Reichenbach Engineering

RoHS

CM-5121

Microphone Output Transformer
6.5 : 1 Turns ratio

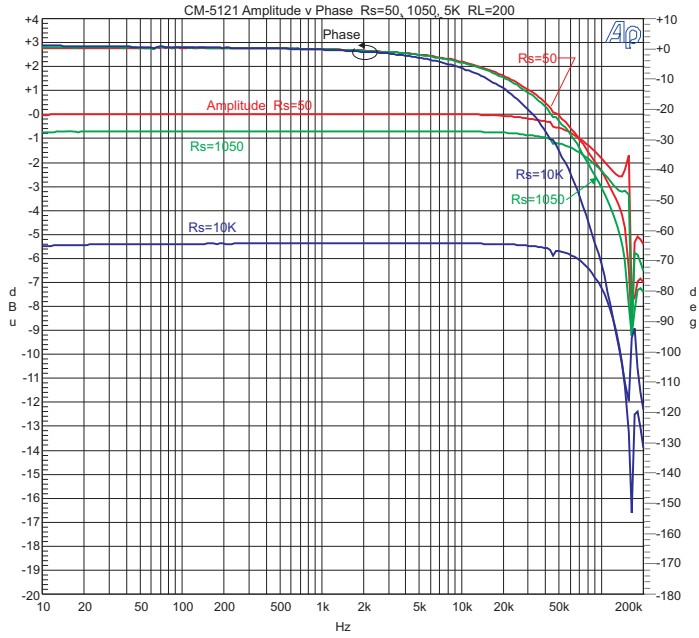
- **Excellent bandwidth**
- **High-nickel ("H") or 50% High-nickel + 50% steel ("L") core**
- **Distortion 0.008% at 20 Hz +0.0 dB in, Rs=50Ω RL=200Ω**
- **0.09% THD+N% +29 dBu in Rs=50Ω RL=200Ω**
- **Phase Shift -15° at 20 kHz, Rs=10K RL=1.5K**

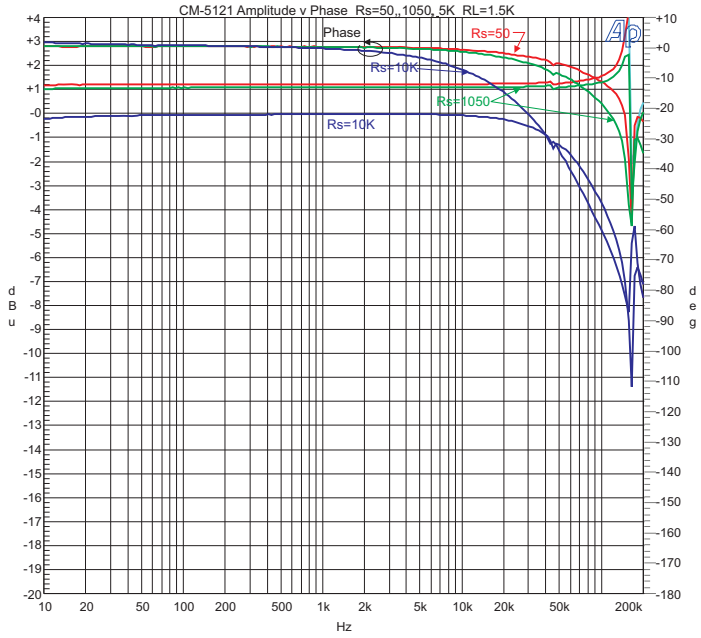
The CM-5121 microphone output transformer is intended for use with vacuum tube condenser microphones. It is available either with a high-nickel core or with a mix of 50% high-nickel plus 50% steel laminations. Because of its hum-bucking construction and precision winding techniques, it has very good immunity to magnetic interference from stray sources. It also has excellent CMRR.

