	Report No: R3256	FCC ID: YKBDMXS006	
	Issue No: 2		
	Test No: T4667	Test Report	Page: 1 of 20



dB Technology

(Cambridge Ltd.)

EMC
Testing

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REPORT ON ELECTROMAGNETIC COMPATIBILITY TESTS

Performed at:
TWENTY PENCE TEST SITE

**Twenty Pence Road,
Cottenham,
Cambridge
U.K.
CB24 8PS**

on

Audio Partnership Plc

DAC Magic XS

dated


1st August 2013

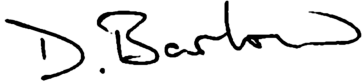

Document History

Issue	Date	Affected page(s)	Description of modifications	Revised by	Approved by
1	05/08/13		Initial release		
2	18/11/13	3, 12, 13	Corrected spreadsheet error and added note regarding detector function.	DB	DS

Based on report template:
v090319

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	Report No: R3256	FCC ID: YKBDMXS006	
	Issue No: 2		
	Test No: T4667	Test Report	Page: 2 of 20

Equipment Under Test (EUT):	DAC Magic XS
Test Commissioned by:	Audio Partnership Plc Gallery Court Hankey Place London SE1 4BB
Representative:	Darren Lee
Test Started:	21st March 2013
Test Completed:	10th July 2013
Test Engineer:	Derek Barlow
Date of Report:	1st August 2013
Written by: <u> Derek Barlow </u>	Checked by: <u> Peter Barlow </u>
Signature: 	Signature: 
Date: <u> 5th August 2013 </u>	Date: <u> 6th August 2013 </u>

dB Technology can only report on the specific unit(s) tested at its site. The responsibility for extrapolating this data to a product line lies solely with the manufacturer.

Test Standards Applied


CFR 47 Class B	<i>Code of Federal Regulations: Pt 15 Subpart B- Radio Frequency Devices - Unintentional Radiators</i>
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Emissions Test Results Summary


CFR 47					PASS
Test	Port	Method	Limit	PASS/FAIL	Notes
Conducted Emissions	ac power	ANSI C63.4:2003	CISPR22(B)	PASS	
Radiated Emissions		ANSI C63.4:2003	CISPR22(B)	PASS	

specs_fccv100412

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1 EUT Details

1.1 General

The EUT was a USB connected DAC and headphone amplifier for providing high quality sound from the USB port of a PC. It had a metal enclosure and was connected to the PC by means of a screened USB cable. It had a headphone jack that had a pair of headphones plugged into it. It included microprocessor circuitry with a maximum frequency of 480MHz.

Details of the EUT and associated peripherals used during the tests are listed below. Figure 1 shows the interconnections between the EUT and peripherals.


Item	Manufacturer	Model	Description	Serial No:	Notes
1	Dell	Latitude D410	Laptop Computer	38PV82J	#1
2	Dell	LA90PS0-00	Laptop Power Supply	ODF266 71615 78M 2FB3	#2
3	Audio Partnership	DacMagic	EUT		
4	AIWA	HP-X30	Stereo Dynamic Headphones		#3
5	Linksys	SD208	8-Port 10/100 Switch	REG10GB05612	#1
6	Linksys	HKA-1250BS-A	Switch Power Supply	R071010 000173	#2

- #1 FCC Declaration of Conformity.
- #2 PSU so only FCC Verification required.
- #3 Passive device. FCC validation not required.

1.2 Details of Interconnecting Cables

The following table lists details of the cables connected to the EUT.

From	To	Cable Type	Length	Notes
Mains	Laptop Power Supply	Three core mains	0.8m	
Laptop Power Supply	Laptop Computer	DC Power Cable	1.8m	
Laptop Computer	DacMagic	Screened USB Cable	0.15m	
DacMagic	Headphones	Screened Stereo Audio	2.5m	
Laptop Computer	Ethernet Switch	CAT6 SFTP	3m	
Ethernet Switch	Company Network	CAT6 SFTP	3m	
Ethernet Switch	Power Supply	Twin flex DC	1.8m	

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1.3 Information Supplied By Manufacturer

This table provides information about the EUT supplied by the manufacturer. This information was not verified by any test.

General EUT Information Provided By Manufacturer	
Response Time:	Instantaneous
<i>During some immunity testing the interfering signal is stepped through the required frequency range. The time that the test needs to sit on each frequency will depend on the response time of the equipment under test (EUT). If the response time is longer than 1 second - for example if the EUT performs some form of time averaging or if it is running a repetitive cycle - then the default dwell time may need to be increased. This will extend the duration of the tests.</i>	
Delayed Restart:	Not applicable. Not mains powered.
<i>Some mains powered products restart automatically after a power cut. Other products rely on a manual switch to restart and others may start automatically but only after a delay. A manual or delayed restart may be necessary for products which have high inrush currents.</i>	
Maximum Clock : Frequency	480MHz
<i>The upper frequency required for radiated emissions tests may depend on the maximum clock frequency used or generated by the EUT. All clocks and signals used within the EUT must be considered, including clocks that are internal to ICs. Normally clocks above 108MHz will require an extension to the frequency range of the radiated emissions test.</i>	
Power Rating:	
<i>The power rating may be an important factor for some tests. For example, products rated at less 75W are normally exempt from mains harmonic current tests.</i>	
Physical Size:	
<i>There are some tests where physical size may be a factor. For example, some standards permit a disturbance power test to be performed instead of radiated emissions for smaller products.</i>	
Information to User:	
<i>Many standards require information to be supplied to the end user - for example warnings not to modify the equipment. There may, however, be additional "specific" information that is related to the actual testing that should also be supplied. This section is intended for this specific information. One example may be the requirement to use screened cables on particular ports.</i>	

1.4 Modifications to EUT and Peripherals

Details of any modifications that were required to achieve compliance are listed below. The modification numbers are referred to in the results sections as appropriate.

