

Formulas

R= RESISTANCE
V= VOLTAGE
I= CURRENT

Ohms Law

$$V=I \times R$$

Electrical Current

$$I = \frac{V}{R}$$

Electric Power

$$P=V \times I$$

Power Of Resistance

$$P = I^2 \times r$$

$$P = \frac{V^2}{r}$$

Reactance

$$Z = R + jx$$

$$X_C = \frac{1}{2\pi fC}$$

$$X_L = 2\pi fL$$

Connections

	Series	Parallel
Resistors	$R_{total} = R_1 + R_2 + R_3 \dots + R_n$	$\frac{1}{R_{total}} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} \dots \frac{1}{R_n}$
Inductors	$R_{total} = R_1 + R_2 + R_3 \dots + R_n$	$\frac{1}{R_{total}} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} \dots \frac{1}{R_n}$
Capacitors	$\frac{1}{R_{total}} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} \dots \frac{1}{R_n}$	$R_{total} = R_1 + R_2 + R_3 \dots + R_n$

