

GRAPHICAL SECTION FOR RFI TEST REPORT SERIAL NO: RFI/EMCB1/RP43908JD04A

Test Of: Giant Electronics Ltd. OLUSB Bluetooth Dongle

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

Radio Frequency Investigation Ltd, Ewhurst Park, Ramsdell, Basingstoke, Hampshire, RG26 5RQ, ENGLAND. Tel: +44 (0) 1256 851193 Fax: +44 (0) 1256 851192 Registered in England, No. 211 7901. Registered Office: Ewhurst Park, Ramsdell, Basingstoke, Hampshire RG26 5RQ



Test Of:	Giant Electronics Ltd.
	OLUSB Bluetooth Dongle
To:	F.C.C. Part 15 Subpart C: 2001
	(Intentional Radiators)
	Section 15.247

Graphical Test Results

Graph Reference Number	Title
GPH\43908JD04\039	Scan of AC conducted emissions, bottom channel
GPH\43908JD04\040	Scan of AC conducted emissions, middle channel
GPH\43908JD04\041	Scan of AC conducted emissions, hopping all channels
GPH\43908JD04\042	Scan of AC conducted emissions, top channel
GPH\43908JD04\043	Scan of AC conducted emissions, receive mode
GPH\43908JD04\CE001	Scan of conducted transmitter power, bottom channel
GPH\43908JD04\CE002	Scan of conducted transmitter power, bottom channel
GPH\43908JD04\CE003	Scan of conducted transmitter power, bottom channel
GPH\43908JD04\CE004	Scan of conducted transmitter power, middle channel
GPH\43908JD04\CE005	Scan of conducted transmitter power, middle channel
GPH\43908JD04\CE006	Scan of conducted transmitter power, middle channel
GPH\43908JD04\CE007	Scan of conducted transmitter power, top channel
GPH\43908JD04\CE008	Scan of conducted transmitter power, top channel
GPH\43908JD04\CE009	Scan of conducted transmitter power, top channel
GPH\43908JD04\CE011	Scan of conducted transmitter power, hopping all channels
GPH\43908JD04\005a	Scan of radiated emissions, receive mode (30 MHz to 1 GHz)
GPH\43908JD04\006a	Scan of radiated emissions, high power, bottom channel (30 MHz to 1 GHz)
GPH\43908JD04\007a	Scan of radiated emissions, high power, middle channel (30 MHz to 1 GHz)
GPH\43908JD04\008a	Scan of radiated emissions, high power, top channel (30 MHz to 1 GHz)
GPH\43908JD04\010	Scan of radiated emissions, receive mode (1 to 2 GHz)
GPH\43908JD04\011	Scan of radiated emissions, high power, bottom channel (1 to 2 GHz)
GPH\43908JD04\012	Scan of radiated emissions, high power, middle channel (1 to 2 GHz)
GPH\43908JD04\013	Scan of radiated emissions, high power, top channel (1 to 2 GHz)

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Graphical Test Results (continued)

Graph Reference Number	Title
GPH\43908JD04\014	Scan of radiated emissions, receive mode (2 to 4 GHz)
GPH\43908JD04\015	Scan of radiated emissions, high power, bottom channel (2 to 4 GHz)
GPH\43908JD04\016	Scan of radiated emissions, high power, middle channel (2 to 4 GHz)
GPH\43908JD04\017	Scan of radiated emissions, high power, top channel (2 to 4 GHz)
GPH\43908\030	Scan of radiated emissions, set to bottom, middle and top channels individually (6 to 8 GHz)
GPH\43908\031	Scan of radiated emissions, receive mode (6 to 8 GHz)
GPH\43908\032	Scan of radiated emissions, receive mode (4 to 6 GHz)
GPH\43908\033	Scan of radiated emissions, set to bottom, middle and top channels individually (4 to 6 GHz)
GPH\43908\034	Scan of radiated emissions, set to bottom, middle and top channels individually (8 to 12.5 GHz)
GPH\43908\035	Scan of radiated emissions, set to bottom, middle and top channels individually (12.5 to 18 GHz)
GPH\43908\036	Scan of radiated emissions, set to bottom, middle and top channels individually (18 to 26.5 GHz)
GPH\43908JD04\CE014	Scan of occupied bandwidth, 20 dB bandwidth, 826 kHz, hopping all channels
GPH\43908JD04\CE010	Scan of channel separation, 998 kHz, hopping all channels
GPH\43908JD04\CE012	Scan of time occupancy, hopping all channels
GPH\43908JD04\CE013	Scan of time occupancy, hopping all channels
GPH\43908JD04\CE015	Scan of band edge compliance of RF conducted emissions, bottom channel
GPH\43908JD04\CE016	Scan of band edge compliance of RF conducted emissions, top channel
GPH\43908JD04\037	Scan of band edge radiated emissions, bottom channel
GPH\43908JD04\038	Scan of band edge radiated emissions, top channel

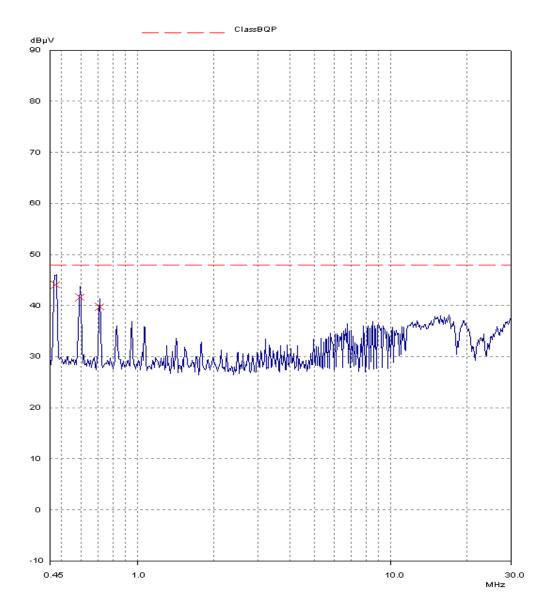
Test Of:	Giant Electronics Ltd.
	OLUSB Bluetooth Dongle
To:	F.C.C. Part 15 Subpart C: 2001
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Graphical Test Results (continued)

Title
Scan of conducted spurious emissions, high power, bottom channel (30 MHz to 1 GHz)
Scan of conducted spurious emissions, high power, middle channel (30 MHz to 1 GHz)
Scan of conducted spurious emissions, high power, top channel (30 MHz to 1 GHz)
Scan of conducted spurious emissions, high power, bottom channel (1 to 2.4 GHz)
Scan of conducted spurious emissions, high power, middle channel (1 to 2.4 GHz)
Scan of conducted spurious emissions, high power, top channel (1 to 2.4 GHz)
Scan of conducted spurious emissions, high power, bottom channel (2.484 to 5 GHz)
Scan of conducted spurious emissions, high power, middle channel (2.484 to 5 GHz)
Scan of conducted spurious emissions, high power, top channel (2.484 to 5 GHz)
Scan of conducted spurious emissions, high power, bottom channel (5 to 12.75 GHz)
Scan of conducted spurious emissions, high power, middle channel (5 to 12.75 GHz)
Scan of conducted spurious emissions, high power, top channel (5 to 12.75 GHz)
Scan of conducted spurious emissions, high power, bottom channel (12.75 to 26.5GHz)
Scan of conducted spurious emissions, high power, middle channel (12.75 to 26.5GHz)
Scan of conducted spurious emissions, high power, top channel (12.75 to 26.5GHz)

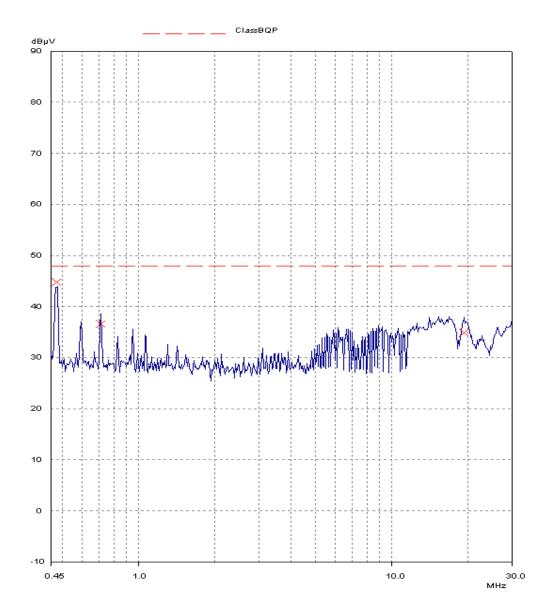
Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\039 Scan of AC Conducted Emissions. Bottom Channel.



