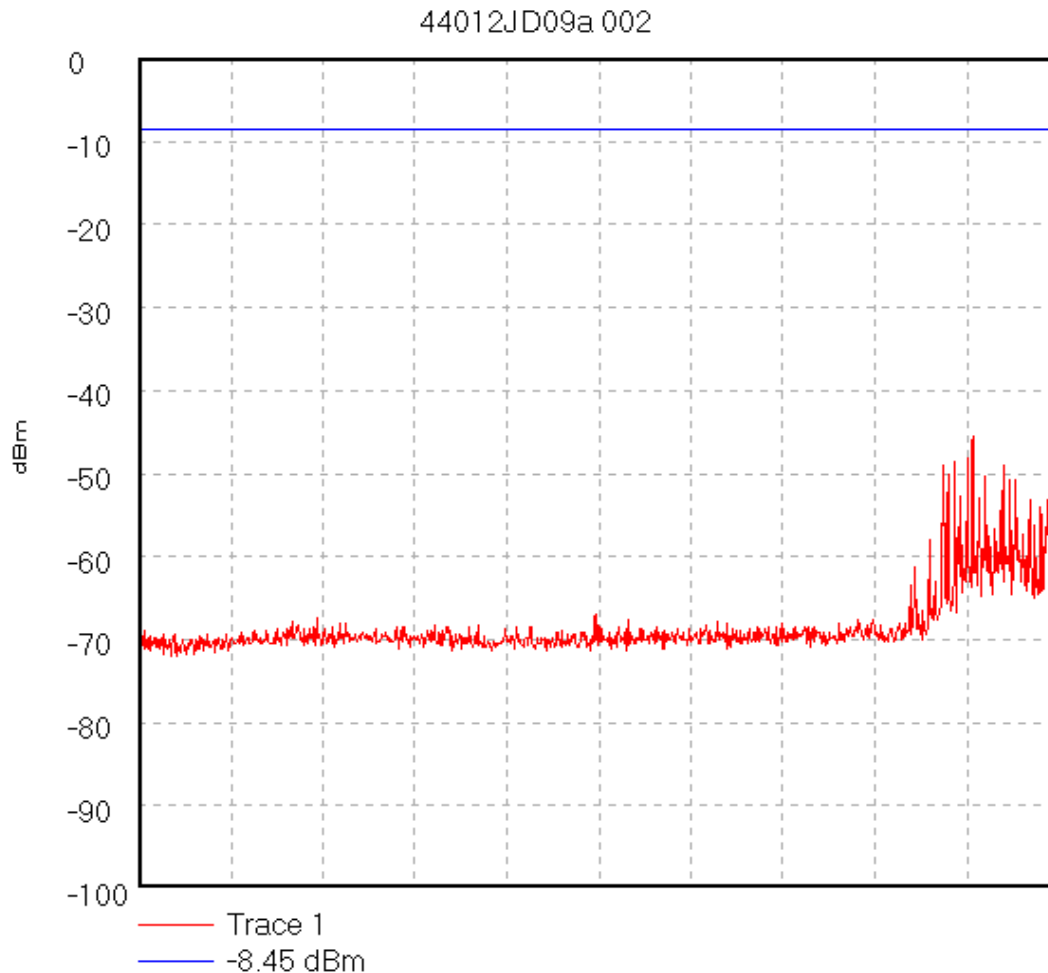
Operations Department

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

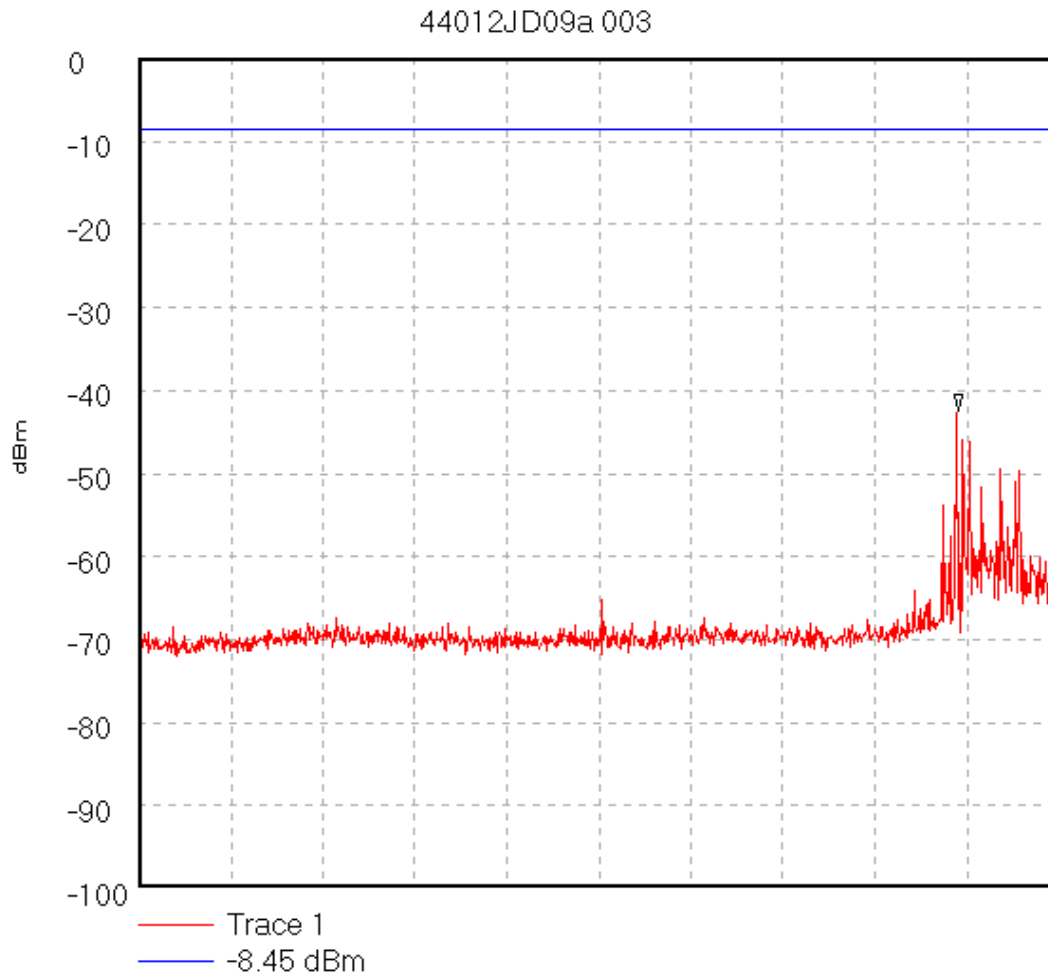
Operations Department

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

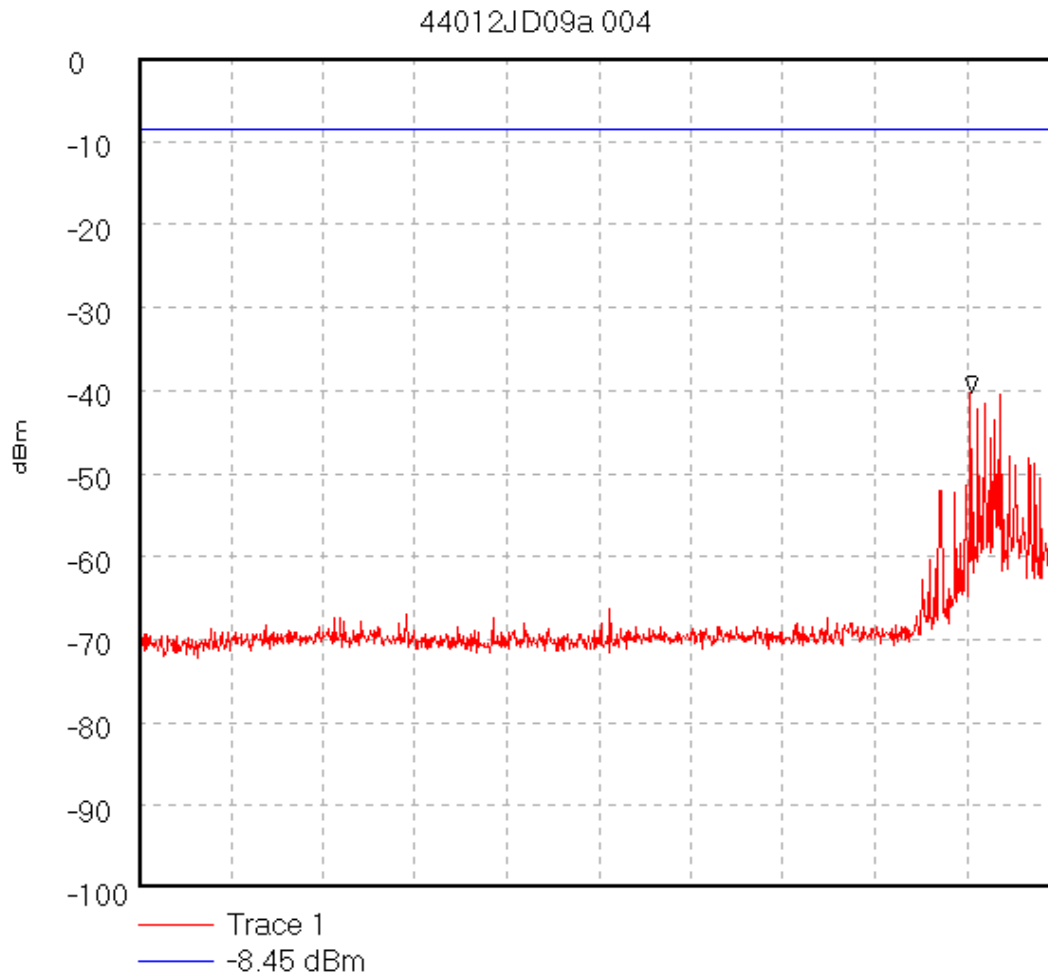