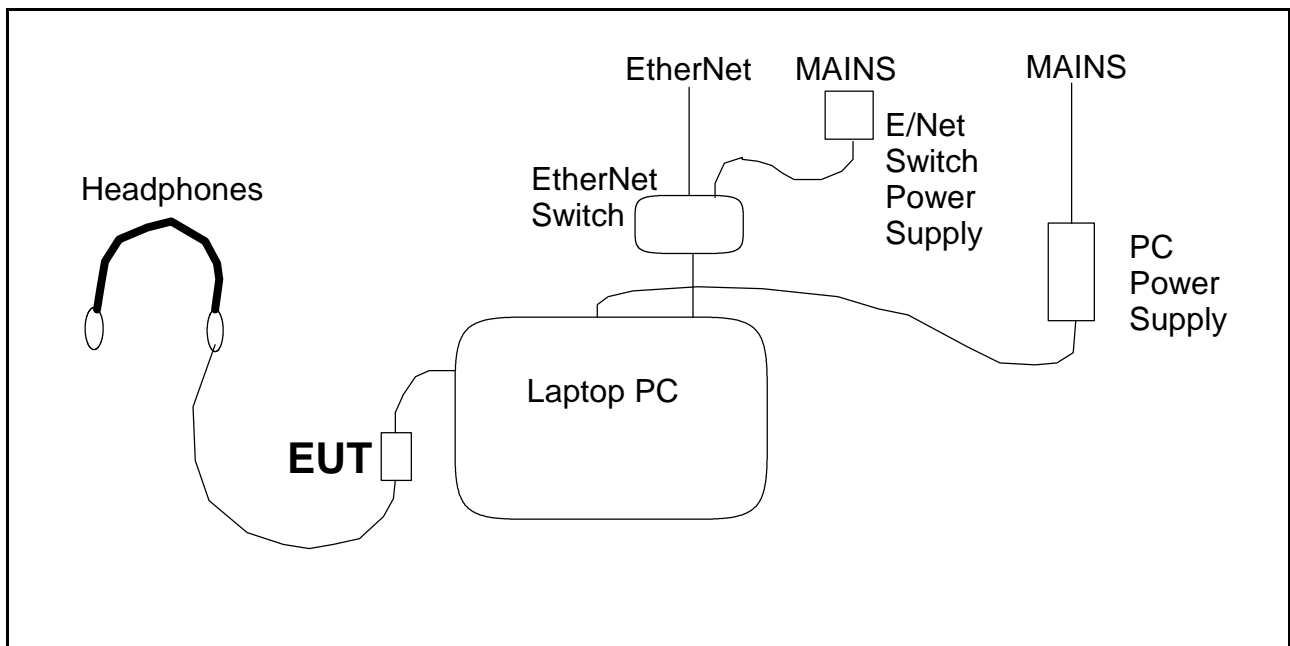
Mod No:	Details	Implemented for
0	As received for testing on 21st June 2013.	


1.5 EUT Operating Modes

The EUT was tested in the following operating mode or modes. Generally, operating modes are chosen that will exercise the functions of the EUT as fully as possible and in a manner likely to produce maximum emission levels or susceptibility. Individual test result sheets reference the operating mode of the EUT.

Operating Mode	Details
1	Playing 1kHz tone (2 channels 24bit 96kHz) Host PC scrolling capital H's on the screen as well as playing audio file.

Figure 1 General Arrangement of EUT and Peripherals

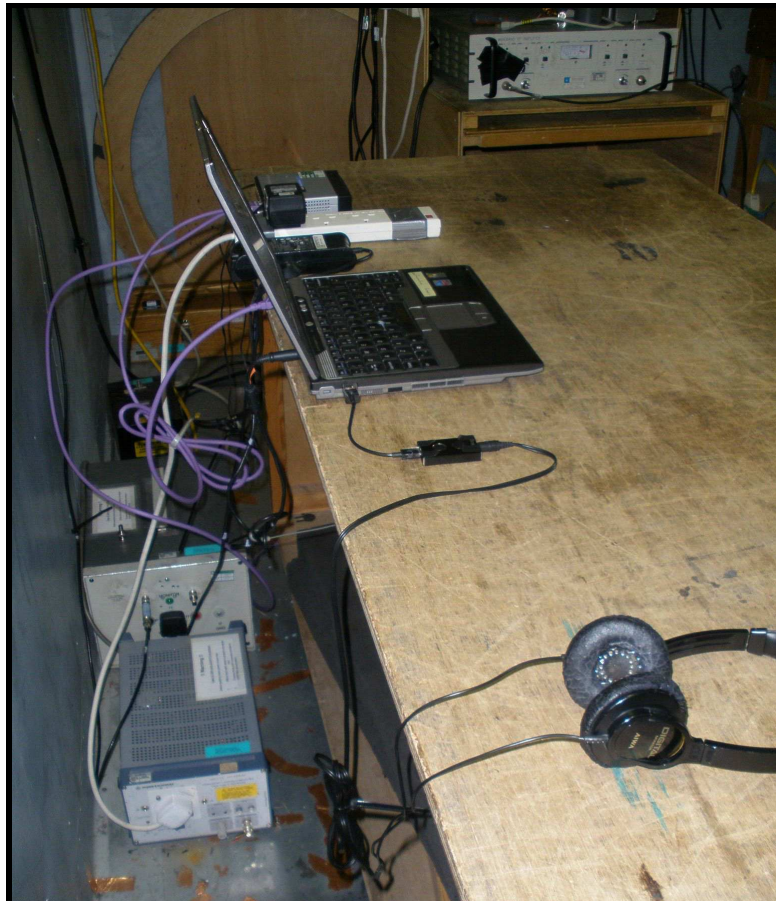


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Photograph 1 Conducted Emissions - Front



Photograph 2 Conducted Emissions - Back



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Photograph 3 Radiated Emissions - Front



Photograph 4 Radiated Emissions - Back




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2 Test Equipment

The test equipment used during the tests was one or more of the items listed below. Individual test result sheets indicate which items were used.