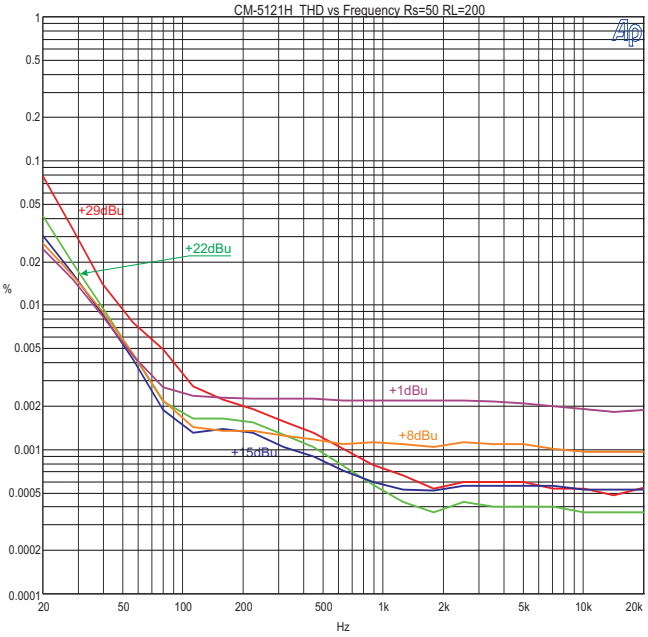
CM-25121H / CM-5121L

Parameter	Conditions	Typ
Turns Ratio		6.50:1
Voltage Gain	1 kHz HiNi Core, Rs=50Ω RL=1.5K	-16.6dBu
Distortion (THD+N%)	1 kHz, +29 dBu input, Rs=50Ω RL=1.5K Test Circuit 1 1 kHz, +1.0 dBu input, Rs=50Ω RL=1.5K	≤ 0.0004% 0.001 %
Max 20 Hz Input Level	1% THD+N%, Rs=50Ω RL=1.5K Test Circuit 1	+ 28dBu
Response, ref 1 kHz	20 Hz Rs=50 RL=1.5K Test Circuit 1 20 kHz Rs=50 RL=1.5K Test Circuit 1 100 kHz Rs=50 RL=1.5K Test Circuit 1	-0.02dBu -0.1dBu -1.8dBu
Phase Shift at 20Hz Phase Shift at 20 kHz	Referenced to source generator Rs=50 RL=1.5K Test Circuit 1	-1° -8°
CMRR	60 Hz Test Circuit 2 per IEEE Std 389-1996 ¶19 1 kHz Test Circuit 2 per IEEE Std 389-1996 ¶19	83 dB 60 dB
Output CMRR	60 Hz Rs=50 RL=1.5K Test Circuit 3 1 kHz Rs=50 RL=1.5K	115dB 112dB
Operating Temp Range	Operation and storage	0° C Min 70° C Max

4487 Ish Drive, Simi Valley, CA 93063 (818) 993-4644 http://www.cinemag.biz


CM-5121 Amplitude v Phase Rs=50, 1050, 5K RL=200
Phase
Amplitude Rs=50
Rs=50
Rs=1050
Rs=10K
Rs=10K
Rs=1050
Rs=10K
dBu
deg
Hz


