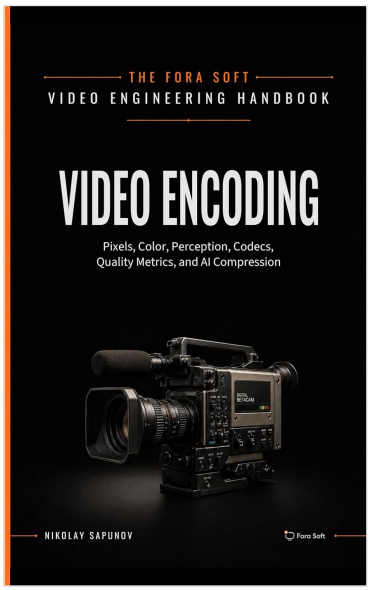
Codec Comparison Cheat Sheet

MPEG-2 to H.266 (2026) - green bold cells mark the per-row leader

Criterion	MPEG-2	H.264 / AVC	H.265 / HEVC	VP9	AV1	H.266 / VVC
Year	1995	2003	2013	2013	2018	**2020**
Body	ITU+ISO	ITU+ISO JVT	ITU+ISO JCT-VC	Google	AOMedia	ITU+ISO JVET
Savings vs prior	—	~50% vs MPEG-2	**~50% vs H.264**	~50% vs H.264	~30% vs HEVC	**~50% vs HEVC**
Max block	16x16 MB	16x16 MB	64x64 CTU	64x64 SB	**128x128 SB**	**128x128 MTT**
Bit depth	8-bit	up to 14-bit	**up to 16-bit**	8/10/12	8/10/12	10/12
Max resolution	1920x1152	4096x2304	8192x4320	8192x4320	7680x4320	**16384x8704**
Patent model	1 pool	1 pool	2-3 pools	**Royalty-free**	**Royalty-free**	2 pools
Browsers	legacy	**universal**	Safari/Edge	Chrome/FF/Edge/Saf14+	Chrome/FF/Edge/Saf17+	none native
HW decode	set-tops	**universal**	near-universal	Android+iOS14+	iPhone 15 Pro+, M3+	almost none
2026 deployment	broadcast only	~80% production	~65% prod, +20%	YouTube+Android	~17% prod, +40%	<1% streaming

Green column header Royalty-free · **Orange column header** Multi-pool licensing · **Bold green cell** Per-row leader



GO DEEPER · VOLUME 1 OF 7

Video Encoding: A Complete Guide to Video Compression

From Pixels and Color to H.264, HEVC, AV1, Quality Metrics, and AI

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This one-page table lines up six codecs on year, savings, block size, licensing and 2026 deployment so you can shortlist fast. Volume 1 explains what sits behind each row: how block partitioning and prediction produce the savings, how H.264, HEVC, VP9, AV1 and VVC differ inside, and how to verify compression claims with VMAF.

WHAT YOU WILL FIND INSIDE

- Block partitioning and prediction from MPEG-2 to VVC
- Bit depth, resolution limits, profiles and levels
- Verifying savings with BD-rate and VMAF
- Why each codec generation saves roughly half the bits
- Codec licensing and royalty-free alternatives

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