| Symbol | Typ | Titel |
|---|---|---|
| **H** | **Sektion** | **ELECTRICITY** |
| **H04** | **Klasse** | **ELECTRIC COMMUNICATION TECHNIQUE** |
| **H04N** | **Unterklasse** | **PICTORIAL COMMUNICATION, e.g. TELEVISION [4]** |
| **H04N 1/00** | **Hauptgruppe** | **Scanning, transmission or reproduction of documents or the like, e.g. facsimile transmission; Details thereof [1, 3, 4, 2006.01]** |
| H04N 1/024 | 1-Punkt Untergruppe | . Details of scanning heads [3, 4, 2006.01] |
| H04N 1/028 | 2-Punkt Untergruppe | . . for picture-information pick-up [3, 4, 2006.01] |
| H04N 1/029 | 3-Punkt Untergruppe | . . . Heads optically focused on only one picture element at a time [6, 2006.01] |
| H04N 1/03 | 3-Punkt Untergruppe | . . . with photodetectors arranged in a substantially linear array [6, 2006.01] |
| H04N 1/031 | 4-Punkt Untergruppe | . . . . the photodetectors having a one-to-one and optically positive correspondence with the scanned picture elements, e.g. linear contact sensors [6, 2006.01] |
| H04N 1/032 | 2-Punkt Untergruppe | . . for picture-information reproduction [3, 4, 2006.01] |
| H04N 1/034 | 3-Punkt Untergruppe | . . . using ink, e.g. ink-jet heads [5, 2006.01] |
| H04N 1/036 | 3-Punkt Untergruppe | . . . for optical reproduction [3, 4, 2006.01] |
| H04N 1/04 | 1-Punkt Untergruppe | . Scanning arrangements (H04N 1/387 takes precedence) [1, 4, 2006.01] |
| H04N 1/047 | 2-Punkt Untergruppe | . . Detection, control or error compensation of scanning velocity or position (H04N 1/17 takes precedence) [6, 2006.01] |
| H04N 1/053 | 3-Punkt Untergruppe | . . . in main scanning direction, e.g. synchronisation of line start or picture elements in a line [6, 2006.01] |
| H04N 1/06 | 2-Punkt Untergruppe | . . using cylindrical picture-bearing surfaces [1, 4, 2006.01] |
| H04N 1/08 | 3-Punkt Untergruppe | . . . Mechanisms for mounting or holding the sheet around the drum [1, 4, 2006.01] |
| H04N 1/10 | 2-Punkt Untergruppe | . . using flat picture-bearing surfaces [1, 4, 2006.01] |
| H04N 1/107 | 3-Punkt Untergruppe | . . . with manual scanning [6, 2006.01] |
| H04N 1/113 | 2-Punkt Untergruppe | . . using oscillating or rotating mirrors [6, 2006.01] |
| H04N 1/12 | 2-Punkt Untergruppe | . . using the sheet-feed movement as the slow scanning component (using multi-element arrays H04N 1/19) [1, 4, 6, 2006.01] |
| H04N 1/14 | 3-Punkt Untergruppe | . . . using a rotating endless belt carrying the scanning heads [1, 4, 2006.01] |
| H04N 1/16 | 3-Punkt Untergruppe | . . . using a rotating helical element [1, 4, 2006.01] |
| H04N 1/17 | 2-Punkt Untergruppe | . . the scanning speed being dependent on content of picture [3, 4, 2006.01] |
| H04N 1/19 | 2-Punkt Untergruppe | . . using multi-element arrays [6, 2006.01] |
| H04N 1/191 | 3-Punkt Untergruppe | . . . the array comprising a one-dimensional array [6, 2006.01] |
| H04N 1/192 | 4-Punkt Untergruppe | . . . . Simultaneously scanning picture elements on one main scanning line [6, 2006.01] |
| H04N 1/193 | 5-Punkt Untergruppe | . . . . . using electrically scanned linear arrays [6, 2006.01] |
| H04N 1/195 | 3-Punkt Untergruppe | . . . the array comprising a two-dimensional array [6, 2006.01] |
| H04N 1/203 | 2-Punkt Untergruppe | . . Simultaneous scanning of two or more separate pictures [6, 2006.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 1/207 | 2-Punkt Untergruppe | . . Simultaneous scanning of the original picture and the reproduced picture with a common scanning device [6, 2006.01] |
| H04N 1/21 | 1-Punkt Untergruppe | . Intermediate information storage (H04N 1/387, H04N 1/41 take precedence) [4, 2006.01] |
| H04N 1/23 | 1-Punkt Untergruppe | . Reproducing arrangements [4, 2006.01] |
| H04N 1/27 | 2-Punkt Untergruppe | . . involving production of a magnetic intermediate picture [4, 2006.01] |
| H04N 1/29 | 2-Punkt Untergruppe | . . involving production of an electrostatic intermediate picture [4, 2006.01] |
| H04N 1/31 | 2-Punkt Untergruppe | . . Mechanical arrangements for picture transmission, e.g. adaptation of clutches, gearing, gear transmissions [4, 2006.01] |
| H04N 1/32 | 1-Punkt Untergruppe | . Circuits or arrangements for control or supervision between transmitter and receiver [1, 2006.01] |
| H04N 1/327 | 2-Punkt Untergruppe | . . Initiating, continuing or ending a single-mode communication; Handshaking therefor [6, 2006.01] |
| H04N 1/333 | 2-Punkt Untergruppe | . . Mode signalling or mode changing; Handshaking therefor [6, 2006.01] |
| H04N 1/34 | 2-Punkt Untergruppe | . . for coin-freed systems [1, 2006.01] |
| H04N 1/36 | 2-Punkt Untergruppe | . . for synchronising or phasing transmitter and receiver [1, 2006.01] |
| H04N 1/38 | 1-Punkt Untergruppe | . Circuits or arrangements for blanking or otherwise eliminating unwanted parts of pictures (H04N 1/387 takes precedence) [1, 4, 2006.01] |
| H04N 1/387 | 1-Punkt Untergruppe | . Composing, repositioning or otherwise modifying originals [4, 2006.01] |
| H04N 1/393 | 2-Punkt Untergruppe | . . Enlarging or reducing [4, 2006.01] |
| H04N 1/40 | 1-Punkt Untergruppe | . Picture signal circuits (H04N 1/387 takes precedence) [1, 4, 2006.01] |
| H04N 1/401 | 2-Punkt Untergruppe | . . Compensating positionaly unequal response of the pick-up or reproducing head (H04N 1/403 takes precedence) [6, 2006.01] |
| H04N 1/403 | 2-Punkt Untergruppe | . . Discrimination between the two tones in the picture signal of a two-tone original [6, 2006.01] |
| H04N 1/405 | 2-Punkt Untergruppe | . . Halftoning, i.e. converting the picture signal of a continuous-tone original into a corresponding signal showing only two levels [6, 2006.01] |
| H04N 1/407 | 2-Punkt Untergruppe | . . Control or modification of tonal gradation or of extreme levels, e.g. background level [6, 2006.01] |
| H04N 1/409 | 2-Punkt Untergruppe | . . Edge or detail enhancement; Noise or error suppression [6, 2006.01] |
| H04N 1/41 | 1-Punkt Untergruppe | . Bandwidth or redundancy reduction (by scanning H04N 1/17) [3, 2006.01] |
| H04N 1/411 | 2-Punkt Untergruppe | . . for the transmission or reproduction of two-tone pictures, e.g. black and white pictures [4, 2006.01] |
| H04N 1/413 | 3-Punkt Untergruppe | . . . Systems or arrangements allowing the picture to be reproduced without loss or modification of picture-information [4, 2006.01] |
| H04N 1/415 | 4-Punkt Untergruppe | . . . . in which the picture-elements are subdivided or grouped into fixed one-dimensional or two-dimensional blocks [4, 2006.01] |
| H04N 1/417 | 4-Punkt Untergruppe | . . . . using predictive or differential encoding [4, 2006.01] |
| H04N 1/419 | 4-Punkt Untergruppe | . . . . in which encoding of the length of a succession of picture-elements of the same value along a scanning line is the only encoding step [4, 2006.01] |
| H04N 1/42 | 1-Punkt Untergruppe | . Systems for two-way working [1, 2006.01] |
| H04N 1/44 | 1-Punkt Untergruppe | . Secrecy systems [1, 2006.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 1/46 | 1-Punkt Untergruppe | . Colour picture communication systems [1, 2006.01] |
| H04N 1/48 | 2-Punkt Untergruppe | . . Picture signal generators (for halftone screening H04N 1/52) [6, 2006.01] |
| H04N 1/50 | 2-Punkt Untergruppe | . . Picture reproducers (for halftone screening H04N 1/52) [6, 2006.01] |
| H04N 1/52 | 2-Punkt Untergruppe | . . Circuits or arrangements for halftone screening [6, 2006.01] |
| H04N 1/54 | 2-Punkt Untergruppe | . . Conversion of colour picture signals to a plurality of signals some of which represent particular mixed colours, e.g. for textile printing [6, 2006.01] |
| H04N 1/56 | 2-Punkt Untergruppe | . . Processing of colour picture signals (H04N 1/52 takes precedence) [6, 2006.01] |
| H04N 1/58 | 3-Punkt Untergruppe | . . . Edge or detail enhancement; Noise or error suppression, e.g. colour misregistration correction (H04N 1/62 takes precedence) [6, 2006.01] |
| H04N 1/60 | 3-Punkt Untergruppe | . . . Colour correction or control [6, 2006.01] |
| H04N 1/62 | 4-Punkt Untergruppe | . . . . Retouching, i.e. modification of isolated colours only or in isolated picture areas only [6, 2006.01] |
| H04N 1/64 | 2-Punkt Untergruppe | . . Systems for the transmission or the storage of the colour picture signal; Details therefor, e.g. coding or decoding means therefor [6, 2006.01] |
| **H04N 3/00** | **Hauptgruppe** | **Scanning details of television systems; Combination thereof with generation of supply voltages [1, 4, 2006.01]** |
| H04N 3/02 | 1-Punkt Untergruppe | . by optical-mechanical means only (H04N 3/36 takes precedence) [1, 2, 2006.01] |
| H04N 3/04 | 2-Punkt Untergruppe | . . having a moving aperture [1, 2006.01] |
| H04N 3/06 | 2-Punkt Untergruppe | . . having a moving lens or other refractor [1, 2006.01] |
| H04N 3/08 | 2-Punkt Untergruppe | . . having a moving reflector [1, 2006.01] |
| H04N 3/09 | 3-Punkt Untergruppe | . . . for electromagnetic radiation in the invisible region, e.g. infra-red [4, 2006.01] |
| H04N 3/10 | 1-Punkt Untergruppe | . by means not exclusively optical-mechanical (H04N 3/36 takes precedence) [1, 2, 2006.01] |
| H04N 3/12 | 2-Punkt Untergruppe | . . by switched stationary formation of lamps, photocells, or light relays [1, 2006.01] |
| H04N 3/14 | 2-Punkt Untergruppe | . . by means of electrically scanned solid-state devices (for picture generation H04N 5/335) [1, 2006.01] |
| H04N 3/16 | 2-Punkt Untergruppe | . . by deflecting electron beam in cathode-ray tube [1, 2006.01] |
| H04N 3/18 | 3-Punkt Untergruppe | . . . Generation of supply voltages, in combination with electron beam deflecting [1, 4, 2006.01] |
| H04N 3/185 | 4-Punkt Untergruppe | . . . . Maintaining dc voltage constant [4, 2006.01] |
| H04N 3/19 | 4-Punkt Untergruppe | . . . . Arrangements or assemblies in supply circuits for the purpose of withstanding high voltages [3, 2006.01] |
| H04N 3/20 | 3-Punkt Untergruppe | . . . Prevention of damage to cathode-ray tubes in event of failure of scanning [1, 2006.01] |
| H04N 3/22 | 3-Punkt Untergruppe | . . . Circuits for controlling dimensions, shape or centering of picture on screen [1, 2006.01] |
| H04N 3/223 | 4-Punkt Untergruppe | . . . . Controlling dimensions (by maintaining the cathode-ray tube high voltage constant H04N 3/185) [4, 2006.01] |
| H04N 3/227 | 4-Punkt Untergruppe | . . . . Centering [4, 2006.01] |
| H04N 3/23 | 4-Punkt Untergruppe | . . . . Distortion correction, e.g. for pincushion distortion correction, S-correction [4, 2006.01] |
| H04N 3/233 | 5-Punkt Untergruppe | . . . . . using active elements [4, 2006.01] |
| H04N 3/237 | 5-Punkt Untergruppe | . . . . . using passive elements [4, 2006.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 3/24 | 3-Punkt Untergruppe | . . . Blanking circuits [1, 2006.01] |
| H04N 3/26 | 3-Punkt Untergruppe | . . . Modifications of scanning arrangements to improve focusing [1, 2006.01] |