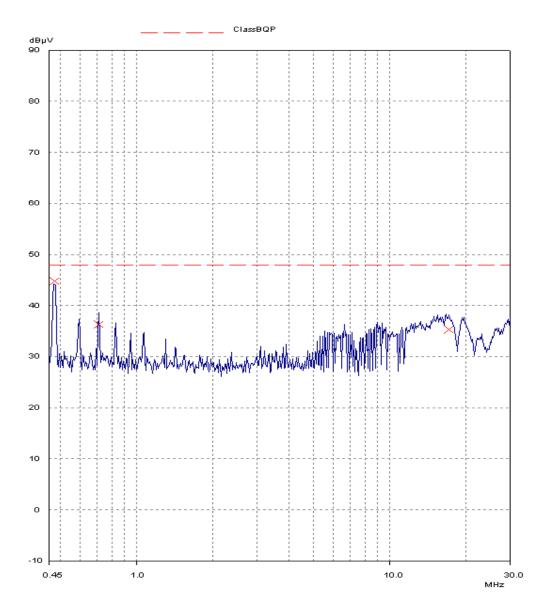
Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\040 Scan of AC Conducted Emissions. Middle Channel.



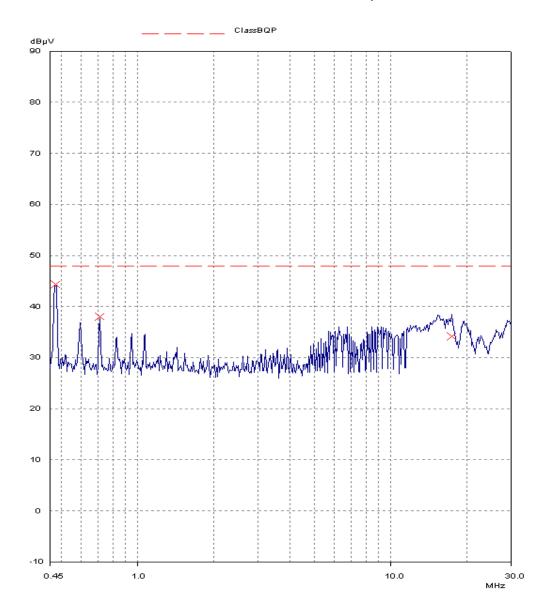
Test Of:Giant Electronics Ltd.
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GPH\43908JD04\041 Scan of AC Conducted Emissions. Hopping All Channels.



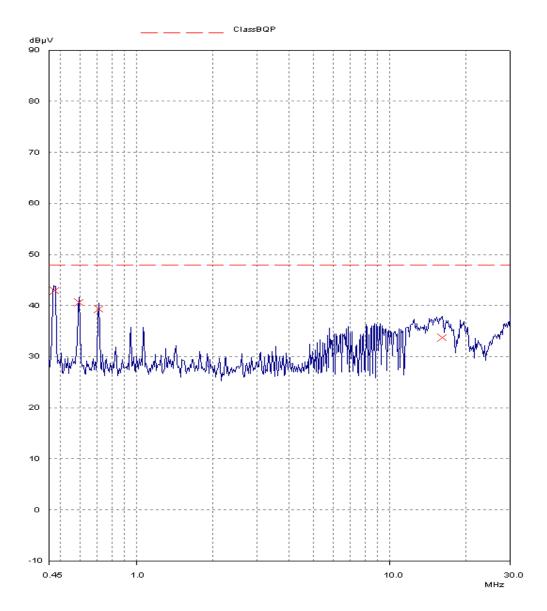
Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\042 Scan of AC Conducted Emissions. Top Channel.



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GPH\43908JD04\043 Scan of AC Conducted Emissions. Receive Mode.



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GPH\43908JD04\CE001 Scan of Conducted Transmitter Power. Bottom Channel.

	Marker 1 [T1] 16.' 2.40176	921 mW	VBW	3 MH	Z	
21.1 dB Offs	se t					A
		1				
1MAX						1MA
Center 2.402 (500 k	Hzz			Span 5 MHz
Title: Peak Ou				33.5Vac		

Title: Peak Output Power - Bottom Channel, 93.5Vac Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal

FCC

Date:

FCC Part 15.247 5.NOV.2002 10:26:32

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\CE002 Scan of Conducted Transmitter Power. Bottom Channel.

Ref Lvl 200 mW	Marker 1 [T1] 16. 2.40208	969 mW	VBW	3 M	Hz			
21.1 dB Off	set		1					A
			*					
1MAX								1MA
Center 2.402 Title: Peak Ou		500 k ottom Cha		110Vac		Spa	n 5 MHz	

Title: Peak Output Power - Bottom Channel, 110Vac Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal

FCC

Date:

FCC Part 15.247 5.NOV.2002 10:16:52

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\CE003 Scan of Conducted Transmitter Power. Bottom Channel.

	Marker 1 [T1] 16.9 2.401994	969 mW	VBW	3 M	Hz			I
21.1 dB Offe	se t							A
		1						
1MAX								1MA
Center 2.402 G Title: Peak Ou		500 k				Spa	an 5 MHz	

Title: Peak Output Power - Bottom Channel, 126.5Vac Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal

FCC Part 15.247

Date:

5.NOV.2002 10:28:09

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\CE004 Scan of Conducted Transmitter Power. Middle Channel.

Ref Lvl 200 mW	Marker 1 [T1] 20.1 2.440764	41 mW	VBW	3 MHz	<u>.</u>	
21.1 dB Offe	set	1				A
		1				
1MAX						1MA
Center 2.441 G Title: Peak Ou		500 k			l S¢	ban 5 MHz

Title: Peak Output Power - Middle Channel, 93.5Vac Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal FCC Part 15.247

Date:

5.NOV.2002 10:35:41

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\CE005 Scan of Conducted Transmitter Power. Middle Channel.

	Ref Lvl 200 mW	Marker 2	20.1	41 mW	VBW	ЗМ	IHz		30 dB W	I
	21.1 dB Of	fset								A
				1						
	1MAX									1MA
	Center 2.441	GHz	1	500	kHz∕	1	1	Spi	an 5 MHz	
⊤itle	e: Peak (Dutput Pow	ier - Mi	ddle Cha	annel,	110Vac				

Title: Peak Output Power - Middle Channel, 110Vac Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal

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Date:

FCC Part 15.247 5.NOV.2002 10:34:04

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
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GPH\43908JD04\CE006 Scan of Conducted Transmitter Power. Middle Channel.

Ref Lvl 200 mW	Marker 1 [T 2 2.440	0.331 mW	VBW	3 MHz		
21.1 dB Off	set	1				A
	+	1				
1MAX						1MA
Center 2.441 Title: Peak Ou		500 H Middle Cha		126.5Vac	Sp	an 5 MHz

Title: Peak Output Power - Middle Channel, 126.5Vac Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal FCC Part 15.247

Date: 5.NOV.2002 10:31:37

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\CE007 Scan of Conducted Transmitter Power. Top Channel.

	Marker 1 [T1] 19.9 2.479794	116 mW	VBW	З МН	Ηz			I
21.1 dB Offs	e t							A
		1						
							+	
1MAX								1MA
Center 2.48 GH	iz	500 H	≺Hz∕			Spa	an 5 MHz	

Title: Peak Output Power - Top Channel, 93.5Vac Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal

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Date:

FCC Part 15.247 5.NOV.2002 10:53:08

Test Of: Giant Electronics Ltd. OLUSB Bluetooth Dongle F.C.C. Part 15 Subpart C: 2001 To: (Intentional Radiators) Section 15.247

GPH\43908JD04\CE008 Scan of Conducted Transmitter Power. Top Channel.

Ref Lvl 200 mW	Marker		16 mW	VBW	ЗМ	IHz			I
21.1 dB 0	ffset								A
			1						•
							<u> </u>		
1MAX									1MA
THEX									TUH
Center 2.48	l GHz		500	kHz∕			L Spa	an 5 MHz	J
Title: Peak		ier – To			Vac		· 1		

Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal FCC Part 15.247

Date:

^{5.}NOV.2002 10:54:26

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\CE009 Scan of Conducted Transmitter Power. Top Channel.

Ref Lvl 200 mW	Marker 1 [T1 19 2.4797	.916 mW	VBW	3 MHz		
21.1 dB Off	set					A
		1				
		_				
1MAX						1110
THE						THE
Center 2.48 G	Hz	500 H	≺Hz∕	I	S	pan 5 MHz
Title: Peak Ou	utput Power	Top Channe	el, 126.	.5Vac		

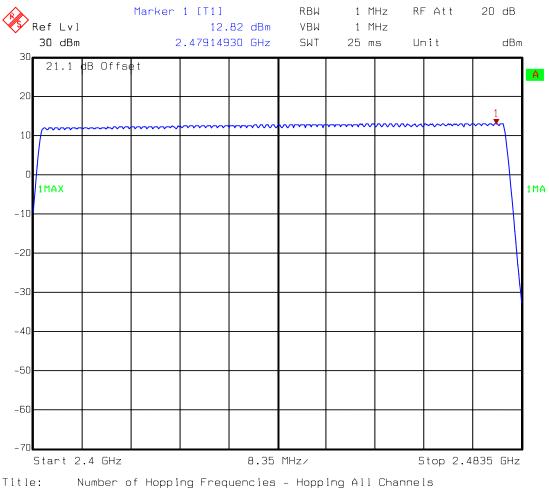
Title: Peak Output Power - Top Channel, 126.5Vac Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal

FCC Date: 5.

