

**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>	<ul style="list-style-type: none"> <li>for performing additions or subtractions, e.g. differential gearing</li> </ul>
<a href="#">G06G 3/04</a>	<ul style="list-style-type: none"> <li>for performing multiplication or divisions, e.g. variable-ratio gearing</li> </ul>
<a href="#">G06G 3/06</a>	<ul style="list-style-type: none"> <li>for evaluating functions by using cams and cam followers</li> </ul>
<a href="#">G06G 3/08</a>	<ul style="list-style-type: none"> <li>for integrating or differentiating, e.g. by wheel and disc</li> </ul>
<a href="#">G06G 3/10</a>	<ul style="list-style-type: none"> <li>for simulating specific processes, systems, or devices</li> </ul>
<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>	<ul style="list-style-type: none"> <li>Details not covered by <a href="#">G06G 7/04</a> to <a href="#">G06G 7/10</a>, {e.g. monitoring, construction, maintenance}</li> </ul>
<a href="#">G06G 7/04</a>	<ul style="list-style-type: none"> <li>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>})</li> </ul>
<a href="#">G06G 7/06</a>	<ul style="list-style-type: none"> <li>Programming arrangements, e.g. plugboard for interconnecting functional units of the computer; Digital programming {(hybrid computers <a href="#">G06J</a>)}</li> </ul>
<a href="#">G06G 7/10</a>	<ul style="list-style-type: none"> <li>Power supply arrangements</li> </ul>
<a href="#">G06G 7/12</a>	<ul style="list-style-type: none"> <li>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>})</li> </ul>
<a href="#">G06G 7/122</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>for optimisation, e.g. least square fitting, linear programming, critical path analysis, gradient method</li> </ul> </li> </ul>
<a href="#">G06G 7/14</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>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>})</li> </ul> </li> </ul>
<a href="#">G06G 7/16</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>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>)}</li> </ul> </li> </ul>
<a href="#">G06G 7/161</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>with pulse modulation, e.g. modulation of amplitude, width, frequency, phase or form {(pulse modulators <a href="#">H03K 7/00</a>)}</li> </ul> </li> </ul> </li> </ul>
<a href="#">G06G 7/162</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>using galvano- magnetic effects, e.g. Hall effect; using similar magnetic effects</li> </ul> </li> </ul> </li> </ul>
<a href="#">G06G 7/163</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>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)}</li> </ul> </li> </ul> </li> </ul>
<a href="#">G06G 7/164</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>using means for evaluating powers, e.g. quarter square multiplier (evaluating powers <a href="#">G06G 7/20</a>)</li> </ul> </li> </ul> </li> </ul>
<a href="#">G06G 7/18</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>for integration or differentiation; for forming integrals (<a href="#">G06G 7/19</a> takes precedence)</li> </ul> </li> </ul>
<a href="#">G06G 7/1806</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{with respect to a variable other than time}</li> </ul> </li> </ul> </li> </ul>
<a href="#">G06G 7/1813</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{using electrochemical elements, e.g. solion}</li> </ul> </li> </ul> </li> </ul>
<a href="#">G06G 7/182</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>using magnetic elements</li> </ul> </li> </ul> </li> </ul>
<a href="#">G06G 7/184</a>	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>using capacitative elements</li> </ul> </li> </ul> </li> </ul>

- 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 ([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})
- 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**