

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)	1/16	<ul style="list-style-type: none"> in which a straight or curved line has to be drawn through related points on one or more families of curves
1/0005	<ul style="list-style-type: none"> {characterised by a specific application} 	3/00	Devices in which the computing operation is performed mechanically (G06G 1/00 takes precedence)
1/001	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for medical purposes, for biological purposes} 	3/02	<ul style="list-style-type: none"> for performing additions or subtractions, e.g. differential gearing
1/0015	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for computing periodic phenomena, e.g. fertility periods} 	3/04	<ul style="list-style-type: none"> for performing multiplications or divisions, e.g. variable-ratio gearing
1/0021	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for civil engineering} 	3/06	<ul style="list-style-type: none"> for evaluating functions by using cams and cam followers
1/0026	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for machining} 	3/08	<ul style="list-style-type: none"> for integrating or differentiating, e.g. by wheel and disc
1/0031	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for hydraulics} 	3/10	<ul style="list-style-type: none"> for simulating specific processes, systems, or devices
1/0036	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for electricity, for electronics} 	5/00	Devices in which the computing operation is performed by means of fluid-pressure elements (such elements in general F15C)
1/0042	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for optics, for photography} 	7/00	Devices in which the computing operation is performed by varying electric or magnetic quantities
1/0047	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for printing} 	7/02	<ul style="list-style-type: none"> Details not covered by G06G 7/04 - G06G 7/10, {e.g. monitoring, construction, maintenance}
1/0052	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for air navigation or sea navigation} 	7/04	<ul style="list-style-type: none"> Input or output devices (graph readers G06K 11/00; function plotters, co-ordinate plotters G06K 15/22, {G09G 3/001})
1/0057	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for gun laying, for bomb aiming} 	7/06	<ul style="list-style-type: none"> Programming arrangements, e.g. plugboard for interconnecting functional units of the computer; Digital programming {(hybrid computers G06J)}
1/0063	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for calculating fuel consumption} 	7/10	<ul style="list-style-type: none"> Power supply arrangements
1/0068	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for conversion from one unit system to another, e.g. from British to metric} 	7/12	<ul style="list-style-type: none"> 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})
1/0073	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for commerce, bank or invoicing} 	7/122	<ul style="list-style-type: none"> for optimisation, e.g. least square fitting, linear programming, critical path analysis, gradient method
1/0078	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {for calculating interests} 		
1/0084	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {for calculating earned incomes} 		
1/0089	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {for calculating taxes} 		
1/0094	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {for trigonometric computations} 		
1/02	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <ul style="list-style-type: none"> {decimal point positioning devices} 		
1/04	<ul style="list-style-type: none"> <ul style="list-style-type: none"> characterised by construction (G06G 1/10 takes precedence) 		
1/045	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {with scales borne by bands} 		
1/06	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> with rectilinear scales, e.g. slide rule 		
1/065	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {construction of the cursor} 		
1/08	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> with circular or helical scales 		
1/085	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {borne by a cylinder} 		
1/10	<ul style="list-style-type: none"> <ul style="list-style-type: none"> characterised by the graduation 		
1/105	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> {linear graduations} 		
1/12	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> logarithmic graduations, e.g. for multiplication 		
1/14	<ul style="list-style-type: none"> <ul style="list-style-type: none"> 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 		

- 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 (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, correlation integrals; for analysis or synthesis of functions using orthogonal functions (Fourier or spectrum analysis [G01R 23/16](#); sound analysis or synthesis [G10L](#))
 - 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, standard deviation ([G06G 7/122](#), [G06G 7/28](#) take precedence; gamma correction in television systems [H04N 5/20](#), [H04N 9/69](#))
 - 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 Fourier series or other orthogonal functions [G06G 7/19](#); using curve followers [G06K 11/02](#))}
 - 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} (simulating specific devices [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 {(G06G 7/78 takes precedence)}
- NOTE**
- This group covers only computers specially adapted for electronic systems or devices
- 7/625 . . . for filters; for delay lines {(measuring characteristics of electric networks, e.g. plotting Nyquist diagram [G01R 27/28](#))}

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 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**