QUALITY MAGNETICS SINCE 1979

CM-20110

Microphone Output Transformer
8.5 : 1 Step-down

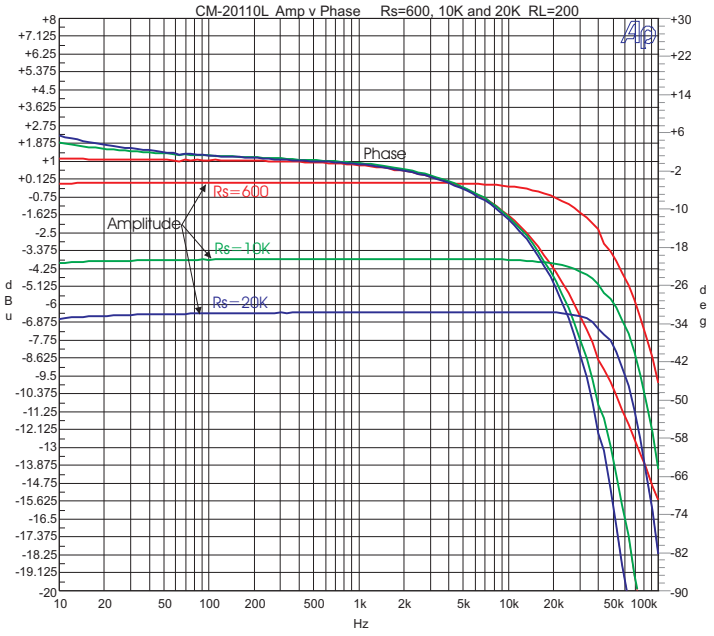
- **Wide bandwidth (- 3 dB at 85 kHz)**
- **Excellent CMRR**
- **Choice of high-nickel ("H"suffix) or 50% high-nickel + 50% steel ("L") core**
- **Low distortion**
- **Hum-bucking construction**

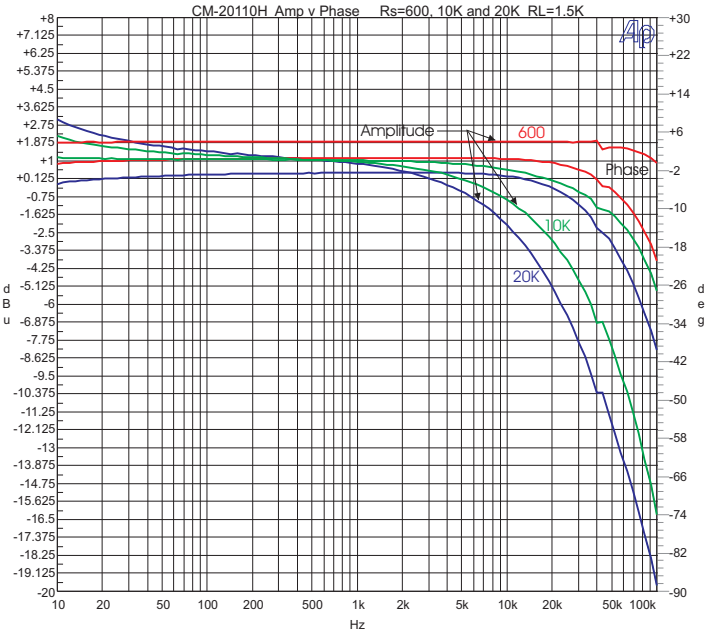
The CM-20110x is a vacuum tube microphone output transformer. It has excellent bandwidth and uses hum-bucking construction techniques to minimize magnetic interference pickup. The lamination stack can be provided either with all high-nickel laminations or (for a different sonic coloration) a mix of 50% high-nickel and 50% steel laminations. It is very well balanced, resulting in excellent CMRR. (The "H" suffix designates high-nickel core laminations and the "L" suffix is 50% high-nickel + 50% steel.)