FCC Part 15.247 5.NOV.2002 10:56:10

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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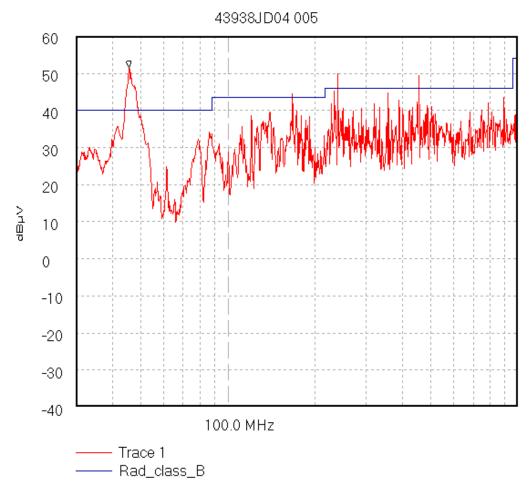
GPH\43908JD04\CE011 Scan of Conducted Transmitter Power. Hopping All Channels.



Litle: Number of Hopping Frequencies - Hopping All Channels Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal FCC Part 15.247 Date: 5.NOV.2002 11:33:30

Test Of:	Giant Electronics Ltd.
	OLUSB Bluetooth Dongle
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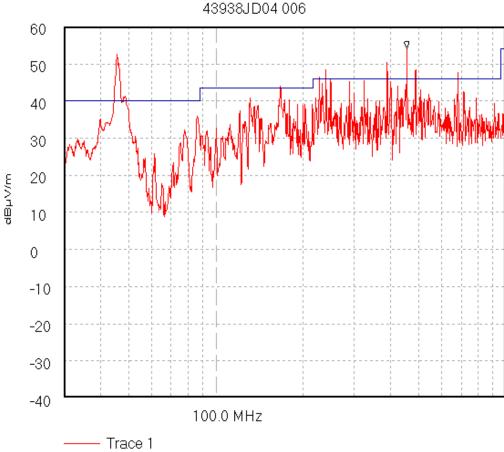
GPH\43908JD04\005a FCC Radiated Part 15.247 (c). Test for Giant Electronics by RFI Ltd. Operating condition:- Receive Mode.



Start 30.0 MHz; Stop 1.0 GHz - Log Scale Ref 60 dBµV; Ref Offset 0.0 dB; 10 dB/div RBW 120.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 80.0 mS Peak 45.695 MHz, 51.32 dBµV Limit/Mask: Rad_class_B; ; Limit Test Failed Transducer Factors: A490 01/11/2002 10:35:48

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\006a FCC Radiated Part 15.247 (c) Test for Giant Electronics by RFI Ltd. Operating condition:- High Power, Bottom Channel.

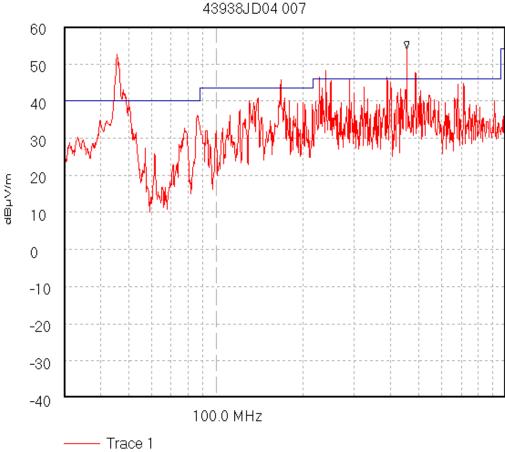


— rad_30_to_1000

Start 30.0 MHz; Stop 1.0 GHz - Log Scale Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 120.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 380.0 mS Peak 455.196 MHz, 54.09 dBµV/m Limit/Mask: rad_30_to_1000; ; Limit Test Failed Transducer Factors: A490 01/11/2002 10:39:50

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\007a FCC Radiated Part 15.247 (c) Test for Giant Electronics by RFI Ltd. Operating condition:- High Power, Middle Channel.

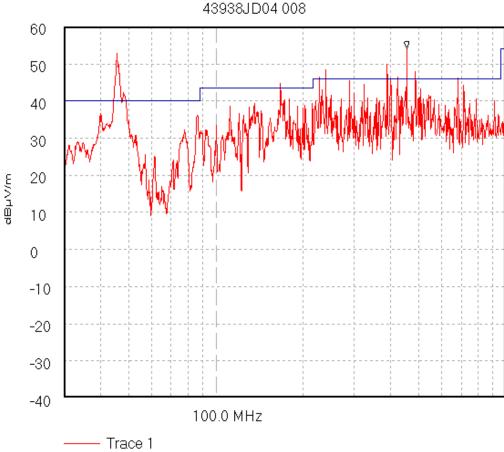


— rad_30_to_1000

Start 30.0 MHz; Stop 1.0 GHz - Log Scale Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 120.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 380.0 mS Peak 455.196 MHz, 54.01 dBµV/m Limit/Mask: rad_30_to_1000; ; Limit Test Failed Transducer Factors: A490 01/11/2002 10:41:35

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\008a FCC Radiated Part 15.247 (c). Test for Giant Electronics by RFI Ltd. Operating condition:- High Power, Top Channel.

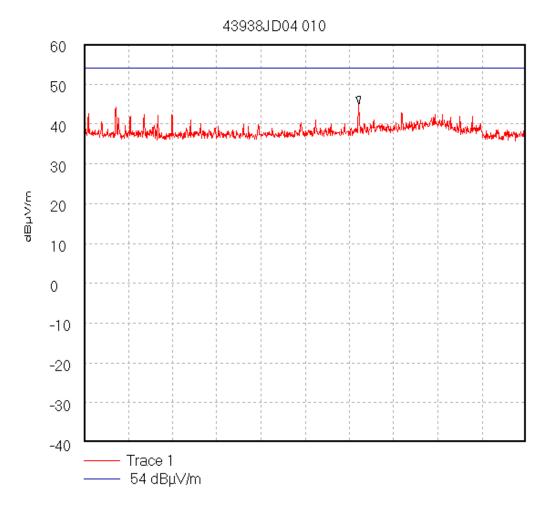


— rad_30_to_1000

Start 30.0 MHz; Stop 1.0 GHz - Log Scale Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 120.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 80.0 mS Peak 455.196 MHz, 54.06 dBµV/m Limit/Mask: rad_30_to_1000; ; Limit Test Failed Transducer Factors: A490 01/11/2002 10:43:21

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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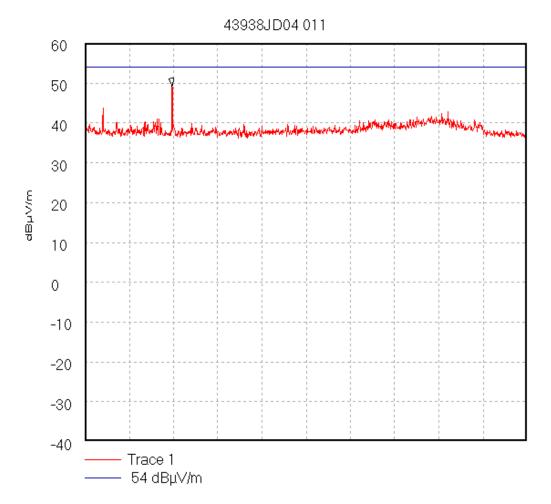
GPH\43938JD04\010 FCC Part 15. 15.209. Test for Giant Electronics by RFI Ltd. Operating condition:- Receive Mode.



Start 1.0 GHz; Stop 2.0 GHz Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 0 dB; Swp 20.0 mS Peak 1.622 GHz, 45.0 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Passed Transducer Factors: 1 to 2 01/11/2002 10:55:40

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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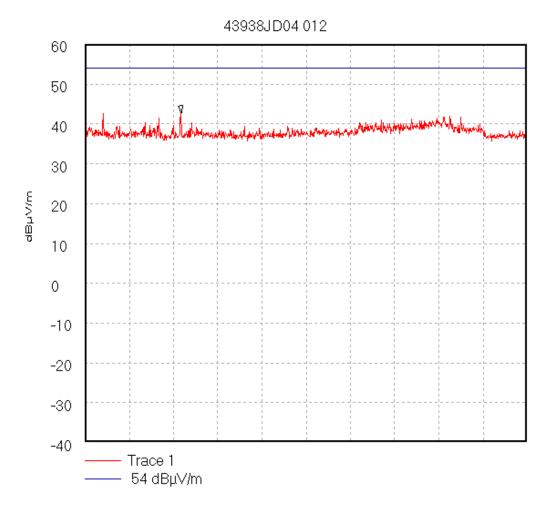
GPH\43938JD04\011 FCC Part 15. 15.209. Test for Giant Electronics by RFI Ltd. Operating condition :- High Power, Bottom Channel.