CM-5121 Amplitude v Phase Rs=50,,1050, 5K RL=1.5K
Phase
Rs=50
Rs=10K
Rs=1050
Rs=10K
dBu
deg
Hz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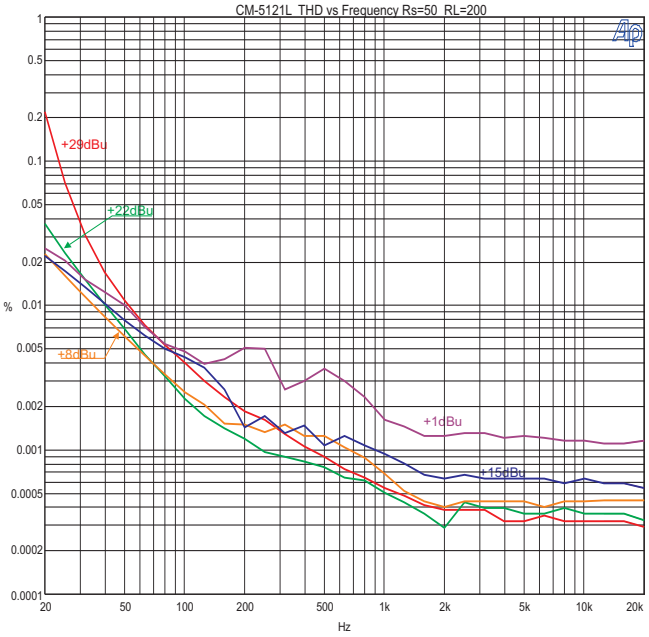
+29dBu
+22dBu
+1dBu
+8dBu
+15dBu
%
Hz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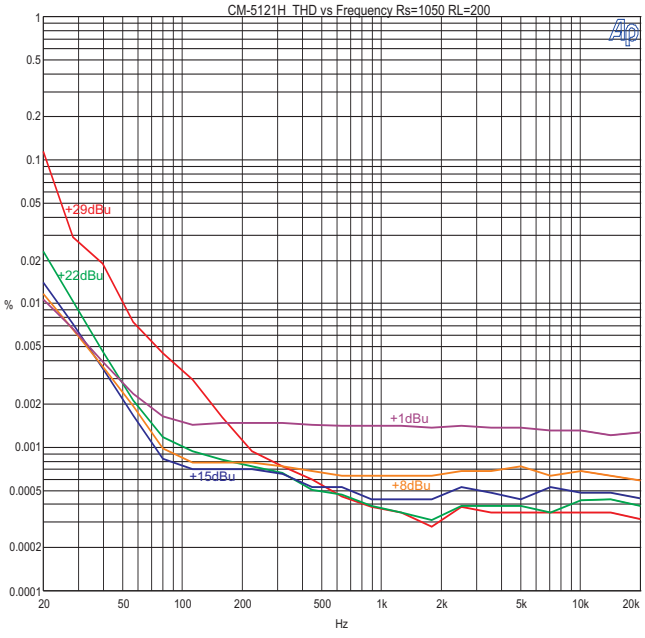
+22dBu
+8dBu
+1dBu
+15dBu
%