Operations Department

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

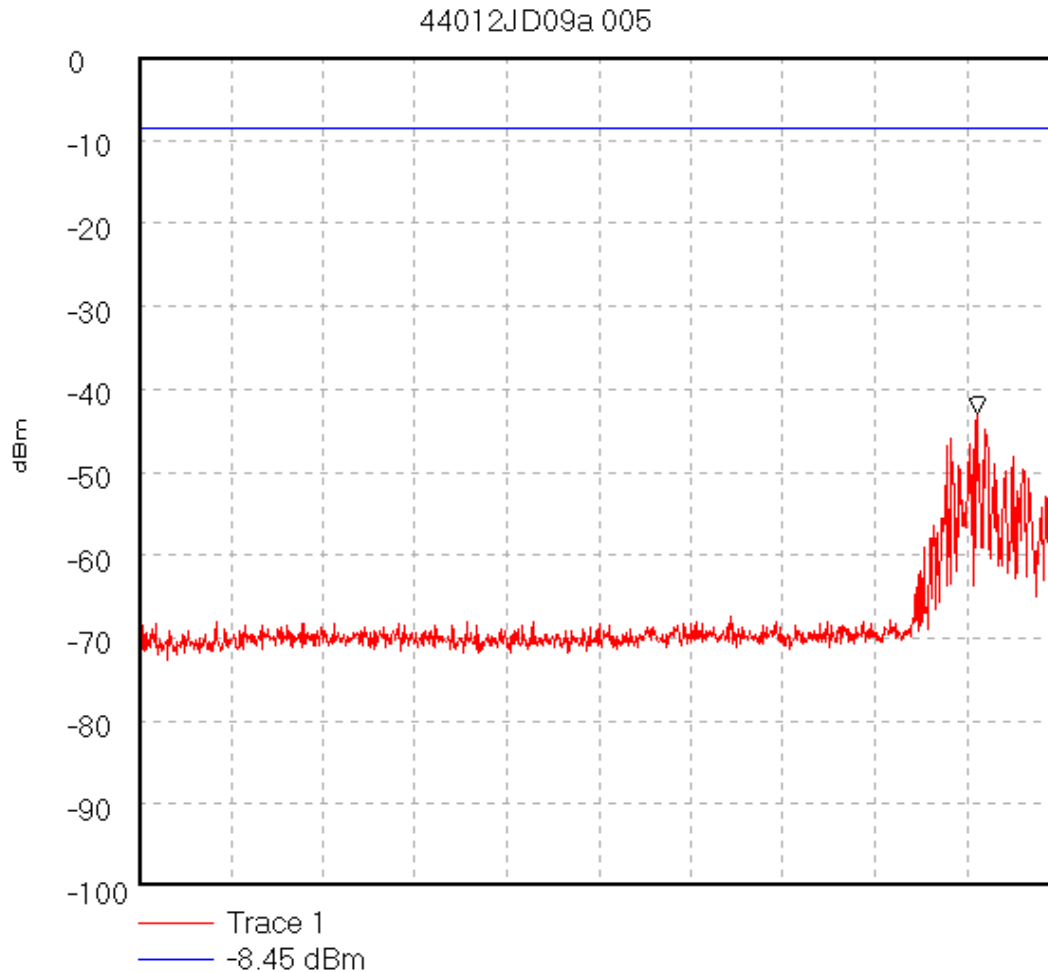
Operations Department

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

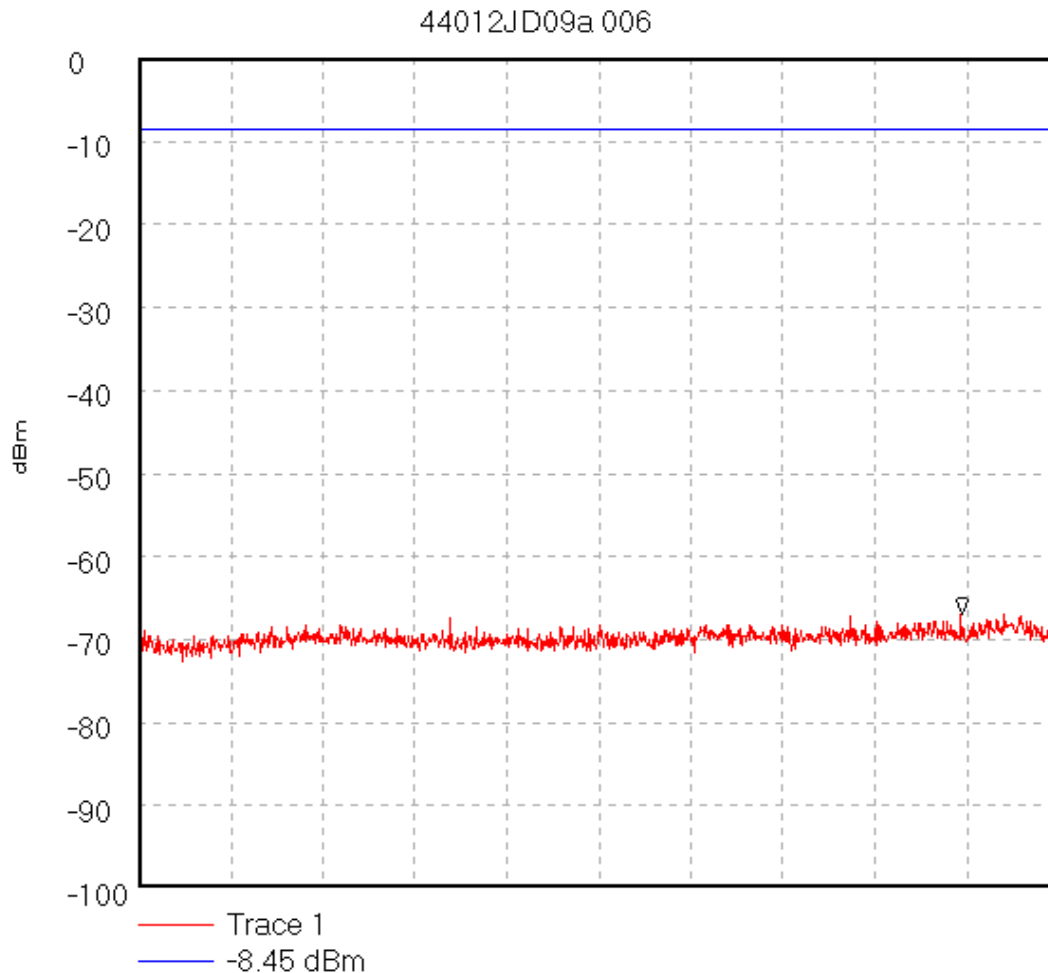
Operations Department

