International System of Units (SI)

SI is the modern metric system of measurement. The SI base units are defined in the following table.

base quantity	name	symbol
length	metre	m
mass	kilogram	Kg
time	second	S
electric current	ampere	A
thermodynamic temperature	kelvin	K
amount of substance	mole	Mol
luminous intensity	candela	cd

Other derived quantities can are also defined in the following table.

Derived quantity	Name	Symbol	in terms of other SI units	in terms of SI base units
energy, work, quantity of heat	joule	J	N·m	$m^2 \cdot kg \cdot s^{-2}$
power, radiant flux	watt	W	J/s	$m^2 \cdot kg \cdot s^{-3}$
electric resistance	ohm	Ω	V/A	$m^2 \cdot kg \cdot s^{-3} \cdot A^{-2}$
electric charge, quantity of electricity	coulomb	C	-	s·A
electric potential difference,electromotive force	volt	V	W/A	$m^2 \cdot kg \cdot s^{-3} \cdot A^{-1}$
capacitance	farad	F	C/V	$m^{-2} \cdot kg^{-1} \cdot s^4 \cdot A^2$
electric conductance	siemens	S	A/V	$m^{-2} \cdot kg^{-1} \cdot s^3 \cdot A^2$
magnetic flux	weber	Wb	V·s	$m^2 \cdot kg \cdot s^{-2} \cdot A^{-1}$
magnetic flux density	tesla	T	Wb/m^2	$kg \cdot s^{-2} \cdot A^{-1}$
inductance	henry	H	Wb/A	$m^2 \cdot kg \cdot s^{-2} \cdot A^{-2}$
luminous flux	lumen	lm	cd·sr [c]	$m^2 \cdot m^{-2} \cdot cd$ = cd
illuminance	lux	lx	lm/m^2	$m^2 \cdot m^{-4} \cdot cd$ = $m^{-2} \cdot cd$
activity (of a radionuclide)	becquerel	Bq	-	s^{-1}
plane angle	radian	rad	-	none
solid angle	steradian	sr	-	none
frequency	hertz	Hz	-	s^{-1}

Units may be given the prefixes in the table below.

Prefix	Multiplier value	Multiplier value: Computer techology
p (pico)	10^{-12}	-
n (nano)	10^{-9}	-
μ (micro)	10^{-6}	-
m (milli)	10^{-3}	-
k (kilo)	10^{3} (1000)	2^{10} (1024)
M (mega)	10^{6} (1,000,000)	2^{20} (1,048,576)
G (Giga)	10^{9} (1,000,000,000)	2^{30} (1,073,741,824)
T (Tera)	10^{12} (1,000,000,000,000)	2^{40} (1,099,511,627,776)

The multiplier value is given in a power[1] of 10. For example a kilogram is 10^3 grams or 1000g.

For computer[2] technology kilo means 1024. For example a kilobyte is 1000bytes.

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[1] **Powers and Roots**
[2] www.computing.me.uk