Start 1.0 GHz; Stop 2.0 GHz Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 0 dB; Swp 20.0 mS Peak 1.197 GHz, 49.21 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Passed Transducer Factors: 1 to 2 01/11/2002 10:59:08

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OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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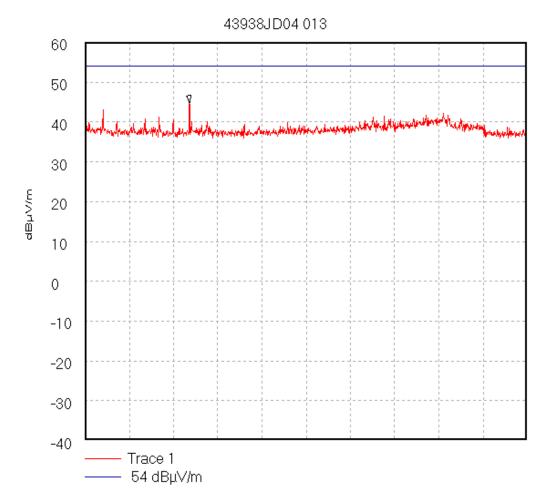
GPH\43938JD04\012 FCC Part 15. 15.209. Test for Giant Electronics by RFI Ltd. Operating condition :- High Power, Middle Channel.



Start 1.0 GHz; Stop 2.0 GHz Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 0 dB; Swp 20.0 mS Peak 1.217 GHz, 42.76 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Passed Transducer Factors: 1 to 2 01/11/2002 11:03:56

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OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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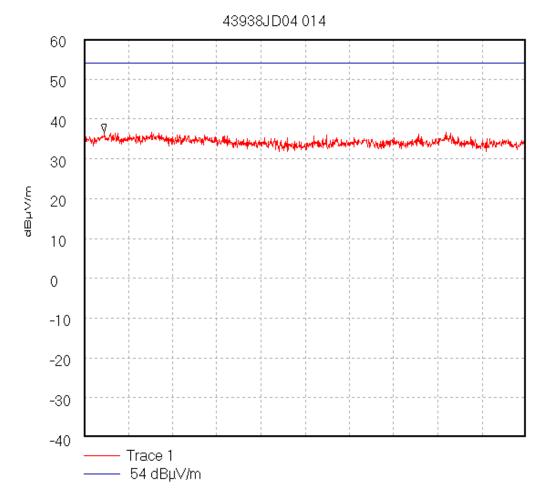
GPH\43938JD04\013 FCC Part 15. 15.209. Test for Giant Electronics by RFI Ltd. Operating condition :- High Power, Top Channel.



Start 1.0 GHz; Stop 2.0 GHz Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 0 dB; Swp 20.0 mS Peak 1.236 GHz, 44.74 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Passed Transducer Factors: 1 to 2 01/11/2002 11:05:35

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OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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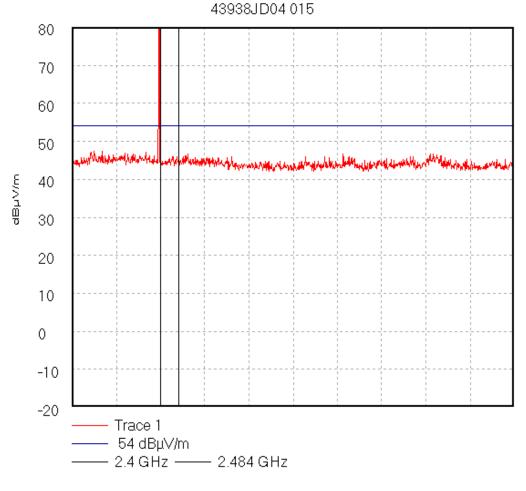
GPH\43938JD04\014 FCC Part 15. 15.209. Test for Giant Electronics by RFI Ltd. Operating condition :- Receive Mode.



Start 2.0 GHz; Stop 4.0 GHz Ref 60 dBµV/m; Ref Offset -10.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 0 dB; Swp 20.0 mS Peak 2.091 GHz, 36.62 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Failed Transducer Factors: 2 to 4 01/11/2002 11:10:10

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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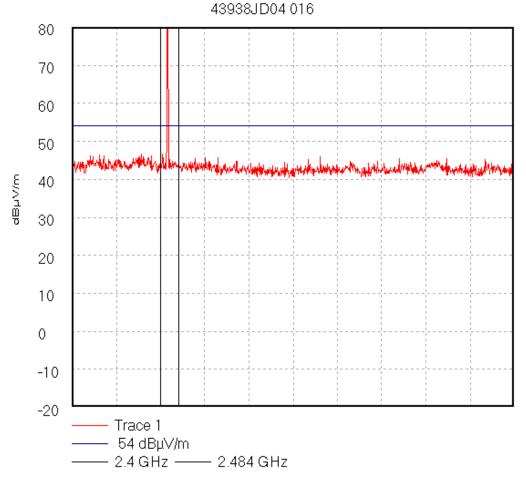
GPH\43938JD04\015 FCC Part 15. 15.209. Test for Giant Electronics by RFI Ltd. Operating condition :- High Power, Bottom Channel.



Start 2.0 GHz; Stop 4.0 GHz Ref 80 dBµV/m; Ref Offset -10.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 10 dB; Swp 20.0 mS Peak 2.393 GHz, 83.98 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Failed Transducer Factors: 2 to 4 01/11/2002 11:13:23

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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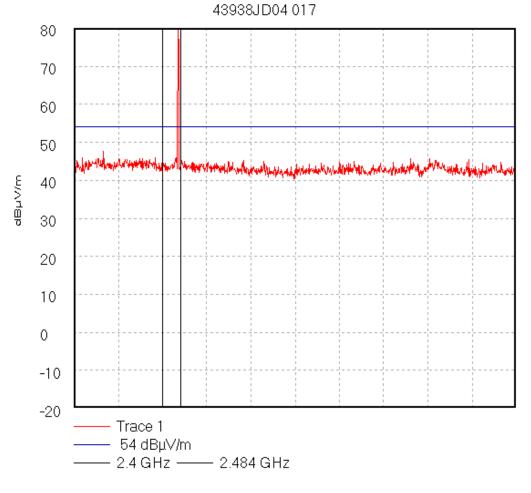
GPH\43938JD04\016 FCC Part 15. 15.209. Test for Giant Electronics by RFI Ltd. Operating condition :- High Power, Bottom Channel.



Start 2.0 GHz; Stop 4.0 GHz Ref 80 dBµV/m; Ref Offset -10.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 10 dB; Swp 20.0 mS Peak 2.431 GHz; 83.98 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Failed Transducer Factors: 2 to 4 01/11/2002 11:14:41

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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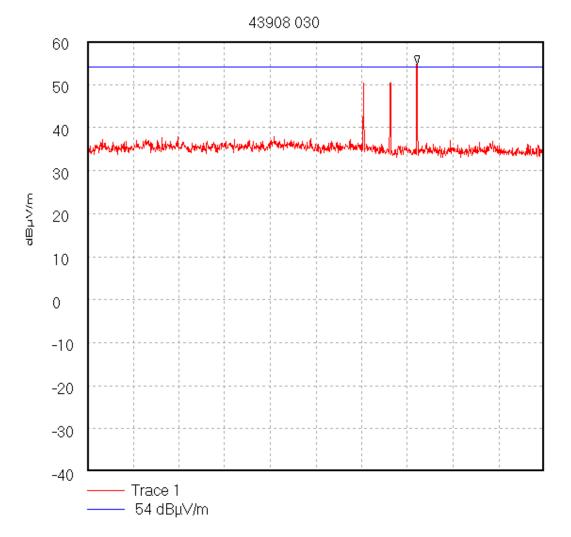
GPH\43938JD04\017 FCC Part 15. 15.209. Test for Giant Electronics by RFI Ltd. Operating condition :- High Power, Top Channel.



Start 2.0 GHz; Stop 4.0 GHz Ref 80 dBµV/m; Ref Offset -10.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 10 dB; Swp 20.0 mS Peak 2.469 GHz, 83.98 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Failed Transducer Factors: 2 to 4 01/11/2002 11:16:23

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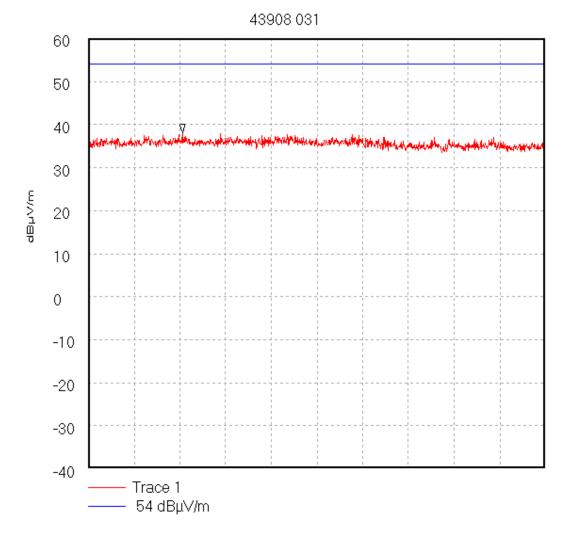
GPH\43908\030 Testing for Giant Electronics USB Bluetooth Dongle. FCC Radiated Part 15.247 (c) Set to Bottom, Middle and Top channels individually.