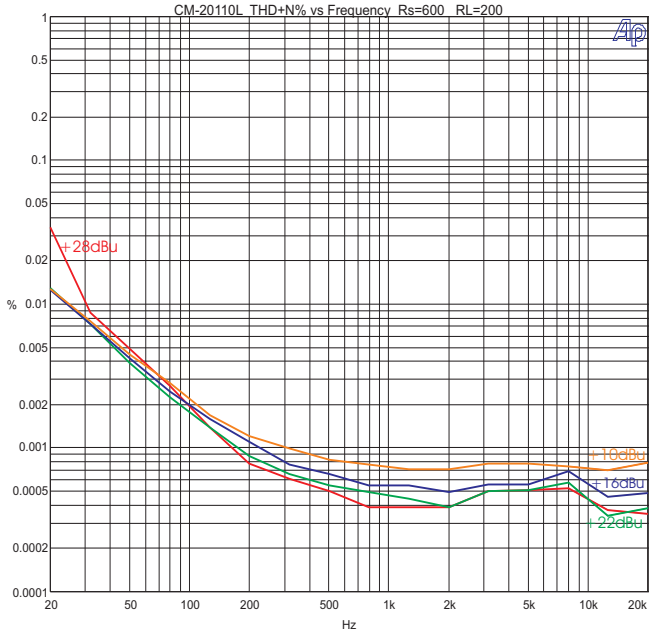
CM-20110

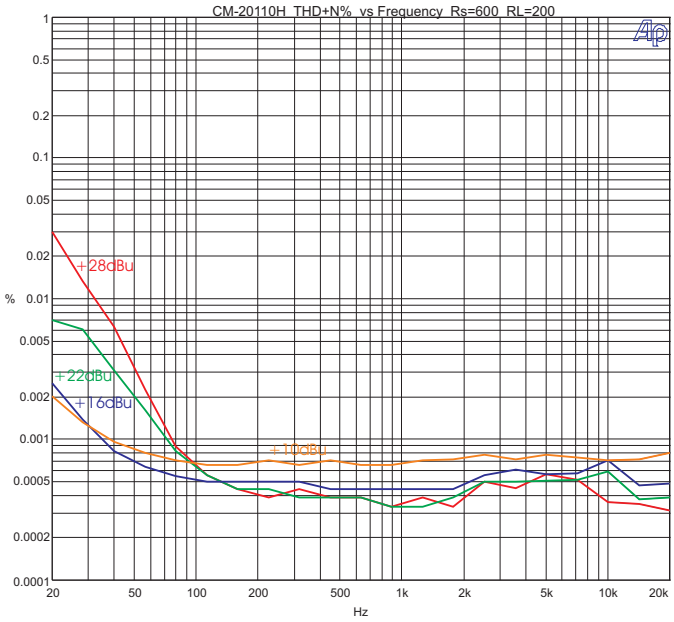
Parameter	Conditions	Typ
Turns Ratio		8.5 : 1.00
Voltage Gain 1kHz	Rs= 600 RL=100K Rs= 600 RL=200 Rs=600 RL=1.5K Rs=10K RL=1.5K Rs=20K RL=1.5K	-18.6dBu -20.9dBu -18.9dBu -19.7dBu -20.4dBu
Distortion (THD+N%)	1 kHz, +24dBu Test Circuit 1 Rs=10K RL-1.5K	0.002%
Max 20 Hz input level	1.0% THD; 10K input, 1.5K secondary load impedance Test Circuit 1	+30dBu
Response, ref 1 kHz	20 Hz +20 dBu Test Circuit 1 20 kHz +20 dBu Test Circuit 1 -3 dB Rs=10K RL=1.5K	-0.1 dB -0.05 dB 120 kHz
Phase Shift at 20 Hz Phase Shift at 20 kHz	Referenced to source generator Rs=10K RL=1.5K Test Circuit 1	-4° -22°
CMRR Rs=10K RL=1.5K	60 Hz Test Circuit 2 per IEE Std 389-1996 ¶19 1 kHz Test Circuit 2 per IEE Std 389-1996 ¶19	≥110 dB 94 dB
Operating Temp Range	Operation and storage	0° C Min 70° C Max

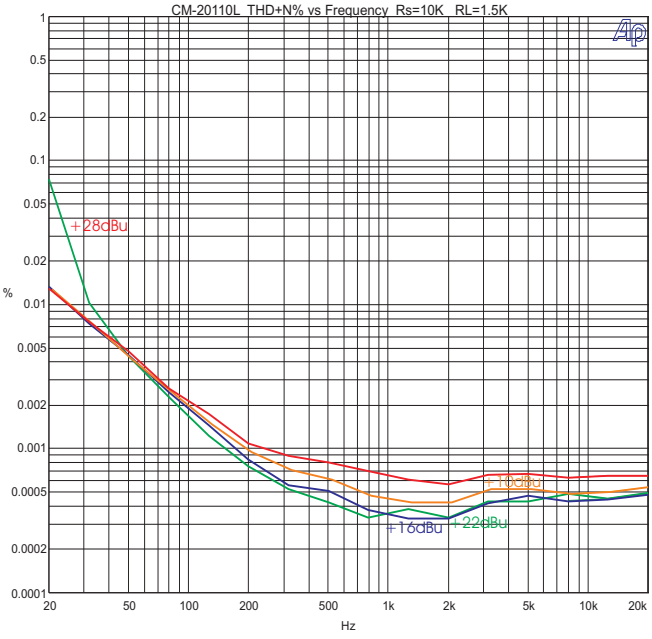
9050 Independence Ave. Canoga Park, California 91304 ☎(818) 993-4644 ✉ (818) 993-4604 http://www.cinemag.biz


CM-20110L Amp v Phase Rs=600, 10K and 20K RL=200
Phase
Amplitude
Rs=600
Rs=10K
Rs=20K
dBu
deg
Hz


CM-20110H Amp v Phase Rs=600, 10K and 20K RL=1.5K
Amplitude
600
Phase
10K
20K
dBu
deg
Hz