Ref No:	Details	Serial Number	Cal Date	Cal Period
A15	Chase X-wing Bilog CBL6140 20MHz-2GHz	1047	30/10/2012	1 year
A19	EMCO 3115 DR Guide (1-18GHz)	2431	25/01/2011	3 years
L1	EMCO 3825/2 LISN	1358	12/03/2013	1 year
L2	R&S ESH3-Z5 LISN	843862/009	13/03/2013	1 year
PRE10	LUCIX 100M-20G pre-amp	10	26/06/2012	1 year
R10	Narda PMM 9010 Receiver (10Hz-30MHz)	595WX11003	30/01/2013	1 year
R4	R&S ESVS10	843744/002	17/12/2012	1 year
R9	Agilent E7405A Spectrum Analyser	MY45110758	19/11/2012	1 year

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3 Test Methods

3.1 Conducted Emissions - ac power

This section describes the general method of performing this test. The specific method used and any deviations from this general method are listed in the appropriate results section.

Bench top EUTs and peripheral equipment are normally placed on a 0.8m high non-conducting bench, positioned 0.4m from one of the metallic walls of a screened room. Floor standing EUTs are normally placed 0.1m above the metallic floor of the screened room. Mains leads are bundled so as not to exceed 1m.

The EUT is powered using a 50ohm/50uH Line Impedance Stabilisation Network (LISN). Peripherals are powered using a second a 50ohm/50uH LISN. These LISNs are bonded to the screened room floor.

With the correct supply voltage applied to the EUT scans are performed on both the live and neutral line outputs of the LISN using quasi-peak detection over the specified frequency range. The results of these scans are shown in the plots section at the end of the report.

Significant emissions identified by the scans are measured and the results tabulated. The table of results is shown in the conducted emissions results section.

Final Level (dBuV) = Receiver Reading (dBuV) + Combined Cable & Attenuator Correction Factor (dB)

Example: if, @ 191kHz, receiver reading was 35.8dBuV

Final Level = 45.8 + 10.0 = 55.8 dBuV

3.2 Radiated Emissions

Initial scans are performed in a semi-anechoic screened room at a distance of 3m. Scans are performed over the frequency range specified in the test standard with the antenna both horizontally and vertically polarised. During these scans the EUT and peripherals are rotated through 360°. Bench top EUTs are placed on a non-conducting bench at a height of 0.8m above the ground plane. Floor standing EUTs are placed 0.1m above the ground plane. The EUT cables were manipulated in an attempt to produce maximum emissions. The results of the scans are shown in the plots included at the end of the report.

Significant emissions identified by the scans are measured on an open area test site at the appropriate test distance. Maximised readings are obtained by rotating the EUT through 360° and adjusting the height of the antenna from 1m to 4m. Measurements are made with the antenna both horizontally and vertically polarised and the results tabulated.

Tabulated results show levels based on the following calculation:

Field Strength (dBuV) = receiver reading (dBuV) + CF (dB/m)

CF is the correction factor for the antenna and cable.


For example: if, at 114MHz, receiver reading was 17.9 dBuV, combined correction factor = 13.1 (dB/m).

Total field strength = 17.9 + 13.1 = 31.0 dBuV/m.

4 Test Results

The following sections contain tabulated test results. Plots of various scans are included at the back of this section.

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4.1 Conducted Emissions (Power) - Results

Factor Set 1:	L1_13A AB002_CBL005_CBL039_12A - -
Factor Set 2:	- - - -
Factor Set 3:	- - - -
Test Equipment:	R10 L1 CSET001 L2

Conducted Emissions (Power)

<i>Company:</i> Audio Partnership Plc					<i>Product:</i> DAC Magic XS							
<i>Date:</i> 26/06/2013					<i>Test Eng:</i> Derek Barlow							
<i>Ports:</i> ac power												
<i>Test:</i> ANSI C63.4:2003 using limits of					CISPR22(B)							
<i>Ports:</i>												
<i>Test:</i>					using limits of							
Plot	Op Mode	Mod State	Line (L/N)	Fact Set	Freq. MHz	Det qp/av	Rec. Level dBuV	Corr'n Factor dB	Total Level dBuV	Limit CISPR22(B) dBuV	Margin CISPR22(B) dB	Notes
1	1	0	L	1	0.150	qp	48.1	10.0	58.1	66.0	7.9	
1	1	0	L	1	0.150	av	38.2	10.0	48.2	56.0	7.8	
1	1	0	L	1	0.175	qp	44.9	10.0	54.9	64.7	9.9	
1	1	0	L	1	0.175	av	33.8	10.0	43.8	54.7	11.0	
2	1	0	N	1	0.150	qp	49.4	10.0	59.4	66.0	6.6	
2	1	0	N	1	0.150	av	41.6	10.0	51.6	56.0	4.4	
2	1	0	N	1	0.175	qp	43.5	10.0	53.5	64.7	11.3	
2	1	0	N	1	0.175	av	37.8	10.0	47.8	54.7	7.0	
Results										Minimum Margin		
										PASS/FAIL		
										4.4 dB		
										PASS		
Notes	Comments and Observations											
NOTE:	Results of scans are shown in plots 1 & 2. These tabulated results form only a part of the conducted emissions results. The results shown in the plots were also obtained with a CISPR16 receiver, using a 9kHz bandwidth and Quasi-Peak detector. These plots show the full spectrum of results in addition to the points listed above.											


