

EBU

OPERATING EUROVISION AND EURORADIO

R 128 s1

LOUDNESS PARAMETERS FOR SHORT-FORM CONTENT (ADVERTS; PROMOS, ETC.)



SUPPLEMENT 1 TO R 128

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Loudness Parameters for Short-form Content (advertisements, promos etc.)

<i>EBU Committee</i>	<i>First Issued</i>	<i>Revised</i>	<i>Re-issued</i>
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After the introduction of recommendation R 128 [1], the EBU has studied the practical adoption and its consequences and peculiarities. Especially for short-form content like advertisements (commercials) and promos (as well as interstitials etc.) there is a need to give guidance using the parameter **Maximum Short-term Loudness** in addition to the basic parameters **Programme Loudness** and **Maximum True Peak Level**.

The EBU recommends the measurement of the average loudness of a short-form programme (*'Programme Loudness'*) for the normalisation of such audio signals. The measurement of the *'Maximum True Peak Level'* of the audio signal is recommended to comply with the technical limits of the complete signal chain. The measure *'Maximum Short-term Loudness'* should be used to further characterise and control the audio signal as well as to avoid overly dynamic short-form programmes, which would lead to audience complaints.

The measure *'Loudness Range'* is not useful for short-form content. It is based on a statistical analysis of the Short-term Loudness values (3 s). For commercials, promos etc. this leaves too few data points for a meaningful result. Therefore, a maximum and/or minimum value for Loudness Range shall not be specified for programmes of this length/genre.

The EBU recommends (see *Summary*):

- a) that the measures **Programme Loudness**, **Maximum True Peak Level** and **Maximum Short-term Loudness** shall be used to characterise the audio signal of short-form content;
- b) that the **Programme Loudness Level** shall be normalised to a **Target Level of -23.0 LUFS**. The permitted deviation from the Target Level shall generally not exceed $\pm 0.5 \text{ LU}^1$;
- c) that in special circumstances the **Programme Loudness Level** may be lower than **-23.0 LUFS** on purpose. This exception shall be clearly indicated to ensure that such a lower programme loudness level is not unintentionally compensated;
- d) that the audio signal shall generally be measured in its **entirety**, without emphasis on specific foreground elements such as voice, music or sound effects;
- e) that the measurement shall be made with a loudness meter compliant with ITU-R BS.1770 [2] and EBU Tech Doc 3341 [3];
- f) that the **Maximum Permitted True Peak Level** of the programme (linear audio) shall be **-1 dBTP** (dB True Peak), measured with a meter compliant with both ITU-R BS.1770 and EBU Tech Doc 3341;
- g) that the **Maximum Permitted Short-term Loudness Level** (measured in compliance with EBU Tech Doc 3341) should be **-18.0 LUFS** (+5.0 LU on the relative scale);
- h) and that in case there are strong esthetical reasons to exceed the limit described in item g, the content provider shall communicate directly with the broadcaster to clarify if such an exception is still tolerable.

¹ The $\pm 0.5 \text{ LU}$ tolerance exists to allow for minor variations of meter calibrations and errors.

Summary – Loudness Parameters for short-form content (advertisements, promos,...):

Programme Loudness	-23.0 LUFS \pm 0.5 LU
Maximum True Peak Level	-1 dBTP
Maximum Short-term Loudness	-18.0 LUFS (+5.0 LU on the relative scale)
Loudness Range	- (not applicable)

Definitions:

- Programme:** An individual, self-contained audio-visual or audio-only item to be presented in Radio, Television or other electronic media. An advertisement (commercial), trailer, promotional item ('promo'), interstitial or similar item shall be considered to be a programme in this context;
- Programme Loudness:** The integrated loudness over the duration of a programme - Programme Loudness Level is the value (in LUFS) of Programme Loudness;
- Short-form content:** A programme of short duration (up to approximately 2 minutes), typically shorter than 30 seconds; In addition to advertisements (commercials) and promotional items also interstitials, stingers, bumpers and similar very short items belong to that category;
- Maximum True Peak Level:** The maximum value of the audio signal waveform of a programme in the continuous time domain.

References

- [1] [EBU Technical Recommendation R 128](#) 'Loudness normalisation and permitted maximum level of audio signals'
- [2] ITU-R BS.1770 'Algorithms to measure audio programme loudness and true-peak audio level'
- [3] [EBU Tech Doc 3341](#) 'Loudness Metering: 'EBU Mode' metering to supplement loudness normalisation in accordance with EBU R 128'