CM-20110L THD+N% vs Frequency Rs=600 RL=200
+28dBu
+10dBu
+16dBu
+22dBu
%
Hz


CM-20110H THD+N% vs Frequency Rs=600 RL=200
+28dBu
+22dBu
+16dBu
+10dBu
%
Hz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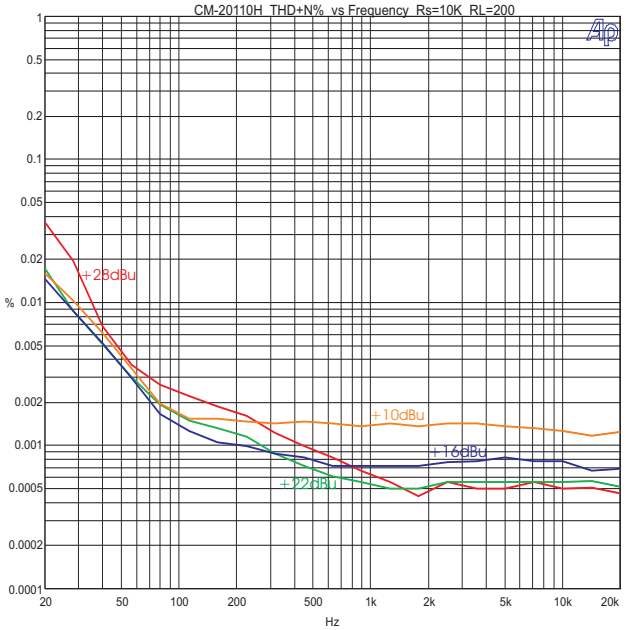
+28dBu
+10dBu
+16dBu
+22dBu
%
Hz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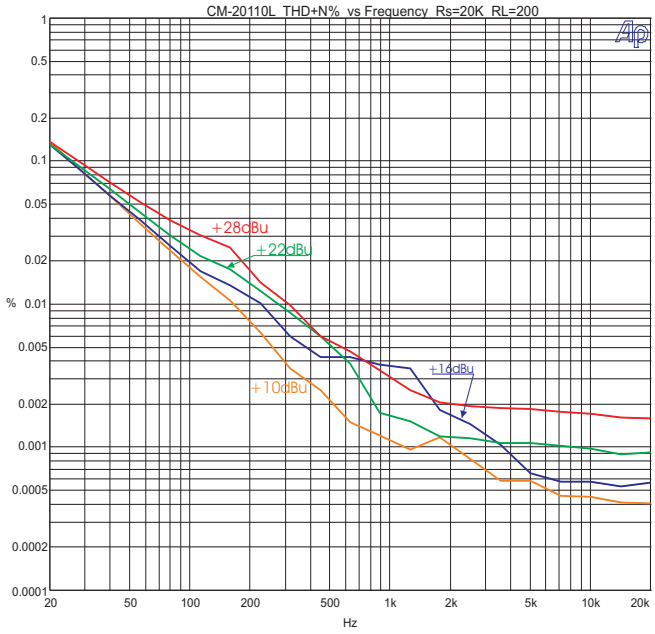
+28dBu
+10dBu
+16dBu
+22dBu
%
Hz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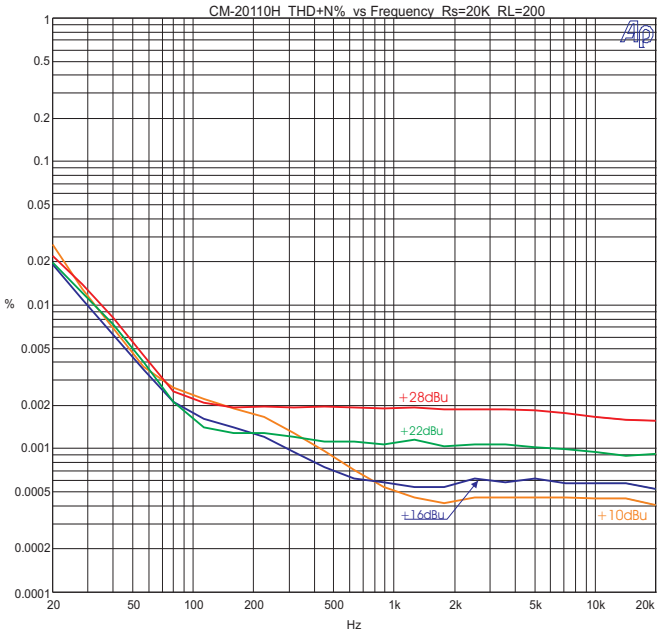
