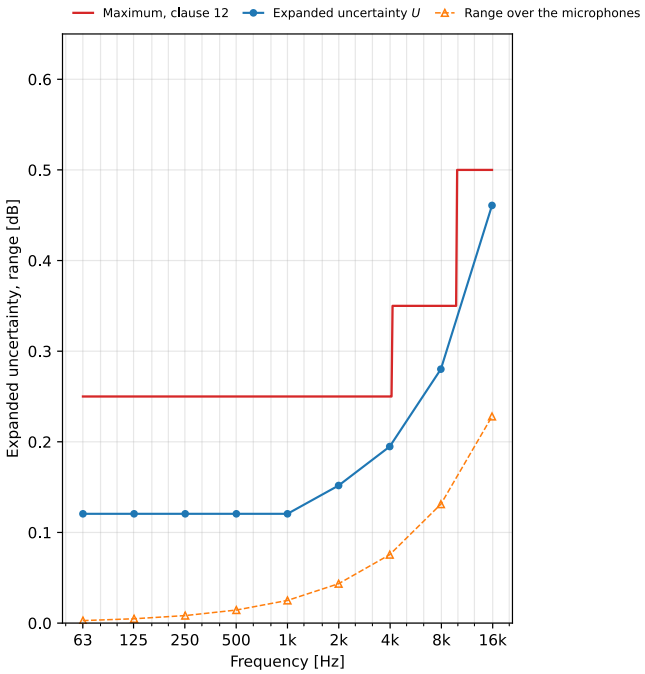
Free-field corrections of a sound level meter

IEC 62585:2012 Annex D. IEC 62585:2012, clause 12: corrections for a sound calibrator.

Client:	Example client	Sound level meter:	Class 1 sound level meter with its multi-frequency calibrator
Manufacturer:	Example instruments	Test facility:	Free-field room (example)
Date of test:	2026-09-24		

Expanded uncertainties at a level of confidence of 95 % (clause 5) against the maximum of clause 12 at each frequency; a value equal to its maximum does not exceed it, and a measurement that exceeds one is not used for the corrections of the manual. The range of the corrections over the microphones is judged against the same maximum (clause 12).

f [Hz]	C [dB]	U [dB]	k	U_{max} [dB]	Range [dB]	Verdict
63.1	–0.04	0.121	2.04	0.25	0.003	within
125.9	–0.09	0.121	2.04	0.25	0.005	within
251.2	–0.10	0.121	2.04	0.25	0.008	within
501.2	–0.05	0.121	2.04	0.25	0.014	within
1000.0	0.05	0.121	2.04	0.25	0.025	within
1995.3	0.23	0.152	2.07	0.25	0.043	within
3981.1	0.63	0.195	2.06	0.25	0.075	within
7943.3	1.72	0.280	2.00	0.35	0.131	within
15848.9	4.95	0.461	1.99	0.50	0.228	within



Within the maximum permitted values of clause 12 at all 9 frequencies

Largest U / U_{max}: 0.92
Coverage factor k from 1.99 to 2.07

Result vs requirement: Actual expanded uncertainties against the maximum permitted by clause 12 → **PASS**

Laboratory: Phonometry reference example
Report no.: EXAMPLE-62585
Date: 2026-09-24
Operator: phonometry Signature: _____

■ The results relate only to the tested specimen.

Generated by phonometry.