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

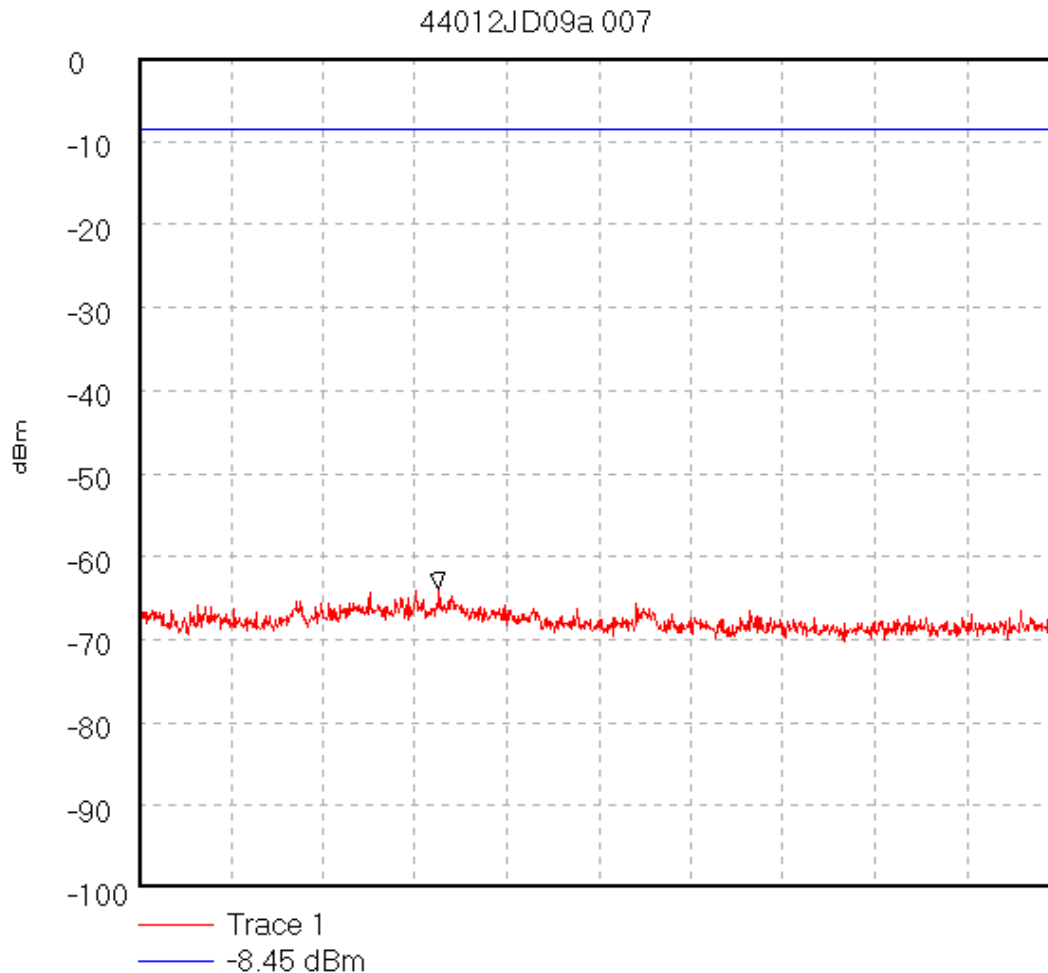
Operations Department

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 5.75557 GHz, -64.01 dBm

Display Line: -8.45 dBm; ; Limit Test Passed

04/01/80 00:49:00

