

# FileView 1.2: o:\testdata\parts\harman\25\102886y\2080\f0002080.D01

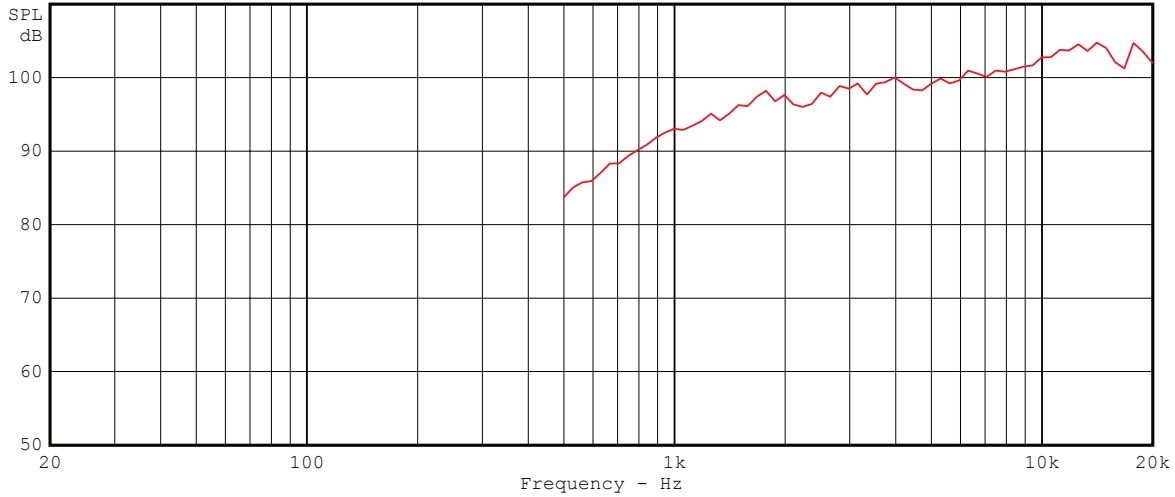
Harman Part No N/A

H/B Part No : 102886Y  
Description : TW025A28 102886Y  
Measured : 03 Mar 2005 10:20 cd11  
Test Spec : Special Test  
Environment : 22 °C 23 %RH 996 mBar  
Comment : TW025A28 102886Y

Test Sheet : 2080  
Sample No : 1  
Engineer : BG  
Operator : BG  
Baffle No :

Frequency Response for 2.8 V Stepped Sine Input at 0.5 m  
40 Pts/decade

Spec Sens (1 m) = 94.5 dB  
Sens Freqs (Hz): 2000 to 20000



| Freq (Hz) | Resp (dB) | Freq (Hz) | Resp (dB) | Freq (Hz) | Resp (dB) | Freq (Hz) | Resp (dB) | Freq (Hz) | Resp (dB) | Freq (Hz) | Resp (dB) |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 500       | 83.7      | 941.8     | 92.5      | 1774      | 98.2      | 3342      | 97.7      | 6295      | 101.0     | 11860     | 103.7     |
| 529.6     | 85.1      | 997.6     | 93.0      | 1879      | 96.8      | 3540      | 99.2      | 6668      | 100.6     | 12560     | 104.5     |
| 561       | 85.7      | 1057      | 92.9      | 1991      | 97.6      | 3749      | 99.4      | 7063      | 100.1     | 13300     | 103.6     |
| 594.3     | 85.9      | 1119      | 93.5      | 2108      | 96.4      | 3972      | 100.0     | 7481      | 100.9     | 14090     | 104.7     |
| 629.5     | 87.1      | 1186      | 94.1      | 2233      | 96.0      | 4207      | 99.1      | 7924      | 100.8     | 14930     | 104.0     |
| 666.8     | 88.3      | 1256      | 95.1      | 2366      | 96.4      | 4456      | 98.4      | 8394      | 101.1     | 15810     | 102.1     |
| 706.3     | 88.3      | 1330      | 94.2      | 2506      | 98.0      | 4720      | 98.3      | 8891      | 101.5     | 16750     | 101.2     |
| 748.1     | 89.3      | 1409      | 95.1      | 2654      | 97.4      | 5000      | 99.2      | 9418      | 101.7     | 17740     | 104.7     |
| 792.5     | 90.1      | 1493      | 96.3      | 2812      | 98.9      | 5296      | 99.9      | 9976      | 102.8     | 18790     | 103.6     |
| 839.4     | 90.8      | 1581      | 96.1      | 2978      | 98.5      | 5610      | 99.2      | 10570     | 102.8     | 19910     | 102.1     |
| 889.1     | 91.8      | 1675      | 97.4      | 3155      | 99.2      | 5943      | 99.6      | 11190     | 103.8     | 20000     | 102.0     |