| H04N 3/27 | 3-Punkt Untergruppe | . . . Circuits special to multi-standard receivers [3, 4, 2006.01] |
| H04N 3/28 | 2-Punkt Untergruppe | . . producing multiple scanning, i.e. using more than one spot at the same time [1, 2006.01] |
| H04N 3/30 | 2-Punkt Untergruppe | . . otherwise than with constant velocity or otherwise than in pattern formed by unidirectional, straight, substantially horizontal or vertical lines [1, 2006.01] |
| H04N 3/32 | 3-Punkt Untergruppe | . . . Velocity varied in dependence upon picture information [1, 2006.01] |
| H04N 3/34 | 3-Punkt Untergruppe | . . . Elemental scanning area oscillated rapidly in direction transverse to main scanning direction [1, 2006.01] |
| H04N 3/36 | 1-Punkt Untergruppe | . Scanning of motion picture films, e.g. for telecine [2, 2006.01] |
| H04N 3/38 | 2-Punkt Untergruppe | . . with continuously moving film [4, 2006.01] |
| H04N 3/40 | 2-Punkt Untergruppe | . . with intermittently moving film [4, 2006.01] |
| **H04N 5/00** | **Hauptgruppe** | **Details of television systems (scanning details or combination thereof with generation of supply voltages H04N 3/00) [1, 4, 2006.01, 2011.01]** |
| H04N 5/04 | 1-Punkt Untergruppe | . Synchronising (for television systems using pulse code modulation H04N 7/56) [1, 4, 2006.01] |
| H04N 5/05 | 2-Punkt Untergruppe | . . Synchronising circuits with arrangements for extending range of synchronisation, e.g. by using switching between several time constants [2, 2006.01] |
| H04N 5/06 | 2-Punkt Untergruppe | . . Generation of synchronising signals [1, 2006.01] |
| H04N 5/067 | 3-Punkt Untergruppe | . . . Arrangements or circuits at the transmitter end [4, 2006.01] |
| H04N 5/073 | 4-Punkt Untergruppe | . . . . for mutually locking plural sources of synchronising signals, e.g. studios or relay stations [4, 2006.01] |
| H04N 5/08 | 2-Punkt Untergruppe | . . Separation of synchronising signals from picture signals [1, 2006.01] |
| H04N 5/10 | 3-Punkt Untergruppe | . . . Separation of line synchronising signal from frame synchronising signal [1, 2006.01] |
| H04N 5/12 | 2-Punkt Untergruppe | . . Devices in which the synchronising signals are only operative if a phase difference occurs between synchronising and synchronised scanning devices, e.g. flywheel synchronising [1, 2, 2006.01] |
| H04N 5/14 | 1-Punkt Untergruppe | . Picture signal circuitry for video frequency region (H04N 5/222 takes precedence) [1, 2, 2006.01] |
| H04N 5/16 | 2-Punkt Untergruppe | . . Circuitry for reinsertion of dc and slowly varying components of signal; Circuitry for preservation of black or white level [1, 2006.01] |
| H04N 5/18 | 3-Punkt Untergruppe | . . . by means of "clamp" circuit operated by switching circuit [1, 2006.01] |
| H04N 5/20 | 2-Punkt Untergruppe | . . Circuitry for controlling amplitude response [1, 2006.01] |
| H04N 5/202 | 3-Punkt Untergruppe | . . . Gamma control [4, 2006.01] |
| H04N 5/205 | 3-Punkt Untergruppe | . . . for correcting amplitude versus frequency characteristic [4, 2006.01] |
| H04N 5/208 | 4-Punkt Untergruppe | . . . . for compensating for attenuation of high frequency components, e.g. crispening, aperture distortion correction [4, 2006.01] |
| H04N 5/21 | 2-Punkt Untergruppe | . . Circuitry for suppressing or minimising disturbance, e.g. moire or halo [1, 2006.01] |
| H04N 5/213 | 3-Punkt Untergruppe | . . . Circuitry for suppressing or minimising impulsive noise (H04N 5/217 takes precedence) [4, 2006.01] |
| H04N 5/217 | 3-Punkt Untergruppe | . . . in picture signal generation [4, 2006.01, 2011.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 5/222 | 1-Punkt Untergruppe | . Studio circuitry; Studio devices; Studio equipment [4, 2006.01] |
| H04N 5/225 | 2-Punkt Untergruppe | . . Television cameras [4, 2006.01] |
| H04N 5/228 | 3-Punkt Untergruppe | . . . Circuit details for pick-up tubes [4, 2006.01] |
| H04N 5/232 | 3-Punkt Untergruppe | . . . Devices for controlling television cameras, e.g. remote control (H04N 5/235 takes precedence) [4, 2006.01] |
| H04N 5/235 | 3-Punkt Untergruppe | . . . Circuitry for compensating for variation in the brightness of the object [4, 2006.01] |
| H04N 5/238 | 4-Punkt Untergruppe | . . . . by influencing optical part of the camera [4, 2006.01] |
| H04N 5/243 | 4-Punkt Untergruppe | . . . . by influencing the picture signal [4, 2006.01] |
| H04N 5/247 | 3-Punkt Untergruppe | . . . Arrangement of television cameras [4, 2006.01] |
| H04N 5/253 | 2-Punkt Untergruppe | . . Picture signal generating by scanning motion picture films or slide opaques, e.g. for telecine (scanning details therefor H04N 3/36) [4, 2006.01] |
| H04N 5/257 | 2-Punkt Untergruppe | . . Picture signal generators using flying-spot scanners (H04N 5/253 takes precedence) [4, 2006.01] |
| H04N 5/262 | 2-Punkt Untergruppe | . . Studio circuits, e.g. for mixing, switching-over, change of character of image, other special effects [4, 2006.01] |
| H04N 5/265 | 3-Punkt Untergruppe | . . . Mixing [4, 2006.01] |
| H04N 5/268 | 3-Punkt Untergruppe | . . . Signal distribution or switching [4, 2006.01] |
| H04N 5/272 | 3-Punkt Untergruppe | . . . Means for inserting a foreground image in a background image, i.e. inlay, outlay [4, 2006.01] |
| H04N 5/275 | 4-Punkt Untergruppe | . . . . Generation of keying signals [4, 2006.01] |
| H04N 5/278 | 3-Punkt Untergruppe | . . . Subtitling [4, 2006.01] |
| H04N 5/28 | 2-Punkt Untergruppe | . . Mobile studios [1, 2006.01] |
| H04N 5/30 | 1-Punkt Untergruppe | . Transforming light or analogous information into electric information (H04N 5/222 takes precedence; scanning details H04N 3/00) [1, 2, 4, 7, 2006.01] |
| H04N 5/32 | 2-Punkt Untergruppe | . . Transforming X-rays [1, 2006.01] |
| H04N 5/321 | 3-Punkt Untergruppe | . . . with video transmission of fluoroscopic images [5, 2006.01] |
| H04N 5/325 | 4-Punkt Untergruppe | . . . . Image enhancement, e.g. by subtraction techniques using polyenergetic X-rays [5, 2006.01] |
| H04N 5/33 | 2-Punkt Untergruppe | . . Transforming infra-red radiation [2, 2006.01] |
| H04N 5/335 | 2-Punkt Untergruppe | . . using solid-state image sensors [SSIS] (H04N 5/32, H04N 5/33 take precedence) [4, 2006.01, 2011.01] |
| H04N 5/341 | 3-Punkt Untergruppe | . . . Extracting pixel data from an image sensor by controlling scanning circuits, e.g. by modifying the number of pixels having been sampled or to be sampled [2011.01] |
| H04N 5/343 | 4-Punkt Untergruppe | . . . . by switching between different modes of operation using different resolutions or aspect ratios, e.g. between still and video mode or between interlaced and non-interlaced mode [2011.01] |
| H04N 5/345 | 4-Punkt Untergruppe | . . . . by partially reading an SSIS array [2011.01] |
| H04N 5/347 | 4-Punkt Untergruppe | . . . . by combining or binning pixels in SSIS [2011.01] |
| H04N 5/349 | 4-Punkt Untergruppe | . . . . for increasing resolution by shifting the sensor relative to the scene [2011.01] |
| H04N 5/351 | 3-Punkt Untergruppe | . . . Control of the SSIS depending on the scene, e.g. brightness or motion in the scene [2011.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 5/353 | 4-Punkt Untergruppe | . . . . Control of the integration time [2011.01] |
| H04N 5/355 | 4-Punkt Untergruppe | . . . . Control of the dynamic range [2011.01] |
| H04N 5/357 | 3-Punkt Untergruppe | . . . Noise processing, e.g. detecting, correcting, reducing or removing noise [2011.01] |
| H04N 5/359 | 4-Punkt Untergruppe | . . . . applied to excess charges produced by the exposure, e.g. smear, blooming, ghost image, crosstalk or leakage between pixels [2011.01] |
| H04N 5/361 | 4-Punkt Untergruppe | . . . . applied to dark current [2011.01] |
| H04N 5/363 | 4-Punkt Untergruppe | . . . . applied to reset noise, e.g. KTC noise [2011.01] |
| H04N 5/365 | 4-Punkt Untergruppe | . . . . applied to fixed-pattern noise, e.g. non-uniformity of response [2011.01] |
| H04N 5/367 | 5-Punkt Untergruppe | . . . . . applied to defects, e.g. non-responsive pixels [2011.01] |
| H04N 5/369 | 3-Punkt Untergruppe | . . . SSIS architecture; Circuitry associated therewith [2011.01] |
| H04N 5/372 | 4-Punkt Untergruppe | . . . . Charge-coupled device [CCD] sensors; Time delay and integration [TDI] registers or shift registers specially adapted for SSIS [2011.01] |
| H04N 5/3722 | 5-Punkt Untergruppe | . . . . . using frame interline transfer [FIT] [2011.01] |
| H04N 5/3725 | 5-Punkt Untergruppe | . . . . . using frame transfer [FT] [2011.01] |
| H04N 5/3728 | 5-Punkt Untergruppe | . . . . . using interline transfer [IT] [2011.01] |
| H04N 5/374 | 4-Punkt Untergruppe | . . . . Addressed sensors, e.g. MOS or CMOS sensors [2011.01] |
| H04N 5/3745 | 5-Punkt Untergruppe | . . . . . having additional components embedded within a pixel or connected to a group of pixels within a sensor matrix, e.g. memories, A/D converters, pixel amplifiers, shared circuits or shared components [2011.01] |
| H04N 5/376 | 4-Punkt Untergruppe | . . . . Addressing circuits [2011.01] |
| H04N 5/378 | 4-Punkt Untergruppe | . . . . Readout circuits, e.g. correlated double sampling [CDS] circuits, output amplifiers or A/D converters [2011.01] |
| H04N 5/38 | 1-Punkt Untergruppe | . Transmitter circuitry (H04N 5/14 takes precedence) [1, 4, 2006.01] |
| H04N 5/40 | 2-Punkt Untergruppe | . . Modulation circuits [1, 2006.01] |
| H04N 5/42 | 2-Punkt Untergruppe | . . for transmitting at will black-and-white or colour signals [1, 2006.01] |
| H04N 5/44 | 1-Punkt Untergruppe | . Receiver circuitry (H04N 5/14 takes precedence) [1, 4, 2006.01, 2011.01] |
| H04N 5/445 | 2-Punkt Untergruppe | . . for displaying additional information (H04N 5/50 takes precedence) [4, 2006.01, 2011.01] |
| H04N 5/45 | 3-Punkt Untergruppe | . . . Picture in picture [4, 2006.01, 2011.01] |
| H04N 5/455 | 2-Punkt Untergruppe | . . Demodulation-circuits [4, 2006.01] |
| H04N 5/46 | 2-Punkt Untergruppe | . . for receiving on more than one standard at will (deflecting circuits of multi-standard receivers H04N 3/27) [1, 4, 2006.01] |
| H04N 5/50 | 2-Punkt Untergruppe | . . Tuning indicators; Automatic tuning control [1, 4, 2006.01] |
| H04N 5/52 | 2-Punkt Untergruppe | . . Automatic gain control [1, 4, 2006.01] |
| H04N 5/53 | 3-Punkt Untergruppe | . . . Keyed automatic gain control [4, 2006.01] |
| H04N 5/54 | 3-Punkt Untergruppe | . . . for positively-modulated picture signals (H04N 5/53 takes precedence) [1, 4, 2006.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 5/56 | 3-Punkt Untergruppe | . . . for negatively-modulated picture signals (H04N 5/53 takes precedence) [1, 4, 2006.01] |
| H04N 5/57 | 2-Punkt Untergruppe | . . Control of contrast or brightness [4, 2006.01] |
| H04N 5/58 | 3-Punkt Untergruppe | . . . in dependence upon ambient light [1, 4, 2006.01] |
| H04N 5/59 | 3-Punkt Untergruppe | . . . in dependence upon beam current of cathode ray tube [4, 2006.01] |
| H04N 5/60 | 2-Punkt Untergruppe | . . for the sound signals [1, 2006.01] |