Start 6.0 GHz; Stop 8.0 GHz Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 20.0 mS Peak 7.442222 GHz, 54.72 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Passed 11/4/02 1:22:29 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

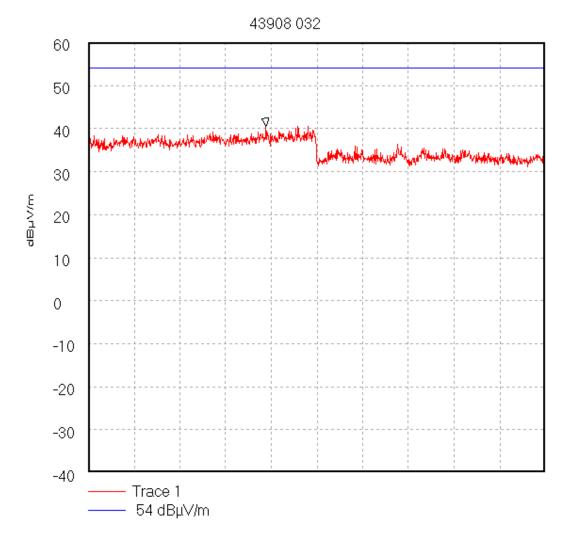
GPH\43908\031 Testing for Giant Electronics USB Bluetooth Dongle. FCC Radiated Part 15.247 (c) Receive Mode.



Start 6.0 GHz; Stop 8.0 GHz Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 20.0 mS Peak 6.411111 GHz, 38.04 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Passed 11/4/02 1:42:00 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

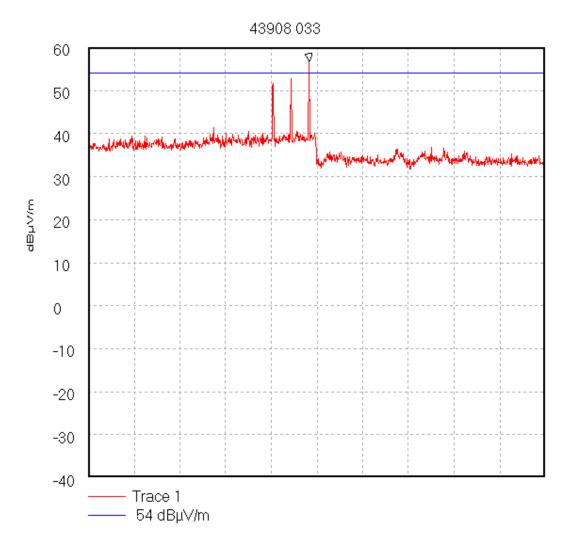
GPH\43908\032 Testing for Giant Electronics USB Bluetooth Dongle. FCC Radiated Part 15.247 (c) Receive Mode.



Start 4.0 GHz; Stop 6.0 GHz Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 20.0 mS Peak 4.777778 GHz, 40.58 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Passed 11/4/02 1:44:34 PM

Test Of:	Giant Electronics Ltd.
	OLUSB Bluetooth Dongle
To:	F.C.C. Part 15 Subpart C: 2001
	(Intentional Radiators)
	Section 15.247

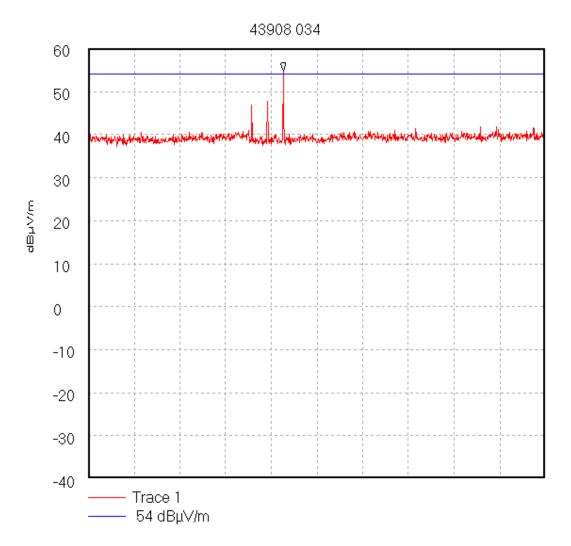
GPH\43908\033 Testing for Giant Electronics USB Bluetooth Dongle. FCC Radiated Part 15.247 (c) Set to Bottom, Middle and Top channels individually.



Start 4.0 GHz; Stop 6.0 GHz Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 20.0 mS Peak 4.966667 GHz, 56.73 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Failed 11/4/02 1:49:17 PM

Test Of:	Giant Electronics Ltd.
	OLUSB Bluetooth Dongle
То:	F.C.C. Part 15 Subpart C: 2001
	(Intentional Radiators)
	Section 15.247

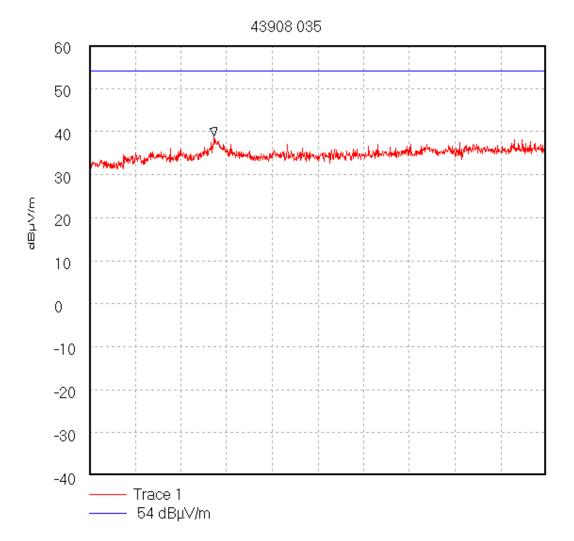
GPH\43908\034 Testing for Giant Electronics USB Bluetooth Dongle. FCC Radiated Part 15.247 (c) Set to Bottom, Middle and Top channels individually.



Start 8.0 GHz; Stop 12.5 GHz Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 40.0 mS Peak 9.92 GHz, 54.7 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Failed 11/4/02 1:59:59 PM

Test Of:	Giant Electronics Ltd.
	OLUSB Bluetooth Dongle
То:	F.C.C. Part 15 Subpart C: 2001
	(Intentional Radiators)
	Section 15.247

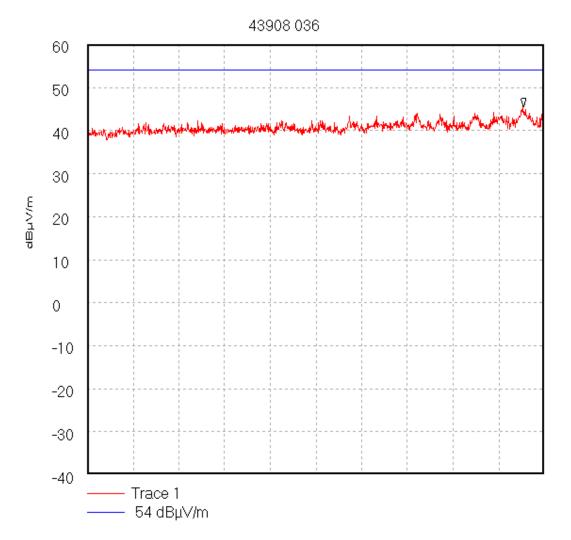
GPH\43908\035 Testing for Giant Electronics USB Bluetooth Dongle. FCC Radiated Part 15.247 (c) Set to Bottom, Middle and Top channels individually.



Start 12.5 GHz; Stop 18.0 GHz Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 40.0 mS Peak 14.003333 GHz, 38.93 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Passed 11/4/02 2:13:14 PM

Test Of:	Giant Electronics Ltd.
	OLUSB Bluetooth Dongle
То:	F.C.C. Part 15 Subpart C: 2001
	(Intentional Radiators)
	Section 15.247

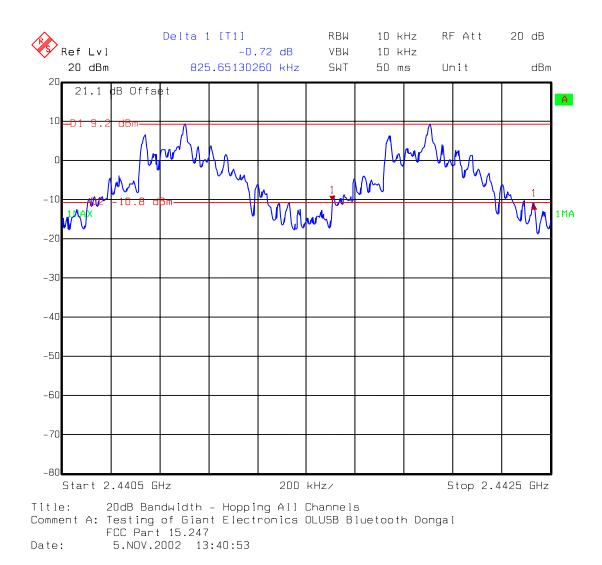
GPH\43908\036 Testing for Giant Electronics USB Bluetooth Dongle. FCC Radiated Part 15.247 (c) Set to Bottom, Middle and Top channels individually.



