

UNIT MULTIPLIERS

Decimal Multipliers			
Abbreviation	Multiplier	Order of Magnitude	Word expression
Y	yotta	10^{24}	septillion
Z	zetta	10^{21}	sextillion
E	exa	10^{18}	quintillion
P	peta	10^{15}	quadrillion
T	tera	10^{12}	trillion
G	giga	10^9	billion
M	mega	10^6	million
k	kilo	10^3	thousand
h	hecto	10^2	hundred
da	deca	10	ten
d	deci	10^{-1}	tenth
c	centi	10^{-2}	hundredth
m	milli	10^{-3}	thousandth
μ	micro	10^{-6}	millionth
n	nano	10^{-9}	billionth
p	pico	10^{-12}	trillionth
f	femto	10^{-15}	quadrillionth
a	atto	10^{-18}	quintillionth
z	zepto	10^{-21}	sextillionth
y	yocto	10^{-24}	septillionth

Binary Multipliers		
Abbreviation	Multiplier	Order of Magnitude
M	mega	$2^{20} = 1.048.576$
K	kilo	$2^{10} = 1024$

TWO PORT PARAMETERS MATRIX CONVERSION

	Z	Y	H	G	T
Z	z_{11} z_{12}	$\frac{y_{22}}{\Delta_Y}$ $\frac{-y_{12}}{\Delta_Y}$	$\frac{\Delta_H}{h_{22}}$ $\frac{h_{12}}{h_{22}}$	$\frac{1}{g_{11}}$ $\frac{-g_{12}}{g_{11}}$	$\frac{A}{C}$ $\frac{\Delta_T}{C}$
	z_{21} z_{22}	$\frac{-y_{21}}{\Delta_Y}$ $\frac{y_{11}}{\Delta_Y}$	$\frac{-h_{21}}{h_{22}}$ $\frac{1}{h_{22}}$	$\frac{g_{21}}{g_{11}}$ $\frac{\Delta_G}{g_{11}}$	$\frac{1}{C}$ $\frac{D}{C}$
Y	$\frac{z_{22}}{\Delta_Z}$ $\frac{-z_{12}}{\Delta_Z}$	y_{11} y_{22}	$\frac{1}{h_{11}}$ $\frac{-h_{12}}{h_{11}}$	$\frac{\Delta_G}{g_{22}}$ $\frac{g_{12}}{g_{22}}$	$\frac{D}{B}$ $\frac{-\Delta_T}{B}$
	$\frac{-z_{21}}{\Delta_Z}$ $\frac{z_{11}}{\Delta_Z}$	y_{21} y_{22}	$\frac{h_{21}}{h_{11}}$ $\frac{\Delta_H}{h_{11}}$	$\frac{-g_{21}}{g_{22}}$ $\frac{1}{g_{22}}$	$\frac{-1}{B}$ $\frac{A}{B}$
H	$\frac{\Delta_Z}{z_{22}}$ $\frac{z_{12}}{z_{22}}$	$\frac{1}{y_{11}}$ $\frac{-y_{12}}{y_{11}}$	h_{11} h_{12}	$\frac{g_{22}}{\Delta_G}$ $\frac{-g_{12}}{\Delta_G}$	$\frac{B}{D}$ $\frac{\Delta_T}{D}$
	$\frac{-z_{21}}{z_{22}}$ $\frac{1}{z_{22}}$	$\frac{y_{21}}{y_{11}}$ $\frac{\Delta_Y}{y_{11}}$	h_{21} h_{22}	$\frac{-g_{21}}{\Delta_G}$ $\frac{g_{11}}{\Delta_G}$	$\frac{-1}{D}$ $\frac{C}{D}$
G	$\frac{1}{z_{11}}$ $\frac{-z_{12}}{z_{11}}$	$\frac{\Delta_Y}{y_{22}}$ $\frac{y_{12}}{y_{22}}$	$\frac{h_{22}}{\Delta_H}$ $\frac{-h_{12}}{\Delta_H}$	g_{11} g_{12}	$\frac{C}{A}$ $\frac{-\Delta_T}{A}$
	$\frac{z_{21}}{z_{11}}$ $\frac{\Delta_Z}{z_{11}}$	$\frac{-y_{21}}{y_{22}}$ $\frac{1}{y_{22}}$	$\frac{-h_{21}}{\Delta_H}$ $\frac{h_{11}}{\Delta_H}$	g_{21} g_{22}	$\frac{1}{A}$ $\frac{B}{A}$
T	$\frac{z_{11}}{z_{21}}$ $\frac{\Delta_Z}{z_{21}}$	$\frac{-y_{22}}{y_{21}}$ $\frac{-1}{y_{21}}$	$\frac{-\Delta_H}{h_{21}}$ $\frac{-h_{11}}{h_{21}}$	$\frac{1}{g_{21}}$ $\frac{g_{22}}{g_{21}}$	A B
	$\frac{1}{z_{21}}$ $\frac{z_{22}}{z_{21}}$	$\frac{-\Delta_Y}{y_{21}}$ $\frac{-y_{11}}{y_{21}}$	$\frac{-h_{22}}{h_{21}}$ $\frac{-1}{h_{21}}$	$\frac{g_{11}}{g_{21}}$ $\frac{\Delta_G}{g_{21}}$	C D