| H04N 5/62 | 3-Punkt Untergruppe | . . . Intercarrier circuits, i.e. heterodyning sound and vision carriers [1, 2006.01] |
| H04N 5/63 | 1-Punkt Untergruppe | . Generation or supply of power specially adapted for television receivers [4, 2006.01] |
| H04N 5/64 | 1-Punkt Untergruppe | . Constructional details of receivers, e.g. cabinets or dust covers (furniture aspects A47B 81/06) [1, 2, 2006.01] |
| H04N 5/645 | 2-Punkt Untergruppe | . . Mounting of picture tube on chassis or in housing [1, 2006.01] |
| H04N 5/65 | 2-Punkt Untergruppe | . . Holding-devices for protective discs or for picture masks [1, 2006.01] |
| H04N 5/655 | 2-Punkt Untergruppe | . . Construction or mounting of chassis, e.g. for varying the elevation of the tube [1, 2006.01] |
| H04N 5/66 | 1-Punkt Untergruppe | . Transforming electric information into light information (scanning details H04N 3/00) [1, 2006.01] |
| H04N 5/68 | 2-Punkt Untergruppe | . . Circuit details for cathode-ray display tubes [1, 2006.01] |
| H04N 5/70 | 2-Punkt Untergruppe | . . Circuit details for electroluminescent devices [1, 2006.01] |
| H04N 5/72 | 1-Punkt Untergruppe | . Modifying the appearance of television pictures by optical filters or diffusing screens [1, 2006.01] |
| H04N 5/74 | 1-Punkt Untergruppe | . Projection arrangements for image reproduction, e.g. using eidophor [1, 2006.01] |
| H04N 5/76 | 1-Punkt Untergruppe | . Television signal recording [1, 3, 4, 2006.01] |
| H04N 5/761 | 2-Punkt Untergruppe | . . Systems for programming the time at which predetermined television channels will be selected for recording [7, 2006.01] |
| H04N 5/7613 | 3-Punkt Untergruppe | . . . by using data entered by the user and a reference timing clock incorporated in the recorder [7, 2006.01] |
| H04N 5/7617 | 3-Punkt Untergruppe | . . . by using data entered by the user and reference data transmitted by the broadcasting station [7, 2006.01] |
| H04N 5/765 | 2-Punkt Untergruppe | . . Interface circuits between an apparatus for recording and another apparatus [6, 2006.01] |
| H04N 5/77 | 3-Punkt Untergruppe | . . . between a recording apparatus and a television camera [6, 2006.01] |
| H04N 5/775 | 3-Punkt Untergruppe | . . . between a recording apparatus and a television receiver [6, 2006.01] |
| H04N 5/78 | 2-Punkt Untergruppe | . . using magnetic recording (H04N 5/91 takes precedence) [1, 3, 2006.01] |
| H04N 5/781 | 3-Punkt Untergruppe | . . . on disks or drums [3, 2006.01] |
| H04N 5/782 | 3-Punkt Untergruppe | . . . on tape [3, 2006.01] |
| H04N 5/7822 | 4-Punkt Untergruppe | . . . . with stationary magnetic heads [6, 2006.01] |
| H04N 5/7824 | 4-Punkt Untergruppe | . . . . with rotating magnetic heads [6, 2006.01] |
| H04N 5/7826 | 5-Punkt Untergruppe | . . . . . involving helical scanning of the magnetic tape [6, 2006.01] |
| H04N 5/7828 | 5-Punkt Untergruppe | . . . . . involving transversal scanning of the magnetic tape [6, 2006.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 5/783 | 4-Punkt Untergruppe | . . . . Adaptations for reproducing at a rate different from the recording rate [3, 2006.01] |
| H04N 5/784 | 3-Punkt Untergruppe | . . . on a sheet [6, 2006.01] |
| H04N 5/80 | 2-Punkt Untergruppe | . . using electrostatic recording (H04N 5/91 takes precedence) [1, 3, 2006.01] |
| H04N 5/82 | 3-Punkt Untergruppe | . . . using deformable thermoplastic recording medium [1, 2006.01] |
| H04N 5/83 | 4-Punkt Untergruppe | . . . . on disks or drums [3, 2006.01] |
| H04N 5/84 | 2-Punkt Untergruppe | . . using optical recording (H04N 5/80, H04N 5/89, H04N 5/91 take precedence) [1, 3, 4, 2006.01] |
| H04N 5/85 | 3-Punkt Untergruppe | . . . on discs or drums [3, 2006.01] |
| H04N 5/87 | 3-Punkt Untergruppe | . . . Producing a motion picture film from a television signal [3, 4, 2006.01] |
| H04N 5/89 | 2-Punkt Untergruppe | . . using holographic recording (H04N 5/91 take precedence) [3, 2006.01] |
| H04N 5/90 | 3-Punkt Untergruppe | . . . on discs or drums [3, 2006.01] |
| H04N 5/903 | 2-Punkt Untergruppe | . . using variable electrical capacitive recording (H04N 5/91 takes precedence) [4, 2006.01] |
| H04N 5/907 | 2-Punkt Untergruppe | . . using static stores, e.g. storage tubes or semiconductor memories (H04N 5/91 takes precedence) [4, 2006.01] |
| H04N 5/91 | 2-Punkt Untergruppe | . . Television signal processing therefor [3, 2006.01] |
| H04N 5/911 | 3-Punkt Untergruppe | . . . for the suppression of noise [6, 2006.01] |
| H04N 5/913 | 3-Punkt Untergruppe | . . . for scrambling [6, 2006.01] |
| H04N 5/915 | 3-Punkt Untergruppe | . . . for field- or frame-skip recording or reproducing [6, 2006.01] |
| H04N 5/917 | 3-Punkt Untergruppe | . . . for bandwidth reduction [6, 2006.01] |
| H04N 5/919 | 4-Punkt Untergruppe | . . . . by dividing samples or signal segments, e.g. television lines, among a plurality of recording channels [6, 2006.01] |
| H04N 5/92 | 3-Punkt Untergruppe | . . . Transformation of the television signal for recording, e.g. modulation, frequency changing; Inverse transformation for playback [3, 2006.01] |
| H04N 5/921 | 4-Punkt Untergruppe | . . . . by recording or reproducing the baseband signal [6, 2006.01] |
| H04N 5/922 | 4-Punkt Untergruppe | . . . . by modulation of the signal on a carrier wave, e.g. amplitude or frequency modulation [6, 2006.01] |
| H04N 5/923 | 4-Punkt Untergruppe | . . . . using preemphasis of the signal before modulation and deemphasis of the signal after demodulation [6, 2006.01] |
| H04N 5/924 | 4-Punkt Untergruppe | . . . . using duty cycle modulation [6, 2006.01] |
| H04N 5/926 | 4-Punkt Untergruppe | . . . . by pulse code modulation (H04N 5/919 takes precedence) [6, 2006.01] |
| H04N 5/928 | 4-Punkt Untergruppe | . . . . the sound signal being pulse code modulated and recorded in time division multiplex with the modulated video signal [6, 2006.01] |
| H04N 5/93 | 3-Punkt Untergruppe | . . . Regeneration of the television signal or of selected parts thereof [3, 2006.01] |
| H04N 5/931 | 4-Punkt Untergruppe | . . . . for restoring the level of the reproduced signal [6, 2006.01] |
| H04N 5/932 | 4-Punkt Untergruppe | . . . . Regeneration of analogue synchronisation signals [6, 2006.01] |
| H04N 5/935 | 4-Punkt Untergruppe | . . . . Regeneration of digital synchronisation signals [6, 2006.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 5/937 | 4-Punkt Untergruppe | . . . . by assembling picture element blocks in an intermediate store [6, 2006.01] |
| H04N 5/94 | 4-Punkt Untergruppe | . . . . Signal drop-out compensation [3, 2006.01] |
| H04N 5/945 | 5-Punkt Untergruppe | . . . . . for signals recorded by pulse code modulation [6, 2006.01] |
| H04N 5/95 | 4-Punkt Untergruppe | . . . . Time-base error compensation [3, 2006.01] |
| H04N 5/953 | 5-Punkt Untergruppe | . . . . . by using an analogue memory, e.g. a CCD-shift register, the delay of which is controlled by a voltage controlled oscillator [6, 2006.01] |
| H04N 5/956 | 5-Punkt Untergruppe | . . . . . by using a digital memory with independent write-in and read-out clock generators [6, 2006.01] |
| **H04N 7/00** | **Hauptgruppe** | **Television systems (details H04N 3/00, H04N 5/00; methods or arrangements, for coding, decoding, compressing or decompressing digital video signals H04N 19/00; selective content distribution H04N 21/00) [1, 4, 2006.01, 2011.01]** |
| H04N 7/01 | 1-Punkt Untergruppe | . Conversion of standards [4, 2006.01] |
| H04N 7/015 | 1-Punkt Untergruppe | . High-definition television systems [6, 2006.01] |
| H04N 7/025 | 1-Punkt Untergruppe | . Systems for transmission of digital non-picture data, e.g. of text during the active part of a television frame [6, 2006.01] |
| H04N 7/03 | 2-Punkt Untergruppe | . . Subscription systems therefor [6, 2006.01] |
| H04N 7/035 | 2-Punkt Untergruppe | . . Circuits for the digital non-picture data signal, e.g. for slicing of the data signal, for regeneration of the data-clock signal, for error detection or correction of the data signal [6, 2006.01] |
| H04N 7/04 | 1-Punkt Untergruppe | . Systems for the transmission of one television signal, i.e. both picture and sound, by a single carrier [1, 4, 2006.01] |
| H04N 7/045 | 2-Punkt Untergruppe | . . the carrier being frequency modulated [6, 2006.01] |
| H04N 7/06 | 1-Punkt Untergruppe | . Systems for the simultaneous transmission of one television signal, i.e. both picture and sound, by more than one carrier [1, 4, 2006.01] |
| H04N 7/08 | 1-Punkt Untergruppe | . Systems for the simultaneous or sequential transmission of more than one television signal, e.g. additional information signals, the signals occupying wholly or partially the same frequency band [1, 4, 6, 2006.01] |
| H04N 7/081 | 2-Punkt Untergruppe | . . the additional information signals being transmitted by means of a subcarrier [6, 2006.01] |
| H04N 7/083 | 2-Punkt Untergruppe | . . with signal insertion during the vertical and the horizontal blanking interval [6, 2006.01] |
| H04N 7/084 | 2-Punkt Untergruppe | . . with signal insertion during the horizontal blanking interval [6, 2006.01] |
| H04N 7/085 | 3-Punkt Untergruppe | . . . the inserted signal being digital [6, 2006.01] |
| H04N 7/087 | 2-Punkt Untergruppe | . . with signal insertion during the vertical blanking interval [4, 2006.01] |
| H04N 7/088 | 3-Punkt Untergruppe | . . . the inserted signal being digital [6, 2006.01] |
| H04N 7/10 | 1-Punkt Untergruppe | . Adaptations for transmission by electrical cable (H04N 7/12 takes precedence) [1, 4, 2006.01] |
| H04N 7/12 | 1-Punkt Untergruppe | . Systems in which the television signal is transmitted via one channel or a plurality of parallel channels, the bandwidth of each channel being less than the bandwidth of the television signal (H04N 7/24 takes precedence) [1, 4, 2006.01] |
| H04N 7/14 | 1-Punkt Untergruppe | . Systems for two-way working (H04N 7/173 takes precedence) [1, 4, 2006.01] |
| H04N 7/15 | 2-Punkt Untergruppe | . . Conference systems [5, 2006.01] |
| H04N 7/16 | 1-Punkt Untergruppe | . Analogue secrecy systems; Analogue subscription systems [1, 2006.01, 2011.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 7/167 | 2-Punkt Untergruppe | . . Systems rendering the television signal unintelligible and subsequently intelligible [4, 2006.01, 2011.01] |
| H04N 7/169 | 3-Punkt Untergruppe | . . . Systems operating in the time domain of the television signal [6, 2006.01, 2011.01] |
| H04N 7/171 | 3-Punkt Untergruppe | . . . Systems operating in the amplitude domain of the television signal [6, 2006.01, 2011.01] |
| H04N 7/173 | 2-Punkt Untergruppe | . . with two-way working, e.g. subscriber sending a programme selection signal [4, 2006.01, 2011.01] |
| H04N 7/18 | 1-Punkt Untergruppe | . Closed-circuit television systems, i.e. systems in which the signal is not broadcast [1, 2006.01] |
| H04N 7/20 | 1-Punkt Untergruppe | . Adaptations for transmission via a GHz frequency band, e.g. via satellite [4, 2006.01] |