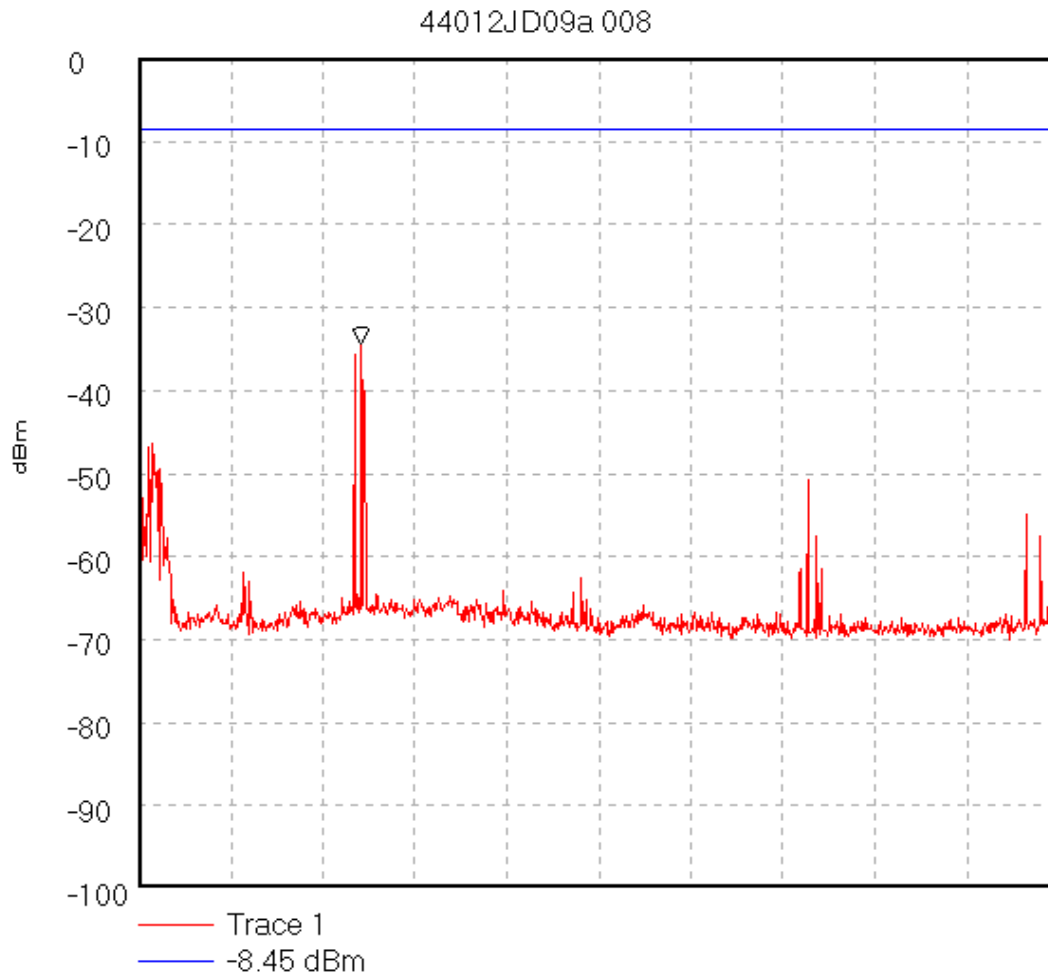
Operations Department

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

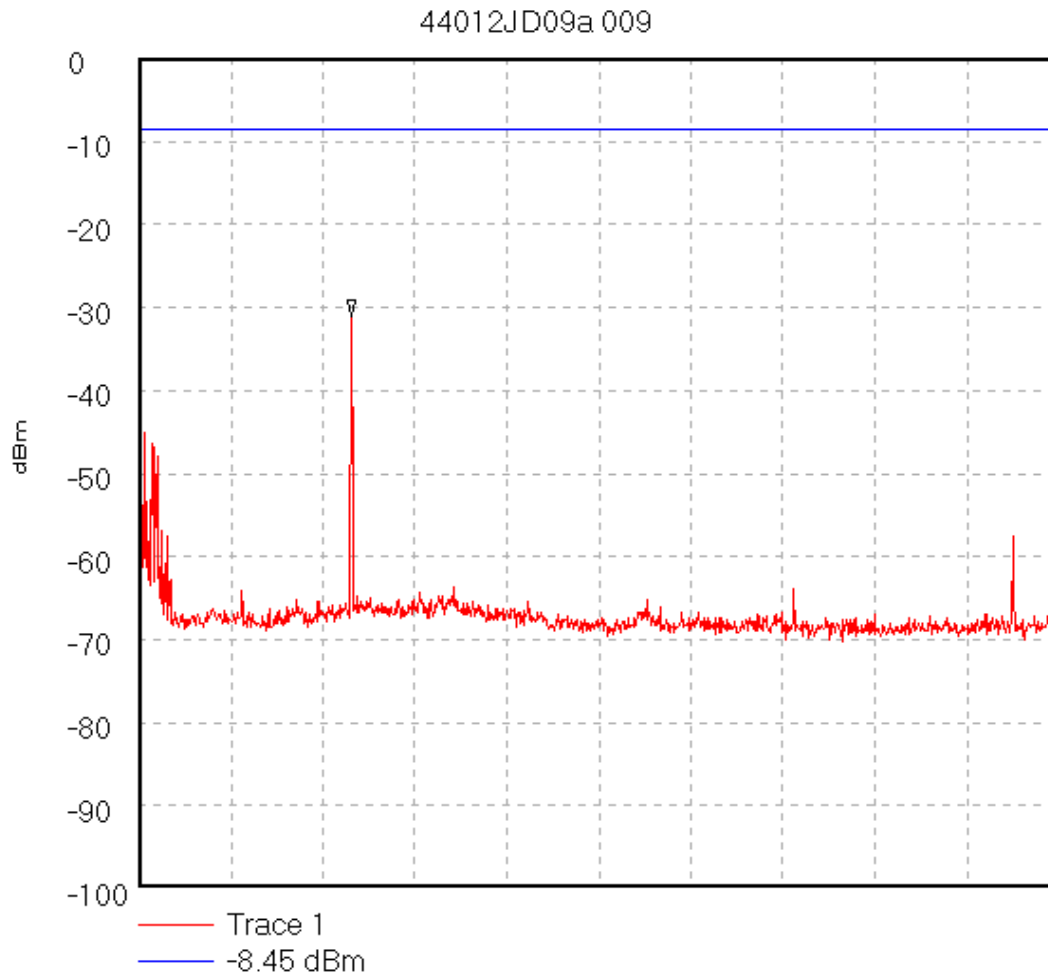
Operations Department

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

