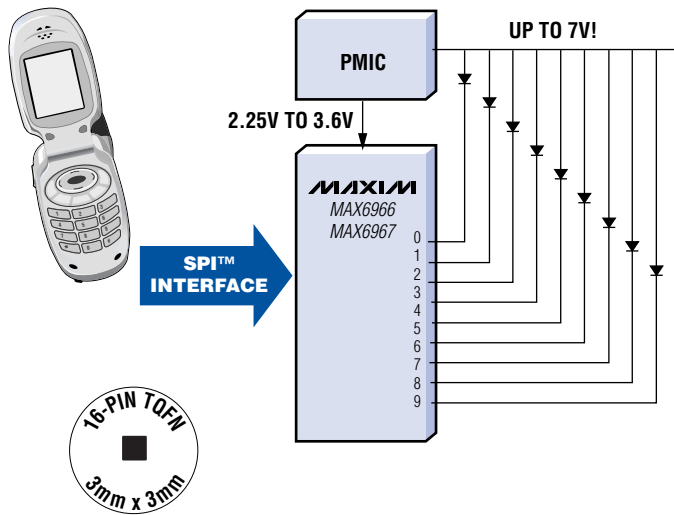


CONTROL RGB OR WHITE-LED BRIGHTNESS WITH CONSTANT CURRENT AND INDIVIDUAL 8-BIT PWM

With 4-bit analog and 8-bit PWM brightness controls, the SPI Interfaced MAX6966/MAX6967 are ideal for driving RGB or white LEDs. Each port has 1.5% accurate constant-current drive, which matches brightness among LEDs and eliminates the need for external current-limiting resistors. So now, LEDs can be powered directly from the battery or power-management IC. Fade all LEDs up or down with an automatically initiated hardware (or software) command while the main microprocessor sleeps. Cascade multiple MAX6966s using the DOUT pin and one \overline{CS} line. Also, synchronize system noise with the MAX6967's OSC input, which can be used as an alternate PWM clock up to 100kHz instead of the internal 32kHz oscillator. Optional phase shifting between PWM outputs reduces the peak demand on the power supply.



- ➔ *3mm x 3mm TQFN Package*
- ➔ *Low Standby Current ($2\mu A$, max.)*
- ➔ *26MHz SPI Interface*
- ➔ *I/O Capability on Every Port*
- ➔ *1.5% Current Match Between Ports*
- ➔ *Automatically Fade Up and Down*
- ➔ *Phase-Shifting Technology Simplifies Power-Supply Design*

- ◆ **I/Os Support Hot Insertion**
- ◆ **-40°C to +125°C Temperature Range**
- ◆ **Up to 20mA Constant Current per Port**
- ◆ **7V Tolerant Outputs**

Part	No. of Ports/Tolerance	Supply Voltage (V)	Constant-Current Drive	PWM (Bit)	OSC Input	DOUT Output	Package
MAX6966	10/7V	2.25 to 3.6	Yes	8	—	Yes	16-TQFN/QSOP
MAX6967	10/7V	2.25 to 3.6	Yes	8	Yes	—	16-TQFN/QSOP
MAX7317	10/7V	2.25 to 3.6	—	—	—	Yes	16-TQFN/QSOP

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