| H04N 7/22 | 1-Punkt Untergruppe | . Adaptations for optical transmission [4, 2006.01] |
| H04N 7/24 | 1-Punkt Untergruppe | . Systems for the transmission of television signals using pulse code modulation (H04N 21/00 takes precedence) [6, 2006.01, 2011.01] |
| H04N 7/52 | 2-Punkt Untergruppe | . . Systems for transmission of a pulse code modulated with one or more other pulse code modulated signals, e.g. an audio signal or a synchronizing signal (assembling of a multiplex stream by combining a video stream with other content or additional data, remultiplexing of multiplex streams, insertion of stuffing bits into the multiplex stream, assembling of a packetised elementary stream at server side H04N 21/236; disassembling of a multiplex stream, remultiplexing of multiplex streams, extraction or processing of Service Information, disassembling of packetised elementary stream at client side H04N 21/434) [6, 2006.01, 2011.01] |
| H04N 7/54 | 3-Punkt Untergruppe | . . . the signals being synchronous [6, 2006.01] |
| H04N 7/56 | 4-Punkt Untergruppe | . . . . Synchronising systems therefor [6, 2006.01] |
| **H04N 9/00** | **Hauptgruppe** | **Details of colour television systems [1, 4, 2006.01]** |
| H04N 9/04 | 1-Punkt Untergruppe | . Picture signal generators [1, 4, 2006.01] |
| H04N 9/07 | 2-Punkt Untergruppe | . . with one pick-up device only [2, 4, 2006.01] |
| H04N 9/077 | 3-Punkt Untergruppe | . . . whereby the colour signals are characterised by their phase [4, 2006.01] |
| H04N 9/083 | 3-Punkt Untergruppe | . . . whereby the colour signals are characterised by their frequency [4, 2006.01] |
| H04N 9/09 | 2-Punkt Untergruppe | . . with more than one pick-up device [4, 2006.01] |
| H04N 9/093 | 3-Punkt Untergruppe | . . . Systems for avoiding or correcting misregistration of video signals [4, 2006.01] |
| H04N 9/097 | 3-Punkt Untergruppe | . . . Optical arrangements associated therewith, e.g. for beam-splitting, for colour correction [4, 2006.01] |
| H04N 9/10 | 2-Punkt Untergruppe | . . using optical-mechanical scanning means only (H04N 9/11 takes precedence) [1, 2, 4, 2006.01] |
| H04N 9/11 | 2-Punkt Untergruppe | . . Scanning of colour motion picture films, e.g. for telecine [2, 4, 2006.01] |
| H04N 9/12 | 1-Punkt Untergruppe | . Picture reproducers (H04N 9/11 takes precedence) [1, 2, 4, 2006.01] |
| H04N 9/14 | 2-Punkt Untergruppe | . . using optical-mechanical scanning means only [1, 2, 4, 2006.01] |
| H04N 9/16 | 2-Punkt Untergruppe | . . using cathode ray tubes (H04N 9/11 takes precedence) [1, 2, 4, 2006.01] |
| H04N 9/18 | 3-Punkt Untergruppe | . . . using separate electron beams for the primary colour signals (H04N 9/27 takes precedence) [1, 2, 4, 2006.01] |
| H04N 9/20 | 4-Punkt Untergruppe | . . . . with more than one beam in a tube [1, 4, 2006.01] |
| H04N 9/22 | 3-Punkt Untergruppe | . . . using the same beam for more than one primary colour information (H04N 9/27 takes precedence) [1, 2, 4, 2006.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 9/24 | 4-Punkt Untergruppe | . . . . using means, integral with, or external to, the tube, for producing signal indicating instantaneous beam position [1, 4, 2006.01] |
| H04N 9/26 | 4-Punkt Untergruppe | . . . . using electron-optical colour selection means, e.g. line grid, deflection means in or near the gun or near the phosphor screen [1, 4, 2006.01] |
| H04N 9/27 | 3-Punkt Untergruppe | . . . with variable depth of penetration of electron beam into the luminescent layer, e.g. penetrons [2, 4, 2006.01] |
| H04N 9/28 | 3-Punkt Untergruppe | . . . Arrangements for convergence or focusing [1, 4, 2006.01] |
| H04N 9/285 | 4-Punkt Untergruppe | . . . . using quadrupole lenses [4, 2006.01] |
| H04N 9/29 | 3-Punkt Untergruppe | . . . using demagnetisation or compensation of external magnetic fields [2, 4, 2006.01] |
| H04N 9/30 | 2-Punkt Untergruppe | . . using solid-state colour display devices [1, 4, 2006.01] |
| H04N 9/31 | 2-Punkt Untergruppe | . . Projection devices for colour picture display [2, 4, 2006.01] |
| H04N 9/43 | 1-Punkt Untergruppe | . Conversion of monochrome picture signals to colour picture signals for colour picture display [4, 2006.01] |
| H04N 9/44 | 1-Punkt Untergruppe | . Colour synchronisation [1, 4, 2006.01] |
| H04N 9/45 | 2-Punkt Untergruppe | . . Generation or recovery of colour sub-carriers [4, 2006.01] |
| H04N 9/455 | 2-Punkt Untergruppe | . . Generation of colour burst signals; Insertion of colour burst signals in colour picture signals or separation of colour burst signals from colour picture signals (H04N 9/45 takes precedence) [4, 2006.01] |
| H04N 9/465 | 2-Punkt Untergruppe | . . Synchronisation of the PAL-switch [4, 2006.01] |
| H04N 9/47 | 2-Punkt Untergruppe | . . for sequential signals [2, 4, 2006.01] |
| H04N 9/475 | 2-Punkt Untergruppe | . . for mutually locking different synchronisation sources [4, 2006.01] |
| H04N 9/64 | 1-Punkt Untergruppe | . Circuits for processing colour signals (H04N 9/77 takes precedence) [4, 2006.01] |
| H04N 9/65 | 2-Punkt Untergruppe | . . for synchronous modulators [4, 2006.01] |
| H04N 9/66 | 2-Punkt Untergruppe | . . for synchronous demodulators [4, 2006.01] |
| H04N 9/67 | 2-Punkt Untergruppe | . . for matrixing [4, 2006.01] |
| H04N 9/68 | 2-Punkt Untergruppe | . . for controlling the amplitude of colour signals, e.g. automatic chroma control circuits (H04N 9/71, H04N 9/73 take precedence) [4, 2006.01] |
| H04N 9/69 | 3-Punkt Untergruppe | . . . for modifying the colour signals by gamma correction [4, 2006.01] |
| H04N 9/70 | 2-Punkt Untergruppe | . . for colour killing [4, 2006.01] |
| H04N 9/71 | 3-Punkt Untergruppe | . . . combined with colour gain control [4, 2006.01] |
| H04N 9/72 | 2-Punkt Untergruppe | . . for reinsertion of dc and slowly varying components of colour signals [4, 2006.01] |
| H04N 9/73 | 2-Punkt Untergruppe | . . colour balance circuits, e.g. white balance circuits, colour temperature control [4, 2006.01] |
| H04N 9/74 | 2-Punkt Untergruppe | . . for obtaining special effects (H04N 9/65-H04N 9/73 take precedence) [4, 2006.01] |
| H04N 9/75 | 3-Punkt Untergruppe | . . . Chroma key [4, 2006.01] |
| H04N 9/76 | 3-Punkt Untergruppe | . . . for mixing of colour signals (H04N 9/75 takes precedence) [4, 2006.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 9/77 | 1-Punkt Untergruppe | . Circuits for processing the brightness signal and the chrominance signal relative to each other, e.g. adjusting the phase of the brightness signal relative to the colour signal, correcting differential gain or differential phase (circuits for matrixing H04N 9/67) [4, 2006.01] |
| H04N 9/78 | 2-Punkt Untergruppe | . . for separating the brightness signal or the chrominance signal from the colour television signal, e.g. using comb filter [4, 2006.01] |
| H04N 9/79 | 1-Punkt Untergruppe | . Processing of colour television signals in connection with recording [4, 2006.01] |
| H04N 9/793 | 2-Punkt Untergruppe | . . for controlling the level of the chrominance signal, e.g. by means of automatic chroma control circuits [6, 2006.01] |
| H04N 9/797 | 2-Punkt Untergruppe | . . for recording the signal in a plurality of channels, the bandwidth of each channel being less than the bandwidth of the signal (H04N 9/804, H04N 9/81, H04N 9/82 take precedence) [6, 2006.01] |
| H04N 9/80 | 2-Punkt Untergruppe | . . Transformation of the television signal for recording, e.g. modulation, frequency changing; Inverse transformation for playback [4, 2006.01] |
| H04N 9/802 | 3-Punkt Untergruppe | . . . involving processing of the sound signal (H04N 9/806, H04N 9/835 take precedence) [6, 2006.01] |
| H04N 9/804 | 3-Punkt Untergruppe | . . . involving pulse code modulation of the colour picture signal components [6, 2006.01] |
| H04N 9/806 | 4-Punkt Untergruppe | . . . . with processing of the sound signal [6, 2006.01] |
| H04N 9/808 | 3-Punkt Untergruppe | . . . involving pulse code modulation of the composite colour video-signal [6, 2006.01] |
| H04N 9/81 | 3-Punkt Untergruppe | . . . the individual colour picture signal components being recorded sequentially only [4, 2006.01] |
| H04N 9/815 | 4-Punkt Untergruppe | . . . . the luminance signal and the sequential colour component signals being recorded in separate recording channels [6, 2006.01] |
| H04N 9/82 | 3-Punkt Untergruppe | . . . the individual colour picture signal components being recorded simultaneously only [4, 2006.01] |
| H04N 9/825 | 4-Punkt Untergruppe | . . . . the luminance and chrominance signals being recorded in separate channels [6, 2006.01] |
| H04N 9/83 | 4-Punkt Untergruppe | . . . . the recorded chrominance signal occupying a frequency band under the frequency band of the recorded brightness signal [4, 2006.01] |
| H04N 9/835 | 5-Punkt Untergruppe | . . . . . involving processing of the sound signal [6, 2006.01] |
| H04N 9/84 | 5-Punkt Untergruppe | . . . . . the recorded signal showing a feature, which is different in adjacent track parts, e.g. different phase or frequency [4, 2006.01] |
| H04N 9/85 | 4-Punkt Untergruppe | . . . . the recorded brightness signal occupying a frequency band totally overlapping the frequency band of the recorded chrominance signal, e.g. frequency interleaving [4, 2006.01] |
| H04N 9/86 | 3-Punkt Untergruppe | . . . the individual colour picture signal components being recorded sequentially and simultaneously, e.g. corresponding to SECAM-system [4, 2006.01] |
| H04N 9/87 | 2-Punkt Untergruppe | . . Regeneration of colour television signals (H04N 9/80 takes precedence) [4, 2006.01] |
| H04N 9/873 | 3-Punkt Untergruppe | . . . for restoring the colour component sequence of the reproduced signal [6, 2006.01] |
| H04N 9/877 | 3-Punkt Untergruppe | . . . by assembling picture element blocks in an intermediate memory [6, 2006.01] |
| H04N 9/88 | 3-Punkt Untergruppe | . . . Signal drop-out compensation [4, 2006.01] |
| H04N 9/882 | 4-Punkt Untergruppe | . . . . the signal being a composite colour television signal [6, 2006.01] |
| H04N 9/885 | 5-Punkt Untergruppe | . . . . . using a digital intermediate memory [6, 2006.01] |
| H04N 9/888 | 4-Punkt Untergruppe | . . . . for signals recorded by pulse code modulation [6, 2006.01] |
| H04N 9/89 | 3-Punkt Untergruppe | . . . Time-base error compensation [4, 2006.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 9/893 | 4-Punkt Untergruppe | . . . . using an analogue memory, e.g. a CCD-shift register, the delay of which is controlled by a voltage controlled oscillator [6, 2006.01] |
| H04N 9/896 | 4-Punkt Untergruppe | . . . . using a digital memory with independent write-in and read-out clock generators [6, 2006.01] |
| H04N 9/898 | 3-Punkt Untergruppe | . . . using frequency multiplication of the reproduced colour signal with another auxiliary reproduced signal, e.g. a pilot signal carrier [6, 2006.01] |
