A low-dropout regulator (LDO regulator) is a DC linear voltage regulator that can regulate the output voltage even when the supply voltage is very close to the output voltage. The advantages of a low dropout voltage regulator over other DC to DC regulators include the absence of switching noise (as no switching
Low dropout regulators (LDOs) are a simple and cost-effective way to provide a regulated output voltage from a higher input voltage. LDOs simplify the system design as an array of features that can focus on noise reduction, circuit protection, minimal power consumption, and extremely small footprints. Diodes Incorporated has a broad portfolio of LDO regulators that covers a wide range of specifications and performance for consumer, computing, communications, portable, and industrial applications. Our featured products, which encompass a wide array of capabilities, include ultra-low IQ, high P A low-dropout regulator (LDO) is capable of maintaining its specified output voltage over a wide range of load current and input voltage, down to a very small difference between input and output voltages. This difference, known as the dropout voltage or headroom requirement, can be as low as 80 mV at 2 A. The adjustable-output low-dropout regulator1 first came to public attention in 1977. Figure 2 shows a simplified typical power system for portable designs. Figure 2. Typical power domains in a portable system. The dropout voltage should be as low as possible to minimize power dissipation and maximize efficiency. Typically, dropout is considered to be reached when the output voltage has dropped to 100 mV below its nominal value.