Hz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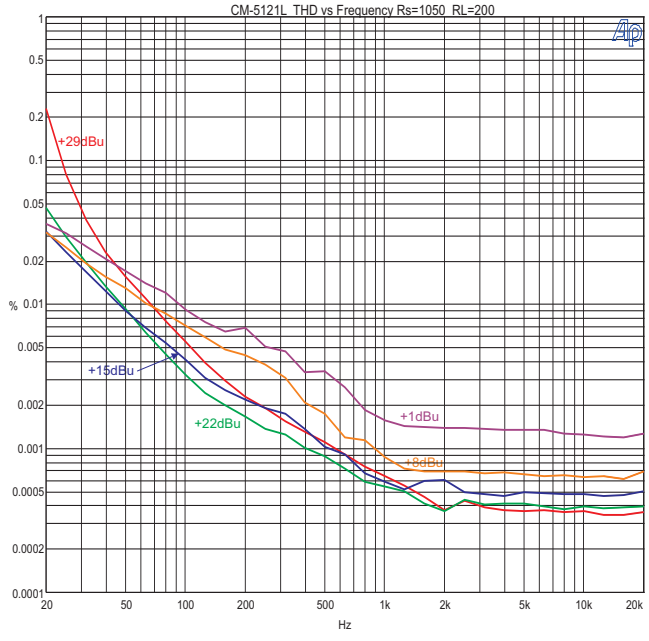
+22dBu
+1dBu
+15dBu
+8dBu
%
Hz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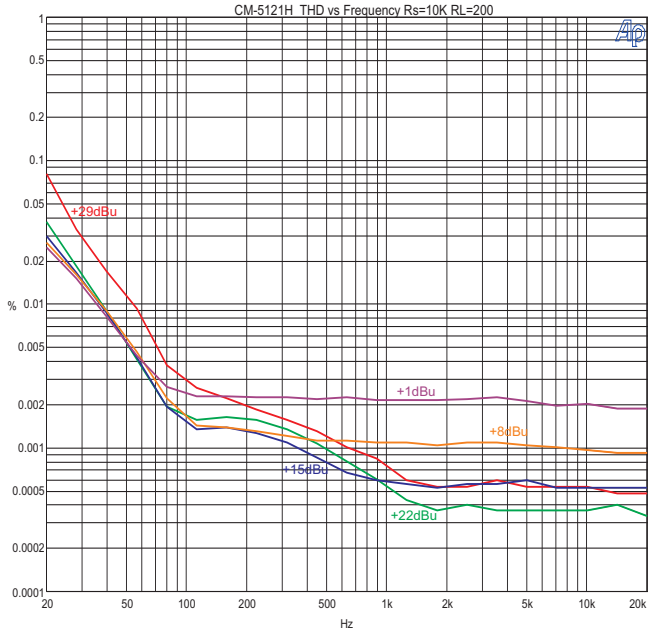
+29dBu
+15dBu
+22dBu
+1dBu
+8dBu
%
Hz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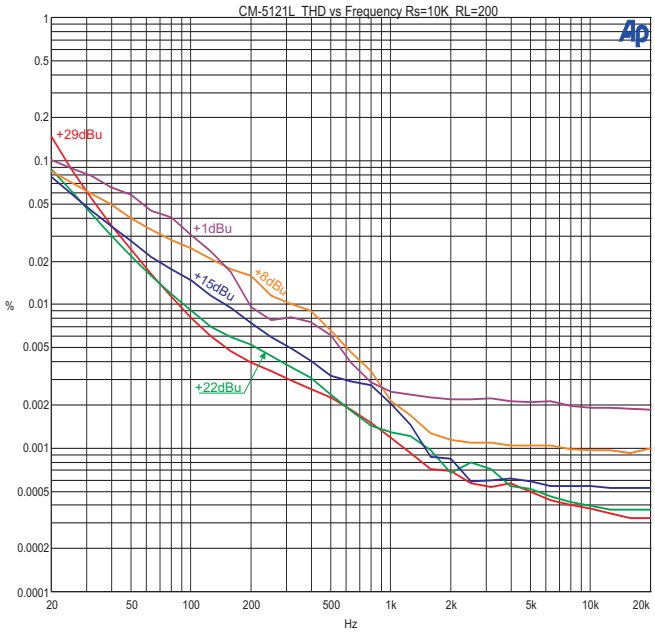
+1dBu
+8dBu
+15dBu
+22dBu
%