| **H04N 11/00** | **Hauptgruppe** | **Colour television systems (details H04N 9/00) [4, 2006.01]** |
| H04N 11/02 | 1-Punkt Untergruppe | . with bandwidth reduction (H04N 11/04 takes precedence) [4, 2006.01] |
| H04N 11/04 | 1-Punkt Untergruppe | . using pulse code modulation [4, 2006.01] |
| H04N 11/06 | 1-Punkt Untergruppe | . Transmission systems characterised by the manner in which the individual colour picture signal components are combined [4, 2006.01] |
| H04N 11/08 | 2-Punkt Untergruppe | . . using sequential signals only (dot sequential systems H04N 11/12) [4, 2006.01] |
| H04N 11/10 | 3-Punkt Untergruppe | . . . in which colour signals are inserted in the blanking interval of brightness signal [4, 2006.01] |
| H04N 11/12 | 2-Punkt Untergruppe | . . using simultaneous signals only [4, 2006.01] |
| H04N 11/14 | 3-Punkt Untergruppe | . . . in which one signal, modulated in phase and amplitude, conveys colour information and a second signal conveys brightness information, e.g. NTSC-system [4, 2006.01] |
| H04N 11/16 | 4-Punkt Untergruppe | . . . . the chrominance signal alternating in phase, e.g. PAL-system [4, 2006.01] |
| H04N 11/18 | 2-Punkt Untergruppe | . . using simultaneous and sequential signals, e.g. SECAM-system [4, 2006.01] |
| H04N 11/20 | 2-Punkt Untergruppe | . . Conversion of the manner in which the individual colour picture signal components are combined, e.g. conversion of colour television standards [4, 2006.01] |
| H04N 11/22 | 3-Punkt Untergruppe | . . . in which simultaneous signals are converted into sequential signals or vice versa [4, 2006.01] |
| H04N 11/24 | 1-Punkt Untergruppe | . High-definition television systems [6, 2006.01] |
| **H04N 13/00** | **Hauptgruppe** | **Stereoscopic television systems; Details thereof [4, 2006.01]** |
| H04N 13/02 | 1-Punkt Untergruppe | . Picture signal generators [4, 2006.01] |
| H04N 13/04 | 1-Punkt Untergruppe | . Picture reproducers [4, 2006.01] |
| **H04N 15/00** | **Hauptgruppe** | **Stereoscopic colour television systems; Details thereof [4, 2006.01]** |
| **H04N 17/00** | **Hauptgruppe** | **Diagnosis, testing or measuring for television systems or their details [4, 2006.01]** |
| H04N 17/02 | 1-Punkt Untergruppe | . for colour television signals [4, 2006.01] |
| H04N 17/04 | 1-Punkt Untergruppe | . for receivers [4, 2006.01] |
| H04N 17/06 | 1-Punkt Untergruppe | . for recorders [4, 2006.01] |
| **H04N 19/00** | **Hauptgruppe** | **Methods or arrangements for coding, decoding, compressing or decompressing digital video signals [2014.01]** |
| H04N 19/10 | 1-Punkt Untergruppe | . using adaptive coding [2014.01] |
| H04N 19/102 | 2-Punkt Untergruppe | . . characterised by the element, parameter or selection affected or controlled by the adaptive coding [2014.01] |
| H04N 19/103 | 3-Punkt Untergruppe | . . . Selection of coding mode or of prediction mode [2014.01] |
| H04N 19/105 | 4-Punkt Untergruppe | . . . . Selection of the reference unit for prediction within a chosen coding or prediction mode, e.g. adaptive choice of position and number of pixels used for prediction [2014.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 19/107 | 4-Punkt Untergruppe | . . . . between spatial and temporal predictive coding, e.g. picture refresh [2014.01] |
| H04N 19/109 | 4-Punkt Untergruppe | . . . . among a plurality of temporal predictive coding modes [2014.01] |
| H04N 19/11 | 4-Punkt Untergruppe | . . . . among a plurality of spatial predictive coding modes [2014.01] |
| H04N 19/112 | 4-Punkt Untergruppe | . . . . according to a given display mode, e.g. for interlaced or progressive display mode [2014.01] |
| H04N 19/114 | 4-Punkt Untergruppe | . . . . Adapting the group of pictures [GOP] structure, e.g. number of B-frames between two anchor frames ( H04N 19/107 takes precedence) [2014.01] |
| H04N 19/115 | 3-Punkt Untergruppe | . . . Selection of the code volume for a coding unit prior to coding [2014.01] |
| H04N 19/117 | 3-Punkt Untergruppe | . . . Filters, e.g. for pre-processing or post-processing (sub-band filter banks H04N 19/635) [2014.01] |
| H04N 19/119 | 3-Punkt Untergruppe | . . . Adaptive subdivision aspects e.g. subdivision of a picture into rectangular or non-rectangular coding blocks [2014.01] |
| H04N 19/12 | 3-Punkt Untergruppe | . . . Selection from among a plurality of transforms or standards, e.g. selection between discrete cosine transform [DCT] and sub-band transform or selection between H.263 and H.264 [2014.01] |
| H04N 19/122 | 4-Punkt Untergruppe | . . . . Selection of transform size, e.g. 8x8 or 2x4x8 DCT; Selection of sub-band transforms of varying structure or type [2014.01] |
| H04N 19/124 | 3-Punkt Untergruppe | . . . Quantisation [2014.01] |
| H04N 19/126 | 4-Punkt Untergruppe | . . . . Details of normalisation or weighting functions, e.g. normalisation matrices or variable uniform quantisers [2014.01] |
| H04N 19/127 | 3-Punkt Untergruppe | . . . Prioritisation of hardware or computational resources [2014.01] |
| H04N 19/129 | 3-Punkt Untergruppe | . . . Scanning of coding units, e.g. zig-zag scan of transform coefficients or flexible macroblock ordering [FMO] [2014.01] |
| H04N 19/13 | 3-Punkt Untergruppe | . . . Adaptive entropy coding, e.g. adaptive variable length coding [AVLC] or context adaptive binary arithmetic coding [CABAC] [2014.01] |
| H04N 19/132 | 3-Punkt Untergruppe | . . . Sampling, masking or truncation of coding units, e.g. adaptive resampling, frame skipping, frame interpolation or high-frequency transform coefficient masking [2014.01] |
| H04N 19/134 | 2-Punkt Untergruppe | . . characterised by the element, parameter or criterion affecting or controlling the adaptive coding [2014.01] |
| H04N 19/136 | 3-Punkt Untergruppe | . . . Incoming video signal characteristics or properties [2014.01] |
| H04N 19/137 | 4-Punkt Untergruppe | . . . . Motion inside a coding unit, e.g. average field, frame or block difference [2014.01] |
| H04N 19/139 | 5-Punkt Untergruppe | . . . . . Analysis of motion vectors, e.g. their magnitude, direction, variance or reliability [2014.01] |
| H04N 19/14 | 4-Punkt Untergruppe | . . . . Coding unit complexity, e.g. amount of activity or edge presence estimation (H04N 19/146 takes precedence) [2014.01] |
| H04N 19/142 | 3-Punkt Untergruppe | . . . Detection of scene cut or scene change [2014.01] |
| H04N 19/146 | 3-Punkt Untergruppe | . . . Data rate or code amount at the encoder output [2014.01] |
| H04N 19/147 | 4-Punkt Untergruppe | . . . . according to rate distortion criteria (rate-distortion as a criterion for motion estimation H04N 19/567) [2014.01] |
| H04N 19/149 | 4-Punkt Untergruppe | . . . . by estimating the code amount by means of a model, e.g. mathematical model or statistical model [2014.01] |
| H04N 19/15 | 4-Punkt Untergruppe | . . . . by monitoring actual compressed data size at the memory before deciding storage at the transmission buffer [2014.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 19/152 | 4-Punkt Untergruppe | . . . . by measuring the fullness of the transmission buffer [2014.01] |
| H04N 19/154 | 3-Punkt Untergruppe | . . . Measured or subjectively estimated visual quality after decoding, e.g. measurement of distortion (use of rate-distortion criteria H04N 19/147) [2014.01] |
| H04N 19/156 | 3-Punkt Untergruppe | . . . Availability of hardware or computational resources, e.g. encoding based on power-saving criteria [2014.01] |
| H04N 19/157 | 3-Punkt Untergruppe | . . . Assigned coding mode, i.e. the coding mode being predefined or preselected to be further used for selection of another element or parameter [2014.01] |
| H04N 19/159 | 4-Punkt Untergruppe | . . . . Prediction type, e.g. intra-frame, inter-frame or bidirectional frame prediction [2014.01] |
| H04N 19/16 | 4-Punkt Untergruppe | . . . . for a given display mode, e.g. for interlaced or progressive display mode [2014.01] |
| H04N 19/162 | 3-Punkt Untergruppe | . . . User input [2014.01] |
| H04N 19/164 | 3-Punkt Untergruppe | . . . Feedback from the receiver or from the transmission channel [2014.01] |
| H04N 19/166 | 4-Punkt Untergruppe | . . . . concerning the amount of transmission errors, e.g. bit error rate [BER] [2014.01] |
| H04N 19/167 | 3-Punkt Untergruppe | . . . Position within a video image, e.g. region of interest [ROI] [2014.01] |
| H04N 19/169 | 2-Punkt Untergruppe | . . characterised by the coding unit, i.e. the structural portion or semantic portion of the video signal being the object or the subject of the adaptive coding [2014.01] |
| H04N 19/17 | 3-Punkt Untergruppe | . . . the unit being an image region, e.g. an object [2014.01] |
| H04N 19/172 | 4-Punkt Untergruppe | . . . . the region being a picture, frame or field [2014.01] |
| H04N 19/174 | 4-Punkt Untergruppe | . . . . the region being a slice, e.g. a line of blocks or a group of blocks [2014.01] |
| H04N 19/176 | 4-Punkt Untergruppe | . . . . the region being a block, e.g. a macroblock [2014.01] |
| H04N 19/177 | 3-Punkt Untergruppe | . . . the unit being a group of pictures [GOP] [2014.01] |
| H04N 19/179 | 3-Punkt Untergruppe | . . . the unit being a scene or a shot [2014.01] |
| H04N 19/18 | 3-Punkt Untergruppe | . . . the unit being a set of transform coefficients [2014.01] |
| H04N 19/182 | 3-Punkt Untergruppe | . . . the unit being a pixel [2014.01] |
| H04N 19/184 | 3-Punkt Untergruppe | . . . the unit being bits, e.g. of the compressed video stream [2014.01] |
| H04N 19/186 | 3-Punkt Untergruppe | . . . the unit being a colour or a chrominance component [2014.01] |
| H04N 19/187 | 3-Punkt Untergruppe | . . . the unit being a scalable video layer [2014.01] |
| H04N 19/189 | 2-Punkt Untergruppe | . . characterised by the adaptation method, adaptation tool or adaptation type used for the adaptive coding [2014.01] |
| H04N 19/19 | 3-Punkt Untergruppe | . . . using optimisation based on Lagrange multipliers [2014.01] |
| H04N 19/192 | 3-Punkt Untergruppe | . . . the adaptation method, adaptation tool or adaptation type being iterative or recursive [2014.01] |
| H04N 19/194 | 4-Punkt Untergruppe | . . . . involving only two passes [2014.01] |
| H04N 19/196 | 3-Punkt Untergruppe | . . . being specially adapted for the computation of encoding parameters, e.g. by averaging previously computed encoding parameters (processing of motion vectors H04N 19/513) [2014.01] |
| H04N 19/20 | 1-Punkt Untergruppe | . using video object coding [2014.01] |
| H04N 19/21 | 2-Punkt Untergruppe | . . with binary alpha-plane coding for video objects, e.g. context-based arithmetic encoding [CAE] [2014.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 19/23 | 2-Punkt Untergruppe | . . with coding of regions that are present throughout a whole video segment, e.g. sprites, background or mosaic [2014.01] |
| H04N 19/25 | 2-Punkt Untergruppe | . . with scene description coding, e.g. binary format for scenes [BIFS] compression [2014.01] |