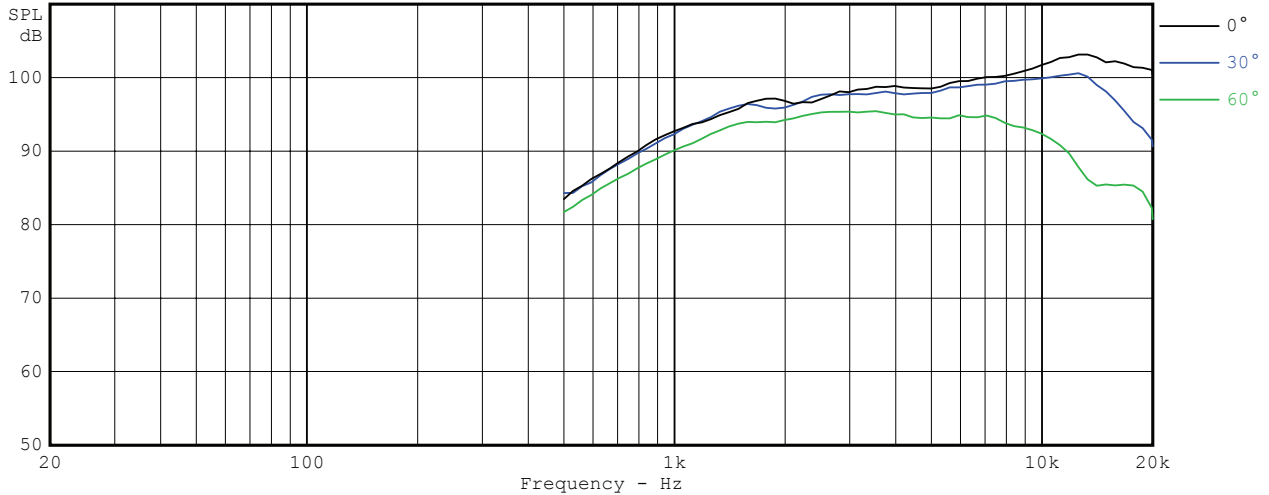
# Off Axis v1.0: o:\testdata\parts\Harman\25\102886Y\2080\F0002080.D01

Harman Part No N/A

H/B Part No : 102886Y  
 Description : TW025A28 102886Y  
 Measured : 03 Mar 2005 10:20 cdl1  
 Test Spec : Special Test  
 Environment : 22 °C 23 %RH 996 mBar  
 Comment : TW025A28 102886Y

Test Sheet : 2080  
 Sample No : 1  
 Engineer : BG  
 Operator : BG  
 Baffle No :

Off-Axis Responses for 2.8 V Stepped Sine Input at 0.5 m  
 40 Pts/decade



Frequency Response for 2.83V Stepped Sine Input at 0.5 m

| Freq<br>(Hz) | 0°<br>(dB) | 30°<br>(dB) | 60°<br>(dB) |
|--------------|------------|-------------|-------------|
| 500          | 83.5       | 84.3        | 81.7        |
| 629.46       | 86.9       | 86.7        | 84.9        |
| 792.45       | 90.0       | 89.7        | 87.7        |
| 997.63       | 92.7       | 92.3        | 90.1        |
| 1255.9       | 94.4       | 94.6        | 92.3        |
| 1581.1       | 96.5       | 96.4        | 94.0        |
| 1990.5       | 96.8       | 95.9        | 94.2        |
| 2505.9       | 97.1       | 97.7        | 95.3        |
| 3154.8       | 98.4       | 97.8        | 95.2        |
| 3971.6       | 98.8       | 97.9        | 95.0        |
| 5000         | 98.5       | 97.9        | 94.6        |
| 6294.6       | 99.5       | 98.8        | 94.6        |
| 7924.5       | 100.2      | 99.5        | 93.8        |
| 9976.3       | 101.7      | 99.9        | 92.4        |
| 12559        | 103.1      | 100.6       | 87.8        |
| 15811        | 102.2      | 96.9        | 85.3        |
| 19905        | 101.0      | 91.5        | 82.2        |

