



MPEG-2 Patent Portfolio License Briefing*

V10/11/19

***This presentation is for information purposes only. Actual license agreements will provide the only definitive and reliable statement of license terms.**

Coverage

- **Each patent in the MPEG-2 Patent Portfolio License is essential for implementing a portion of the MPEG-2 Video and Systems specification**
 - Patents covering specific implementations are not essential and are not in the Portfolio
 - Some examples of specific implementations are:
 - Butterfly DCT circuits, telescopic motion vector search, smart encoding techniques, such as using the output of the motion compensation or motion estimation to control the quantizer, intra-slice refresh, etc.

Coverage

The Owners of the MPEG-2 Patents in the Portfolio

- Alcatel Lucent*
- ARRIS Technology, Inc. (formerly General Instrument Corporation)*
- British Telecommunications plc*
- Canon Inc.*
- CIF Licensing, LLC*
- Cisco Technology, Inc.*
- Columbia University*
- Fujitsu Limited*
- GE Technology Development, Inc.*
- General Video, LLC
- Hewlett Packard Enterprise Company*
- Hitachi, Ltd.*
- JVCKENWOOD Corporation*
- KDDI Corporation*
- Koninklijke Philips N.V.*
- LG Electronics Inc.*
- Mitsubishi Electric Corporation*
- Multimedia Patent Trust*
- Nippon Telegraph and Telephone Corporation (NTT)*
- Orange SA*
- Panasonic Corporation*
- Robert Bosch GmbH*
- Samsung Electronics Co., Ltd.*
- SANYO Electric Co., Ltd.*
- Sharp Corporation*
- Sony Corporation
- Thomson Licensing
- Toshiba Corporation*

Coverage

- **Licensors include all of their MPEG-2 Essential Patents worldwide***
- **Attachment 1 to the MPEG-2 Patent Portfolio License is updated regularly***

*Under the MPEG-2 Patent Portfolio License, royalties are payable for products manufactured or sold in countries with an active MPEG-2 Patent Portfolio Patent at the time of manufacture or sale. Please note that the last US patent expired February 13, 2018, and patents remain active in Philippines and Malaysia after that date.



Coverage

- Key technologies in the MPEG-2 Standard covered by Patents in the Portfolio:
 - Spatial Encoding
 - Motion Compensation
 - Picture Sequence
 - Bit Rate Control
 - Systems
- See www.mpegla.com (Current Pools, MPEG-2, Essentiality) for a cross-reference chart showing illustrative essential claims

Product Categories

- **MPEG-2 Decoders**
 - e.g., set-top boxes, DVD players, TVs, personal computers, game machines
- **MPEG-2 Encoders**
 - e.g., digital video recording (DVR) devices, cameras
- **Consumer Products**
 - Devices including both encode and decode functionality intended for sale to consumer market, e.g., DVD recorders, cameras
- **Packaged Medium**
 - e.g., DVD Video Discs

MPEG-2 License Terms Summary¹

- MPEG-2 Decoders and Encoders - \$2.50 per unit from Jan. 1, 2002 (\$4.00 per unit before Jan. 1, 2002), but \$2.00 from later of January 1, 2010 or execution of license through December 31, 2015
- Consumer Products - \$2.50 from Jan. 1, 2002 (\$6.00 per unit before Jan. 1, 2002), but \$2.00 from later of January 1, 2010 or execution of license through December 31, 2015
- From January 1, 2016 through December 31, 2017, royalty rates for MPEG-2 Decoders, MPEG-2 Encoders and MPEG-2 Consumer Products are \$0.50 per unit with right of voluntary termination on 30-days written notice, but Licensees may elect a royalty of \$0.35 per unit with right of voluntary termination on or after January 1, 2018
- From January 1, 2018 forward, royalty rates for MPEG-2 Decoders, MPEG-2 Encoders and MPEG-2 Consumer Products are \$0.35 per unit with right of voluntary termination on 30-days written notice

¹ This summary is for information purposes only. The MPEG-2 Patent Portfolio License provides the only definitive and reliable statement of license terms.

MPEG-2 License Terms Summary¹

- **MPEG-2 Packaged Medium**
 - Effective September 1, 2005, a simplified option was made available under which Licensees pay applicable MPEG-2 Video Event* rate (\$0.016 from later of January 1, 2010 or execution of license through December 31, 2015) for each MPEG-2 video disc regardless of its specific content or playing time (except where the playing time is 12 minutes or less in which case the royalty is \$0.01)
 - From January 1, 2016 forward, producers of MPEG-2 Packaged Medium in full compliance with the MPEG-2 Patent Portfolio License through 2015 will be deemed to have paid-up coverage without additional royalty after December 31, 2015 if the Enterprise with which the producer is affiliated continues in full compliance with the MPEG-2 License

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² MPEG-2 video information with normal playing time up to 133 minutes. For information on MPEG-2 Packaged Medium rates over course of the MPEG-2 licensing program, please consult the MPEG-2 License.