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4.2 Radiated Emissions Results Below 1GHz

Factor Set 1:	A15_13C - - CBL002_CBL069_10A	1 m cable
Factor Set 2:	A12_FS_11A - - CBL015_11A	1 m cable
Factor Set 3:	- - - -	
Test Equipment:	R4 A15 CSET002	

Radiated Emissions

<i>Company:</i> Audio Partnership Plc					<i>Product:</i> DAC Magic XS								
<i>Date:</i> 21/06/2013					<i>Test Eng:</i> Peter Barlow								
<i>Ports:</i>													
<i>Test:</i> ANSI C63.4:2003 using limits of					CISPR22(B)								
<i>Ports:</i>													
<i>Test:</i> using limits of													
Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level dBuV	Corr'n Factor dB/m	Corr'n Factor dB	Total Level dBuV/m	Limit CISPR22(B) dBuV/m	Margin CISPR22(B) dB	Notes
3	1	0	10	2	132.800	V	5.7	13.4		19.1	30.0	10.9	
3	1	0	10	2	135.600	H	4.8	13.4		18.2	30.0	11.8	
3	1	0	10	2	140.600	V	6.7	13.4		20.1	30.0	9.9	
3	1	0	10	2	140.600	H	6.2	13.4		19.6	30.0	10.4	
3	1	0	10	2	147.400	V	10.9	12.9		23.8	30.0	6.2	
3	1	0	10	2	147.400	H	5.4	12.9		18.3	30.0	11.7	
3	1	0	10	2	152.800	V	15.7	12.8		28.5	30.0	1.5	
3	1	0	10	2	152.800	H	5.8	12.8		18.6	30.0	11.4	
3	1	0	10	2	192.000	V	13.5	10.3		23.8	30.0	6.2	
3	1	0	10	2	196.625	V	11.8	10.3		22.1	30.0	7.9	
4	1	0	10	2	431.300	V	7.3	20.6		27.9	37.0	9.1	
4	1	0	10	2	431.300	H	8.4	20.6		29.0	37.0	8.0	
4	1	0	10	2	433.100	V	10.4	20.6		31.0	37.0	6.0	
4	1	0	10	2	433.100	H	11.0	20.6		31.6	37.0	5.4	
4	1	0	10	2	614.400	V	5.6	25.0		30.6	37.0	6.4	
4	1	0	10	2	614.400	H	3.8	25.0		28.8	37.0	8.2	
4	1	0	10	2	663.500	V	3.3	26.3		29.6	37.0	7.4	
4	1	0	3	1	712.700	V	13.9	23.2		37.1	47.5	10.4	#1
4	1	0	3	1	712.700	H	17.4	23.2		40.6	47.5	6.9	#1
4	1	0	10	2	761.900	V	4.9	28.0		32.9	37.0	4.1	
4	1	0	10	2	761.900	H	5.3	28.0		33.3	37.0	3.7	
Results											1.5	dB	
											PASS		
Minimum Margin													
PASS/FAIL													
Notes	Comments and Observations												
	Results of scans are shown in plots 3 and 4. (Scans were made using a Peak detector)												
	These tabulated measurements were made with a CISPR16 compliant receiver using a bandwidth of 120kHz and a Quasi-Peak detector.												
NOTE #1	All peaks not listed exhibited a margin of greater than 11.9dB. Due to ambients on the OATS these were maximised in the semi-anechoic chamber.												

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4.3 Radiated Emissions Results Above 1GHz

Factor Set 1: A19_3m_12B PRE10_12A - CBL002_CBL003_09C	1 m cable
Factor Set 2: - - -	
Factor Set 3: - - -	
Test Equipment: R9 A19 CSET002 PRE10	

Radiated Emissions

<i>Company:</i> Audio Partnership Plc		<i>Product:</i> DAC Magic XS												
<i>Date:</i> 26/06/2013		<i>Test Eng:</i> Derek Barlow												
<i>Ports:</i>														
<i>Test:</i> ANSI C63.4:2003		using limits of CISPR22(B)												
<i>Ports:</i>														
<i>Test:</i> using limits of														
Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Det. Type	Rec. Level dBuV	Corr'n Factor dB	Total Level dBuV/m	Limit FCC(B) dBuV/m	Margin FCC(B) dB	Notes	
5	1	0	3	1	1398.000	V	pk	53.2	-7.7	45.5	74.0	28.5		
5	1	0	3	1	1398.000	V	av	38.8	-7.7	31.1	54.0	22.9		
5	1	0	3	1	1595.000	V	pk	51.0	-8.1	42.9	74.0	31.1		
5	1	0	3	1	1595.000	V	av	45.6	-8.1	37.5	54.0	16.5		
5	1	0	3	1	1595.000	V	pk	53.1	-8.1	45.0	74.0	29.0		
5	1	0	3	1	1595.000	V	av	42.5	-8.1	34.4	54.0	19.6		
5	1	0	3	1	1595.000	V	pk	53.8	-8.1	45.7	74.0	28.3		
5	1	0	3	1	1595.000	V	av	41.3	-8.1	33.3	54.0	20.7		
5	1	0	3	1	1595.000	V	pk	52.9	-8.1	44.8	74.0	29.2		
5	1	0	3	1	1595.000	V	av	44.1	-8.1	36.0	54.0	18.0		
5	1	0	3	1	1398.000	H	pk	48.2	-7.7	40.5	74.0	33.5		
5	1	0	3	1	1398.000	H	av	40.3	-7.7	32.6	54.0	21.4		
5	1	0	3	1	1595.000	H	pk	54.7	-8.1	46.6	74.0	27.4		
5	1	0	3	1	1595.000	H	av	46.6	-8.1	38.5	54.0	15.5		
5	1	0	3	1	1750.000	H	pk	51.6	-7.5	44.1	74.0	29.9		
5	1	0	3	1	1750.000	H	av	47.6	-7.5	40.1	54.0	13.9		
5	1	0	3	1	1900.000	H	pk	47.3	-7.0	40.4	74.0	33.6		
5	1	0	3	1	1900.000	H	av	45.9	-7.0	38.9	54.0	15.1		
5	1	0	3	1	1990.000	H	pk	47.0	-6.7	40.3	74.0	33.6		
5	1	0	3	1	1990.000	H	av	41.2	-6.7	34.5	54.0	19.4		
Results										Minimum Margin		13.9	dB	
										PASS/FAIL		PASS		
Notes	Comments and Observations													
	Results of scans shown in plots 5 & 6													
Key:	qp - quasi-peak, av - average, pk - peak													



