EBU

OPERATING EUROVISION AND EURORADIO

R 128 s1

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

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

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After the introduction of Recommendation R 128 [1], the EBU has been studying its practical adoption, its consequences and peculiarities.

For short-form content such as advertisements (commercials) and promos (as well as interstitials, etc.) there is an especial need to give guidance using the parameters **Maximum Momentary Loudness** or **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 measures '*Maximum Momentary Loudness*' **OR** '*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 as it is based on a statistical analysis of the Short-term Loudness values (3s). 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** and **Maximum True Peak Level** 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 **±0.5 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];

[1] The ±0.5 LU tolerance exists to allow for minor variations of meter calibration and other errors.

f) that this measurement shall include a **gating** method as specified in ITU-R BS.1770 (summarised in EBU Tech Doc 3341);

g) 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;

h) 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);

i) that, alternatively, the **Maximum Permitted Momentary Loudness Level** (measured in compliance with EBU Tech Doc 3341) should be **-15.0 LUFS** (+8.0 LU on the relative scale);

j) that either Maximum Short-term Loudness **OR** Maximum Momentary Loudness should be used as a limit – but not both;

k) that in case there are strong aesthetical reasons to exceed the limits described in items h) and i), the content provider shall communicate directly with the broadcaster to clarify if such an exception is still tolerable.

Summary – Loudness Parameters for Short-Form Content

Programme Loudness	**-23.0 LUFS ±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)

Alternatively:

Programme Loudness	**-23.0 LUFS ±0.5 LU**
Maximum True Peak Level	**-1 dBTP**
Maximum Momentary Loudness	**-15.0 LUFS** (+8.0 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 (see below);

Short-Form Content: A programme of short duration, typically shorter than 30s (but up to approximately 2 minutes duration).

In addition to advertisements (commercials) and promotional items, interstitials, stingers, bumpers and similar very short items belong to this category;

Programme Loudness: The integrated loudness over the duration of a programme - Programme Loudness Level is the value (in LUFS) of Programme Loudness;

Maximum True Peak Level: The maximum value of the audio signal waveform of a programme in the continuous time domain.

References

[1] **EBU 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 3341** Loudness Metering: 'EBU Mode' metering to supplement loudness normalisation in accordance with EBU R 128