Hz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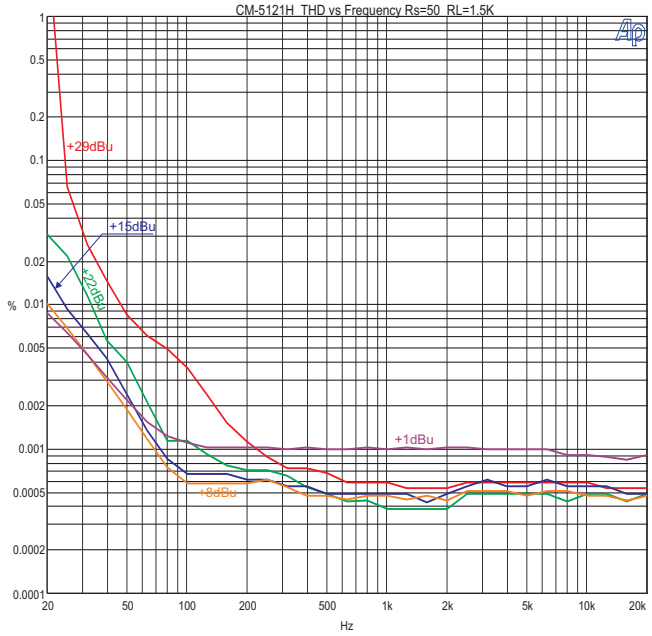
+29dBu
+1dBu
+8dBu
+15dBu
+22dBu
%
Hz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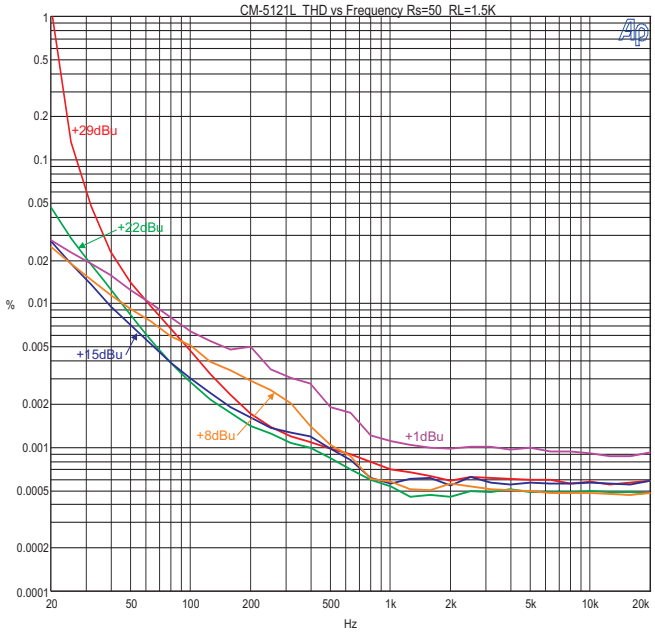
+15dBu
+22dBu
+1dBu
+8dBu
%
Hz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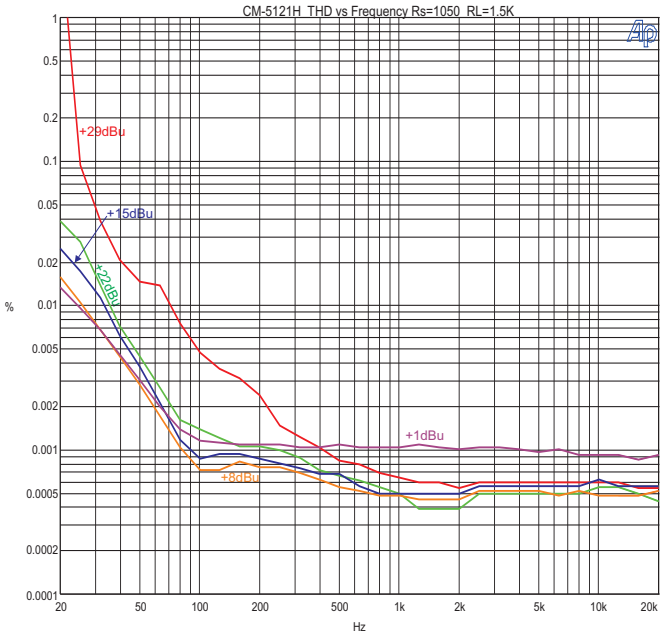
+22dBu
+15dBu
+8dBu
+1dBu
%
