

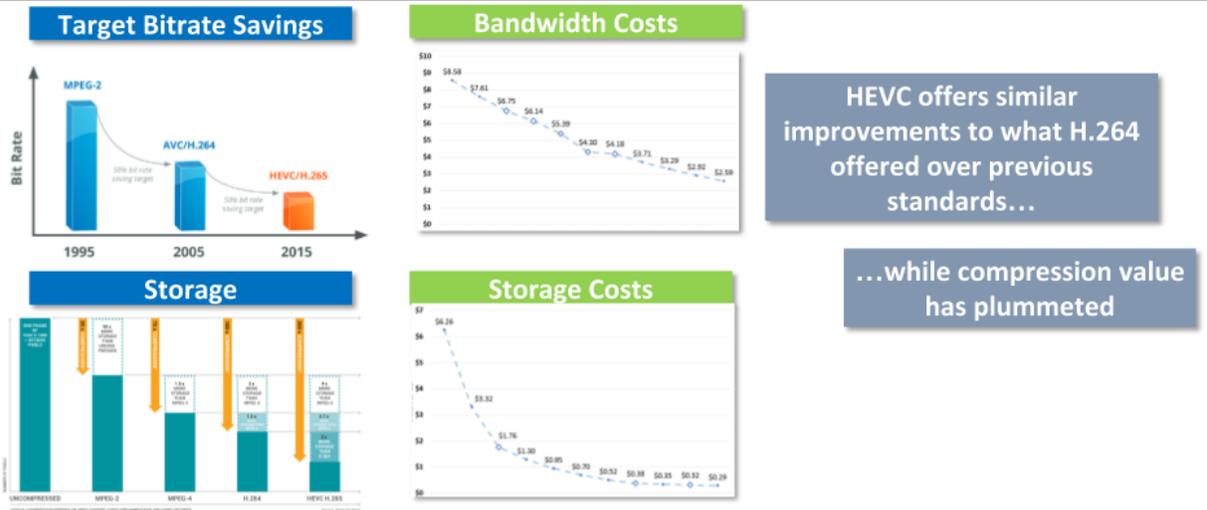
Independent economic study suggests HEVC royalties should be comparable to or less than rates for AVC

Unified is pleased to announce the release of its first comprehensive objective economic evaluation (OVAL) study of HEVC / H.265 Standard Essential Patents (SEP) royalty rates. The study is part of Unified's [Video Codec Zone](#) whose goal is to provide objective, independent evidence refuting unsubstantiated SEP licensing demands. In conjunction with Unified's [Objective Patent Landscape \(OPAL\)](#), companies can now objectively evaluate HEVC implementation cost and risk. OPAL & OVAL are intended to assist a company's litigation strategy and/or negotiations based on good-faith Fair, Reasonable, And Non-Discriminatory (FRAND) principles.

$$\frac{\text{Valid and Essential Licensor Patents (OPAL)}}{\text{Valid and Essential Patents in Standard (OPAL)}} \times \text{Total Aggregate Royalty (OVAL)} = \text{FRAND Licensor Royalty Rate}$$

The 35-page report demonstrates that HEVC rates should be comparable to or less than the cost of licensing the main patent pool for AVC (MPEG LA), HEVC's predecessor codec. It concludes that the total per unit HEVC patent royalty should most likely fall between \$0.08 and \$0.28 per unit, depending on use case and device type. The report takes into account HEVC's marginal improvement in compression but offsets it against factors such as the diminishing value of storage and bandwidth.

Valuation of HEVC vs Older Codecs



HEVC offers similar improvements to what H.264 offered over previous standards...

...while compression value has plummeted

The analysis suggests that some licensors are substantially overvaluing HEVC, which has resulted in, among other things, unsubstantiated royalty demands and royalty stacking over multiple pools. The report surveyed subject-matter experts in areas such as video compression evolution, market adoption, and implementation costs.

