

**CPC****COOPERATIVE PATENT CLASSIFICATION****G06G****ANALOGUE COMPUTERS** ( [analogue optical computing devices G06E 3/00](#) )**G06G 1/00****Hand manipulated computing devices** ( [planimeters G01B 5/26](#) )

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

- G06G 3/00**      **Devices in which the computing operation is performed mechanically ( [G06G 1/00](#) takes precedence )**
- [G06G 3/02](#)      .    for performing additions or subtractions, e.g. differential gearing
- [G06G 3/04](#)      .    for performing multiplication or divisions, e.g. variable-ratio gearing
- [G06G 3/06](#)      .    for evaluating functions by using cams and cam followers
- [G06G 3/08](#)      .    for integrating or differentiating, e.g. by wheel and disc
- [G06G 3/10](#)      .    for simulating specific processes, systems, or devices
- G06G 5/00**      **Devices in which the computing operation is performed by means of fluid-pressure elements ( such elements in general [F15C](#) )**
- G06G 7/00**      **Devices in which the computing operation is performed by varying electric or magnetic quantities**
- [G06G 7/02](#)      .    Details not covered by [G06G 7/04](#) to [G06G 7/10](#), { e.g. monitoring, construction, maintenance }
- [G06G 7/04](#)      .    input or output devices ( graph readers [G06K 11/00](#); function plotters, co-ordinate plotters [G06K 15/22](#), { [G09G 3/001](#) } )
- [G06G 7/06](#)      .    Programming arrangements, e.g. plugboard for interconnecting functional units of the computer; Digital programming { hybrid computers [G06J](#) }
- [G06G 7/10](#)      .    Power supply arrangements
- [G06G 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](#) } )
- [G06G 7/122](#)      . .    for optimisation, e.g. least square fitting, linear programming, critical path analysis, gradient method
- [G06G 7/14](#)      . .    for addition or subtraction ( of vector quantities [G06G 7/22](#) ) { computing the average by addition; differential amplifiers [H03F 3/45](#) }
- [G06G 7/16](#)      . .    for multiplication or division { [G06G 7/19](#) and [G06G 7/24](#) take precedence measuring electric power [G01R 21/00](#) }
- [G06G 7/161](#)      . . .    with pulse modulation, e.g. modulation of amplitude, width, frequency, phase or form { pulse modulators [H03K 7/00](#) }
- [G06G 7/162](#)      . . .    using galvano- magnetic effects, e.g. Hall effect; using similar magnetic effects
- [G06G 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 }
- [G06G 7/164](#)      . . .    using means for evaluating powers, e.g. quarter square multiplier ( evaluating powers [G06G 7/20](#) )
- [G06G 7/18](#)      . .    for integration or differentiation; for forming integrals ( [G06G 7/19](#) takes precedence )