+28dBu
+22dBu
+16dBu
+10dBu
%
Hz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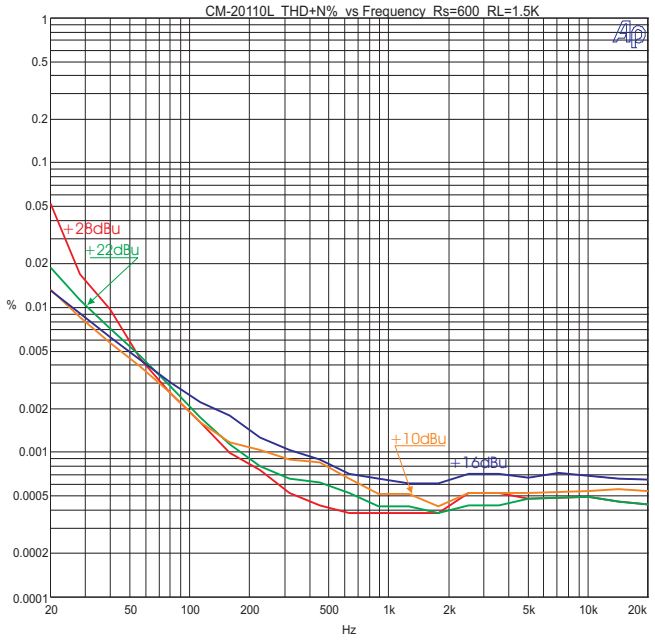
+28dBu
+22dBu
+16dBu
+10dBu
%
Hz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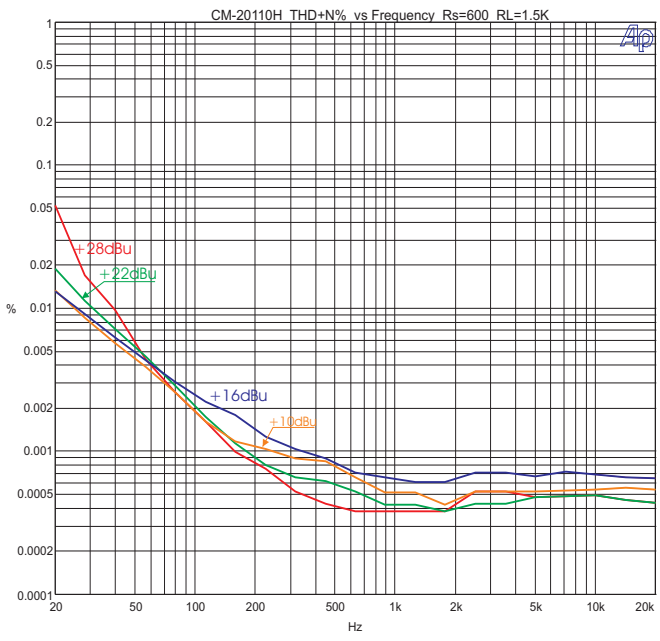
+28dBu
+22dBu
+10dBu
+16dBu
%
Hz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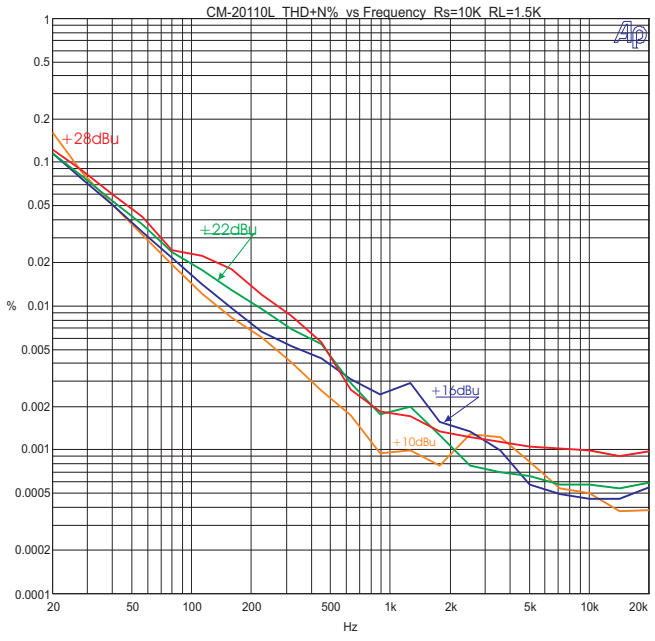
+28dBu
+22dBu
+16dBu
+10dBu
%
Hz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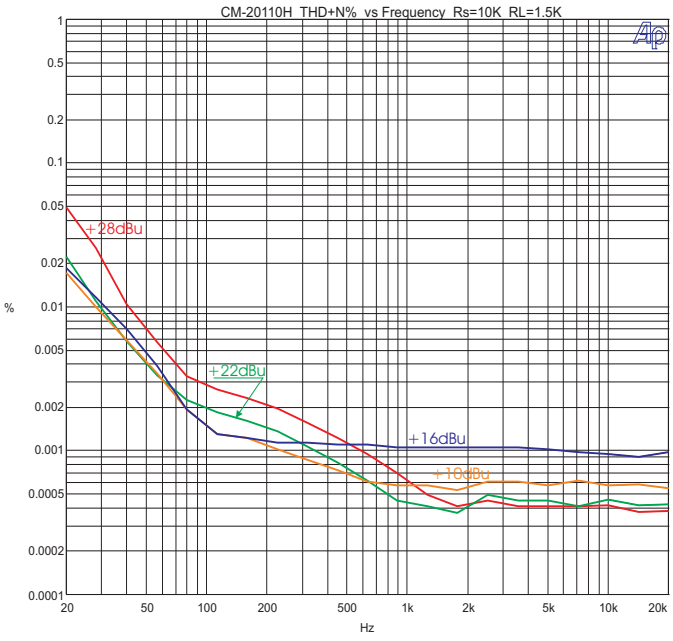
