

The three audio types, profiles and levels, MPEG-H vs AC-4, and where it ships.

## Three kinds of sound in one stream

<b>Channel-based</b>	fixed mix to fixed speakers (5.1, 7.1.4)
<b>Object-based</b>	single sounds + position metadata, movable
<b>Scene-based (HOA)</b>	the whole recorded sound field, rotatable

## Main profile - five levels (max core / max speakers)

<b>Level 1</b>	8 core / 8 speakers
<b>Level 2</b>	16 core / 16 speakers
<b>Level 3</b>	32 core / 24 speakers
<b>Level 4</b>	64 core / 24 speakers
<b>Level 5</b>	128 core / 64 speakers

Broadcast/streaming devices use the Low Complexity or Baseline profile, not full Main.

## MPEG-H 3D Audio vs Dolby AC-4

Criterion	MPEG-H	AC-4
Body	ISO/IEC MPEG (open)	Dolby / ETSI
Spec	ISO/IEC 23008-3	ETSI TS 103 190
Audio types	channel+object+scene	channel+object
ATSC 3.0 role	A/342 Part 3	A/342 Part 2
Anchor market	South Korea	United States

Deployed: sole codec in S. Korea terrestrial 4K (since 2017); Sony 360 Reality Audio; one of two ATSC 3.0 codecs.

### Pitfall: 'ATSC 3.0 audio' is NOT one codec

ATSC 3.0 standardizes two systems: MPEG-H and AC-4. A device may decode one, the other, or both. Detect which system a stream carries and route to the matching decoder; keep an AAC/Dolby fallback.