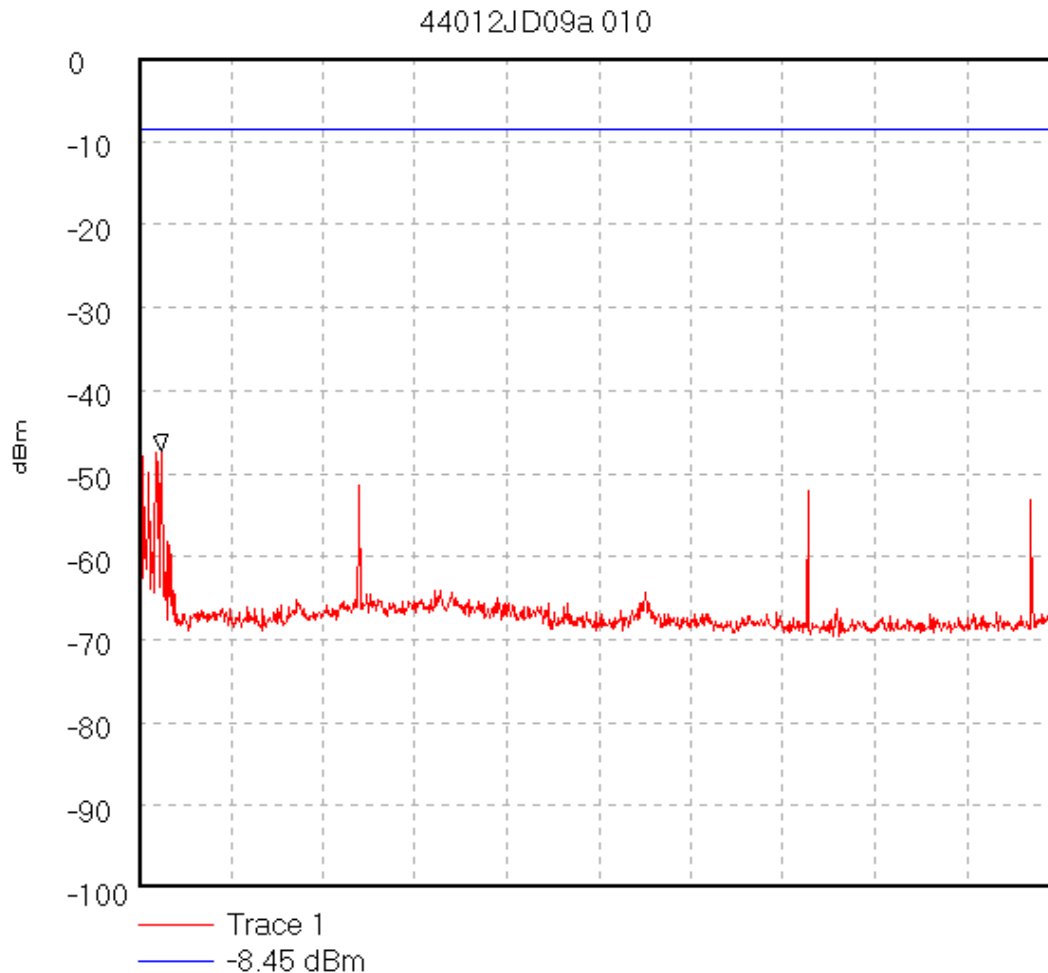
04/01/80 00:53:31

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

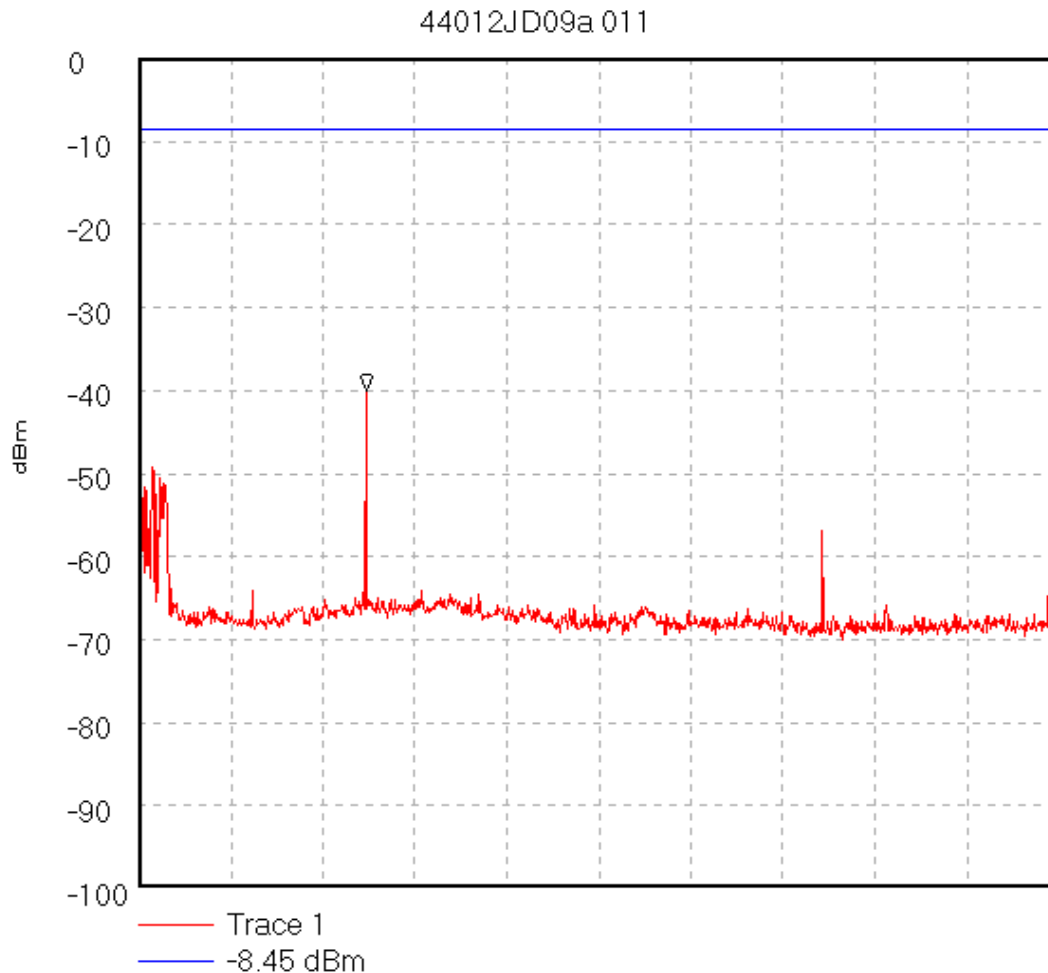
04/01/80 00:58:16

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\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