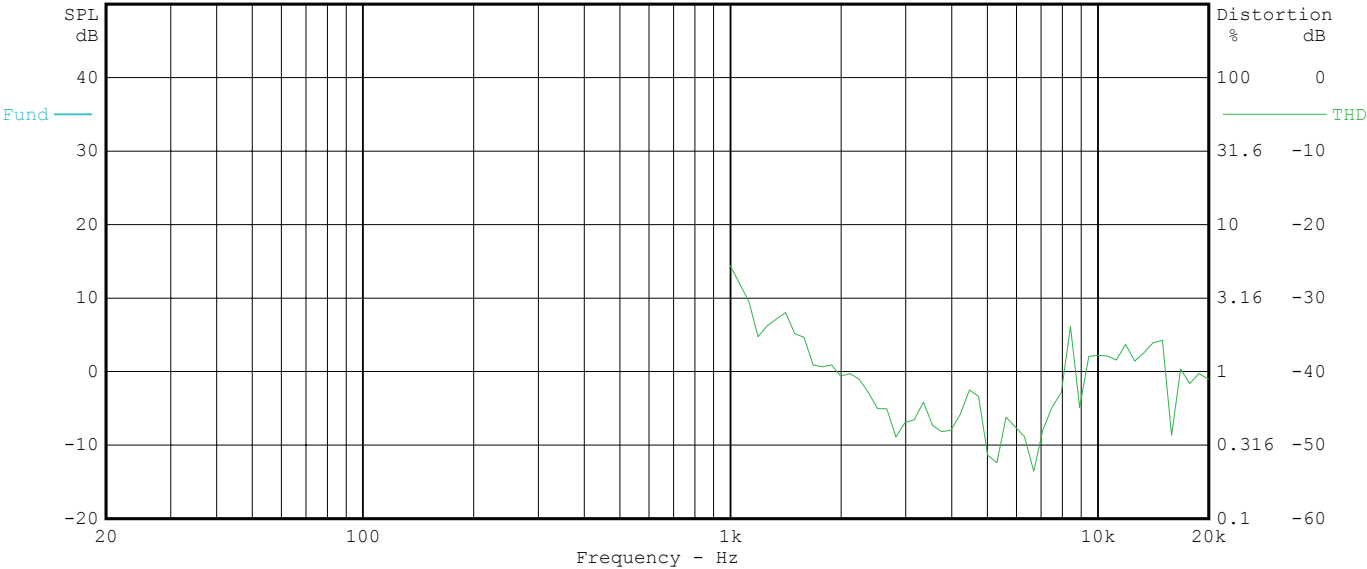
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Harman Part No N/A

H/B Part No : 102886Y  
Description : TW025A28 102886Y  
Measured : 03 Mar 2005 10:20 cdl1  
Test Spec : Special Test  
Environment : 22 °C 23 %RH 996 mBar  
Comment : TW025A28 102886Y

Test Sheet : 2080  
Sample No : 1  
Engineer : BG  
Operator : BG  
Baffle No :

