

**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

<b>G06G 3/00</b>	<b>Devices in which the computing operation is performed mechanically</b> ( <a href="#">G06G 1/00</a> takes precedence)
<a href="#">G06G 3/02</a>	. for performing additions or subtractions, e.g. differential gearing
<a href="#">G06G 3/04</a>	. for performing multiplication or divisions, e.g. variable-ratio gearing
<a href="#">G06G 3/06</a>	. for evaluating functions by using cams and cam followers
<a href="#">G06G 3/08</a>	. for integrating or differentiating, e.g. by wheel and disc
<a href="#">G06G 3/10</a>	. for simulating specific processes, systems, or devices
<b>G06G 5/00</b>	<b>Devices in which the computing operation is performed by means of fluid-pressure elements</b> (such elements in general <a href="#">F15C</a> )
<b>G06G 7/00</b>	<b>Devices in which the computing operation is performed by varying electric or magnetic quantities</b>
<a href="#">G06G 7/02</a>	. Details not covered by <a href="#">G06G 7/04</a> to <a href="#">G06G 7/10</a> , {e.g. monitoring, construction, maintenance}
<a href="#">G06G 7/04</a>	. input or output devices (graph readers <a href="#">G06K 11/00</a> ; function plotters, co-ordinate plotters <a href="#">G06K 15/22</a> , { <a href="#">G09G 3/001</a> })
<a href="#">G06G 7/06</a>	. Programming arrangements, e.g. plugboard for interconnecting functional units of the computer; Digital programming {(hybrid computers <a href="#">G06J</a> )}
<a href="#">G06G 7/10</a>	. Power supply arrangements
<a href="#">G06G 7/12</a>	. Arrangements for performing computing operations, e.g. operational amplifiers (amplifiers in general <a href="#">H03F</a> ; {adapted for telemeasuring or for indicating or recording the results of the measurement <a href="#">G01D 1/10</a> , <a href="#">G01D 1/16</a> ; for fuzzy computing <a href="#">G06N 7/02</a> })
<a href="#">G06G 7/122</a>	. . for optimisation, e.g. least square fitting, linear programming, critical path analysis, gradient method
<a href="#">G06G 7/14</a>	. . for addition or subtraction (of vector quantities <a href="#">G06G 7/22</a> {computing the average by addition; differential amplifiers <a href="#">H03F 3/45</a> })
<a href="#">G06G 7/16</a>	. . for multiplication or division {( <a href="#">G06G 7/19</a> and <a href="#">G06G 7/24</a> take precedence ; measuring electric power <a href="#">G01R 21/00</a> )}
<a href="#">G06G 7/161</a>	. . . with pulse modulation, e.g. modulation of amplitude, width, frequency, phase or form {(pulse modulators <a href="#">H03K 7/00</a> )}
<a href="#">G06G 7/162</a>	. . . using galvano- magnetic effects, e.g. Hall effect; using similar magnetic effects
<a href="#">G06G 7/163</a>	. . . using a variable impedance controlled by one of the input signals, variable amplification or transfer function {( <a href="#">G06G 7/161</a> , <a href="#">G06G 7/162</a> take precedence)}
<a href="#">G06G 7/164</a>	. . . using means for evaluating powers, e.g. quarter square multiplier (evaluating powers <a href="#">G06G 7/20</a> )
<a href="#">G06G 7/18</a>	. . for integration or differentiation; for forming integrals ( <a href="#">G06G 7/19</a> takes precedence)
<a href="#">G06G 7/1806</a>	. . . {with respect to a variable other than time}
<a href="#">G06G 7/1813</a>	. . . {using electrochemical elements, e.g. solion}
<a href="#">G06G 7/182</a>	. . . using magnetic elements
<a href="#">G06G 7/184</a>	. . . using capacitative elements
<a href="#">G06G 7/186</a>	. . . . 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 ([Fourier or spectrum analysis G01R 23/16](#); [sound analysis or synthesis G10L](#))
- 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 ([spectrum analysis G01R 23/00](#))}
- G06G 7/1928 . . . {for forming correlation integrals; for forming convolution integrals ([G06G 7/195](#), [G06G 7/1907](#) and [G06G 7/1914](#) 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 ([G06G 7/195](#), [G06G 7/1907](#) and [G06G 7/1914](#) take precedence)}
- G06G 7/195 . . . using electro- acoustic elements
- G06G 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](#))
- G06G 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; [resolvers 74C5A1](#))
- 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; [gamma correction in television systems H04N 5/20](#), [H04N 9/69](#))}
- G06G 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](#))}
- G06G 7/26 . . Arbitrary function generators {(using Fourier series or other orthogonal functions [G06G 7/19](#); using curve followers [G06K 11/02](#))}
- G06G 7/28 . . . for synthesising functions by piece-wise approximation
- G06G 7/30 . . for interpolation or extrapolation ([G06G 7/122](#) takes precedence)
- G06G 7/32 . . for solving of equations {or inequations; for matrices}
- G06G 7/34 . . . of simultaneous equations ([G06G 7/122](#) takes precedence)
- G06G 7/36 . . . of single equations of quadratic or higher degree ([G06G 7/22](#), [G06G 7/24](#) take precedence)
- G06G 7/38 . . . of differential or integral equations
- G06G 7/40 . . . . . of partial differential equations {of field or wave equations }([simulating specific devices G06G 7/48](#))
- 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**