

-----  
*This documentation and its accompanying audio file by [Martin Zuther](#) are licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](#).*  
-----

### **FLAC-compressed wave file (44.1 kHz, 24 bit, stereo)**

=====

Please verify correctness of peak meter and maximum peak meter programmatically. In "ITU-R BS.1770" mode, make sure that measured levels equal the left channel's level.

Given levels describe the left channel. The left channel is delayed by one second, while the right channel's level has been attenuated by 1.93 dB.

```
00:00.000 - 00:02.000  silence
00:02.000 - 00:07.000  square wave ( 20 Hz, -41.0 dB FS peak)

                        [left  peak meter should read -21.00 dB (K-20)]
                        [right peak meter should read -22.93 dB (K-20)]

                        [left  maximum peak should read -21.00 dB (K-20)]
                        [right maximum peak should read -22.93 dB (K-20)]

00:07.000 - 00:09.000  silence
00:09.000 - 00:14.000  square wave ( 180 Hz, -29.0 dB FS peak)

                        [left  peak meter should read  -9.00 dB (K-20)]
                        [right peak meter should read -10.93 dB (K-20)]

                        [left  maximum peak should read  -9.00 dB (K-20)]
                        [right maximum peak should read -10.93 dB (K-20)]

00:14.000 - 00:16.000  silence
00:16.000 - 00:21.000  square wave ( 530 Hz, -17.5 dB FS peak)

                        [left  peak meter should read  +2.50 dB (K-20)]
                        [right peak meter should read  +0.57 dB (K-20)]

                        [left  maximum peak should read  +2.50 dB (K-20)]
                        [right maximum peak should read  +0.57 dB (K-20)]

00:21.000 - 00:23.000  silence
00:23.000 - 00:28.000  square wave (1111 Hz,  -8.3 dB FS peak)

                        [left  peak meter should read +11.70 dB (K-20)]
                        [right peak meter should read  +9.77 dB (K-20)]

                        [left  maximum peak should read +11.70 dB (K-20)]
                        [right maximum peak should read  +9.77 dB (K-20)]

00:28.000 - 00:30.000  silence
00:30.000 - 00:35.000  square wave (1501 Hz,  -0.1 dB FS peak)

                        [left  peak meter should read +19.90 dB (K-20)]
                        [right peak meter should read +17.97 dB (K-20)]

                        [left  maximum peak should read +19.90 dB (K-20)]
                        [right maximum peak should read +17.97 dB (K-20)]
```

00:35.000 - 00:37.000 silence  
00:37.000 - 00:42.000 square wave (2890 Hz, -36.0 dB FS peak)  
  
[left peak meter should read -16.00 dB (K-20)]  
[right peak meter should read -17.93 dB (K-20)]  
  
[left maximum peak should read +19.90 dB (K-20)]  
[right maximum peak should read +17.97 dB (K-20)]  
  
00:42.000 - 00:44.000 silence  
00:44.000 - 00:49.000 square wave (4190 Hz, -69.5 dB FS peak)  
  
[left peak meter should read -49.50 dB (K-20)]  
[right peak meter should read -51.43 dB (K-20)]  
  
[left maximum peak should read +19.90 dB (K-20)]  
[right maximum peak should read +17.97 dB (K-20)]  
  
00:49.000 - 00:51.000 silence  
00:51.000 - 00:56.000 square wave (8345 Hz, -85.0 dB FS peak)  
  
*(it seems like I have driven Sound Forge's test  
tone generator to its limits -- the peak level  
meter readings given below have been measured  
using the "Statistics" dialog in Sound Forge)*  
  
[left peak meter should read -65.05 dB (K-20)]  
[right peak meter should read -66.99 dB (K-20)]  
  
[left maximum peak should read +19.90 dB (K-20)]  
[right maximum peak should read +17.97 dB (K-20)]  
  
00:56.000 - 00:59.000 silence

### Validation settings

=====

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