+28dBu
+22dBu
+16dBu
+10dBu
%
Hz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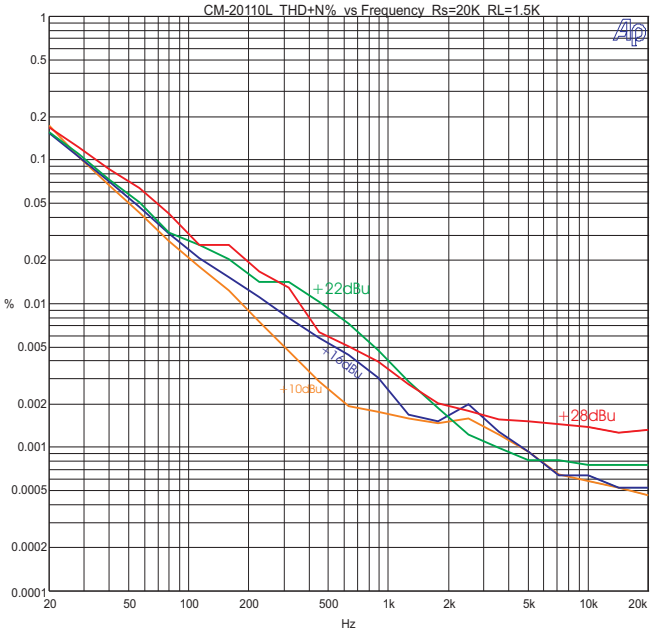
+28dBu
+22dBu
+16dBu
+10dBu
%
Hz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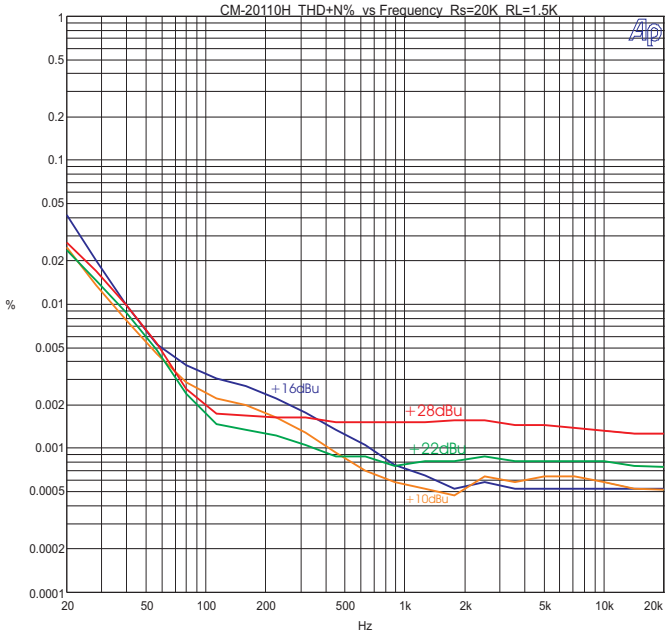
%
Hz
+22dBu
+16dBu
+10dBu
+28dBu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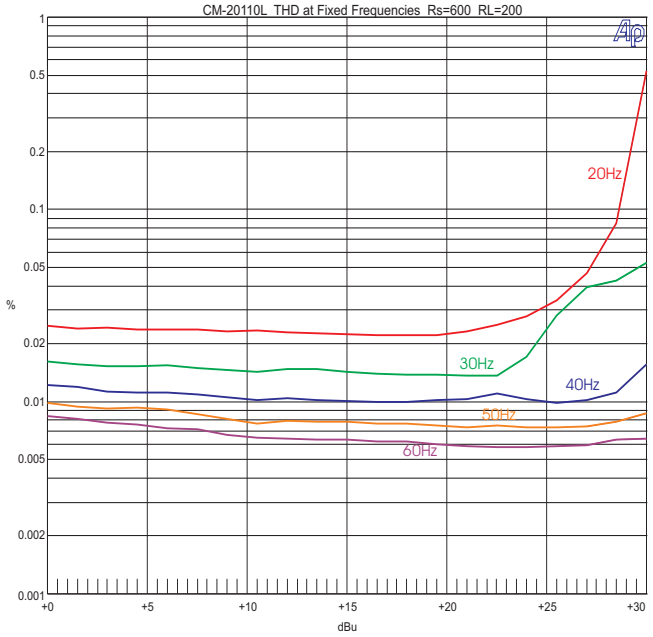
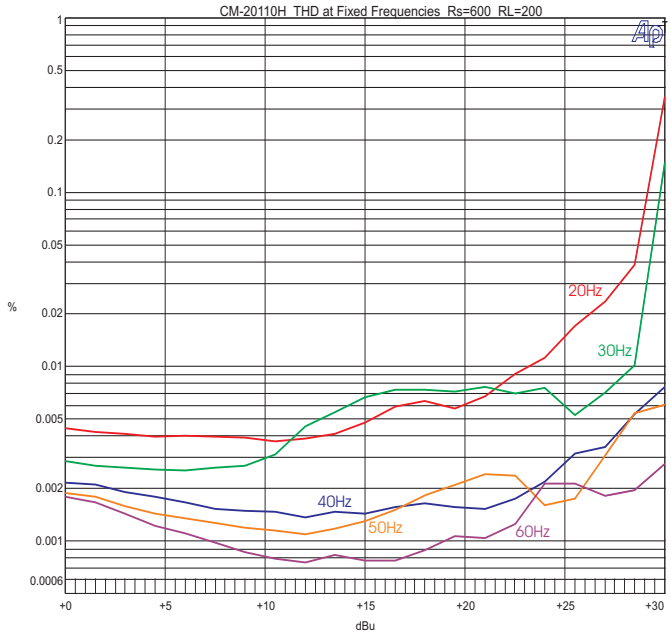
%
Hz
+16dBu
+28dBu
+22dBu
+10dBu


