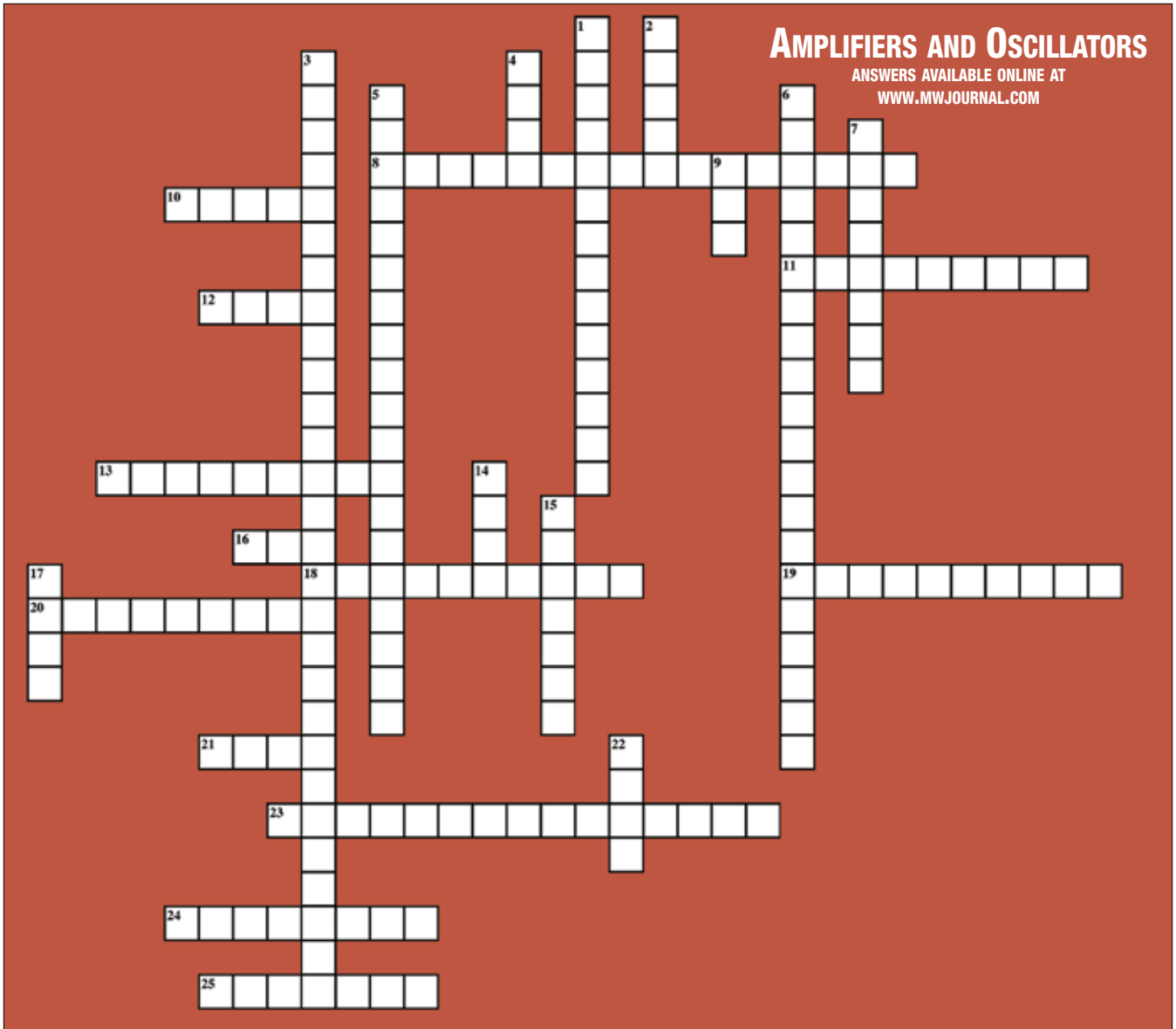




AMPLIFIERS AND OSCILLATORS

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ACROSS

- 8** The amount of electrical power converted to heat by a device (2 words)
10 Pseudo-morphic high electron mobility transistor
11 A circuit or device whose output signal is a faithful version of the input signal but with increased amplitude
12 The terminal of a field effect transistor that controls the resistance of the channel through the application of an electric field
13 The state of operation of a device or circuit in which there is no increase in output for an increase in input
16 Phase-locked loop
18 A measure of the random phase instability of a signal (2 words)
19 A circuit that produces an alternating current signal
20 The region of a bipolar transistor into which current flows from the base of the transistor under the influence of reverse bias across the two regions
21 Complementary metal oxide semiconductor

- 23** The change in frequency of the oscillator after it has been driven to and attained a new frequency and after the tuning voltage has reached a stable state (3 words)
24 Undesired signals present at the output of a device under test that are neither harmonics nor intermodulation products
25 The failure mode in a device that is induced by excessive power dissipation in the device

DOWN

- 1** Wideband gap material being used to produce very high power amplifiers (2 words)
2 Laterally diffused metal oxide semiconductor
3 The digital implementation of the predistorter and presence of a feedback loop adapting to the changes in the response of the PA due to varying operating conditions (3 words)
4 Adjacent channel leakage ratio
5 The modification of the magnitude of a higher, constant frequency carrier signal controlled by the amplitude and phase of a lower frequency baseband or audio signal (2 words)

- 6** A feedback system that changes the gain of an amplifier or the attenuation of an attenuator in response to variations in magnitude of the input signal, thereby maintaining the output signal of the system (3 words)
7 The process of varying the impedance seen by the output of an amplifier to other than 50 ohms in order to measure performance parameters (2 words)
9 Peak to average power ratio
14 The ratio between the amplitude of the output signal of a device or circuit compared to the amplitude of the input signal
15 The layer of a bipolar transistor through which all current flows and from which majority carriers are injected into the base of the transistor
17 Oven-controlled crystal oscillator
22 The reduction in gain of an amplifier by 1 dB that results from saturation as a consequence of increased input signal magnitude



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