Appendix A: Glossary of Terms

1-D	One-dimensional
2-D	Two-dimensional
3-D	Three-dimensional
4PMV+0	Four predicted motion vectors plus zero vector
3DTV	Three-dimensional television
AC	Alternating current. Used to denote all transform coefficients except the zero frequency coefficient
ACR	Absolute category rating
ACK	Acknowledge
A-D	Analog to digital
ADSL	Asymmetric digital subscriber line
AFD	Active format description
AMVP	Advanced motion vector prediction
ARQ	Automatic retransmission request
ASP	Advanced simple profile (of MPEG-4)
AV	Audiovisual
AVC	Advanced video codec (H.264)
AVM	Artifact-based video metric
B	Bi-predicted picture
BDM	Block distortion measure
BER	Bit error rate
BMA	Block matching algorithm
BMME	Block matching motion estimation
bpp	Bits per pixel
bps	Bits per second
BPSK	Binary phase shift keying
CABAC	Context-adaptive binary arithmetic coding
CAVLC	Context-adaptive variable length coding
CB	Coding block
CBP	Coded block pattern
CBR	Constant bit rate
CCD	Charge coupled device
CCIR	International radio consultative committee (now ITU)
CD	Compact disc
CDMA	Code division multiple access
CFF	Critical flicker frequency
CIE	Commission Internationale de L'Eclairage (the international color science commission)

Communicating Pictures. http://dx.doi.org/10.1016/B978-0-12-405906-1.00023-4

CIF	Common intermediate format
CMY	Color primaries cyan, magenta, and yellow
codec	Encoder and decoder
CPB	Coded picture buffer
cpd	Cycles per degree
CRA	Clean random access
CRC	Cyclic redundancy check
CRT	Cathode ray tube
CSF	Contrast sensitivity function
CTB	Coding tree block
CTU	Coding tree unit
CU	Coding unit
CW-SSIM	Complex wavelet SSIM
DAB	Digital audio broadcasting
DC	Direct current. Refers to zero frequency transform coefficient.
DCT	Discrete cosine transform
DFD	Displaced frame difference
DFT	Discrete Fourier transform
DMOS	Difference mean opinion score
DoG	Difference of Gaussians
DPCM	Differential pulse code modulation
DS	Diamond search
DSCQS	Double stimulus continuous quality scale
DSIS	Double stimulus impairment scale
DSP	Digital signal processor
DST	Discrete sine transform
DT-CWT	Dual tree discrete wavelet transform
DVB	Digital video broadcasting
DVD	Digital versatile disc
DWHT	Discrete Walsh–Hadamard transform
DWT	Discrete wavelet transform
EBCOT	Embbeded Block Trunction Coding (EBCOT)
EBMA	External boundary matching algorithm
EBME	External block matching error
EBU	European Broadcasting Union
EECMS	Enhanced error concealment with mode selection
EG	Exp-Golomb probability distribution and entropy coder
EOB	End of block
EREC	Error-resilient entropy coding
EZW	Embedded zero-tree wavelet
FD	Frame difference
FEC	Forward error correction

FEF	Frontal eye field
FFA	Fusiform face area
FFT	Fast Fourier transform
FGS	Fine granularity scalability
FIR	Finite impulse response (filter)
FLC	Fixed length coding
FMO	Flexible macroblock ordering
fps	Frames per second
FR	Full reference
FRTV	Full reference TV VQEG database
FS	Full search
GIF	Graphics interchange format
GOB	Group of blocks
GOP	Group of pictures
HARQ	Hybrid ARQ
HDR	High dynamic range
HDTV	High definition television
HEVC	High efficiency video codec
HFR	High frame rate
HRD	Hypothetical reference decoder
HTTP	Hypertext transfer protocol
HVS	Human visual system
HEXBS	Hexagon-based search method
HM	HEVC test model
I	Intra-coded picture
IAR	Image aspect ratio
IDR	Instantaneous decoder refresh
IEC	International Electrotechical Commission
IEEE	Institute of Electrical and Electronic Engineers
i.i.d.	Independent and identically distributed
IIR	Infinite impulse response (filter)
IP	Internet protocol
ISDN	Integrated services digital network
ISO	International Standards Organization
IT	Inferior temporal cortex
ITU	International Telecommunications Union; -R, Radio; -T, Telecommunications
JM	H.264 Joint reference model
JND	Just-noticeable difference
JPEG	Joint Photographic Experts Group
JPSEC	JPEG2000 security extension
JPWL	JPEG2000 wireless extension

