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### FLAC-compressed wave file (44.1 kHz, 16 bit, stereo)

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Please verify correctness of meter ballistics programmatically. **Calculated values are only valid in "RMS" mode.** Small differences due to time granularity of validation logging are acceptable.

00:00.000 - 00:02.000 silence  
00:02.000 - 00:12.000 sine wave (2 kHz, 0.0 dB FS peak)  
00:12.000 - 00:12.600 silence  
  
00:12.600 [check fall time of average meters]  
  
00:12.600 - 00:14.600 sine wave (2 kHz, 0.0 dB FS peak)  
00:14.600 - 00:24.600 silence  
00:24.600 - 00:25.200 sine wave (2 kHz, 0.0 dB FS peak)  
  
00:25.200 [check rise time of average meters]  
  
00:25.200 - 00:27.200 silence  
00:27.200 - 00:37.200 sine wave (2 kHz, 0.0 dB FS peak)  
00:37.200 - 00:40.200 silence  
  
00:40.200 [check fall/rise time of peak meters]  
  
00:40.200 - 00:42.200 sine wave (2 kHz, 0.0 dB FS peak)  
00:42.200 - 00:44.200 silence

### Validation settings

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File: meter\_ballistics.flac  
**Host SR: 44 100 Hz**  
Channel: RMS: All, ITU-R: 1  
Display: ☒ Peak meter level  
          ☐ True peak meter level  
          ☒ Average meter level  
          ☐ Maximum peak level  
          ☐ Max. true peak level  
          ☐ Stereo meter value  
          ☐ Phase correlation

## **Metering minima**

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For the calculations, see the Python script "meter\_ballistics.py".

### **Fall time of average meters (sine wave, 0.0 dB FS peak)**

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99% of final reading in 600 ms integration time

**Fall time average (K-20): -88.91 dB**  
Fall time average (K-14): -94.91 dB  
Fall time average (K-12): -96.91 dB  
Fall time average (Norm): -108.91 dB

### **Rise time of average meters (sine wave, 0.0 dB FS peak)**

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99% of final reading in 600 ms integration time

**Rise time average (K-20): +18.90 dB**  
Rise time average (K-14): +12.90 dB  
Rise time average (K-12): +10.90 dB  
Rise time average (Norm): -1.10 dB

### **Fall time of peak meters (sine wave, 0.0 dB FS peak)**

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-26 dB in 3 seconds

**Fall time peaking (K-20): -6.00 dB**  
Fall time peaking (K-14): -12.00 dB  
Fall time peaking (K-12): -14.00 dB  
Fall time peaking (Norm): -26.00 dB

### **Rise time of peak meters (sine wave, 0.0 dB FS peak)**

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immediate (one sample)

**Rise time peaking (K-20): +20.00 dB**  
Rise time peaking (K-14): +14.00 dB  
Rise time peaking (K-12): +12.00 dB  
Rise time peaking (Norm): +0.00 dB