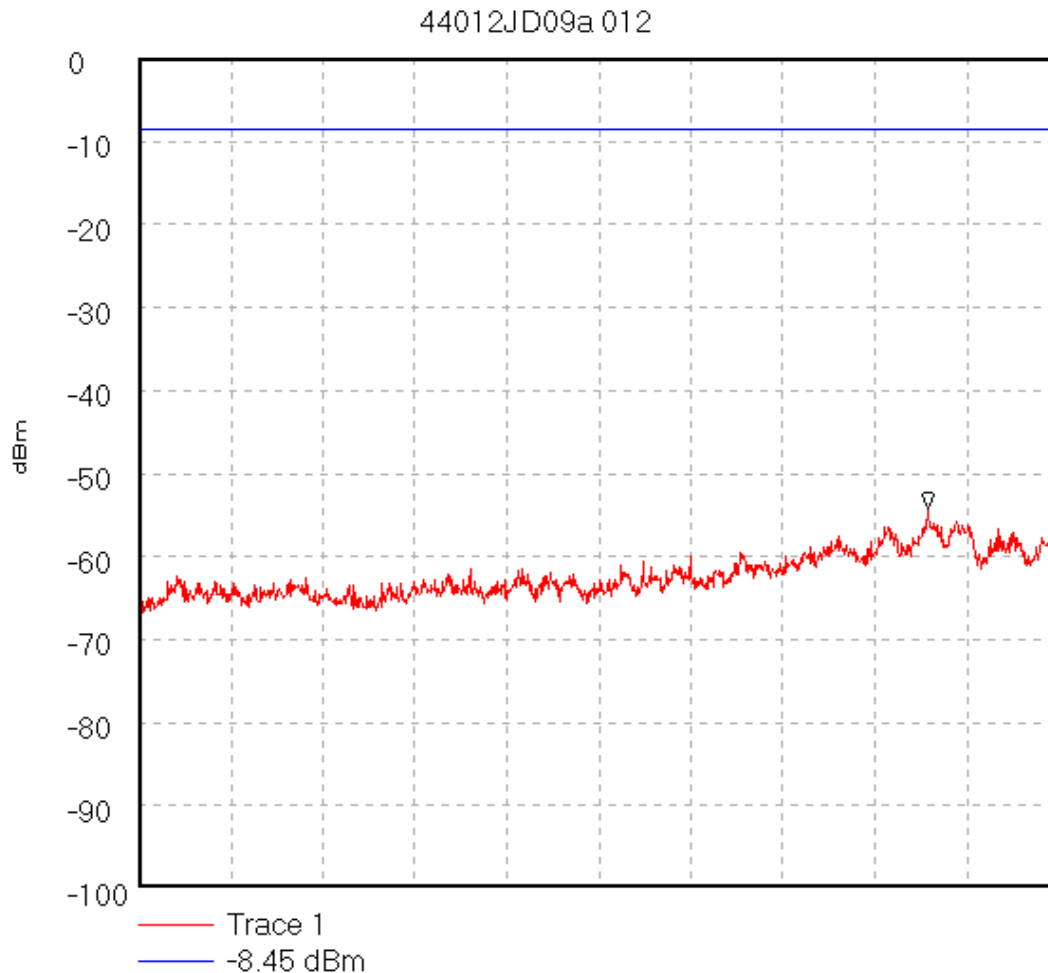
04/01/80 00:59:25

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

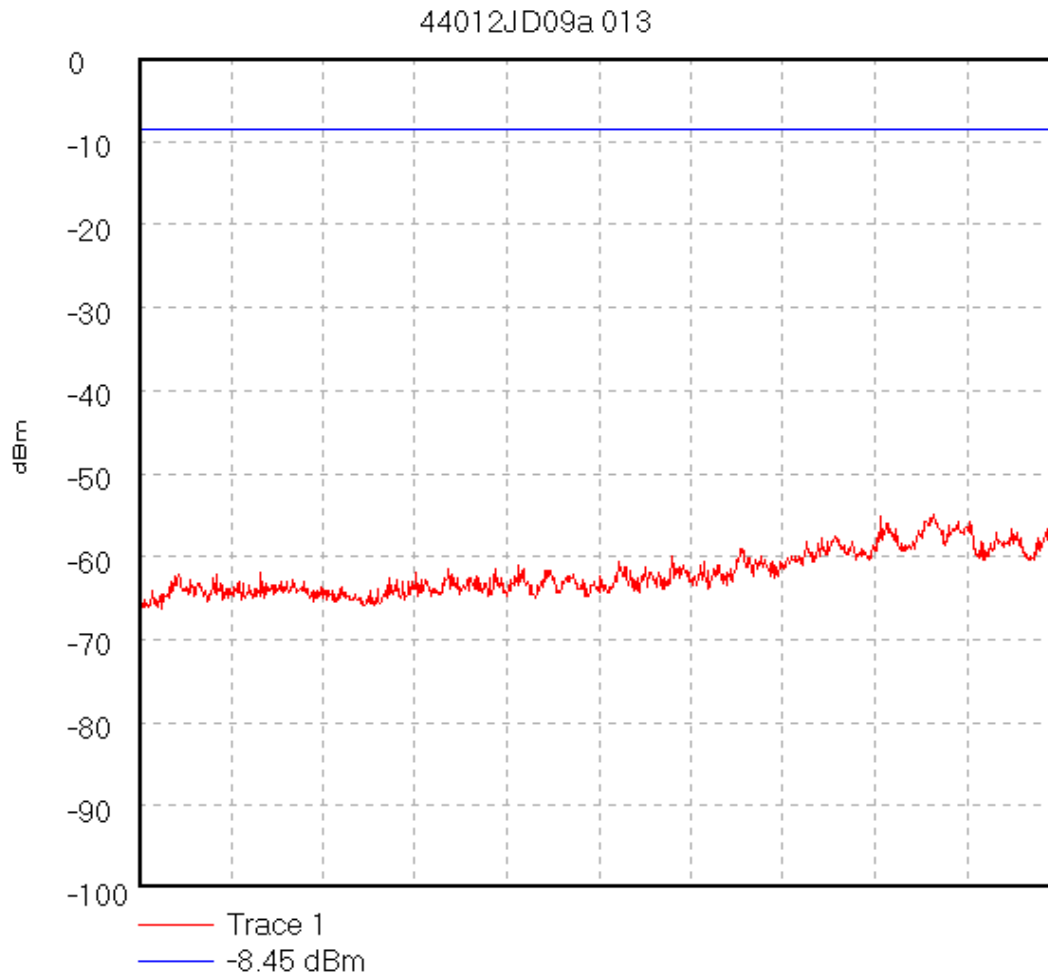
Operations Department

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

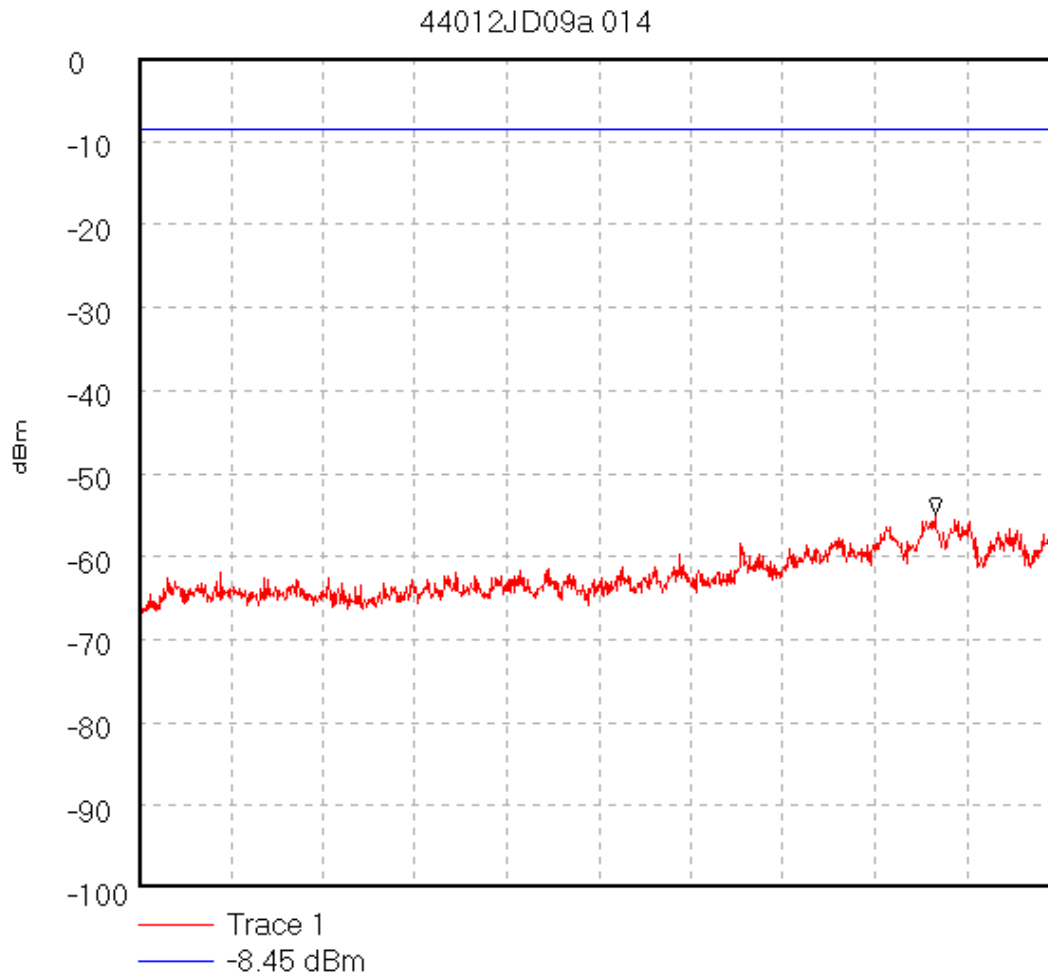