	Start [MHz]	Stop [MHz]	Step	Detector	Hold Time	RBW	Min Att	Pre Amp	Pre Sel	Prompt start	Ancillary
1	0.15	30	AUTO (5 kHz)	P Q A pwr_B_QP Margin 5 dB	50 ms	9 kHz	10	OFF	ON
2	0.15	0.151	500 Hz	P pwr_B_Avg Margin 0 dB	1.9 ms	9 kHz	10	OFF	ON

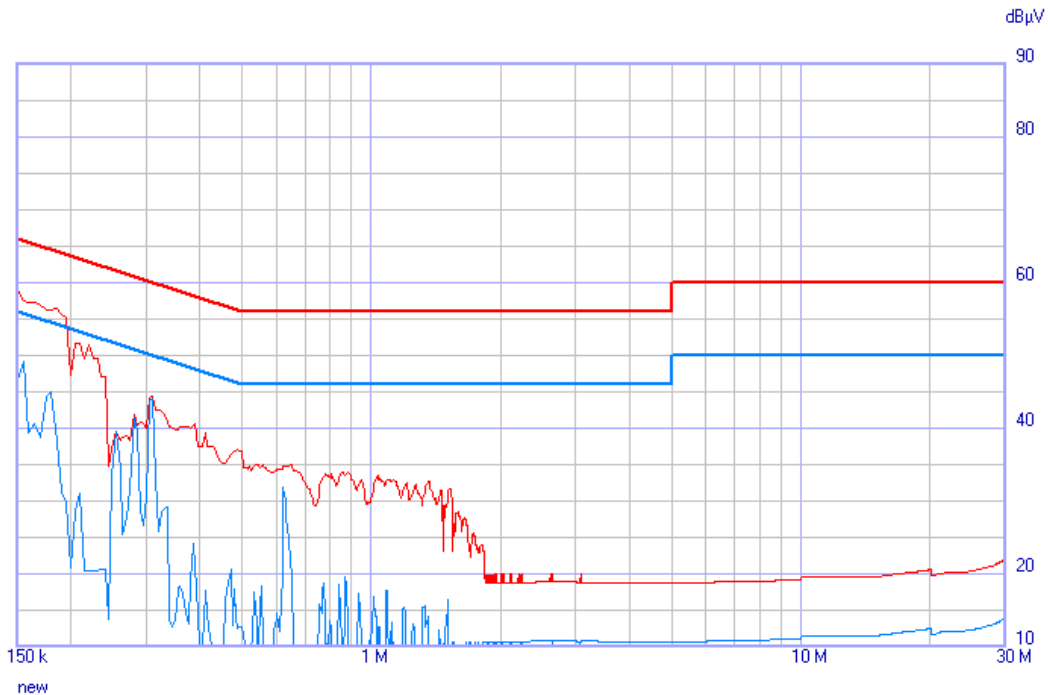
Ancillary = General
 Limits:
 pwr_B_QP
 pwr_B_Avg

Factors:
 L1
 AB002_CBL005_CBL039

QPeak ———
 Avg ———

PLOT 1 Conducted Emissions - Live Conductor (of PC PSU)

Company:	Audio Partnership	Product:	DAC Magic XS
Date:	26 Jun 13	Test Engineer:	Derek Barlow
Test:	EN55022	Limit:	EN (B) QP + AV
Notes:			
Op Mode: EUT in USB2.0 mode playing 96kfs 24bit sample of 1kHz tone through headphones.			
PC displaying scrolling H pattern. 100M connection to local Ethernet switch.			
Line:	Live	Attenuator:	Operating Mode: 1
Detector:	QP and Avg		Mod. State: 0
LISN:	EMCO	Filename:	C3626500.png



	Start [MHz]	Stop [MHz]	Step	Detector	Hold Time	RBW	Min Att	Pre Amp	Pre Sel	Prompt start	Ancillary
1	0.15	30	AUTO (5 kHz)	P Q A pwr_B_QP Margin 5 dB	50 ms	9 kHz	10	OFF	ON
2	0.15	0.151	500 Hz	P pwr_B_Avg Margin 0 dB	1.9 ms	9 kHz	10	OFF	ON

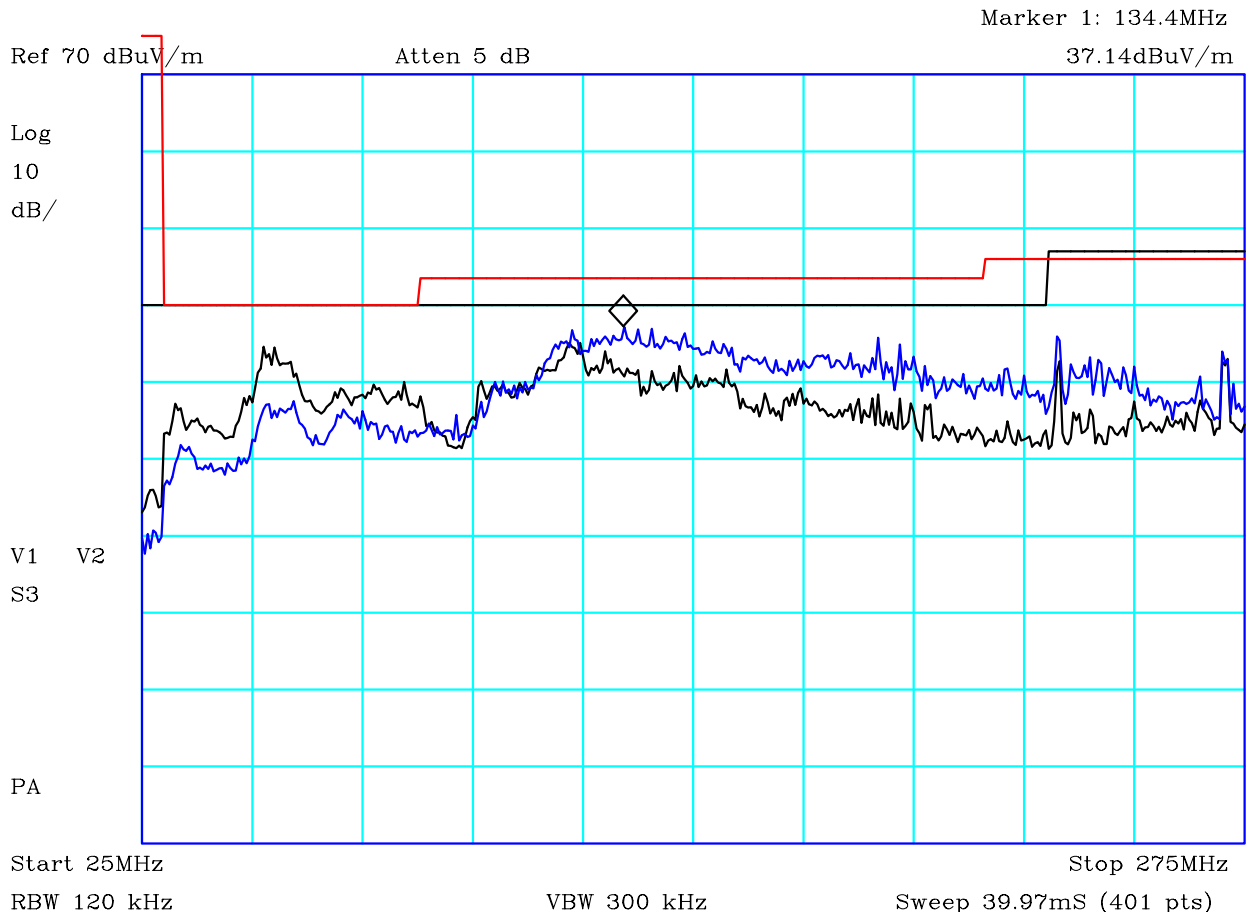
Ancillary = General
Limits:
pwr_B_QP
pwr_B_Avg

