Power Supply Integrated Circuit

Maxim Integrated Products introduces the MAX1856 power supply IC, which generates a low audio noise &quottalk battery&quot supply at &#150 24 V and a stiff &quotring battery&quot supply at -72 V for voice-enabled broadband consumer premises equipment (CPE) applications such as VoDSL modems, VoPacket cable modems, LMDS, MMDS, WLL, and FTTH.
To minimize total cost, the MAX1856 controller uses a single external N-channel MOSFET, a low-cost standard transformer available from multiple vendors, and few additional low-cost components. Its wide 3 V to 28 V input voltage range allows operation with a low-cost, unregulated wall adapter output.
The MAX1856 employs flyback topology to reduce input ripple current, which permits use of a smaller, lower cost input capacitor. It also employs digital soft-start to permit a smaller input capacitor. Its switching frequency can be set from 100 kHz to 500 kHz, or synchronized to an external clock signal in order to reduce switching noise.
The output voltages are set by selecting the appropriate transformer turns ratio and feedback resistor values, allowing flexibility to work with many different SLIC chip sets. The separate split feedback scheme provides good cross regulation on both output signals and provides a stiff supply that reduces ring trip transient noise.
The MAX1856EUB comes in a 10-pin &#956MAX package and is specified for the extended-industrial temperature range (-40&#176C to +85&#176 C).

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