Operations Department

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

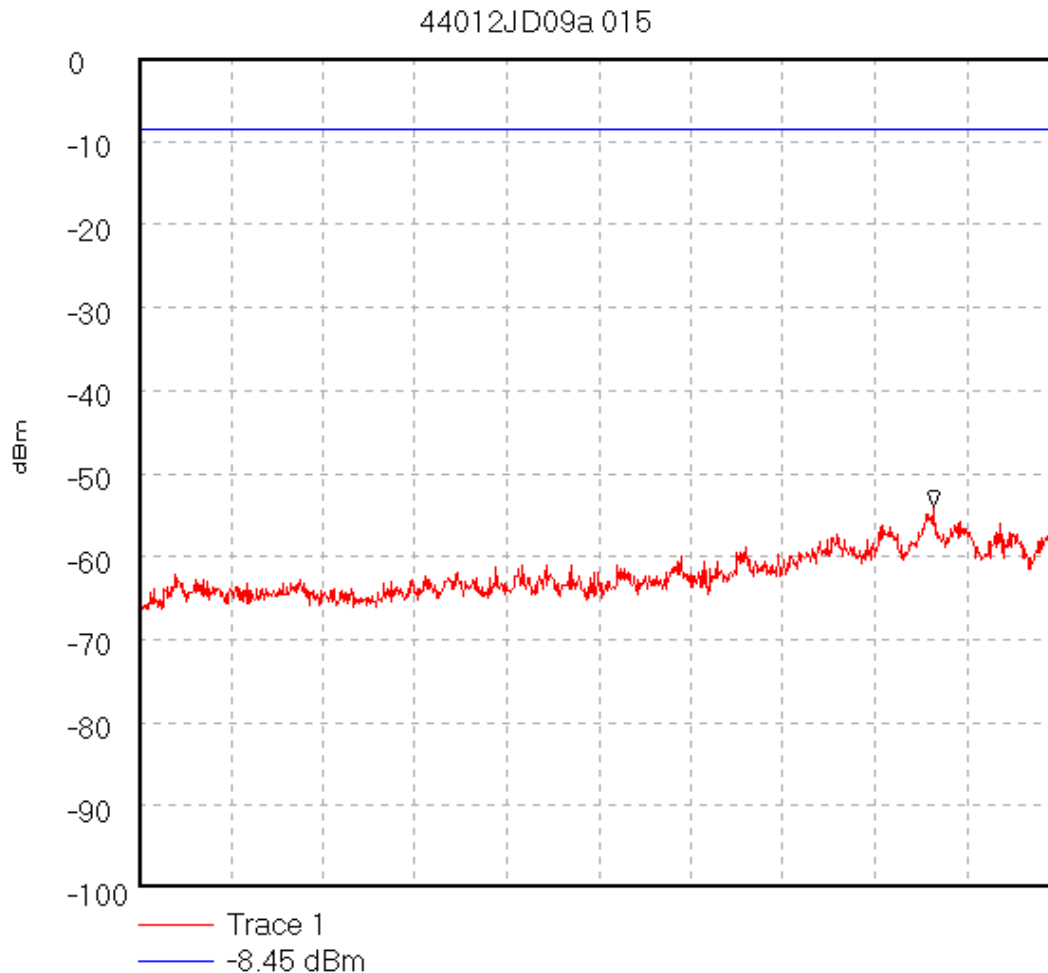
Operations Department

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

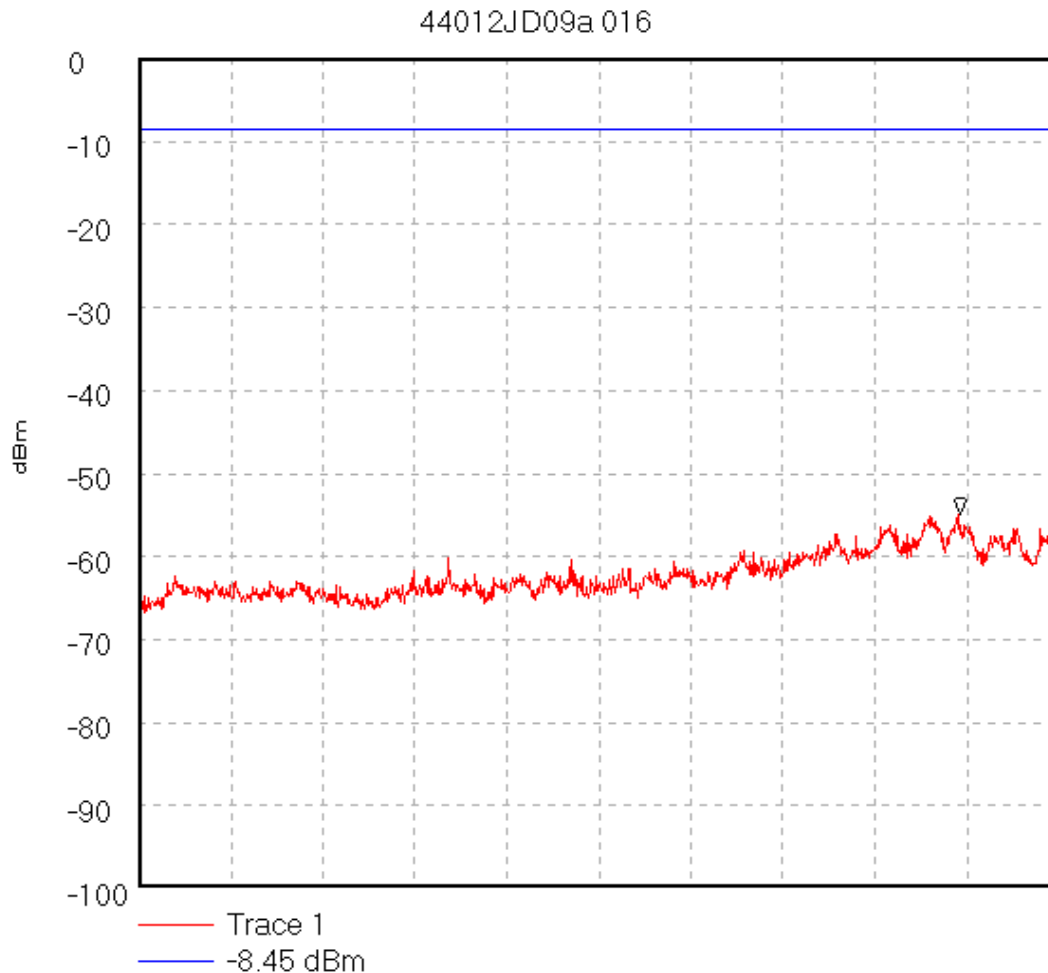
Operations Department