Factors:
L1
AB002_CBL005_CBL039

QPeak ———
Avg ———

PLOT 2 Conducted Emissions - Neutral Conductor (of PC PSU)

Company:	Audio Partnership	Product:	DAC Magic XS
Date:	26 Jun 13	Test Engineer:	Derek Barlow
Test:	EN55022	Limit:	EN (B) QP + AV
Notes:			
Op Mode: EUT in USB2.0 mode playing 96kfs 24bit sample of 1kHz tone through headphones.			
PC displaying scrolling H pattern. 100M connection to local Ethernet switch.			
Repeat of plot 1. Power cyclic. Worst case levels recorded in table.			
Line:	Neutral	Attenuator:	Operating Mode: 1
Detector:	QP and Avg		Mod. State: 0
LISN:	EMCO	Filename:	C3626532.png



CF1:A15_130215 CF2:CBL002_CBL069_100809

PLOT 3 Radiated Emissions - 25MHz to 275MHz

Company:	Audio Partnership	Product:	DAC Magic XS
Date:	21/03/2013	Test Eng:	Peter Barlow
Method:		Method:	
Limit1:(BLK)	EN55022(B)@3m	Limit2:(RED)	FCC(B)@3m
Limit3:		Limit4:	
<p>Op.Mode: EUT in USB 2.0 mode playing 192kHz sample rate 1kHz tone through Headphones. PC displaying scrolling H pattern. 100M ethernet to switch. Setup: EUT plugged into LHS USB port of Dell Latitude D410 Laptop, Laptop powered by its external PSU. Headphones connected to EUT. PC with CAT6 SFTP cable to Linksys switch 100M ethernet. Switch running from PSU with CAT6 SFTP cable to patch panel. Mod.state: 1 USB filtering, shorted out ferrites on audio out.</p> <p>Vertical Antenna Polarisation = Black Trace, Horizontal = Blue Trace.</p>			
Facility:	Anech_2	Height	1m,1.5m,2m
Distance	3m	Polarisation	V+H
Angle	0-360	File:	H3521725
Mode:		Mode:	1
Modification State:		Modification State:	0
Analysers:		Analysers:	