Hz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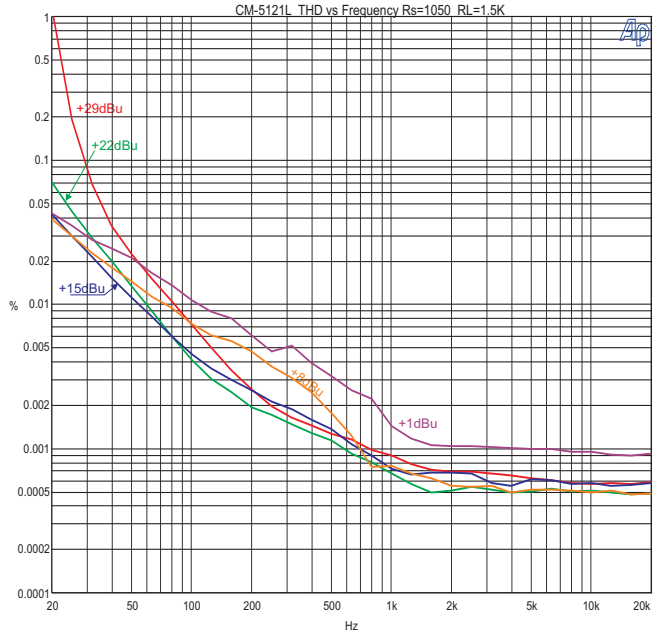
+15dBu
+22dBu
+1dBu
+8dBu
%
Hz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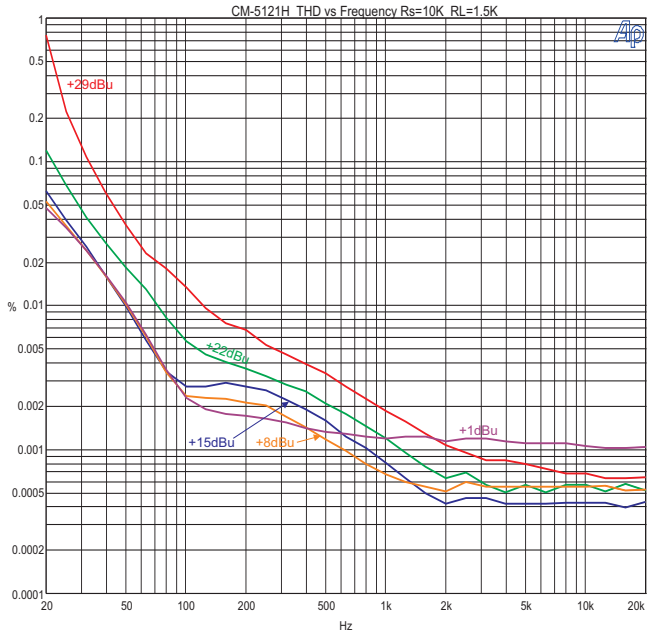
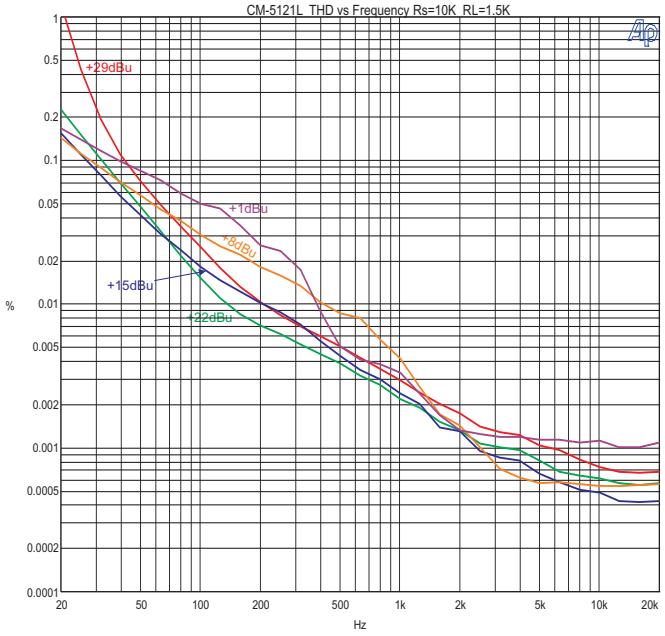
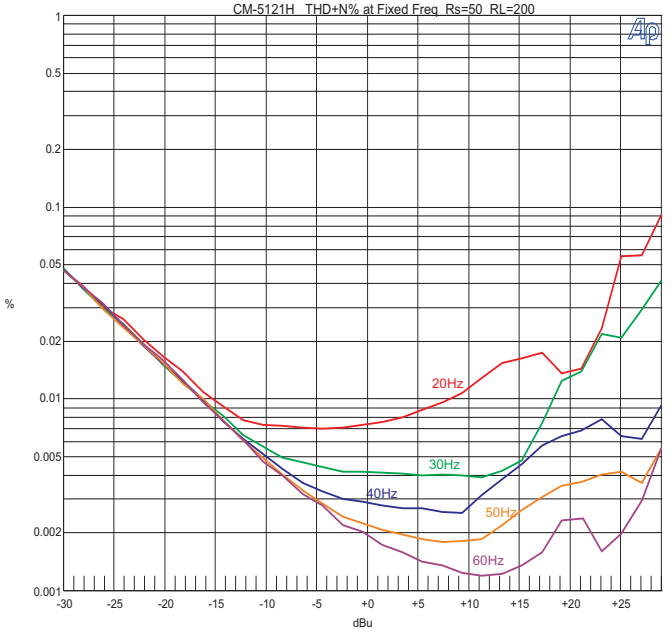
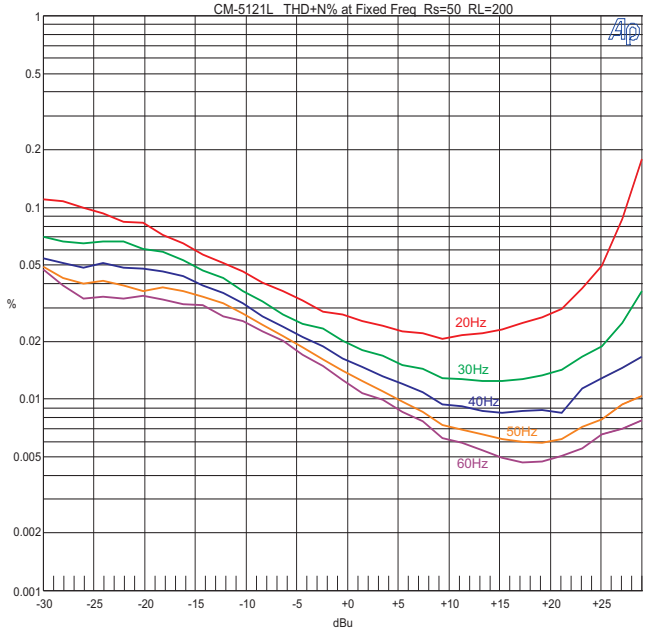
+22dBu
+15dBu
+8dBu
+1dBu
%
Hz


