

Audio Codec Timeline — Cheat Sheet

Every major audio codec from telephone PCM to Bluetooth LE Audio, at a glance.

The two tribes

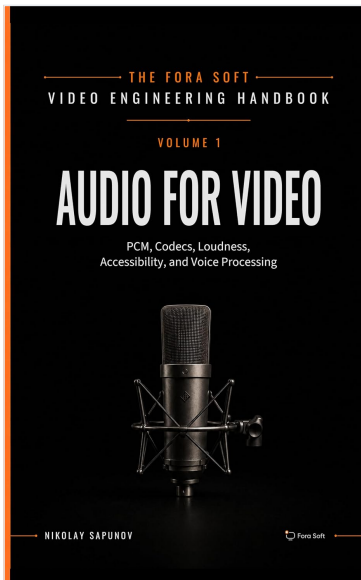
Speech	Linear prediction. Low delay, low bitrate, voice only. G.711, G.722, SILK, AMR, EVS.
Music	Transform (MDCT) + masking. High fidelity, any sound. MP2, MP3, AAC, Vorbis.
Merged 2012	Opus (free) and xHE-AAC do both speech and music in one stream.

The codecs, in order

Codec	Year	Tribe	Body	License	Relevance in 2026
G.711	1972	Speech	ITU-T	Free	Universal PSTN / SIP fallback
G.722	1988	Speech	ITU-T	Free	HD Voice (wideband)
MP2	1991/93	Music	MPEG	Expired	DAB radio, DVB-T
MP3	1993	Music	MPEG	Expired'17	Legacy; rarely the new choice
AC-3	1991	Cinema	Dolby	Propriet.	DVD, broadcast, home theatre
AAC-LC	1997	Music	MPEG	Licensed	Default audio of online video
Vorbis	2002	Music	Xiph	Free	Niche: games, legacy web
HE-AAC	2003	Music	MPEG	Licensed	Low-bitrate streaming
E-AC-3 (DD+)	2000s	Cinema	Dolby	Propriet.	Streaming surround, Atmos base
Opus	2012	Both	IETF	Free	Owens WebRTC and real-time
xHE-AAC	2012	Both	MPEG	Licensed	Apple, Netflix mobile, Amazon
AC-4	2014/15	Cinema	Dolby	Propriet.	ATSC 3.0 NextGen TV
MPEG-H	2015	Immers.	MPEG	Licensed	ATSC 3.0, immersive audio
LC3	2020	Both	BT SIG	Licensed	Every Bluetooth LE earbud

The one rule

Pick the codec that owns your job, not the newest on the timeline. AAC for stored video
 - Opus for real-time / WebRTC - E-AC-3 / AC-4 for surround - LC3 in the earbuds.



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This timeline sorts codecs from G.711 to LC3 into speech and music tribes and shows which still matter in 2026. Volume 4 explains the engineering behind that history: PCM and sampling, perceptual codecs such as AAC and Opus, speech codecs, channel layouts and loudness.

WHAT YOU WILL FIND INSIDE

- PCM, sampling and bit depth
- Speech codecs for calls and telephony
- Perceptual codecs: AAC and Opus
- Loudness and LUFS for delivery

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