Marker 1: 437.5MHz

Ref 70 dBuV/m

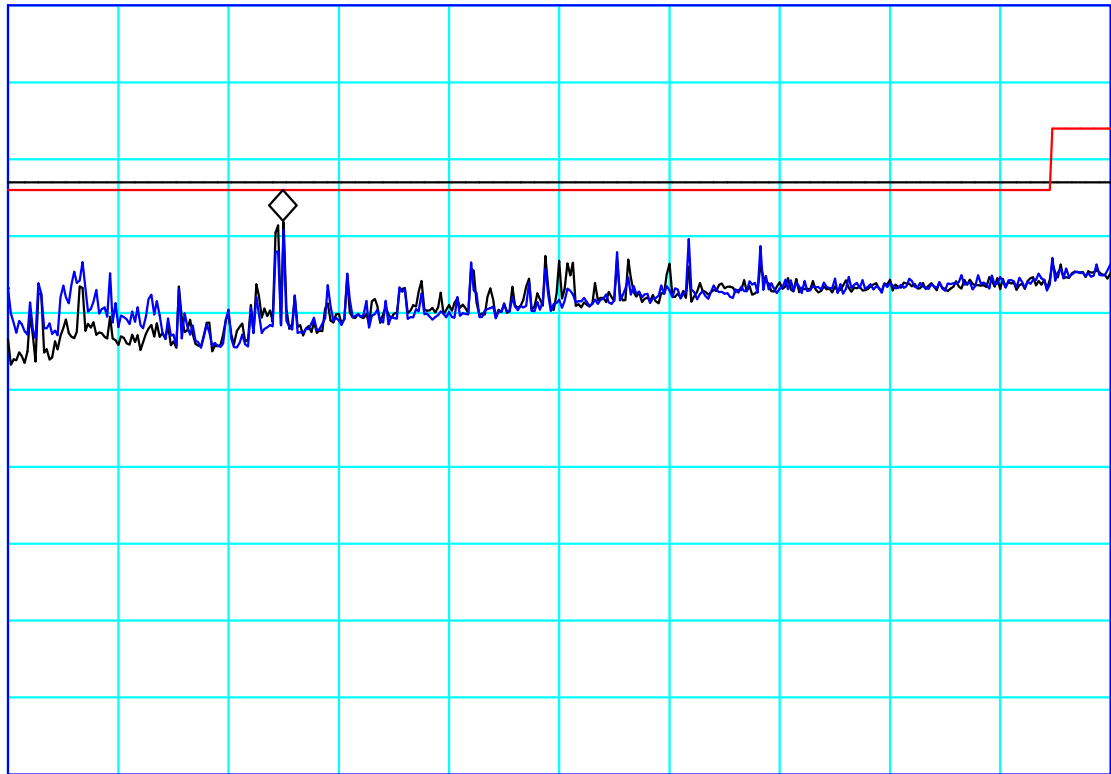
Atten 5 dB

41.83dBuV/m

Log
10
dB/

V1 V2
S3

PA



Start 250MHz

Stop 1000MHz

RBW 120 kHz

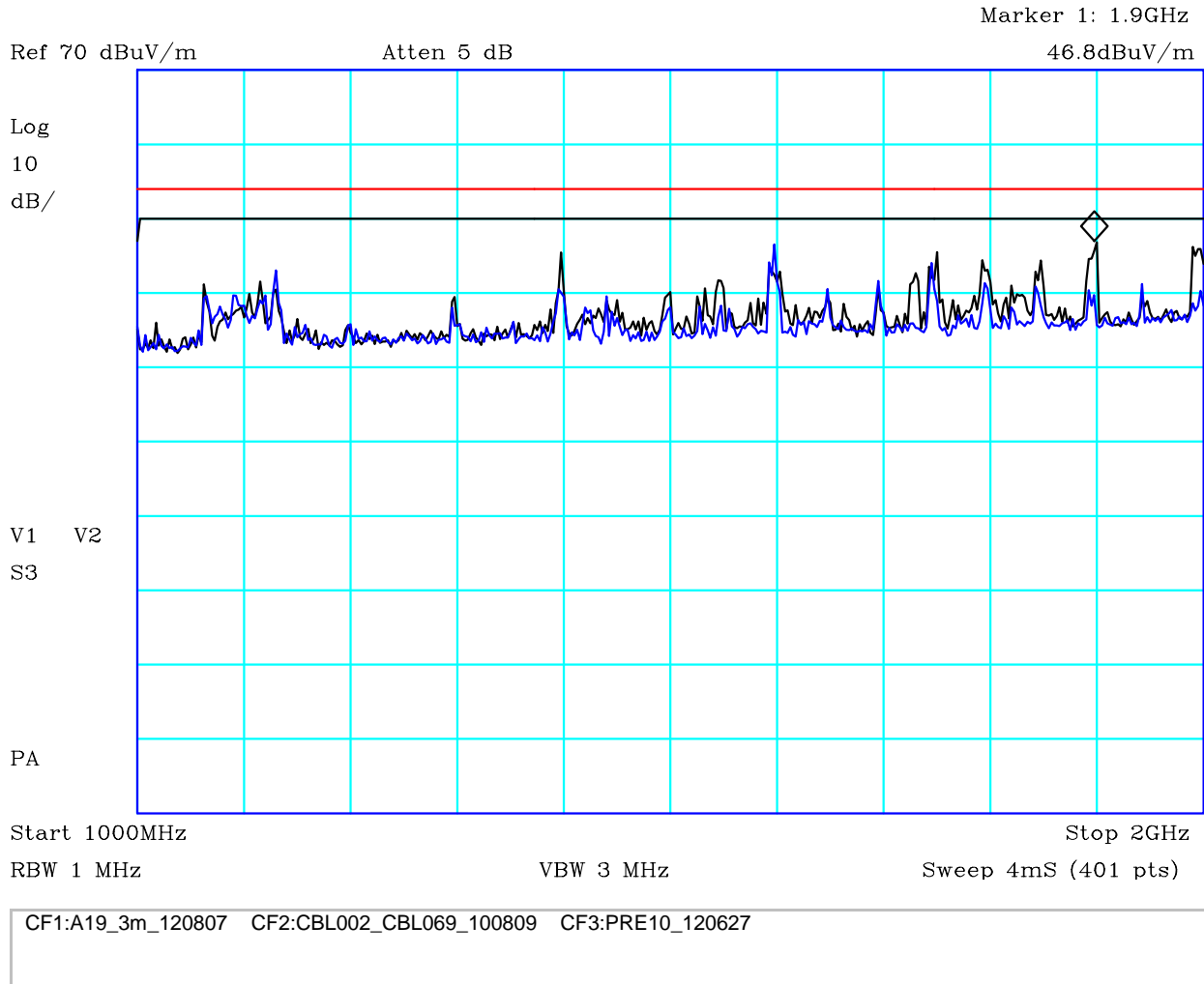
VBW 300 kHz

Sweep 119.9mS (401 pts)

CF1:A15_130215 CF2:CBL002_CBL069_100809

PLOT 4 Radiated Emissions - 250MHz to 1 GHz

Company:	Audio Partnership	Product:	DAC Magic XS
Date:	21/03/2013	Test Eng:	Peter Barlow
Method:		Method:	
Limit1:(BLK)	EN55022(B)@3m	Limit2:(RED)	FCC(B)@3m
Limit3:		Limit4:	
<p>Op.Mode: EUT in USB 2.0 mode playing 192kHz sample rate 1kHz tone through Headphones. PC displaying scrolling H pattern. 100M ethernet to switch. Setup: EUT plugged into LHS USB port of Dell Latitude D410 Laptop, Laptop powered by its external PSU. Headphones connected to EUT. PC with CAT6 SFTP cable to Linksys switch 100M ethernet. Switch running from PSU with CAT6 SFTP cable to patch panel. Mod.state: 1 USB filtering, shorted out ferrites on audio out.</p> <p>Vertical Antenna Polarisation = Black Trace, Horizontal = Blue Trace.</p>			
Facility:	Anech_2	Height	1m,1.5m,2m
Distance	3m	Polarisation	V+H
Angle	0-360	File:	H3521736
Mode:		Mode:	1
Modification State:		Modification State:	0
Analyser:		Analyser:	