CM-20110L THD at Fixed Frequencies Rs=600 RL=200
%
dBu
20Hz
30Hz
40Hz
50Hz
60Hz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%
dBu
20Hz
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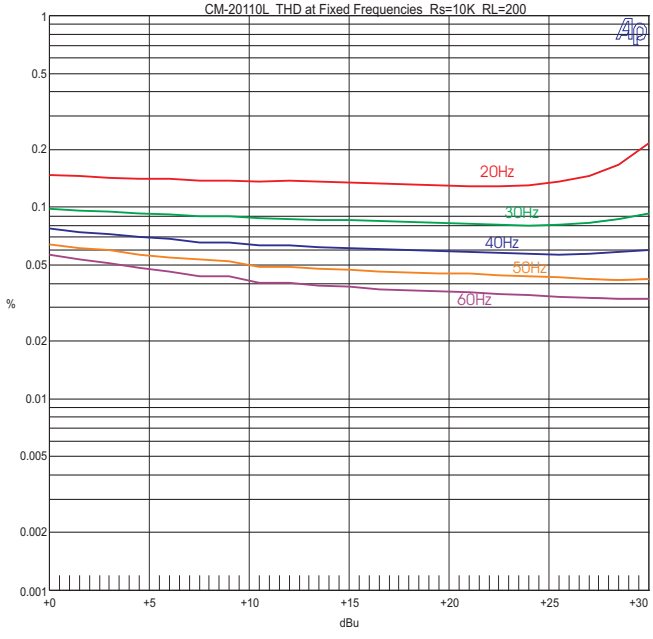
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%
dBu
20Hz
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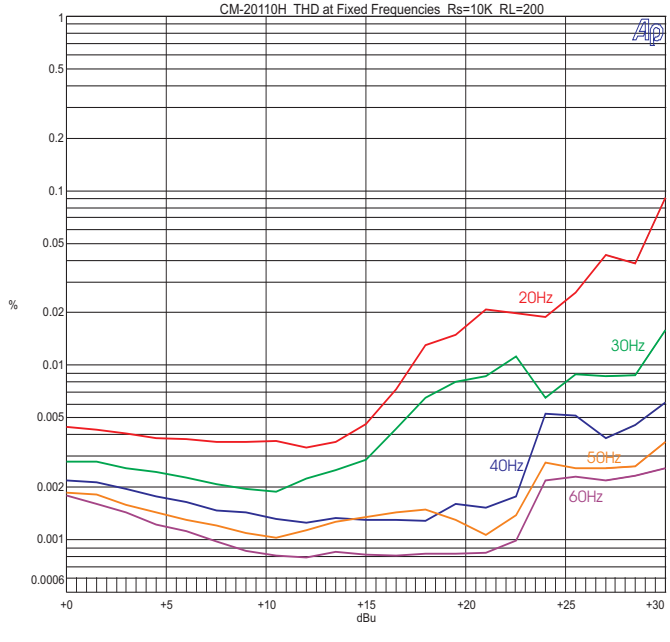
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%
dBu
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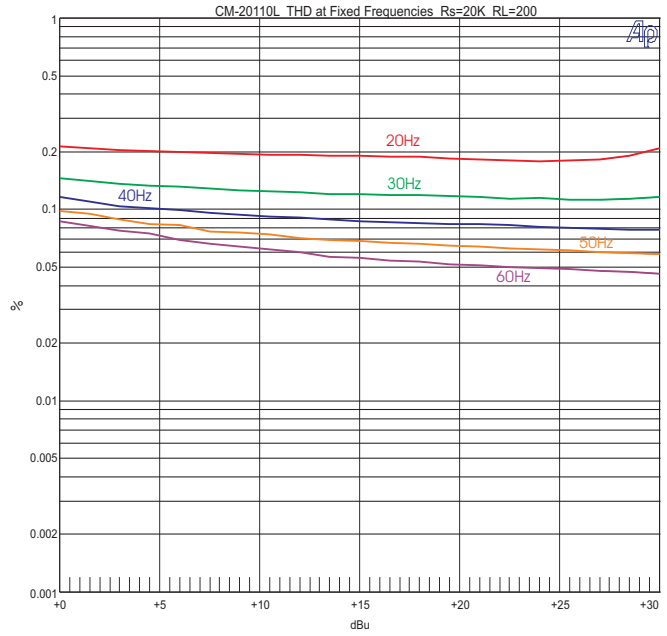
