

CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS (NOTES omitted)

INSTRUMENTS

G06 COMPUTING OR CALCULATING; COUNTING (NOTES omitted)

G06G ANALOGUE COMPUTERS (analogue optical computing devices [G06E 3/00](#))

WARNING

The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

[G06G 7/625](#)

covered by

[G06G 7/627](#)

1/00 Hand-manipulated computing devices

- 1/0005 . {characterised by a specific application}
- 1/001 . . {for medical purposes, for biological purposes}
- 1/0015 . . {for computing periodic phenomena, e.g. fertility periods}
- 1/0021 . . {for civil engineering}
- 1/0026 . . {for machining}
- 1/0031 . . {for hydraulics}
- 1/0036 . . {for electricity, for electronics}
- 1/0042 . . {for optics, for photography}
- 1/0047 . . {for printing}
- 1/0052 . . {for air navigation or sea navigation}
- 1/0057 . . {for gun laying, for bomb aiming}
- 1/0063 . . {for calculating fuel consumption}
- 1/0068 . . {for conversion from one unit system to another, e.g. from British to metric}
- 1/0073 . . {for commerce, bank or invoicing}
- 1/0078 . . . {for calculating interests}
- 1/0084 . . . {for calculating earned incomes}
- 1/0089 . . . {for calculating taxes}
- 1/0094 . . {for trigonometric computations}
- 1/02 . Devices in which computing is effected by adding, subtracting, or comparing lengths of parallel or concentric graduated scales ([G06G 1/0005 takes precedence](#))
- 1/025 . . {decimal point positioning devices}
- 1/04 . . characterised by construction ([G06G 1/10 takes precedence](#))
- 1/045 . . . {with scales borne by bands}
- 1/06 . . . with rectilinear scales, e.g. slide rule
- 1/065 {construction of the cursor}
- 1/08 . . . with circular or helical scales
- 1/085 {borne by a cylinder}
- 1/10 . . characterised by the graduation
- 1/105 . . . {linear graduations}
- 1/12 . . . logarithmic graduations, e.g. for multiplication
- 1/14 . in which a straight or curved line has to be drawn from given points on one or more input scales to one or more points on a result scale
- 1/16 . in which a straight or curved line has to be drawn through related points on one or more families of curves

3/00 Devices in which the computing operation is performed mechanically ([G06G 1/00 takes precedence](#))

- 3/02 . for performing additions or subtractions, e.g. differential gearing
- 3/04 . for performing multiplications or divisions, e.g. variable-ratio gearing
- 3/06 . for evaluating functions by using cams and cam followers
- 3/08 . for integrating or differentiating, e.g. by wheel and disc
- 3/10 . for simulating specific processes, systems, or devices

5/00 Devices in which the computing operation is performed by means of fluid-pressure elements

7/00 Devices in which the computing operation is performed by varying electric or magnetic quantities

- 7/02 . Details not covered by [G06G 7/04](#) - [G06G 7/10](#), {e.g. monitoring, construction, maintenance}
- 7/04 . Input or output devices
- 7/06 . Programming arrangements, e.g. plugboard for interconnecting functional units of the computer; Digital programming ([hybrid computers G06J](#))
- 7/10 . Power supply arrangements
- 7/12 . Arrangements for performing computing operations, e.g. {operational} amplifiers specially adapted therefor
- 7/122 . . for optimisation, e.g. least square fitting, linear programming, critical path analysis, gradient method
- 7/14 . . for addition or subtraction (of vector quantities [G06G 7/22](#) ; computing the average by addition; differential amplifiers [H03F 3/45](#))
- 7/16 . . for multiplication or division ([G06G 7/19](#) and [G06G 7/24 take precedence](#); measuring electric power [G01R 21/00](#))
- 7/161 . . . with pulse modulation, e.g. modulation of amplitude, width, frequency, phase or form ([pulse modulators H03K 7/00](#))
- 7/162 . . . using galvano- magnetic effects, e.g. Hall effect; using similar magnetic effects