PLOT 5 Radiated Emissions - 1GHz to 2GHz (peak)

Company:	Audio Partnership	Product:	DAC Magic XS
Date:	21/03/2013	Test Eng:	Peter Barlow
Method:		Method:	
Limit1:(BLK)	EN55022(B)@3m	Limit2:(RED)	FCC(B) AVERAGE @3m
Limit3:		Limit4:	
<p>Op.Mode: EUT in USB 2.0 mode playing 192kHz sample rate 1kHz tone through Headphones. PC displaying scrolling H pattern. 100M ethernet to switch.</p> <p>Setup: EUT plugged into LHS USB port of Dell Latitude D410 Laptop, Laptop powered by its external PSU. Headphones connected to EUT. PC with CAT6 SFTP cable to Linksys switch 100M ethernet. Switch running from PSU with CAT6 SFTP cable to patch panel.</p> <p>Mod.state: 1 USB filtering, shorted out ferrites on audio out.</p> <p>Vertical Antenna Polarisation = Black Trace, Horizontal = Blue Trace.</p>			
Facility:	Anech_2	Height	1m,1.5m,2m
Distance	3m	Polarisation	V+H
Angle	0-360	File:	H352178C
		Mode:	1
		Modification State:	0
		Analyser:	

Marker 1: 1.698GHz

Ref 70 dBuV/m

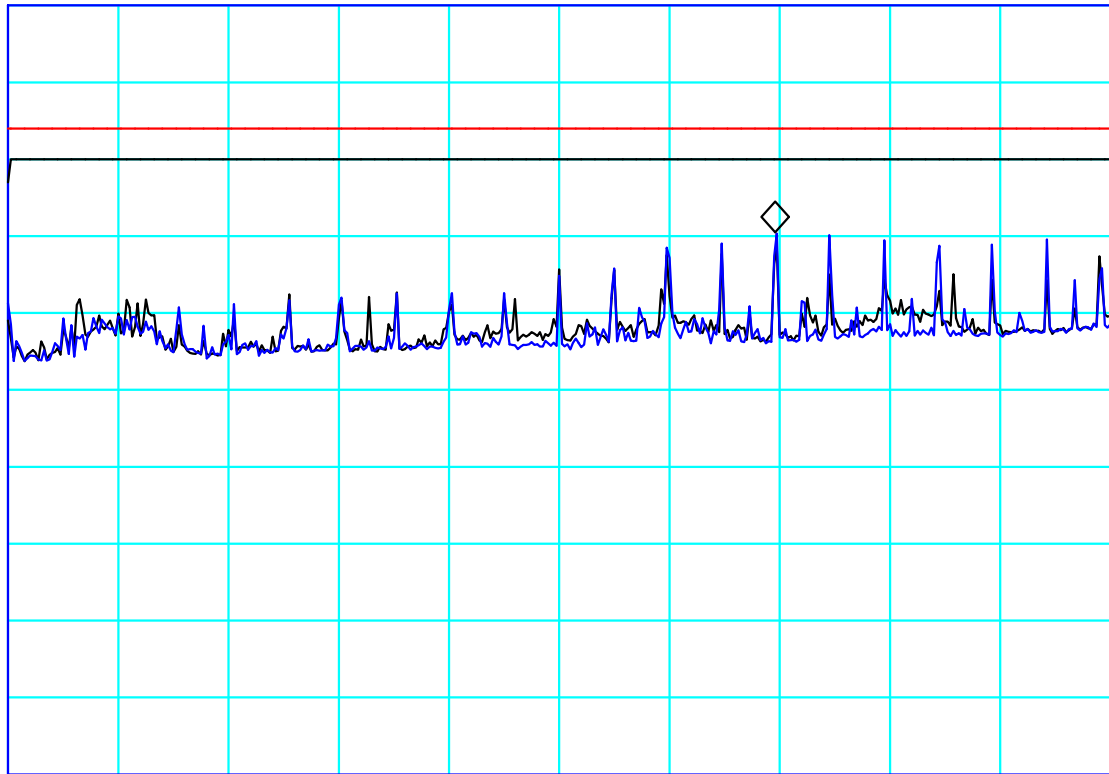
Atten 5 dB

40.33dBuV/m

Log
10
dB/

V1 V2
S3

PA



Start 1000MHz

Stop 2GHz

RBW 1 MHz

*VBW 10 kHz

Sweep 130.6mS (401 pts)

CF1:A19_3m_120807 CF2:CBL002_CBL069_100809 CF3:PRE10_120627

PLOT 6 Radiated Emissions - 1GHz to 2GHz (with video averaging)

Company:	Audio Partnership	Product:	DAC Magic XS
Date:	21/03/2013	Test Eng:	Peter Barlow
Method:		Method:	
Limit1:(BLK)	EN55022(B)@3m	Limit2:(RED)	FCC(B) AVERAGE @3m
Limit3:		Limit4:	
<p>Op.Mode: EUT in USB 2.0 mode playing 192kHz sample rate 1kHz tone through Headphones. PC displaying scrolling H pattern. 100M ethernet to switch. Setup: EUT plugged into LHS USB port of Dell Latitude D410 Laptop, Laptop powered by its external PSU. Headphones connected to EUT. PC with CAT6 SFTP cable to Linksys switch 100M ethernet. Switch running from PSU with CAT6 SFTP cable to patch panel. Mod.state: 1 USB filtering, shorted out ferrites on audio out.</p> <p>Vertical Antenna Polarisation = Black Trace, Horizontal = Blue Trace.</p>			
Facility:	Anech_2	Height	1m,1.5m,2m
Distance	3m	Polarisation	V+H
Angle	0-360	File:	H352179A
Mode:		Mode:	1
Modification State:		Modification State:	0
Analysers:		Analysers:	