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%
dBu
20Hz
30Hz
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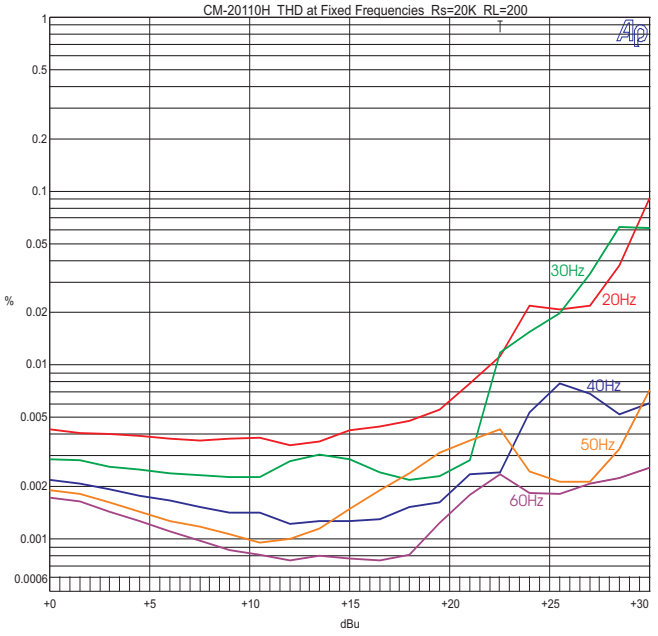
50Hz
60Hz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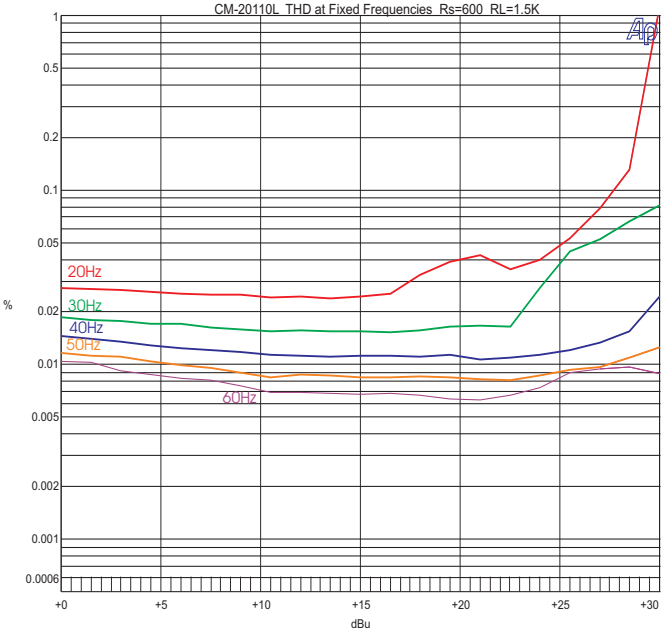
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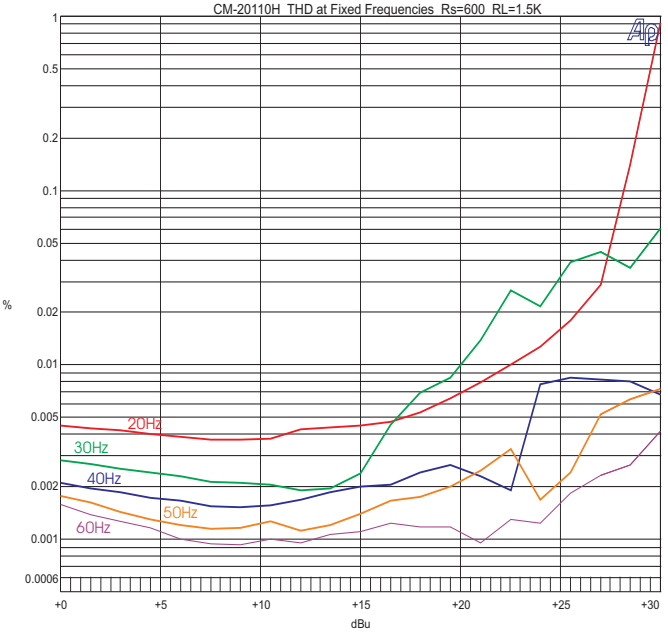
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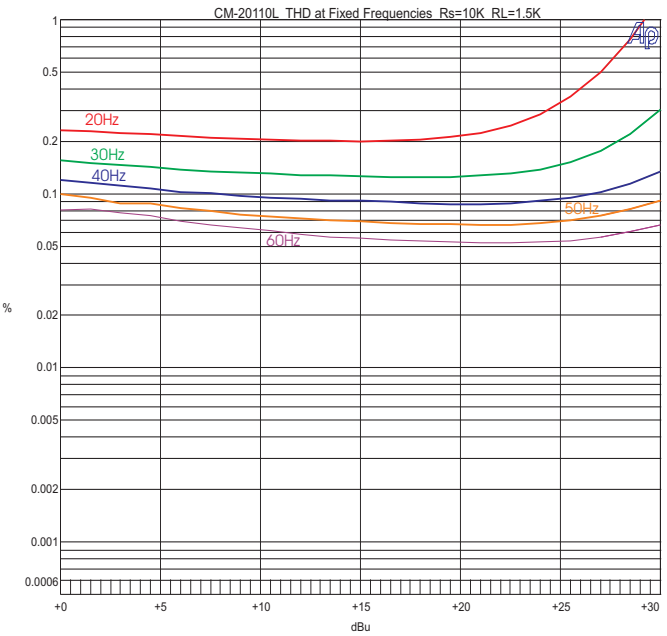
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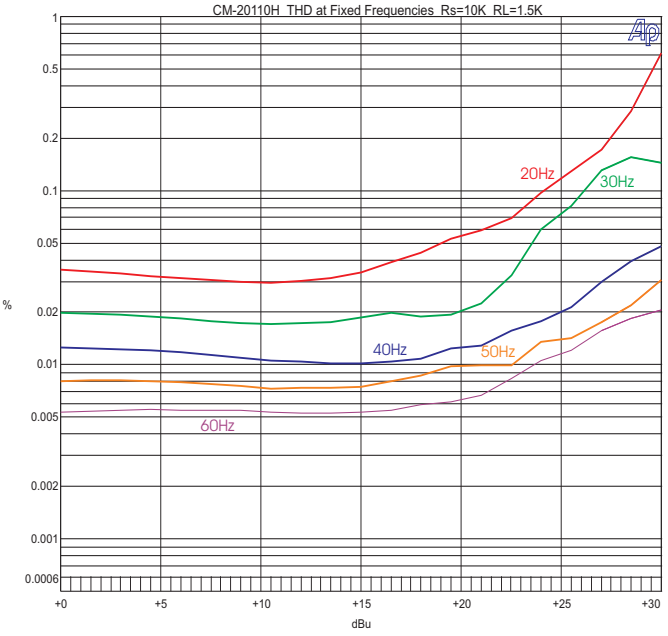