- 7/163 . . . using a variable impedance controlled by one of the input signals, variable amplification or transfer function ([G06G 7/161](#), [G06G 7/162](#) take precedence)
- 7/164 . . . using means for evaluating powers, e.g. quarter square multiplier (for evaluating powers [G06G 7/20](#))
- 7/18 . . for integration or differentiation; for forming integrals ([G06G 7/19](#) takes precedence)
- 7/1806 . . . {with respect to a variable other than time}
- 7/1813 . . . {using electrochemical elements, e.g. solion}
- 7/182 . . . using magnetic elements
- 7/184 . . . using capacitive elements
- 7/186 using an operational amplifier comprising a capacitor or a resistor in the feedback loop
- 7/1865 {with initial condition setting}
- 7/188 . . . using electromechanical elements
- 7/19 . . for forming integrals of products, e.g. Fourier integrals, Laplace integrals or correlation integrals; for analysis or synthesis of functions using orthogonal functions
- 7/1907 . . . {using charge transfer devices}
- 7/1914 . . . {using a magnetic medium, a linear filter}
- 7/1921 . . . {for forming Fourier integrals, harmonic analysis and synthesis (spectrum analysis [G01R 23/00](#))}
- 7/1928 . . . {for forming correlation integrals; for forming convolution integrals ([G06G 7/195](#), [G06G 7/1907](#) and [G06G 7/1914](#) take precedence)}
- 7/1935 {by converting at least one the input signals into a two level signal, e.g. polarity correlators}
- 7/1942 . . . {for forming other integrals of product, e.g. orthogonal functions, Laplace, Laguerre, Walsh, Hadamard, Hilbert ([G06G 7/195](#), [G06G 7/1907](#) and [G06G 7/1914](#) take precedence)}
- 7/195 . . . using electro- acoustic elements
- 7/20 . . for evaluating powers, roots, polynomes, mean square values or standard deviation ([G06G 7/122](#), [G06G 7/28](#) take precedence)
- 7/22 . . for evaluating trigonometric functions; for conversion of co-ordinates; for computations involving vector quantities (trigonometric computations using simultaneous equations [G06G 7/34](#) {for computations in the complex plane; [G06G 7/20](#), [G06G 7/28](#) take precedence})
- 7/24 . . for evaluating logarithmic or exponential functions, e.g. hyperbolic functions {(for multiplication, division or for evaluating powers or roots using logarithmic functions; gamma correction in television systems [H04N 5/20](#), [H04N 9/69](#))}
- 7/25 . . for discontinuous functions, e.g. backlash, dead zone, limiting absolute value or peak value {(measuring the maximum value of currents or voltages [G01R 19/30](#))}
- 7/26 . . Arbitrary function generators (using orthogonal functions, e.g. Fourier series, [G06G 7/19](#))
- 7/28 . . . for synthesising functions by piecewise approximation
- 7/30 . . for interpolation or extrapolation ([G06G 7/122](#) takes precedence)
- 7/32 . . for solving of equations {or inequations; for matrices}
- 7/34 . . . of simultaneous equations ([G06G 7/122](#) takes precedence)
- 7/36 . . . of single equations of quadratic or higher degree ([G06G 7/22](#), [G06G 7/24](#) take precedence)
- 7/38 . . . of differential or integral equations
- 7/40 of partial differential equations {of field or wave equations} (analogue computers for specific processes, systems or devices, e.g. simulators, [G06G 7/48](#))
- 7/42 using electrolytic tank
- 7/44 using continuous medium, current-sensitive paper
- 7/46 using discontinuous medium, e.g. resistance network
- 7/48 . Analogue computers for specific processes, systems or devices, e.g. simulators
- 7/485 . . {for determining the trajectory of particles, e.g. of electrons (measurement performed on radiation beams [G01T 1/29](#); processing or analysing tracks of particles [G01T 5/02](#))}
- 7/50 . . for distribution networks, e.g. for fluids ([G06G 7/62](#) takes precedence)
- 7/52 . . for economic systems; for statistics ([G06G 7/122](#), [G06G 7/19](#) take precedence)
- 7/54 . . for nuclear physics, e.g. nuclear reactors, radioactive fall {(processing of scintigraphic or other radio-isotope data [G01T 1/1647](#), [G01T 1/2992](#))}
- 7/56 . . for heat flow ([G06G 7/58](#) takes precedence)
- 7/57 . . for fluid flow ([G06G 7/50](#) takes precedence){; for distribution networks}
- 7/58 . . for chemical processes ([G06G 7/75](#) takes precedence); {for physico-chemical processes; for metallurgical processes}
- 7/60 . . for living beings, e.g. their nervous systems {; for problems in the medical field}
- 7/62 . . for electric systems or apparatus

NOTE

This group covers only computers specially adapted for electronic systems or devices

WARNING

Group [G06G 7/62](#) is impacted by reclassification into group [G06G 7/627](#). Groups [G06G 7/62](#) and [G06G 7/627](#) should be considered in order to perform a complete search.

- 7/623 . . . {for filters; for delay lines}
- 7/627 . . . {for impedance networks, e.g. determining response, poles or zeros or Nyquist diagram}

WARNING

Group [G06G 7/627](#) is incomplete pending reclassification of documents from group [G06G 7/62](#).

Groups [G06G 7/62](#) and [G06G 7/627](#) should be considered in order to perform a complete search.

G06G

- 7/63 . . . for power apparatus, e.g. motors, or supply distribution networks {(for control systems of electric power apparatus [G06G 7/66](#))}
- 7/635 for determining the most economical distribution in power systems
- 7/64 . . for non-electric machines, e.g. turbine
- 7/66 . . for control systems {(for optimisation [G06G 7/122](#))}
- 7/68 . . for civil engineering structures, e.g. beam, strut, girder, {elasticity computation}
- 7/70 . . for vehicles, e.g. to determine permissible loading of ships {, centre of gravity, necessary fuel}
- 7/72 . . . Flight simulators
- 7/75 . . for component analysis, e.g. of mixtures, of colours ([G06G 7/122](#) takes precedence {; gas chromatography [G01N 30/00](#))}
- 7/76 . . for traffic
- 7/78 . . for direction-finding, locating, distance or velocity measuring, or navigation systems
- 7/80 . . for gunlaying; for bomb aiming; for guiding missiles
- 99/00 Subject matter not provided for in other groups of this subclass**