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

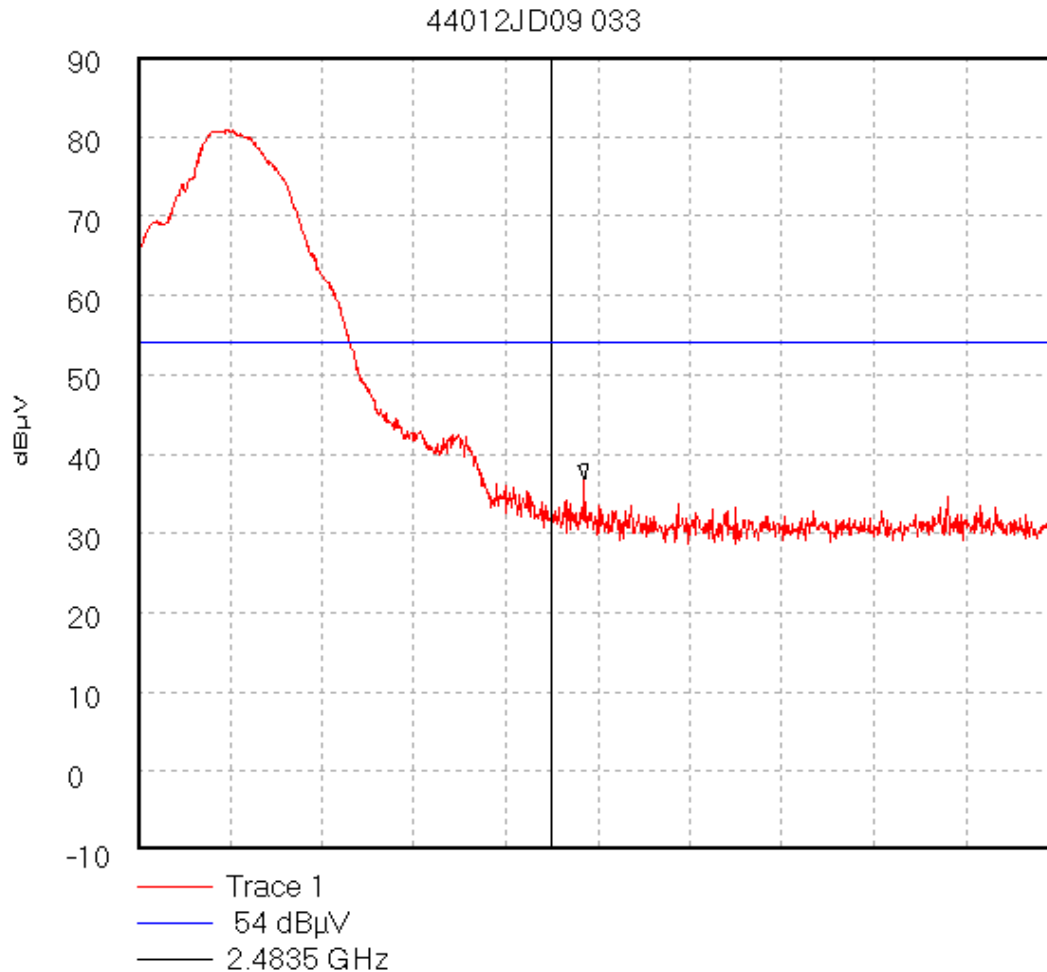
Operations Department

Test Of: Brain Boxes Ltd.
BL-510

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

GPH\44012JD09\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