| H04N 19/27 | 2-Punkt Untergruppe | . . involving both synthetic and natural picture components, e.g. synthetic natural hybrid coding [SNHC] [2014.01] |
| H04N 19/29 | 2-Punkt Untergruppe | . . involving scalability at the object level, e.g. video object layer [VOL] [2014.01] |
| H04N 19/30 | 1-Punkt Untergruppe | . using hierarchical techniques, e.g. scalability (H04N 19/63 takes precedence) [2014.01] |
| H04N 19/31 | 2-Punkt Untergruppe | . . in the temporal domain [2014.01] |
| H04N 19/33 | 2-Punkt Untergruppe | . . in the spatial domain [2014.01] |
| H04N 19/34 | 2-Punkt Untergruppe | . . Scalability techniques involving progressive bit-plane based encoding of the enhancement layer, e.g. fine granular scalability [FGS] [2014.01] |
| H04N 19/36 | 2-Punkt Untergruppe | . . Scalability techniques involving formatting the layers as a function of picture distortion after decoding, e.g. signal-to-noise [SNR] scalability [2014.01] |
| H04N 19/37 | 2-Punkt Untergruppe | . . with arrangements for assigning different transmission priorities to video input data or to video coded data [2014.01] |
| H04N 19/39 | 2-Punkt Untergruppe | . . involving multiple description coding [MDC], i.e. with separate layers being structured as independently decodable descriptions of input picture data [2014.01] |
| H04N 19/40 | 1-Punkt Untergruppe | . using video transcoding, i.e. partial or full decoding of a coded input stream followed by re-encoding of the decoded output stream [2014.01] |
| H04N 19/42 | 1-Punkt Untergruppe | . characterised by implementation details or hardware specially adapted for video compression or decompression, e.g. dedicated software implementation (H04N 19/635 takes precedence) [2014.01] |
| H04N 19/423 | 2-Punkt Untergruppe | . . characterised by memory arrangements (H04N 19/433 takes precedence) [2014.01] |
| H04N 19/426 | 3-Punkt Untergruppe | . . . using memory downsizing methods [2014.01] |
| H04N 19/43 | 2-Punkt Untergruppe | . . Hardware specially adapted for motion estimation or compensation [2014.01] |
| H04N 19/433 | 3-Punkt Untergruppe | . . . characterised by techniques for memory access [2014.01] |
| H04N 19/436 | 2-Punkt Untergruppe | . . using parallelised computational arrangements [2014.01] |
| H04N 19/44 | 1-Punkt Untergruppe | . Decoders specially adapted therefor, e.g. video decoders which are asymmetric with respect to the encoder [2014.01] |
| H04N 19/46 | 1-Punkt Untergruppe | . Embedding additional information in the video signal during the compression process (H04N 19/517, H04N 19/68, H04N 19/70 take precedence) [2014.01] |
| H04N 19/463 | 2-Punkt Untergruppe | . . by compressing encoding parameters before transmission [2014.01] |
| H04N 19/467 | 2-Punkt Untergruppe | . . characterised by the embedded information being invisible, e.g. watermarking [2014.01] |
| H04N 19/48 | 1-Punkt Untergruppe | . using compressed domain processing techniques other than decoding, e.g. modification of transform coefficients, variable length coding [VLC] data or run-length data (motion estimation in a transform domain H04N 19/547; processing of decoded motion vectors H04N 19/513) [2014.01] |
| H04N 19/50 | 1-Punkt Untergruppe | . using predictive coding (H04N 19/61 takes precedence) [2014.01] |
| H04N 19/503 | 2-Punkt Untergruppe | . . involving temporal prediction (adaptive coding with adaptive selection between spatial and temporal predictive coding H04N 19/107; adaptive coding with adaptive selection among a plurality of temporal predictive coding modes H04N 19/109) [2014.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 19/507 | 3-Punkt Untergruppe | . . . using conditional replenishment [2014.01] |
| H04N 19/51 | 3-Punkt Untergruppe | . . . Motion estimation or motion compensation [2014.01] |
| H04N 19/513 | 4-Punkt Untergruppe | . . . . Processing of motion vectors [2014.01] |
| H04N 19/517 | 5-Punkt Untergruppe | . . . . . by encoding [2014.01] |
| H04N 19/52 | 6-Punkt Untergruppe | . . . . . by predictive encoding [2014.01] |
| H04N 19/523 | 4-Punkt Untergruppe | . . . . with sub-pixel accuracy [2014.01] |
| H04N 19/527 | 4-Punkt Untergruppe | . . . . Global motion vector estimation [2014.01] |
| H04N 19/53 | 4-Punkt Untergruppe | . . . . Multi-resolution motion estimation; Hierarchical motion estimation [2014.01] |
| H04N 19/533 | 4-Punkt Untergruppe | . . . . Motion estimation using multistep search, e.g. 2D-log search or one-at-a-time search [OTS] [2014.01] |
| H04N 19/537 | 4-Punkt Untergruppe | . . . . Motion estimation other than block-based [2014.01] |
| H04N 19/54 | 5-Punkt Untergruppe | . . . . . using feature points or meshes [2014.01] |
| H04N 19/543 | 5-Punkt Untergruppe | . . . . . using regions [2014.01] |
| H04N 19/547 | 4-Punkt Untergruppe | . . . . Motion estimation performed in a transform domain [2014.01] |
| H04N 19/55 | 4-Punkt Untergruppe | . . . . Motion estimation with spatial constraints, e.g. at image or region borders [2014.01] |
| H04N 19/553 | 4-Punkt Untergruppe | . . . . Motion estimation dealing with occlusions [2014.01] |
| H04N 19/557 | 4-Punkt Untergruppe | . . . . Motion estimation characterised by stopping computation or iteration based on certain criteria, e.g. error magnitude being too large or early exit [2014.01] |
| H04N 19/56 | 4-Punkt Untergruppe | . . . . Motion estimation with initialisation of the vector search, e.g. estimating a good candidate to initiate a search [2014.01] |
| H04N 19/563 | 4-Punkt Untergruppe | . . . . Motion estimation with padding, i.e. with filling of non-object values in an arbitrarily shaped picture block or region for estimation purposes [2014.01] |
| H04N 19/567 | 4-Punkt Untergruppe | . . . . Motion estimation based on rate distortion criteria [2014.01] |
| H04N 19/57 | 4-Punkt Untergruppe | . . . . Motion estimation characterised by a search window with variable size or shape [2014.01] |
| H04N 19/573 | 4-Punkt Untergruppe | . . . . Motion compensation with multiple frame prediction using two or more reference frames in a given prediction direction [2014.01] |
| H04N 19/577 | 4-Punkt Untergruppe | . . . . Motion compensation with bidirectional frame interpolation, i.e. using B-pictures [2014.01] |
| H04N 19/58 | 4-Punkt Untergruppe | . . . . Motion compensation with long-term prediction, i.e. the reference frame for a current frame not being the temporally closest one (H04N 19/23 takes precedence) [2014.01] |
| H04N 19/583 | 4-Punkt Untergruppe | . . . . Motion compensation with overlapping blocks [2014.01] |
| H04N 19/587 | 2-Punkt Untergruppe | . . involving temporal sub-sampling or interpolation, e.g. decimation or subsequent interpolation of pictures in a video sequence [2014.01] |
| H04N 19/59 | 2-Punkt Untergruppe | . . involving spatial sub-sampling or interpolation, e.g. alteration of picture size or resolution [2014.01] |
| H04N 19/593 | 2-Punkt Untergruppe | . . involving spatial prediction techniques [2014.01] |
| H04N 19/597 | 2-Punkt Untergruppe | . . specially adapted for multi-view video sequence encoding [2014.01] |
| H04N 19/60 | 1-Punkt Untergruppe | . using transform coding [2014.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 19/61 | 2-Punkt Untergruppe | . . in combination with predictive coding [2014.01] |
| H04N 19/615 | 3-Punkt Untergruppe | . . . using motion compensated temporal filtering [MCTF] [2014.01] |
| H04N 19/62 | 2-Punkt Untergruppe | . . by frequency transforming in three dimensions (H04N 19/63 takes precedence) [2014.01] |
| H04N 19/625 | 2-Punkt Untergruppe | . . using discrete cosine transform [DCT] [2014.01] |
| H04N 19/63 | 2-Punkt Untergruppe | . . using sub-band based transform, e.g. wavelets [2014.01] |
| H04N 19/635 | 3-Punkt Untergruppe | . . . characterised by filter definition or implementation details [2014.01] |
| H04N 19/64 | 3-Punkt Untergruppe | . . . characterised by ordering of coefficients or of bits for transmission [2014.01] |
| H04N 19/645 | 4-Punkt Untergruppe | . . . . by grouping of coefficients into blocks after the transform [2014.01] |
| H04N 19/65 | 1-Punkt Untergruppe | . using error resilience [2014.01] |
| H04N 19/66 | 2-Punkt Untergruppe | . . involving data partitioning, i.e. separation of data into packets or partitions according to importance [2014.01] |
| H04N 19/67 | 2-Punkt Untergruppe | . . involving unequal error protection [UEP], i.e. providing protection according to the importance of the data [2014.01] |
| H04N 19/68 | 2-Punkt Untergruppe | . . involving the insertion of resynchronisation markers into the bitstream [2014.01] |
| H04N 19/69 | 2-Punkt Untergruppe | . . involving reversible variable length codes [RVLC] [2014.01] |
| H04N 19/70 | 1-Punkt Untergruppe | . characterised by syntax aspects related to video coding, e.g. related to compression standards [2014.01] |
| H04N 19/80 | 1-Punkt Untergruppe | . Details of filtering operations specially adapted for video compression, e.g. for pixel interpolation (H04N 19/635, H04N 19/86 take precedence) [2014.01] |
| H04N 19/82 | 2-Punkt Untergruppe | . . involving filtering within a prediction loop [2014.01] |
| H04N 19/85 | 1-Punkt Untergruppe | . using pre-processing or post-processing specially adapted for video compression [2014.01] |
| H04N 19/86 | 2-Punkt Untergruppe | . . involving reduction of coding artifacts, e.g. of blockiness [2014.01] |
| H04N 19/87 | 2-Punkt Untergruppe | . . involving scene cut or scene change detection in combination with video compression [2014.01] |
| H04N 19/88 | 2-Punkt Untergruppe | . . involving rearrangement of data among different coding units, e.g. shuffling, interleaving, scrambling or permutation of pixel data or permutation of transform coefficient data among different blocks [2014.01] |
| H04N 19/89 | 2-Punkt Untergruppe | . . involving methods or arrangements for detection of transmission errors at the decoder [2014.01] |
| H04N 19/895 | 3-Punkt Untergruppe | . . . in combination with error concealment [2014.01] |
| H04N 19/90 | 1-Punkt Untergruppe | . using coding techniques not provided for in groups H04N 19/10-H04N 19/85, e.g. fractals [2014.01] |
| H04N 19/91 | 2-Punkt Untergruppe | . . Entropy coding, e.g. variable length coding [VLC] or arithmetic coding [2014.01] |
| H04N 19/93 | 2-Punkt Untergruppe | . . Run-length coding [2014.01] |
| H04N 19/94 | 2-Punkt Untergruppe | . . Vector quantisation [2014.01] |
| H04N 19/96 | 2-Punkt Untergruppe | . . Tree coding, e.g. quad-tree coding [2014.01] |
| H04N 19/97 | 2-Punkt Untergruppe | . . Matching pursuit coding [2014.01] |
| H04N 19/98 | 2-Punkt Untergruppe | . . Adaptive-dynamic-range coding [ADRC] [2014.01] |
| **H04N 21/00** | **Hauptgruppe** | **Selective content distribution, e.g. interactive television or video on demand [VOD] (real-time bi-directional transmission of motion video data H04N 7/14) [2011.01]** |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 21/20 | 1-Punkt Untergruppe | . Servers specifically adapted for the distribution of content, e.g. VOD servers; Operations thereof [2011.01] |