kbps	Kilobits per second
KLT	Karhunen–Loeve transform
LAN	Local area network
LCC	Linear correlation coefficient
LCD	Liquid crystal display
LCU	Largest coding unit
LDPC	Low density parity check (codes)
LGN	Lateral
LIVE	Laboratory for Image and Video Engineering
LSI	Linear shift invariant
LTE	Long term evolution (4G mobile radio technology)
LTI	Linear time invariant
LZW	Lempel–Ziv–Welch
MAC	Multiply and accumulate operation
MAC	Medium access control
MAD	Mean absolute difference
MAD	Most apparent distortion
MB	Macroblock
Mbps	Megabits per second
MC	Motion compensation
MCP	Motion-compensated prediction
MCS	Modulation and coding mode selection
MCTF	Motion-compensated temporal filtering
MDC	Multiple description coding
ME	Motion estimation
MEC	Motion estimation and compensation
MIMO	Multiple input multiple output
MMSE	Minimum mean squared error
MOS	Mean opinion score
MOVIE	Video quality metric from LIVE
MPEG	Motion Picture Experts Group
MRF	Multiple reference frame
MSB	Most significant bit
MSE	Mean squared error
MS-SSIM	Multiscale SSIM
MST	Medial superior temporal
MT	Medial temporal
MV	Motion vector
MVD	Differential motion vector
NACK	Negative acknowledge
NAL	Network abstraction layer
NALU	Network abstraction layer unit

NCCF	Normalized cross correlation coefficient
NR	No reference (metric)
NSS	*N*-step search
OBMC	Overlapped block motion compensation (or just OMC)
OR	Outlier ratio
P	Predicted picture
PAL	Phase alternating line
PB	Prediction block
PCA	Principal component analysis
PCM	Pulse code modulation
pdf	Probability density function
PER	Packet error rate
PhC	Phase correlation
PHY	Physical layer
PMR	Private mobile radio
PNG	Portable network graphics
PPS	Picture parameter set
PRF	Periodic reference frame
PSD	Power spectral density
PSNR	Peak signal to noise ratio
PU	Prediction unit
PVM	Perception inspired video metric
PVQ	Pyramid vector quantization
QAM	Quadrature amplitude modulation
QCIF	Quarter CIF resolution
QMF	Quadrature mirror filter
QOS	Quality of service
QP	Quantization parameter
QPSK	Quadrature phase shift keying
RAP	Random access point
RBER	Residual bit error rate
RDO	Rate–distortion optimization
RF	Radio frequency
RGB	Red, green, and blue color primaries
RPS	Reference picture selection
RPS	Reference picture set (HEVC)
RQO	Rate–quality optimization
RR	Reduced reference (metric)
RSE	Reed–Solomon erasure code
RSSI	Residual signal strength indication
RTCP	Real-time control protocol
RTP	Real-time transmission protocol

RTSP	Real-time streaming protocol
RVLC	Reversible variable length coding
SAD	Sum of absolute differences
SAMVIQ	Subjective Assessment Methodology for Video Quality
SAO	Sample adaptive offset
SATD	Sum of absolute transform differences
SDTV	Standard definition television
SE	Syntax element
SEC	Spatial error concealment
SEI	Supplemental enhancement information
SG	Study group (of ITU)
SG	Slice group
SI	Spatial information
SIFT	Scale invariant feature transform
SMPTE	Society of Motion Picture and Television Engineers
SNR	Signal to noise ratio
SPIHT	Set partitioning into hierarchical trees
SPS	Sequence parameter set
SROCC	Spearman rank order correlation coefficient
SSCQS	Single stimulus continuous quality scale
SSD	Sum of squared differences
SSIM	Structural similarity index
SSIS	Single stimulus impairment scale
ST-MAD	Spatio-temporal most apparent distortion
SURF	Speeded up robust features
SVC	Scalable video codec
SVD	Singular value decomposition
TB	Transform block
TCP	Transmission control protocol
TDL	Two-dimensional logarithmic search
TEC	Temporal error concealment
TI	Temporal information
TS	Transport stream
TSCES	Triple stimulus continuous evaluation scale
TSS	Three-step search
TU	Transform unit
TV	Television
UDP	User datagram protocol
UHDTV	Ultra high definition television
UHF	Ultra high frequency
UMTS	Universal mobile telecommunications system
URL	Universal resource locator

V1	Region of visual cortex (also V2–V5)
VBR	Variable bit rate
VCEG	Video coding experts group
VCL	Video coding layer
VDP	Visible difference predictor
VDSL	Very high bit rate digital subscriber line
VLC	Variable length coding
VLD	Variable length decoding
VQ	Vector quantization
VQEG	Video Quality Experts Group
VQM	Video quality metric
VSNR	Visual signal to noise ratio
VSTM	Visual short term memory
WBA	Warping-based algorithm (motion estimation)
WSS	Wide sense stationary
YC_bC_r	Color coordinate system comprising luminance, Y, and two chrominance channels, C_b and C_r
YUV	Color coordinate system comprising luminance, Y, and two chrominance channels, U and V