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%
dBu
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40Hz
50Hz
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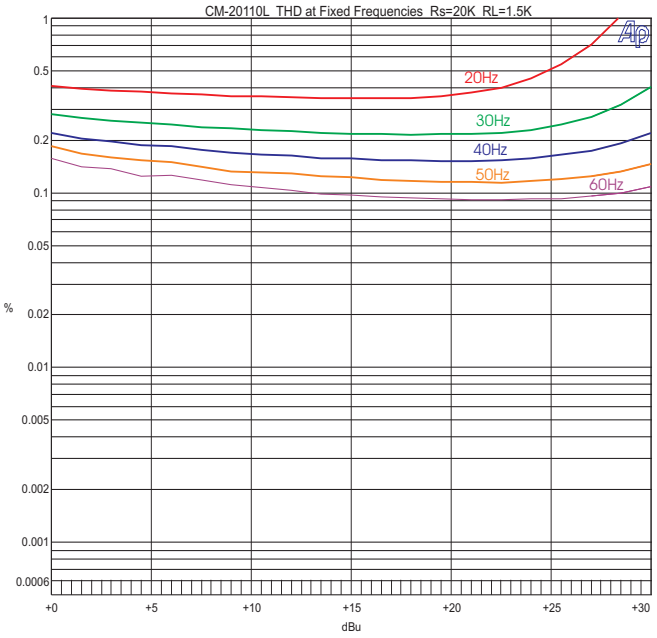
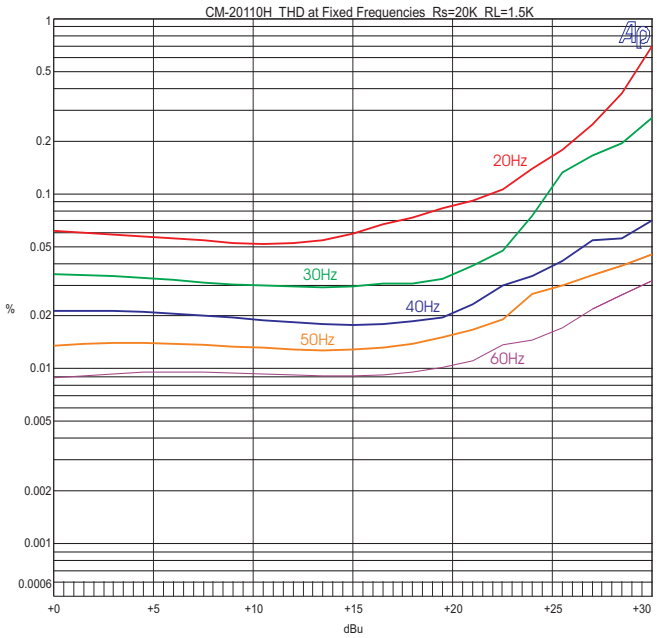
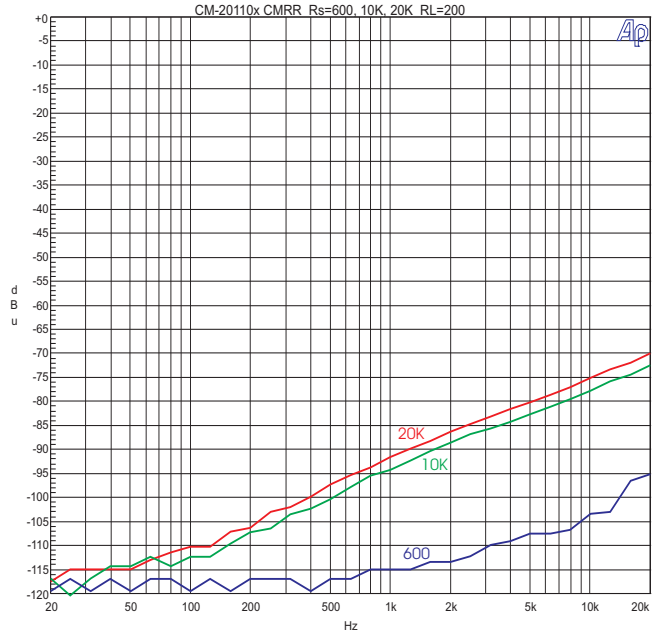
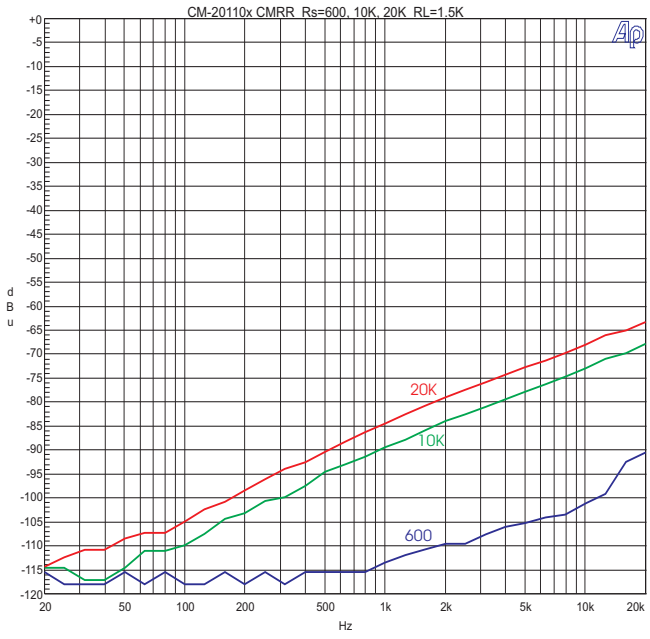
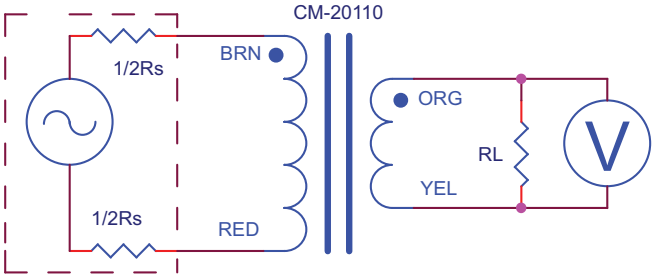


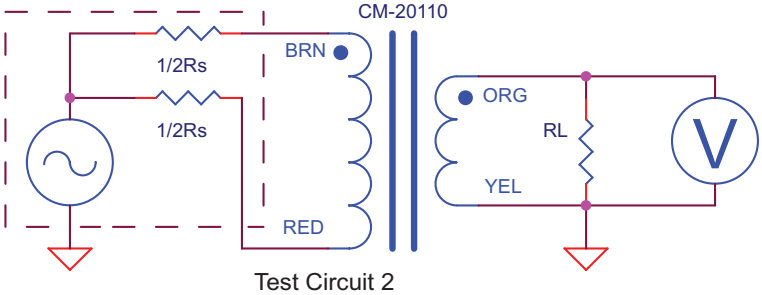








Test Circuit 1



Test Circuit 2

NOTE: All graphs generated from one (1) randomly chosen device.
No statistical averaging or weighting. One sweep taken.