| H04N 21/21 | 2-Punkt Untergruppe | . . Server components or server architectures [2011.01] |
| H04N 21/214 | 3-Punkt Untergruppe | . . . Specialised server platform, e.g. server located in an airplane, hotel or hospital [2011.01] |
| H04N 21/218 | 3-Punkt Untergruppe | . . . Source of audio or video content, e.g. local disk arrays [2011.01] |
| H04N 21/2183 | 4-Punkt Untergruppe | . . . . Cache memory [2011.01] |
| H04N 21/2187 | 4-Punkt Untergruppe | . . . . Live feed [2011.01] |
| H04N 21/222 | 3-Punkt Untergruppe | . . . Secondary servers, e.g. proxy server or cable television Head-end [2011.01] |
| H04N 21/2225 | 4-Punkt Untergruppe | . . . . Local VOD servers [2011.01] |
| H04N 21/226 | 3-Punkt Untergruppe | . . . Internal components of the server [2011.01] |
| H04N 21/23 | 2-Punkt Untergruppe | . . Processing of content or additional data; Elementary server operations; Server middleware [2011.01] |
| H04N 21/231 | 3-Punkt Untergruppe | . . . Content storage operation, e.g. caching movies for short term storage, replicating data over plural servers or prioritizing data for deletion [2011.01] |
| H04N 21/2312 | 4-Punkt Untergruppe | . . . . Data placement on disk arrays [2011.01] |
| H04N 21/2315 | 5-Punkt Untergruppe | . . . . . using interleaving [2011.01] |
| H04N 21/2318 | 5-Punkt Untergruppe | . . . . . using striping [2011.01] |
| H04N 21/232 | 3-Punkt Untergruppe | . . . Content retrieval operation within server, e.g. reading video streams from disk arrays [2011.01] |
| H04N 21/233 | 3-Punkt Untergruppe | . . . Processing of audio elementary streams [2011.01] |
| H04N 21/234 | 3-Punkt Untergruppe | . . . Processing of video elementary streams, e.g. splicing of video streams or manipulating MPEG-4 scene graphs [2011.01] |
| H04N 21/2343 | 4-Punkt Untergruppe | . . . . involving reformatting operations of video signals for distribution or compliance with end-user requests or end-user device requirements [2011.01] |
| H04N 21/2347 | 4-Punkt Untergruppe | . . . . involving video stream encryption [2011.01] |
| H04N 21/235 | 3-Punkt Untergruppe | . . . Processing of additional data, e.g. scrambling of additional data or processing content descriptors [2011.01] |
| H04N 21/236 | 3-Punkt Untergruppe | . . . Assembling of a multiplex stream, e.g. transport stream, by combining a video stream with other content or additional data, e.g. inserting a URL [Uniform Resource Locator ] into a video stream, multiplexing software data into a video stream; Remultiplexing of multiplex streams; Insertion of stuffing bits into the multiplex stream, e.g. to obtain a constant bit-rate; Assembling of a packetised elementary stream [2011.01] |
| H04N 21/2362 | 4-Punkt Untergruppe | . . . . Generation or processing of SI [Service Information] [2011.01] |
| H04N 21/2365 | 4-Punkt Untergruppe | . . . . Multiplexing of several video streams [2011.01] |
| H04N 21/2368 | 4-Punkt Untergruppe | . . . . Multiplexing of audio and video streams [2011.01] |
| H04N 21/237 | 3-Punkt Untergruppe | . . . Communication with additional data server [2011.01] |
| H04N 21/238 | 3-Punkt Untergruppe | . . . Interfacing the downstream path of the transmission network, e.g. adapting the transmission rate of a video stream to network bandwidth; Processing of multiplex streams [2011.01] |
| H04N 21/2381 | 4-Punkt Untergruppe | . . . . Adapting the multiplex stream to a specific network, e.g. an IP [Internet Protocol] network [2011.01] |
| H04N 21/2383 | 4-Punkt Untergruppe | . . . . Channel coding of digital bit-stream, e.g. modulation [2011.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 21/2385 | 4-Punkt Untergruppe | . . . . Channel allocation (H04N 21/266 takes precedence); Bandwidth allocation (H04N 21/24 takes precedence) [2011.01] |
| H04N 21/2387 | 4-Punkt Untergruppe | . . . . Stream processing in response to a playback request from an end-user, e.g. for trick-play [2011.01] |
| H04N 21/2389 | 4-Punkt Untergruppe | . . . . Multiplex stream processing, e.g. multiplex stream encrypting [2011.01] |
| H04N 21/239 | 3-Punkt Untergruppe | . . . Interfacing the upstream path of the transmission network, e.g. prioritizing client requests [2011.01] |
| H04N 21/24 | 3-Punkt Untergruppe | . . . Monitoring of processes or resources, e.g. monitoring of server load, available bandwidth or upstream requests [2011.01] |
| H04N 21/241 | 3-Punkt Untergruppe | . . . Operating system [OS] processes, e.g. server setup [2011.01] |
| H04N 21/242 | 3-Punkt Untergruppe | . . . Synchronization processes, e.g. processing of PCR [Program Clock References] [2011.01] |
| H04N 21/25 | 2-Punkt Untergruppe | . . Management operations performed by the server for facilitating the content distribution or administrating data related to end-users or client devices, e.g. end-user or client device authentication or learning user preferences for recommending movies [2011.01] |
| H04N 21/254 | 3-Punkt Untergruppe | . . . Management at additional data server, e.g. shopping server or rights management server [2011.01] |
| H04N 21/2543 | 4-Punkt Untergruppe | . . . . Billing [2011.01] |
| H04N 21/2547 | 5-Punkt Untergruppe | . . . . . Third party billing, e.g. billing of advertiser [2011.01] |
| H04N 21/258 | 3-Punkt Untergruppe | . . . Client or end-user data management, e.g. managing client capabilities, user preferences or demographics or processing of multiple end-users preferences to derive collaborative data [2011.01] |
| H04N 21/262 | 3-Punkt Untergruppe | . . . Content or additional data distribution scheduling, e.g. sending additional data at off-peak times, updating software modules, calculating the carousel transmission frequency, delaying a video stream transmission or generating play-lists [2011.01] |
| H04N 21/266 | 3-Punkt Untergruppe | . . . Channel or content management, e.g. generation and management of keys and entitlement messages in a conditional access system or merging a VOD unicast channel into a multicast channel [2011.01] |
| H04N 21/2662 | 4-Punkt Untergruppe | . . . . Controlling the complexity of the video stream, e.g. by scaling the resolution or bitrate of the video stream based on the client capabilities [2011.01] |
| H04N 21/2665 | 4-Punkt Untergruppe | . . . . Gathering content from different sources, e.g. Internet and satellite [2011.01] |
| H04N 21/2668 | 4-Punkt Untergruppe | . . . . Creating a channel for a dedicated end-user group, e.g. by inserting targeted commercials into a video stream based on end-user profiles [2011.01] |
| H04N 21/27 | 2-Punkt Untergruppe | . . Server based end-user applications [2011.01] |
| H04N 21/274 | 3-Punkt Untergruppe | . . . Storing end-user specific content or additional data in response to end-user request [2011.01] |
| H04N 21/2743 | 4-Punkt Untergruppe | . . . . Video hosting of uploaded data from client [2011.01] |
| H04N 21/2747 | 4-Punkt Untergruppe | . . . . Remote storage of video programs received via the downstream path, e.g. from the server [2011.01] |
| H04N 21/278 | 3-Punkt Untergruppe | . . . Content descriptor database or directory service for end-user access [2011.01] |
| H04N 21/40 | 1-Punkt Untergruppe | . Client devices specifically adapted for the reception of, or interaction with, content, e.g. STB [set-top-box]; Operations thereof [2011.01] |
| H04N 21/41 | 2-Punkt Untergruppe | . . Structure of client; Structure of client peripherals [2011.01] |
| H04N 21/414 | 3-Punkt Untergruppe | . . . Specialised client platforms, e.g. receiver in car or embedded in a mobile appliance [2011.01] |
| H04N 21/4143 | 4-Punkt Untergruppe | . . . . PC [Personal Computer] [2011.01] |
| H04N 21/4147 | 4-Punkt Untergruppe | . . . . PVR [Personal Video Recorder] (H04N 5/76 takes precedence) [2011.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 21/418 | 3-Punkt Untergruppe | . . . External card to be used in combination with the client device, e.g. for conditional access [2011.01] |
| H04N 21/4185 | 4-Punkt Untergruppe | . . . . for payment [2011.01] |
| H04N 21/422 | 3-Punkt Untergruppe | . . . Input-only peripherals, e.g. global positioning system [GPS] [2011.01] |
| H04N 21/4223 | 4-Punkt Untergruppe | . . . . Cameras (H04N 5/225 takes precedence) [2011.01] |
| H04N 21/4227 | 4-Punkt Untergruppe | . . . . Remote input by a user located remotely from the client device, e.g. at work [2011.01] |
| H04N 21/426 | 3-Punkt Untergruppe | . . . Internal components of the client (H04N 5/44 takes precedence) [2011.01] |
| H04N 21/43 | 2-Punkt Untergruppe | . . Processing of content or additional data, e.g. demultiplexing additional data from a digital video stream; Elementary client operations, e.g. monitoring of home network or synchronizing decoder's clock; Client middleware [2011.01] |
| H04N 21/431 | 3-Punkt Untergruppe | . . . Generation of visual interfaces; Content or additional data rendering [2011.01] |
| H04N 21/432 | 3-Punkt Untergruppe | . . . Content retrieval operation from a local storage medium, e.g. hard-disk [2011.01] |
| H04N 21/433 | 3-Punkt Untergruppe | . . . Content storage operation, e.g. storage operation in response to a pause request or caching operations [2011.01] |
| H04N 21/4335 | 4-Punkt Untergruppe | . . . . Housekeeping operations, e.g. prioritizing content for deletion because of storage space restrictions [2011.01] |
| H04N 21/434 | 3-Punkt Untergruppe | . . . Disassembling of a multiplex stream, e.g. demultiplexing audio and video streams or extraction of additional data from a video stream; Remultiplexing of multiplex streams; Extraction or processing of SI; Disassembling of packetised elementary stream [2011.01] |
| H04N 21/435 | 3-Punkt Untergruppe | . . . Processing of additional data, e.g. decrypting of additional data or reconstructing software from modules extracted from the transport stream [2011.01] |
| H04N 21/436 | 3-Punkt Untergruppe | . . . Interfacing a local distribution network, e.g. communicating with another STB or inside the home [2011.01] |
| H04N 21/4363 | 4-Punkt Untergruppe | . . . . Adapting the video stream to a specific local network, e.g. a IEEE 1394 or Bluetooth® network [2011.01] |
| H04N 21/4367 | 4-Punkt Untergruppe | . . . . Establishing a secure communication between the client and a peripheral device or smart card [2011.01] |
| H04N 21/437 | 3-Punkt Untergruppe | . . . Interfacing the upstream path of the transmission network, e.g. for transmitting client requests to a VOD server [2011.01] |
| H04N 21/438 | 3-Punkt Untergruppe | . . . Interfacing the downstream path of the transmission network originating from a server, e.g. retrieving MPEG packets from an IP network [2011.01] |
| H04N 21/4385 | 4-Punkt Untergruppe | . . . . Multiplex stream processing, e.g. multiplex stream decrypting [2011.01] |