CM-5121H THD vs Frequency Rs=10K RL=1.5K
+29dBu
+22dBu
+15dBu
+8dBu
+1dBu
%
Hz


CM-5121L THD vs Frequency Rs=10K RL=1.5K
+29dBu
+1dBu
+8dBu
+15dBu
+22dBu
%
Hz


CM-5121H THD+N% at Fixed Freq Rs=50 RL=200
20Hz
30Hz
40Hz
50Hz
60Hz
%
dBu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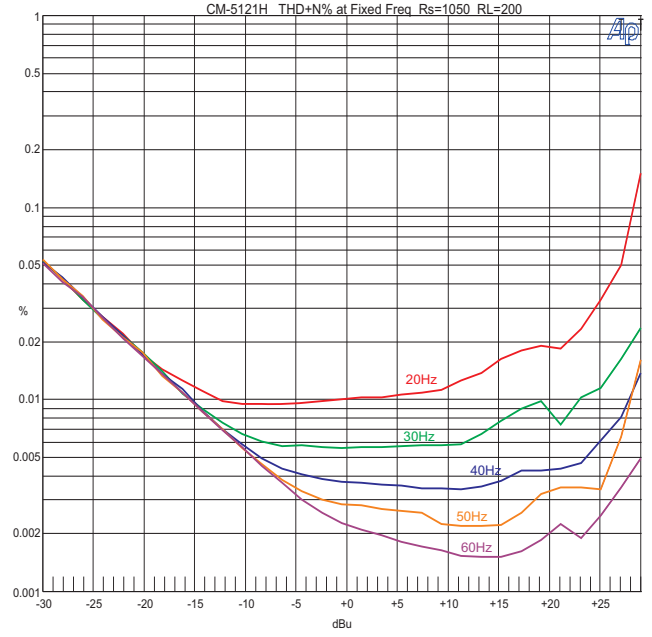
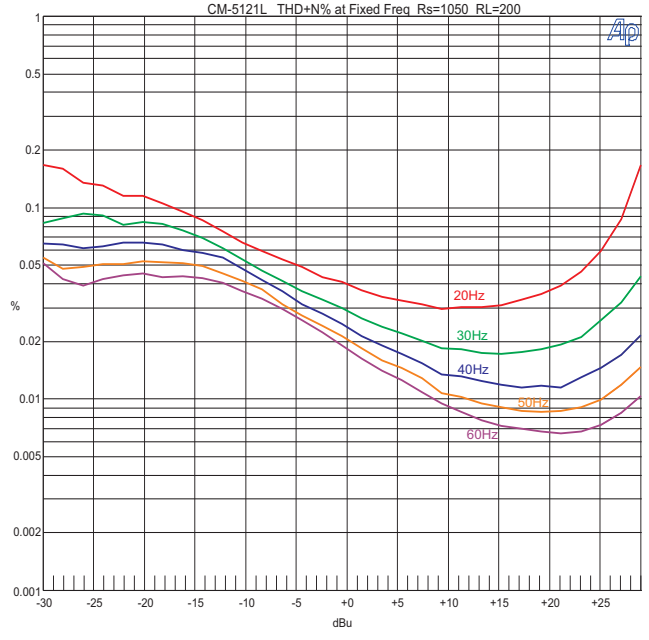
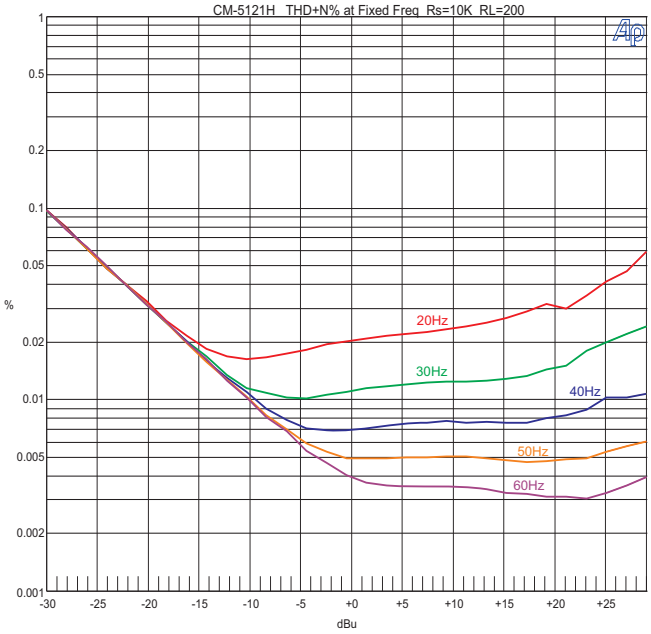
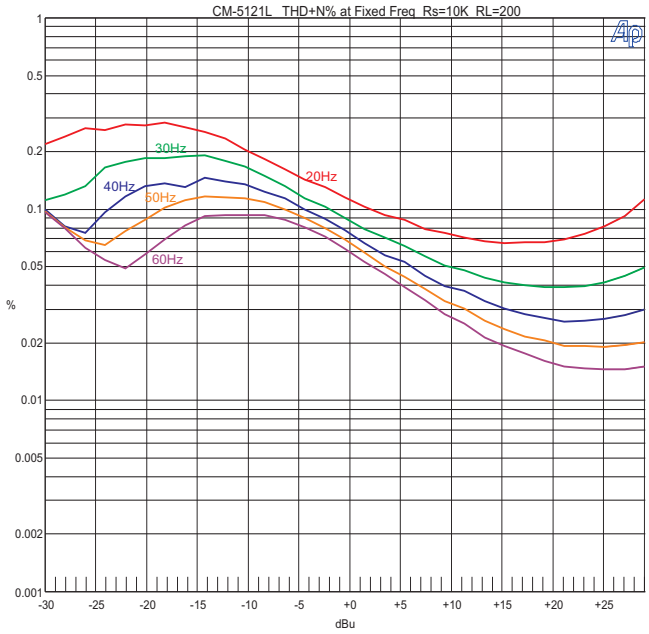
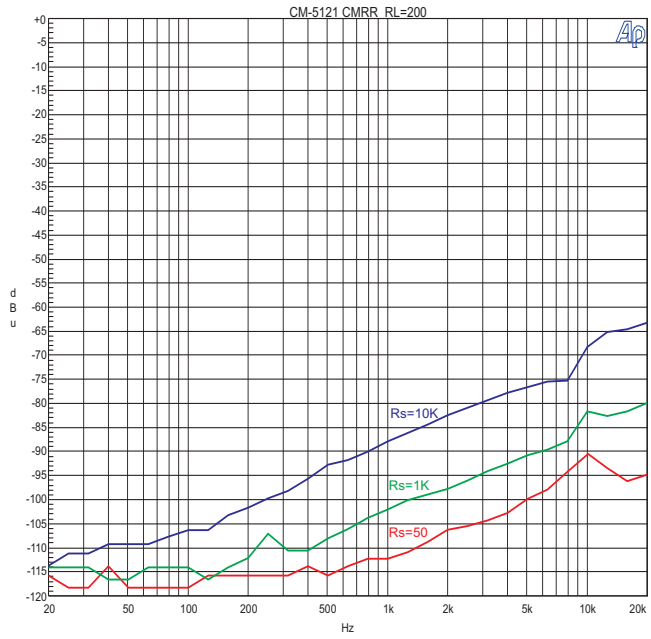
20Hz
30Hz
40Hz
50Hz
60Hz
%
dBu