Start 18.0 GHz; Stop 26.5 GHz Ref 60 dBµV/m; Ref Offset 0.0 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 60.0 mS Peak 26.112778 GHz, 45.45 dBµV/m Display Line: 54 dBµV/m; ; Limit Test Passed 11/4/02 2:42:46 PM

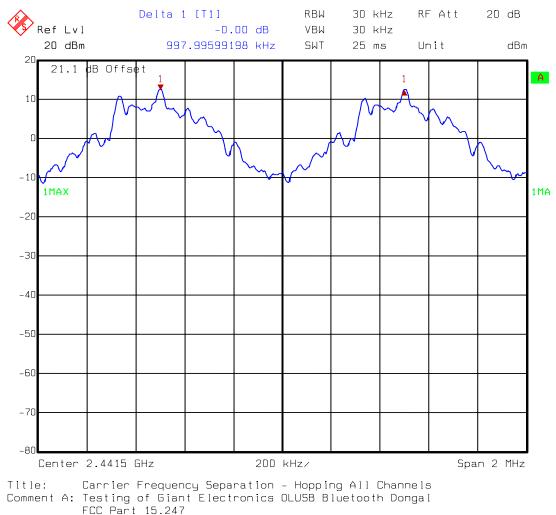
Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
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GPH\43908JD04\CE014 Scan of Occupied Bandwidth. 20 dB Bandwidth, 826 kHz. Hopping All Channels.



Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

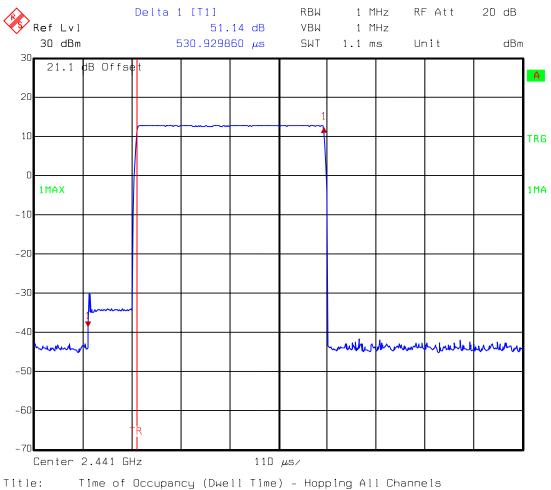
GPH\43908JD04\CE010 Scan of Channel Separation. 998 kHz Hopping All Channels.



Date: 5.NOV.2002 11:31:03

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

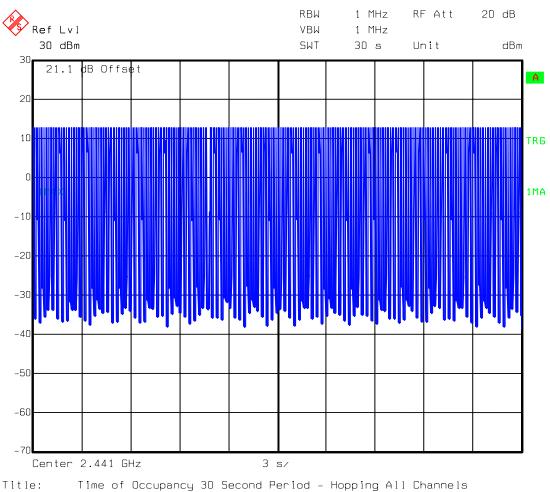
GPH\43908JD04\CE012 Scan of Time Occupancy. Hopping All Channels.



Title: Time of Occupancy (Dwell Time) - Hopping All Channels Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal FCC Part 15.247 Date: 5.NOV.2002 12:00:31

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

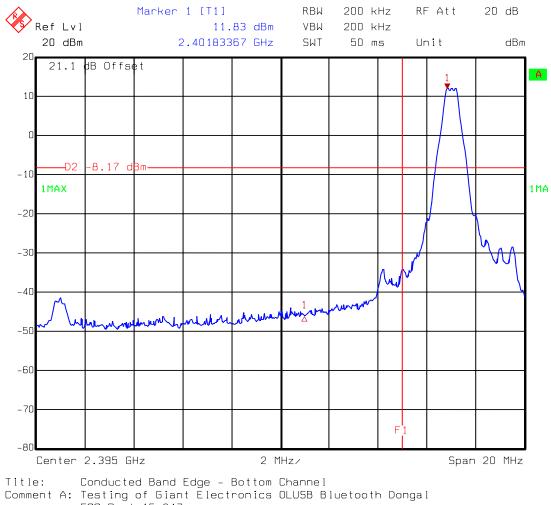
GPH\43908JD04\CE013 Scan of Time Occupancy. Hopping All Channels.



Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal FCC Part 15.247 Date: 5.NOV.2002 12:04:01

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

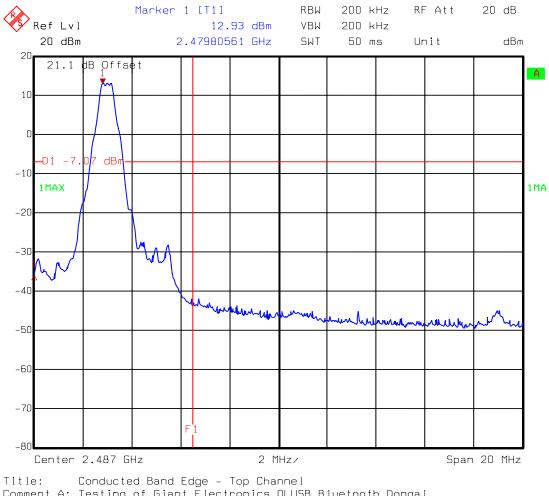
GPH\43908JD04\CE015 Scan of Band Edge Compliance of RF Conducted Emissions. Bottom Channel.



FCC Part 15.247 Date: 5.NOV.2002 13:49:19

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

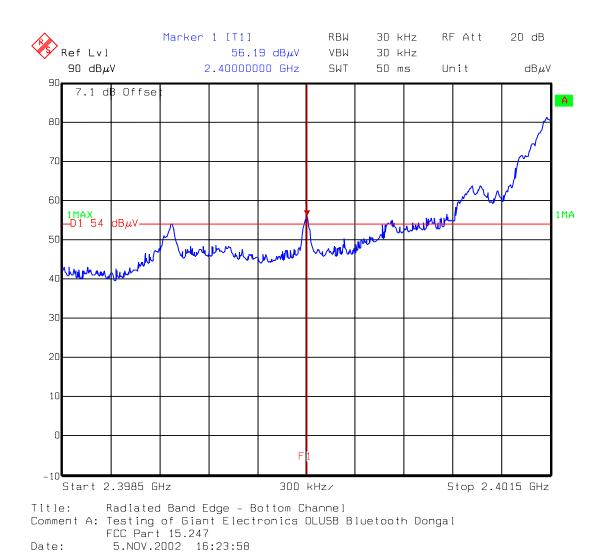
GPH\43908JD04\CE016 Scan of Band Edge Compliance of RF Conducted Emissions. Top Channel.



Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal FCC Part 15.247 Date: 5.NOV.2002 13:51:19

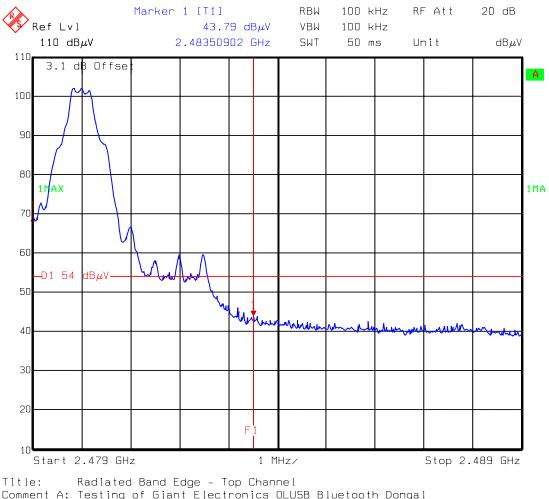
Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

GPH\43908JD04\037 Scan of Band Edge Radiated Emissions. Bottom Channel.



Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

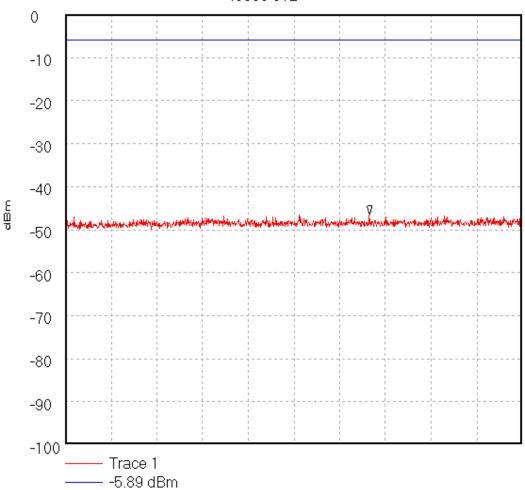
GPH\43908JD04\038 Scan of Band Edge Radiated Emissions. Top Channel.



