CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS
(NOTES omitted)

INSTRUMENTS

G06 COMPUTING; CALCULATING; COUNTING (score computers for games A63B 71/06, A63D 15/20, A63F 1/18; combinations of writing implements with computing devices B43K 29/08) (NOTES omitted)

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

WARNING
In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00 Hand manipulated computing devices (planimeters G01B 5/26)
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 machinery]
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 (such elements in general F15C)
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 (graph readers G06K 11/00; function plotters, co-ordinate plotters G06K 15/22, [G09G 3/001])]
7/06 . . [Programmation 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 (amplifiers in general H03F; [adapted for telemeasuring or for indicating or recording the results of the measurement G01D 1/10, G01D 1/16; for fuzzy computing G06N 7/02])]
7/122 . . . [for optimisation, e.g. least square fitting, linear programming, critical path analysis, gradient method]
for addition or subtraction (of vector quantities G06G 7/22 (computing the average by addition; differential amplifiers H03F 3/45))

for multiplication or division (G06G 7/19 and G06G 7/24 take precedence; measuring electric power G01R 21/00)

with pulse modulation, e.g. modulation of amplitude, width, frequency, phase or form (pulse modulators H03K 7/00)

using galvano-magnetic effects, e.g. Hall effect; using similar magnetic effects

using a variable impedance controlled by one of the input signals, variable amplification or transfer function ([G06G 7/161, G06G 7/162 take precedence])

using means for evaluating powers, e.g. quarter square multiplier (evaluating powers G06G 7/20)

for integration or differentiation; for forming integrals (G06G 7/19 takes precedence)

[with respect to a variable other than time]

using electrochemical elements, e.g. solion

using magnetic elements

using capacitive elements

using an operational amplifier comprising a capacitor or a resistor in the feedback loop

{ with initial condition setting}

using electromechanical elements

for forming integrals of products, e.g. Fourier integrals, Laplace integrals, correlation integrals; for analysis or synthesis of functions using orthogonal functions (Fourier or spectrum analysis G01R 23/16; sound analysis or synthesis G10L)

[using charge transfer devices]

[using a magnetic medium, a linear filter]

[for forming Fourier integrals, harmonic analysis and synthesis (spectrum analysis G01R 23/00)]

[for forming correlation integrals; for forming convolution integrals (G06G 7/195, G06G 7/197 and G06G 7/194 take precedence)]

(by converting at least one the input signals into a two level signal, e.g. polarity correlators)

{ for forming other integrals of product, e.g. orthogonal functions, Laplace, Laguerre, Walsh, Hadamard, Hilbert (G06G 7/195, G06G 7/197 and G06G 7/194 take precedence)}

{ using electro-acoustic elements

for evaluating powers, roots, polynomials, mean square values, standard deviation (G06G 7/122, G06G 7/28 take precedence; gamma correction in television systems H04N 5/20, H04N 9/69)

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))

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)}

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)

Arbitrary function generators {(using Fourier series or other orthogonal functions G06G 7/19; using curve followers G06K 11/02)}

for synthesising functions by piecewise approximation

for interpolation or extrapolation (G06G 7/122 takes precedence)

for solving of equations [or inequations; for matrices]

of simultaneous equations (G06G 7/122 takes precedence)

of single equations of quadratic or higher degree (G06G 7/22, G06G 7/24 take precedence)

of differential or integral equations

of partial differential equations [of field or wave equations] (simulating specific devices G06G 7/48)

{ using electrolytic tank

{ using continuous medium, current-sensitive paper

{ using discontinuous medium, e.g. resistance network

Analogue computers for specific processes, systems or devices, e.g. simulators

{ 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)]

for distribution networks, e.g. for fluids (G06G 7/62 takes precedence)

for economic systems; for statistics (G06G 7/122, G06G 7/19 take precedence)

for nuclear physics, e.g. nuclear reactors, radioactive fall (processing of scintigraphic or other radio-isotope data G01T 1/1647, G01T 1/2992)

for heat flow (G06G 7/58 takes precedence)

{ for fluid flow (G06G 7/50 takes precedence; for distribution networks)

for chemical processes (G06G 7/75 takes precedence); [for physico-chemical processes; for metallurgical processes]

for living beings, e.g. their nervous systems [for problems in the medical field]

for electric systems or apparatus ([G06G 7/78 takes precedence])

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

for filters; for delay lines {measuring characteristics of electric networks, e.g. plotting Nyquist diagram G01R 27/28)
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 simulator (Link trainers G09B 9/00)

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