

4-Channel Adjustable Current

I²C Controlled LED Driver

XRP7620

Full Color Spectrum RGBW/RGBA Software Control

The XRP7620 is a multi purpose 4 - channel independently adjustable current sink driver. Optimized for LED backlighting and RGBW/RGBA color mixing applications, the XRP7620 can also be used as a generic software programmable current sink I/O expander.

Support an industry standard 2-line I²C serial interface, the XRP7620 provides full independent control of each channel and can be programmed up to a current of 31.5mA in steps of 500 μ A. Uniform display brightness is ensured through a better than 3% channel to channel current matching. 5 internal registers are provided to set operational configuration and individual channel current adjustment. A specific shutdown mode allows the device to retain the previously loaded configuration – operational and current adjustment – in order to be reused upon the next enabling.

The XRP7620 is designed to operate from a single cell lithium-ion battery or fixed 3.3V or 5.0V power rails and is available in a RoHS compliant, “green”/halogen free space saving 8-pin 2mmx3mm DFN package.



Major Features

- 4-Channel LED Current Sink Driver
- Individual Channel Current Control
 - Up to 31.5mA per channel / 500 μ A Steps
 - 100mV Channel Dropout Voltage
- I²C Serial Interface Control
- 2.7V - 5.5V Input Voltage Range
- 3% Channel Current Matching
- Configuration Retention in Shutdown
- Shutdown Current <1 μ A
- Thermal and UVLO Built-in Protection
- “Green”/Halogen Free 2x3mm 8-Pin DFN package

Ordering Information

Part Number	Package	Junction Temp Range	Comments
XRP7620IH-F	2x3mm 8-pin DFN	-40°C to 100°C	
XRP7620IHTR-F	2x3mm 8-pin DFN	-40°C to 100°C	Tape & Reel 3K/Reel
XRP7620EVB	Evaluation Board		

Applications

- LCD Display & Keypad Backlighting
- Color Coded Indicator Lighting
- RGBW/RGBA Color Mixing
- Cell Phones & Handheld Devices
- Generic Current Sink I/O Expander

XRP7620 Application Diagram