G06G 7/1806	...	{ with respect to a variable other than time }
G06G 7/1813	...	{ using electrochemical elements, e.g. solion }
G06G 7/182	...	using magnetic elements
G06G 7/184	...	using capacitive elements
G06G 7/186	....	using an operational amplifier comprising a capacitor or a resistor in the feedback loop
G06G 7/1865	.....	{ with initial condition setting }
G06G 7/188	...	using electromechanical elements
G06G 7/19	..	for forming integrals of products, e.g. Fourier integrals, Laplace integrals, correlation integrals; for analysis or synthesis of functions using orthogonal functions ( <a href="#">Fourier or spectrum analysis G01R 23/16</a> ; <a href="#">sound analysis or synthesis G10L</a> )
G06G 7/1907	...	{ using charge transfer devices }
G06G 7/1914	...	{ using a magnetic medium, a linear filter }
G06G 7/1921	...	{ for forming Fourier integrals, harmonic analysis and synthesis ( <a href="#">spectrum analysis G01R 23/00</a> ; <a href="#">G01R 7/195</a> and <a href="#">G01R 7/19C</a> take precedence ) }
G06G 7/1928	...	{ for forming correlation integrals; for forming convolution integrals ( <a href="#">G06G 7/195</a> , <a href="#">G06G 7/1907</a> and <a href="#">G06G 7/1914</a> take precedence ) }
G06G 7/1935	....	{ by converting at least one the input signals into a two level signal, e.g. polarity correlators }
G06G 7/1942	...	{ for forming other integrals of product, e.g. orthogonal functions, Laplace, Laguerre, Walsh, Hadamard, Hilbert ( <a href="#">G06G 7/195</a> , <a href="#">G06G 7/1907</a> and <a href="#">G06G 7/1914</a> take precedence ) }
G06G 7/195	...	using electro- acoustic elements
G06G 7/20	..	for evaluating powers, roots, polynomes, mean square values, standard deviation ( <a href="#">G06G 7/122</a> , <a href="#">G06G 7/28</a> take precedence; <a href="#">gamma correction in television systems H04N 5/20</a> , <a href="#">H04N 9/69</a> )
G06G 7/22	..	for evaluating trigonometric functions; for conversion of co-ordinates; for computations involving vector quantities ( <a href="#">trigonometric computations using simultaneous equations G06G 7/34</a> { for computations in the complex plane; <a href="#">G06G 7/20</a> , <a href="#">G06G 7/28</a> take precedence; <a href="#">resolvers 74C5A1</a> } )
G06G 7/24	..	for evaluating logarithmic or exponential functions, e.g. hyperbolic functions { for multiplication, division or for evaluating powers or roots using logarithmic functions; <a href="#">gamma correction in television systems H04N 5/20</a> , <a href="#">H04N 9/69</a> }
G06G 7/25	..	for discontinuous functions, e.g. backlash, dead zone, limiting absolute value or peak value { <a href="#">measuring the maximum value of currents or voltages G01R 19/30</a> }
G06G 7/26	..	Arbitrary function generators { using Fourier series or other orthogonal functions <a href="#">G06G 7/19</a> ; using curve followers <a href="#">G06K 11/02</a> }
G06G 7/28	...	for synthesising functions by piece-wise approximation
G06G 7/30	..	for interpolation or extrapolation ( <a href="#">G06G 7/122</a> takes precedence )
G06G 7/32	..	for solving of equations { or inequations; for matrices }
G06G 7/34	...	of simultaneous equations ( <a href="#">G06G 7/122</a> takes precedence )
G06G 7/36	...	of single equations of quadratic or higher degree ( <a href="#">G06G 7/22</a> , <a href="#">G06G 7/24</a> take precedence )
G06G 7/38	...	of differential or integral equations
G06G 7/40	....	of partial differential equations { of field or wave equations } ( <a href="#">simulating specific devices G06G 7/48</a> )
G06G 7/42	.....	using electrolytic tank

- G06G 7/44 . . . . . using continuous medium, current-sensitive paper
- G06G 7/46 . . . . . using discontinuous medium, e.g. resistance network
- G06G 7/48 . Analogue computers for specific processes, systems or devices, e.g. simulators
- G06G 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](#) ) }
- G06G 7/50 . . for distribution networks, e.g. for fluids ( [G06G 7/62](#) takes precedence )
- G06G 7/52 . . for economic systems; for statistics ( [G06G 7/122](#), [G06G 7/19](#) take precedence )
- G06G 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](#) ) }
- G06G 7/56 . . for heat flow ( [G06G 7/58](#) takes precedence )
- G06G 7/57 . . for fluid flow ( [G06G 7/50](#) takes precedence ) ; { for distribution networks }
- G06G 7/58 . . for chemical processes ( [G06G 7/75](#) takes precedence ) ; { for physico-chemical processes; for metallurgical processes }
- G06G 7/60 . . for living beings, e.g. their nervous systems; { for problems in the medical field }
- G06G 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

- G06G 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](#) ) ) }
- G06G 7/635 . . . . . for determining the most economical distribution in power systems
- G06G 7/64 . . for non-electric machines, e.g. turbine
- G06G 7/66 . . for control systems ( ( for optimisation [G06G 7/122](#) ) ) }
- G06G 7/68 . . for civil engineering structures, e.g. beam, strut, girder, { elasticity computation }
- G06G 7/70 . . for vehicles, e.g. to determine permissible loading of ships, { centre of gravity, necessary fuel }
- G06G 7/72 . . . Flight simulator ( link trainers [G09B 9/00](#) )
- G06G 7/75 . . for component analysis, e.g. of mixtures, of colours ( [G06G 7/122](#) takes precedence; { gas chromatography [G01N 30/00](#) } ) }
- G06G 7/76 . . for traffic
- G06G 7/78 . . for direction-finding, locating, distance or velocity measuring, or navigation systems
- G06G 7/80 . . for gunlaying; for bomb aiming; for guiding missiles

**G06G 99/00 Subject matter not provided for in other groups of this subclass**