



# PASSIVE COMPONENTS

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### ACROSS

- 5** A circuit that is designed to propagate signals of a desired frequency or frequency interval and to reject all other signals
- 7** Frequency-dependent impedance that is capable of storing but not dissipating energy
- 9** A component that transfers electric energy by magnetic induction from one circuit to another, usually with a change in voltage or current
- 11** A transformer circuit that couples a balanced transmission line to an unbalanced transmission line
- 12** A filter that only allows frequencies above a cut-off frequency to pass (3 words)
- 13** Resonator consisting of free-space rings of metal with a gap that prevents them from being a complete ring (3 words)
- 15** The property of a circuit or component that tends to

oppose changes in current due to the magnetic field that is a result of the current itself

- 17** A measure of how much better a material is as a path for magnetic flux as compared to free space
- 18** The difference in power, expressed in dB, between the input level and output level when a unit is in high loss condition
- 19** The vector ratio of voltage to current, the reciprocal of admittance
- 20** A class of multiport components that directs the majority of an incident signal to the output port and the remainder of the signal to other ports

### DOWN

- 1** Arbitrary shaped structure etched into the ground plane which disturbs the shield current distribution (3 words)
- 2** A circuit that splits the power of an input signal into two or more locations without producing impedance mismatch (2 words)

- 3** A reactive circuit that rejects signals whose frequencies are outside of its passband 3 dB point frequencies and propagates signals whose frequencies are within the 3 dB point frequencies (3 words)
- 4** Technology for transmitting information spread over a large bandwidth, typically >500 MHz (3 words)
- 6** Artificial materials engineered to provide properties that may not be readily available in nature typically with negative index properties
- 8** Frequency where signal transmission between input and output is stopped (2 words)
- 10** A transmission line structure that splits an input signal into two or more equal phase output signals (2 words)
- 14** The ratio between the amplitude of the output signal of a device or circuit compared to the amplitude of its input signal (2 words)
- 16** The frequency interval that is propagated through a filter with minimum insertion loss