Total SPL and THD+N for 5.0 V Stepped Sine Input at 0.5 m  
40 Pts/decade



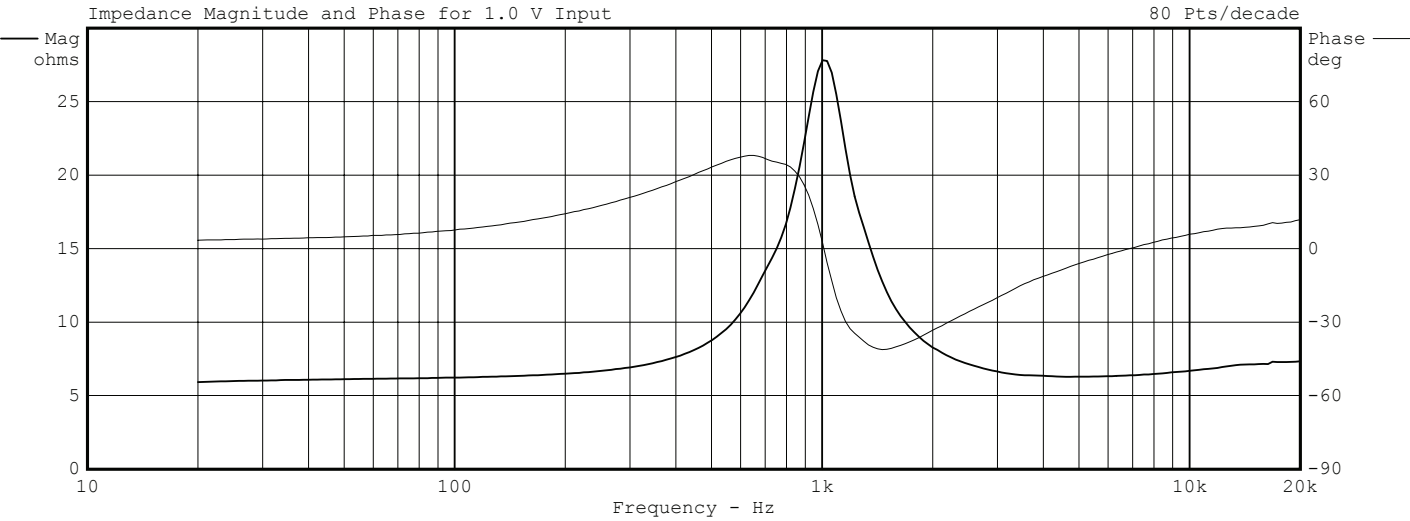
| Freq<br>(Hz) | Fund<br>(dB) | THD<br>(%) | Freq<br>(Hz) | Fund<br>(dB) | THD<br>(%) | Freq<br>(Hz) | Fund<br>(dB) | THD<br>(%) | Freq<br>(Hz) | Fund<br>(dB) | THD<br>(%) |
|--------------|--------------|------------|--------------|--------------|------------|--------------|--------------|------------|--------------|--------------|------------|
| 1000         | 97.93        | 5.25       | 2113         | 100.70       | 0.97       | 4732         | 102.34       | 0.68       | 10590        | 106.47       | 1.28       |
| 1000         | 97.94        | 5.21       | 2239         | 100.44       | 0.89       | 5012         | 103.37       | 0.27       | 11220        | 107.34       | 1.20       |
| 1059         | 97.82        | 3.95       | 2371         | 100.81       | 0.72       | 5309         | 103.87       | 0.24       | 11890        | 106.97       | 1.53       |
| 1122         | 98.41        | 2.99       | 2512         | 102.26       | 0.56       | 5623         | 102.46       | 0.49       | 12590        | 108.18       | 1.18       |
| 1189         | 99.03        | 1.73       | 2661         | 101.47       | 0.56       | 5957         | 103.93       | 0.42       | 13340        | 107.78       | 1.34       |
| 1259         | 100.05       | 2.05       | 2818         | 103.26       | 0.36       | 6310         | 104.79       | 0.36       | 14130        | 108.07       | 1.57       |
| 1334         | 99.14        | 2.28       | 2985         | 102.59       | 0.45       | 6683         | 104.40       | 0.21       | 14960        | 106.96       | 1.63       |
| 1413         | 99.90        | 2.52       | 3162         | 103.16       | 0.47       | 7079         | 104.31       | 0.40       | 15850        | 105.01       | 0.37       |
| 1496         | 101.01       | 1.81       | 3350         | 101.55       | 0.62       | 7499         | 104.80       | 0.57       | 16790        | 101.68       | 1.04       |
| 1585         | 100.73       | 1.71       | 3548         | 103.20       | 0.43       | 7943         | 104.60       | 0.72       | 17780        | 106.60       | 0.83       |
| 1679         | 102.15       | 1.11       | 3758         | 103.49       | 0.39       | 8414         | 104.95       | 2.02       | 18840        | 105.54       | 0.97       |
| 1778         | 102.83       | 1.08       | 3981         | 103.78       | 0.40       | 8913         | 105.41       | 0.57       | 19950        | 104.29       | 0.89       |
| 1884         | 101.33       | 1.11       | 4217         | 102.91       | 0.51       | 9441         | 105.31       | 1.27       | 20000        | 104.30       | 0.89       |
| 1995         | 102.25       | 0.93       | 4467         | 102.37       | 0.75       | 10000        | 106.44       | 1.29       |              |              |            |

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Comment : TW025A28 102886Y

Test Sheet : 2080  
Sample No : 1  
Engineer : BG  
Operator : BG  
Baffle No :



Design Parameters

|         |            |  |  |
|---------|------------|--|--|
| F0:     | 1017.24 Hz |  |  |
| DCR:    | 5.69 ohm   |  |  |
| Znom:   | 6.56 ohm   |  |  |
| @ Fnom: | 5000 Hz    |  |  |
| Qm:     | 2.97       |  |  |
| Qe:     | 0.73       |  |  |
| Qt:     | 0.59       |  |  |
| Zmax:   | 28.93 ohm  |  |  |
|         |            |  |  |