| H04N 21/439 | 3-Punkt Untergruppe | . . . Processing of audio elementary streams [2011.01] |
| H04N 21/44 | 3-Punkt Untergruppe | . . . Processing of video elementary streams, e.g. splicing a video clip retrieved from local storage with an incoming video stream or rendering scenes according to MPEG-4 scene graphs [2011.01] |
| H04N 21/4402 | 4-Punkt Untergruppe | . . . . involving reformatting operations of video signals for household redistribution, storage or real-time display [2011.01] |
| H04N 21/4405 | 4-Punkt Untergruppe | . . . . involving video stream decryption [2011.01] |
| H04N 21/4408 | 4-Punkt Untergruppe | . . . . involving video stream encryption, e.g. re-encrypting a decrypted video stream for redistribution in a home network [2011.01] |
| H04N 21/441 | 3-Punkt Untergruppe | . . . Acquiring end-user identification [2011.01] |
| H04N 21/4415 | 4-Punkt Untergruppe | . . . . using biometric characteristics of the user, e.g. by voice recognition or fingerprint scanning [2011.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 21/442 | 3-Punkt Untergruppe | . . . Monitoring of processes or resources, e.g. detecting the failure of a recording device, monitoring the downstream bandwidth, the number of times a movie has been viewed or the storage space available from the internal hard disk [2011.01] |
| H04N 21/4425 | 4-Punkt Untergruppe | . . . . Monitoring of client processing errors or hardware failure [2011.01] |
| H04N 21/443 | 3-Punkt Untergruppe | . . . OS processes, e.g. booting an STB, implementing a Java virtual machine in an STB or power management in an STB [2011.01] |
| H04N 21/45 | 2-Punkt Untergruppe | . . Management operations performed by the client for facilitating the reception of or the interaction with the content or administrating data related to the end-user or to the client device itself, e.g. learning user preferences for recommending movies or resolving scheduling conflicts [2011.01] |
| H04N 21/454 | 3-Punkt Untergruppe | . . . Content filtering, e.g. blocking advertisements [2011.01] |
| H04N 21/4545 | 4-Punkt Untergruppe | . . . . Input to filtering algorithms, e.g. filtering a region of the image [2011.01] |
| H04N 21/458 | 3-Punkt Untergruppe | . . . Scheduling content for creating a personalised stream, e.g. by combining a locally stored advertisement with an incoming stream; Updating operations, e.g. for OS modules [2011.01] |
| H04N 21/462 | 3-Punkt Untergruppe | . . . Content or additional data management e.g. creating a master electronic program guide from data received from the Internet and a Head-end or controlling the complexity of a video stream by scaling the resolution or bit-rate based on the client capabilities [2011.01] |
| H04N 21/4623 | 4-Punkt Untergruppe | . . . . Processing of entitlement messages, e.g. ECM [Entitlement Control Message] or EMM [Entitlement Management Message] [2011.01] |
| H04N 21/4627 | 4-Punkt Untergruppe | . . . . Rights management [2011.01] |
| H04N 21/466 | 3-Punkt Untergruppe | . . . Learning process for intelligent management, e.g. learning user preferences for recommending movies [2011.01] |
| H04N 21/47 | 2-Punkt Untergruppe | . . End-user applications [2011.01] |
| H04N 21/472 | 3-Punkt Untergruppe | . . . End-user interface for requesting content, additional data or services; End-user interface for interacting with content, e.g. for content reservation or setting reminders, for requesting event notification or for manipulating displayed content [2011.01] |
| H04N 21/4722 | 4-Punkt Untergruppe | . . . . for requesting additional data associated with the content [2011.01] |
| H04N 21/4725 | 5-Punkt Untergruppe | . . . . . using interactive regions of the image, e.g. hot spots [2011.01] |
| H04N 21/4728 | 4-Punkt Untergruppe | . . . . for selecting a ROI [Region Of Interest], e.g. for requesting a higher resolution version of a selected region [2011.01] |
| H04N 21/475 | 3-Punkt Untergruppe | . . . End-user interface for inputting end-user data, e.g. PIN [Personal Identification Number] or preference data [2011.01] |
| H04N 21/478 | 3-Punkt Untergruppe | . . . Supplemental services, e.g. displaying phone caller identification or shopping application [2011.01] |
| H04N 21/4782 | 4-Punkt Untergruppe | . . . . Web browsing [2011.01] |
| H04N 21/4784 | 4-Punkt Untergruppe | . . . . receiving rewards [2011.01] |
| H04N 21/4786 | 4-Punkt Untergruppe | . . . . e-mailing [2011.01] |
| H04N 21/4788 | 4-Punkt Untergruppe | . . . . communicating with other users, e.g. chatting [2011.01] |
| H04N 21/482 | 3-Punkt Untergruppe | . . . End-user interface for program selection [2011.01] |
| H04N 21/485 | 3-Punkt Untergruppe | . . . End-user interface for client configuration [2011.01] |
| H04N 21/488 | 3-Punkt Untergruppe | . . . Data services, e.g. news ticker [2011.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 21/60 | 1-Punkt Untergruppe | . Network structure or processes for video distribution between server and client or between remote clients; Control signalling between clients, server and network components; Transmission of management data between server and client; Communication details between server and client [2011.01] |
| H04N 21/61 | 2-Punkt Untergruppe | . . Network physical structure; Signal processing (H04B takes precedence) [2011.01] |
| H04N 21/63 | 2-Punkt Untergruppe | . . Control signaling between client, server and network components; Network processes for video distribution between server and clients, e.g. transmitting basic layer and enhancement layers over different transmission paths, setting up a peer-to-peer communication via Internet between remote STB's; Communication protocols; Addressing [2011.01] |
| H04N 21/633 | 3-Punkt Untergruppe | . . . Control signals issued by server directed to the network components or client [2011.01] |
| H04N 21/6332 | 4-Punkt Untergruppe | . . . . directed to client [2011.01] |
| H04N 21/6334 | 5-Punkt Untergruppe | . . . . . for authorisation, e.g. by transmitting a key [2011.01] |
| H04N 21/6336 | 5-Punkt Untergruppe | . . . . . directed to decoder [2011.01] |
| H04N 21/6338 | 4-Punkt Untergruppe | . . . . directed to network [2011.01] |
| H04N 21/637 | 3-Punkt Untergruppe | . . . Control signals issued by the client directed to the server or network components [2011.01] |
| H04N 21/6371 | 4-Punkt Untergruppe | . . . . directed to network [2011.01] |
| H04N 21/6373 | 4-Punkt Untergruppe | . . . . for rate control [2011.01] |
| H04N 21/6375 | 4-Punkt Untergruppe | . . . . for requesting retransmission [2011.01] |
| H04N 21/6377 | 4-Punkt Untergruppe | . . . . directed to server [2011.01] |
| H04N 21/6379 | 5-Punkt Untergruppe | . . . . . directed to encoder [2011.01] |
| H04N 21/64 | 3-Punkt Untergruppe | . . . Addressing [2011.01] |
| H04N 21/6402 | 4-Punkt Untergruppe | . . . . Address allocation for clients [2011.01] |
| H04N 21/6405 | 4-Punkt Untergruppe | . . . . Multicasting [2011.01] |
| H04N 21/6408 | 4-Punkt Untergruppe | . . . . Unicasting [2011.01] |
| H04N 21/643 | 3-Punkt Untergruppe | . . . Communication protocols [2011.01] |
| H04N 21/6433 | 4-Punkt Untergruppe | . . . . DSM-CC [Digital Storage Media - Command and Control Protocol] [2011.01] |
| H04N 21/6437 | 4-Punkt Untergruppe | . . . . RTP [Real-time Transport Protocol] [2011.01] |
| H04N 21/647 | 3-Punkt Untergruppe | . . . Control signaling between network components and server or clients; Network processes for video distribution between server and clients, e.g. controlling the quality of the video stream, by dropping packets, protecting content from unauthorised alteration within the network, monitoring of network load or bridging between two different networks, e.g. between IP and wireless [2011.01] |
| H04N 21/65 | 2-Punkt Untergruppe | . . Transmission of management data between client and server [2011.01] |
| H04N 21/654 | 3-Punkt Untergruppe | . . . Transmission by server directed to the client [2011.01] |
| H04N 21/6543 | 4-Punkt Untergruppe | . . . . for forcing some client operations, e.g. recording [2011.01] |
| H04N 21/6547 | 4-Punkt Untergruppe | . . . . comprising parameters, e.g. for client setup [2011.01] |
| H04N 21/658 | 3-Punkt Untergruppe | . . . Transmission by the client directed to the server [2011.01] |
| H04N 21/6583 | 4-Punkt Untergruppe | . . . . Acknowledgement [2011.01] |

| Symbol | Typ | Titel |
|---|---|---|
| H04N 21/6587 | 4-Punkt Untergruppe | . . . . Control parameters, e.g. trick play commands or viewpoint selection [2011.01] |
| H04N 21/80 | 1-Punkt Untergruppe | . Generation or processing of content or additional data by content creator independently of the distribution process; Content per se [2011.01] |
| H04N 21/81 | 2-Punkt Untergruppe | . . Monomedia components thereof [2011.01] |
| H04N 21/83 | 2-Punkt Untergruppe | . . Generation or processing of protective or descriptive data associated with content; Content structuring [2011.01] |
| H04N 21/835 | 3-Punkt Untergruppe | . . . Generation of protective data, e.g. certificates [2011.01] |
| H04N 21/8352 | 4-Punkt Untergruppe | . . . . involving content or source identification data, e.g. UMID [Unique Material Identifier] [2011.01] |
| H04N 21/8355 | 4-Punkt Untergruppe | . . . . involving usage data, e.g. number of copies or viewings allowed [2011.01] |
| H04N 21/8358 | 4-Punkt Untergruppe | . . . . involving watermark [2011.01] |
| H04N 21/84 | 3-Punkt Untergruppe | . . . Generation or processing of descriptive data, e.g. content descriptors [2011.01] |
| H04N 21/8405 | 4-Punkt Untergruppe | . . . . represented by keywords [2011.01] |
| H04N 21/845 | 3-Punkt Untergruppe | . . . Structuring of content, e.g. decomposing content into time segments [2011.01] |
| H04N 21/85 | 2-Punkt Untergruppe | . . Assembly of content; Generation of multimedia applications [2011.01] |
| H04N 21/854 | 3-Punkt Untergruppe | . . . Content authoring [2011.01] |
| H04N 21/8541 | 4-Punkt Untergruppe | . . . . involving branching, e.g. to different story endings [2011.01] |
| H04N 21/8543 | 4-Punkt Untergruppe | . . . . using a description language, e.g. MHEG [Multimedia and Hypermedia information coding Expert Group] or XML [eXtensible Markup Language] [2011.01] |
| H04N 21/8545 | 4-Punkt Untergruppe | . . . . for generating interactive applications [2011.01] |
| H04N 21/8547 | 4-Punkt Untergruppe | . . . . involving timestamps for synchronizing content [2011.01] |
| H04N 21/8549 | 4-Punkt Untergruppe | . . . . Creating video summaries, e.g. movie trailer [2011.01] |
| H04N 21/858 | 3-Punkt Untergruppe | . . . Linking data to content, e.g. by linking an URL to a video object or by creating a hotspot [2011.01] |
| | | **Indexing scheme associated with groups H04N 1/00-H04N 17/00, relating to still video cameras. [6]** |
| **H04N 101/00** | **Hauptgruppe** | **Still video cameras [6, 2006.01]** |