



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