Comment A: Testing of Giant Electronics OLUSB Bluetooth Dongal FCC Part 15.247 Date: 5.NOV.2002 16:04:54

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
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GPH\43908\012 Test for Giant by RFI Ltd. Operating Condition : High Power, Bottom Channel. FCC

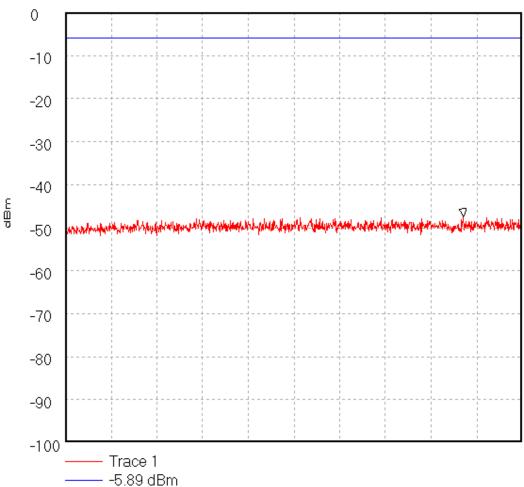


43908 012

Start 30.0 MHz; Stop 1.0 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 100.0 kHz; VBW 100.0 kHz; Att 20 dB; Swp 620.0 mS Peak 675.589 MHz, -46.52 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:30:23 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

GPH\43908\013 Test for Giant by RFI Ltd. Operating Condition : High Power, Middle Channel. FCC

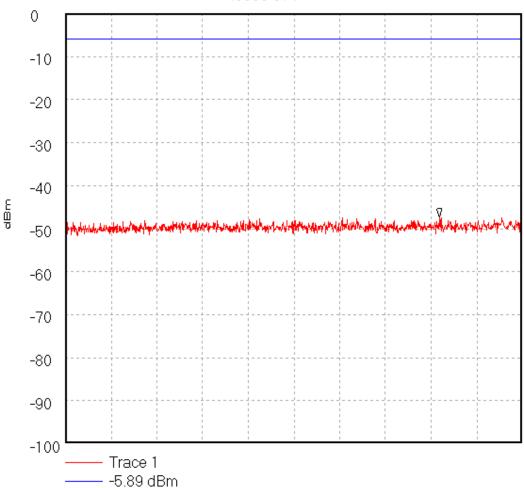


43908 013

Start 30.0 MHz; Stop 1.0 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 100.0 kHz; VBW 100.0 kHz; Att 20 dB; Swp 620.0 mS Peak 874.978 MHz, -47.53 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:35:30 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

GPH\43908\014 Test for Giant by RFI Ltd. Operating Condition : High Power, Top Channel. FCC

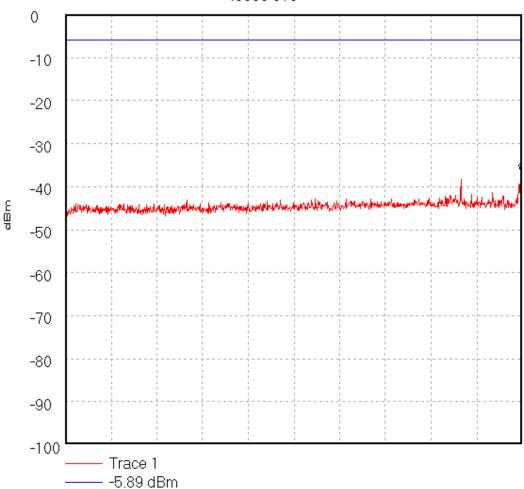


43908 014

Start 30.0 MHz; Stop 1.0 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 100.0 kHz; VBW 100.0 kHz; Att 20 dB; Swp 620.0 mS Peak 824.322 MHz, -47.38 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:36:20 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

GPH\43908\015 Test for Giant by RFI Ltd. Operating Condition : High Power, Bottom Channel. FCC

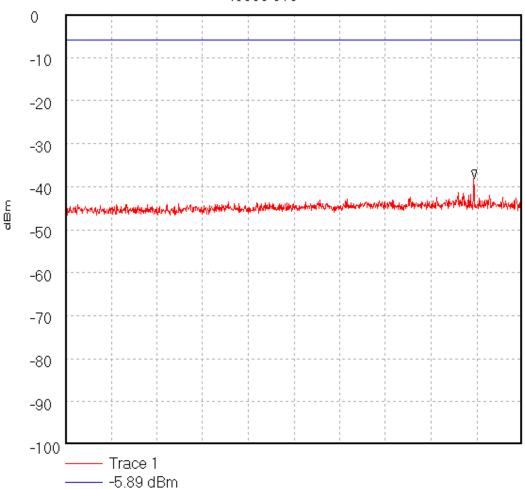


43908 015

Start 1.0 GHz; Stop 2.4 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 20.0 mS Peak 2.398 GHz, -36.74 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:41:49 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

GPH\43908\016 Test for Giant by RFI Ltd. Operating Condition : High Power, Middle Channel. FCC

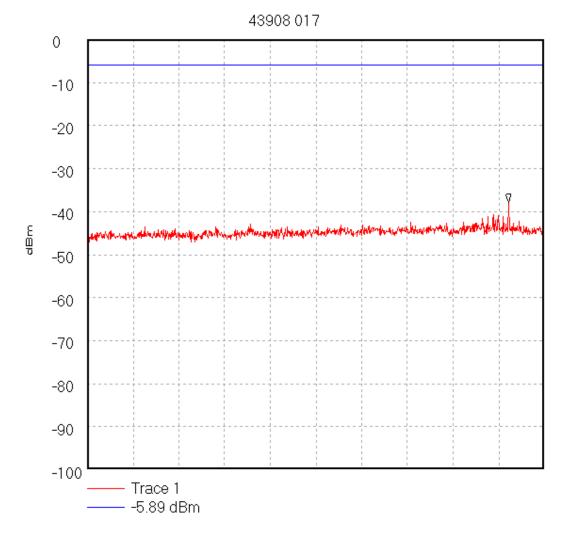


43908 016

Start 1.0 GHz; Stop 2.4 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 20.0 mS Peak 2.252 GHz, -38.03 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:42:35 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

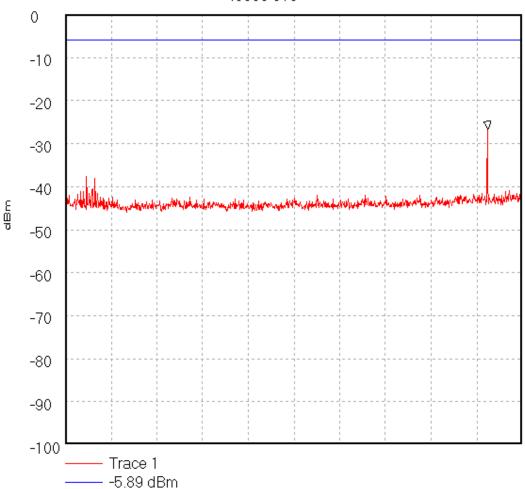
GPH\43908\017 Test for Giant by RFI Ltd. Operating Condition : High Power, Top Channel. FCC



Start 1.0 GHz; Stop 2.4 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 20.0 mS Peak 2.291 GHz; -37.91 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:43:20 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
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GPH\43908\018 Test for Giant by RFI Ltd. Operating Condition : High Power, Bottom Channel. FCC

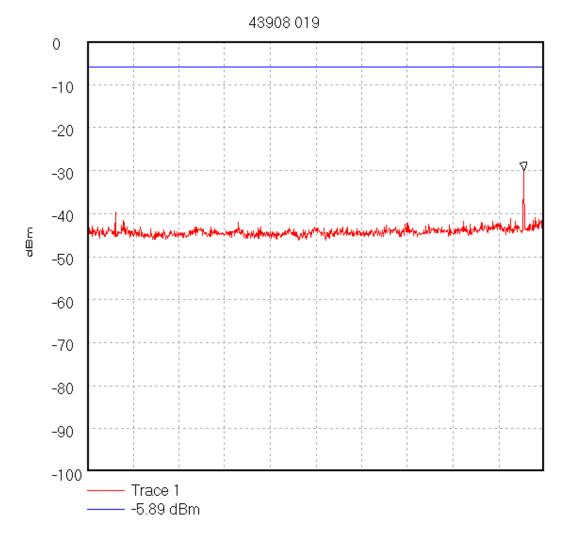


43908 018

Start 2.484 GHz; Stop 5.0 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 20.0 mS Peak 4.81 GHz, -26.76 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:44:56 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