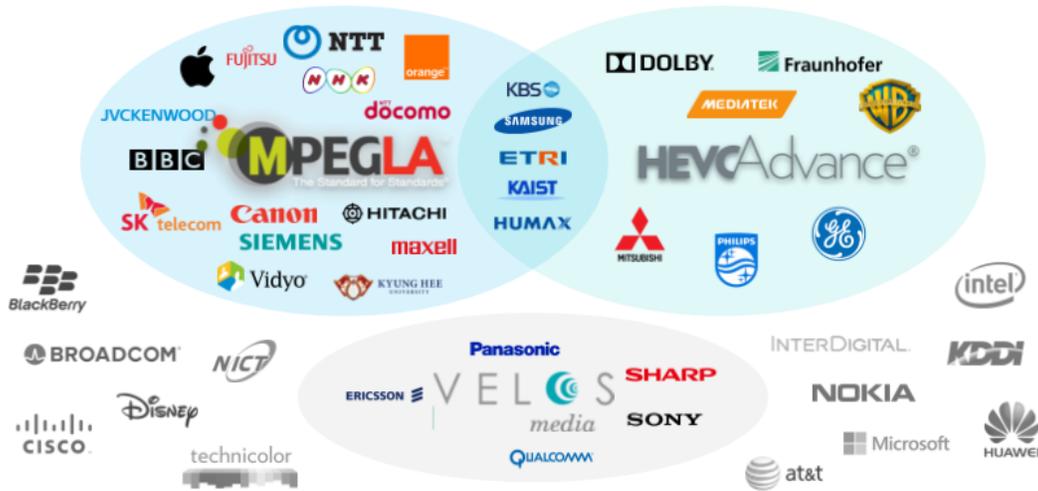
The full report is available to members of the [Video Codec Zone](#), the only solution available to provide independent means to evaluate essentiality, patentability, and costs for HEVC or other codecs (such as AV1, VP9, and VVC / H.266).

HEVC Licensing Transparency Report

HEVC Licensors					 The only objective HEVC landscape and valuation	
	MPEGLA	HEVC Advance	VELS media	Others		
Public Patent List	✓	✓	⊖	⊖		✓
Public Royalty Rate	✓	✓	⊖	⊖		✓
Royalty Explanation	⊖	⊖	⊖	⊖		✓
Validity Analysis	⊖	⊖	⊖	⊖	✓	

Unified commissioned Dr. Mario A. Lopez from economic consulting firm [Edgeworth Economics](#) and Martin Bader of law firm Sheppard Mullin, to develop a methodology grounded in economic theory, real-world data, and recent legal decisions. The authors of this report have been involved in many SEP and FRAND matters over the past decade.

HEVC Patent Licensing Landscape



NOTE: Chart Updated from Jonatan Samuelsson (Dividion) original

The report found that each of the three major licensors are asking for licensing rates that likely exceed what the total HEVC rate should be, both individually and when taken together. Of the major pools, MPEG LA and HEVC Advance have publicly disclosed rates from \$0.20 to over \$1.50 per unit, with a yearly cap of up to \$40 million. Velos Media has not disclosed pricing, but its rates are rumored to be over \$1.00 without any annual cap.

Licensors	Mobile royalty (per unit)	Yearly Cap (Millions)
MPEG LA	\$0.20	\$25
HEVC Advance	\$0.866	\$40
Velos (est.)	\$1.00-2.50	None
Other	+	+
Total	\$2.07-\$3.57+	\$259-\$446+

***Note** - Velos does not publish its rates so it is an estimate based on industry data. HEVC Advance does not provide caps if a licensee does not use their trademark.

For potential licensees, these rates, when stacked together—without even taking into account other rumored licensors such as Nokia and Interdigital—amount to a ten-fold royalty rate increase from the predecessor AVC standard.

Unified believes this report provides licensors and implementers an objective, illuminating means to help all to determine the appropriate FRAND rate and to ensure that everyone is fully and appropriately compensated without delaying or endangering adoption. Licensors are urged to provide a full methodology for their pricing in response, to help everyone in the market make better decisions and to alleviate concerns that current proposed rates exceed FRAND rates.