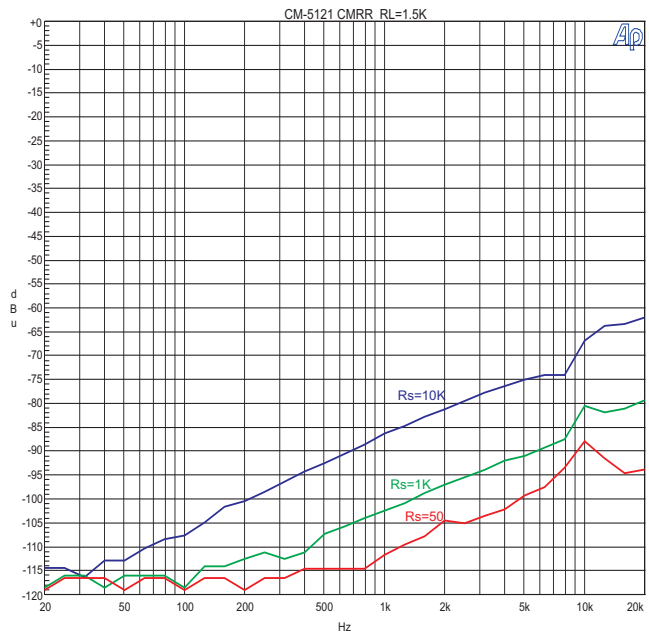

CM-5121H THD+N% at Fixed Freq Rs=1050 RL=200
20Hz
30Hz
40Hz
50Hz
60Hz
%
dBu


CM-5121L THD+N% at Fixed Freq Rs=1050 RL=200
20Hz
30Hz
40Hz
50Hz
60Hz
%
dBu

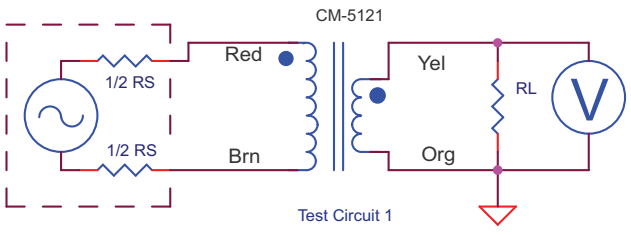




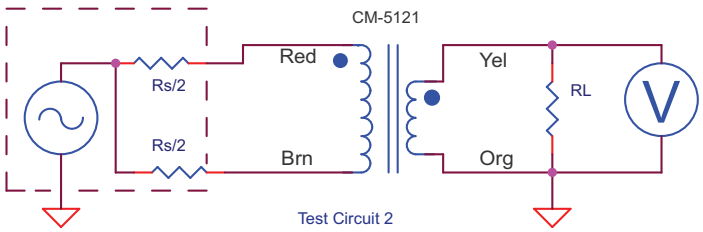




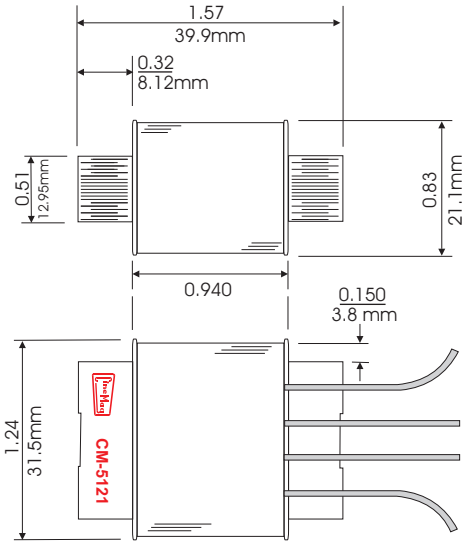
NOTE: All graphs generated from one (1) randomly selected device. No statistical averaging or weighting. Data from one sweep.



Test Circuit 1



Test Circuit 2



Wire exit order may vary