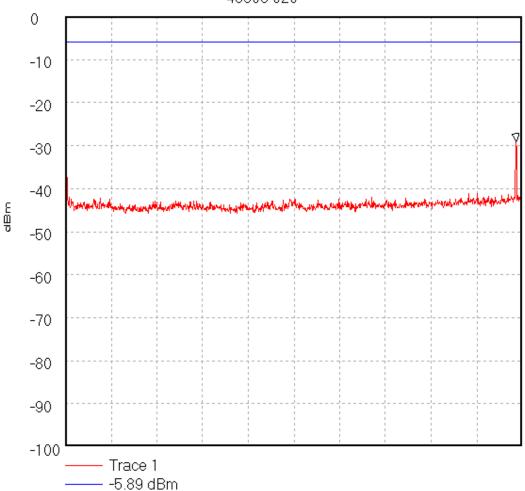
GPH\43908\019 Test for Giant by RFI Ltd. Operating Condition : High Power, Middle Channel. FCC



Start 2.484 GHz; Stop 5.0 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 20.0 mS Peak 4.888 GHz; -29.93 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:45:34 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

GPH\43908\020 Test for Giant by RFI Ltd. Operating Condition : High Power, Top Channel. FCC

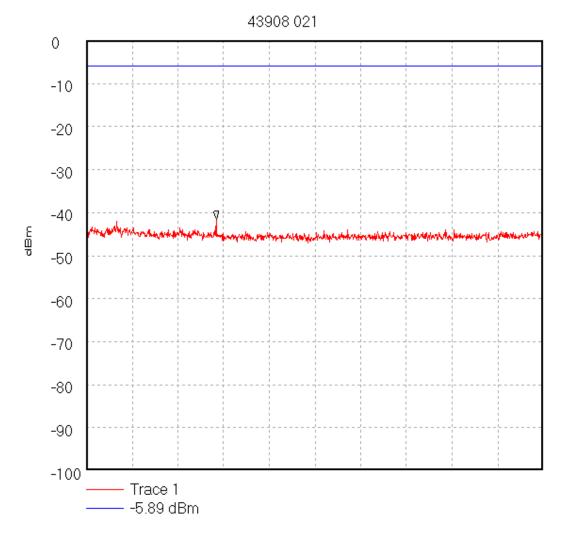


43908 020

Start 2.484 GHz; Stop 5.0 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 20.0 mS Peak 4.966 GHz, -29.1 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:46:21 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

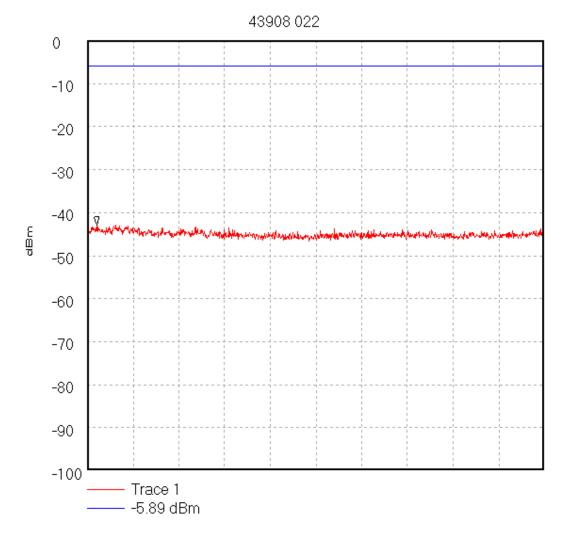
GPH\43908\021 Test for Giant by RFI Ltd. Operating Condition : High Power, Bottom Channel. FCC



Start 5.0 GHz; Stop 12.75 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 60.0 mS Peak 7.204 GHz, -41.56 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:47:32 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

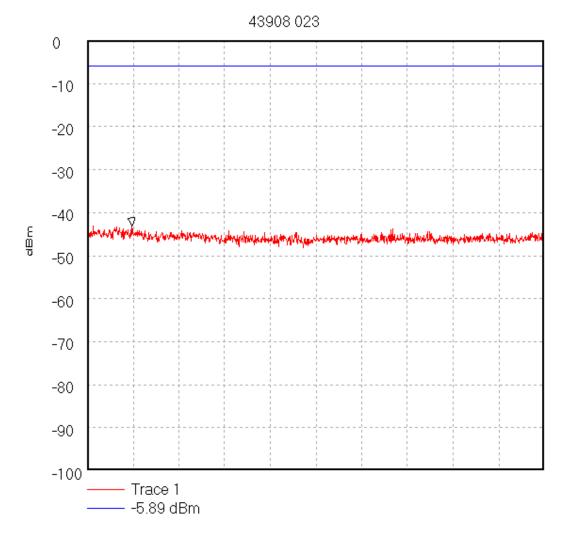
GPH\43908\022 Test for Giant by RFI Ltd. Operating Condition : High Power, Middle Channel. FCC



Start 5.0 GHz; Stop 12.75 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 60.0 mS Peak 5.164 GHz, -42.94 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:48:40 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

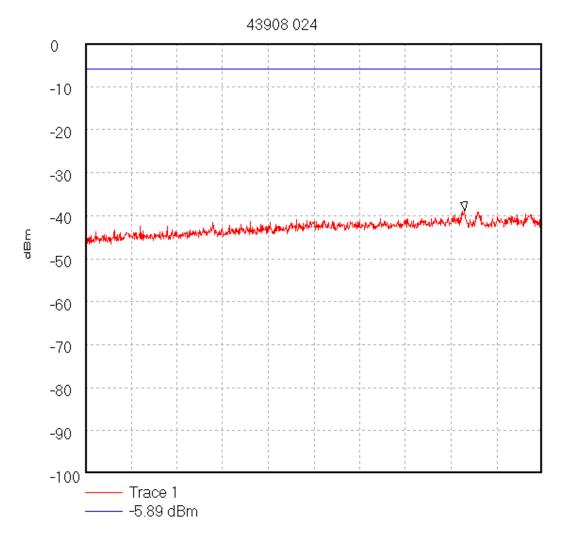
GPH\43908\023 Test for Giant by RFI Ltd. Operating Condition : High Power, Top Channel. FCC



Start 5.0 GHz; Stop 12.75 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 60.0 mS Peak 5.758 GHz, -43.14 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:49:19 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

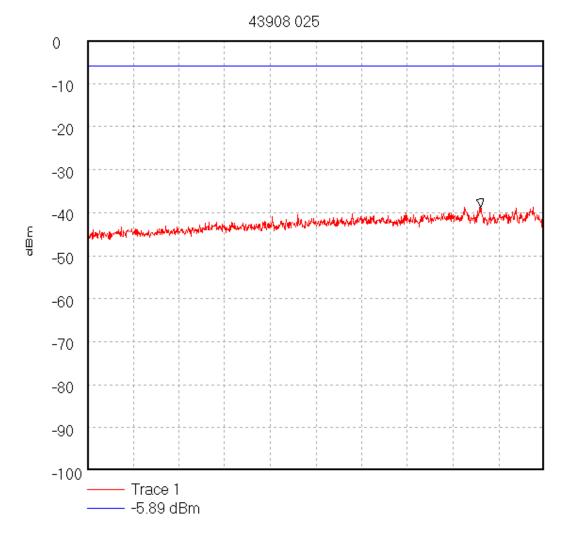
GPH\43908\024 Test for Giant by RFI Ltd. Operating Condition : High Power, Bottom Channel. FCC



Start 12.75 GHz; Stop 26.5 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 100.0 mS Peak 24.163 GHz, -38.82 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:50:20 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
Section 15.247

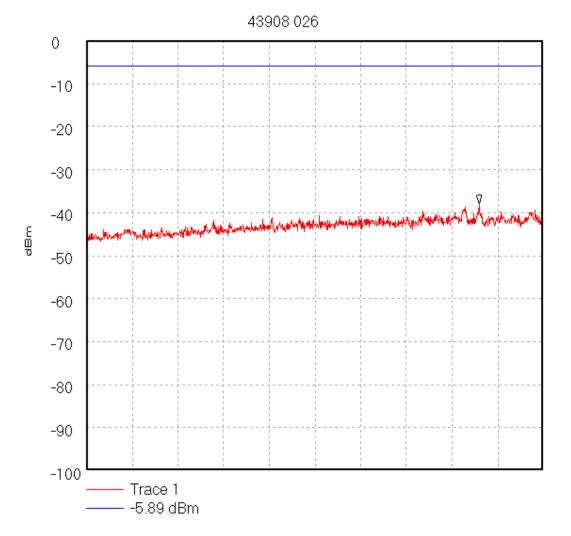
GPH\43908\025 Test for Giant by RFI Ltd. Operating Condition : High Power, Middle Channel. FCC



Start 12.75 GHz; Stop 26.5 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 100.0 mS Peak 24.59 GHz, -38.69 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:51:03 PM

Test Of:Giant Electronics Ltd.
OLUSB Bluetooth DongleTo:F.C.C. Part 15 Subpart C: 2001
(Intentional Radiators)
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GPH\43908\026 Test for Giant by RFI Ltd. Operating Condition : High Power, Top Channel. FCC



Start 12.75 GHz; Stop 26.5 GHz Ref 0 dBm; Ref Offset 31.4 dB; 10 dB/div RBW 1000.0 kHz; VBW 1.0 MHz; Att 5 dB; Swp 100.0 mS Peak 24.575 GHz, -37.98 dBm Display Line: -5.89 dBm; ; Limit Test Passed 10/30/02 2:51:42 PM