

Channel Layouts — Cheat Sheet

Fora Soft Learn

Read the notation, place the speakers, know your codec limits, pick the right layout.

Reading the notation: A.B.C

A = ear-level full-range speakers. B = LFE bass channels (almost always 1). C = overhead speakers.

7.1.4 = 7 + 1 + 4 = 12 channels **5.1 = 5 + 1 = 6 channels** **5.1.2 = 5 + 1 + 2 = 8 channels**

ITU-R BS.775 speaker angles (5.1)

Front L / R	+/- 30 deg	On a 60-degree arc; center at 0 deg.
Surrounds L / R	100-120 deg	Behind you; no closer than the fronts.
LFE (.1)	20-120 Hz	Played ~10 dB louder. Not a subwoofer.

The .1 is NOT a subwoofer the LFE is an optional content channel (20-120 Hz)
A subwoofer is a speaker fed by bass management; a stereo downmix discards the LFE entirely.

Codec channel limits

Codec	Max channels	Spec
AAC family	up to 48	ISO/IEC 14496-3
Opus	8 (surround)	RFC 6716 / 7845
AC-3	5.1	ETSI TS 102 366
E-AC-3	up to 15.1	ETSI TS 102 366
MP3	2	ISO/IEC 11172-3

Which layout by where it plays

Layout	Chans	Where it belongs
Mono	1	Voice calls, PA, podcasts, telephony
Stereo	2	Web video, music, most OTT default, conferencing
5.1	6	Broadcast TV, OTT premium, DVD/Blu-ray
7.1	8	Blu-ray, premium home cinema
5.1.2	8	Compact Dolby Atmos
7.1.4	12	Premium Atmos: cinema, top streaming tier