# NEX10000/1 2.7 to 5 V LCD bias power supply IC for smartphones and tablets

Nexperia is addressing the growing demand for small size, high efficiency and small BOM and PCB areas in next generation consumer electronics. The LCD bias power supply ICs are designed for Thin Film Transistor Liquid Crystal Display (TFT-LCD) supply positive/negative driven applications such as smartphones, tablets, wearables and virtual reality headsets.
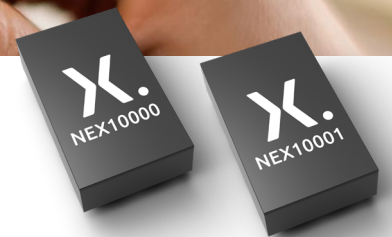
Key technical features

› Wide 2.7 V to 5 V operating input range
› Dual output regulator with single inductor
› Programmable output voltages
› Supports I2C compatible interface
› Package: WLCSP15 1.16 x 1.96 x 0.62 mm

NEX10000

› 80 mA output current
› 86% efficiency at 40 mA combined output
› Positive output voltage range: +4 V to +6 V (100 mV/step)
› Negative output voltage range: -4 V to -6 V (100 mV/step)
› ±1% output voltage accuracy
› Excellent line/load regulation

NEX10001

› 220 mA output current
› 85% efficiency at 80 mA combined output
› Positive output voltage range: +4 V to +6.5 V (100 mV/step)
› Negative output voltage range: -4 V to -6.5 V (100 mV/step)
› ±1% output voltage accuracy
› Excellent line/load regulation

Key benefits

› For single Li-ion battery powered display
› High efficiency and low power loss
› High output accuracy
› Easy to control
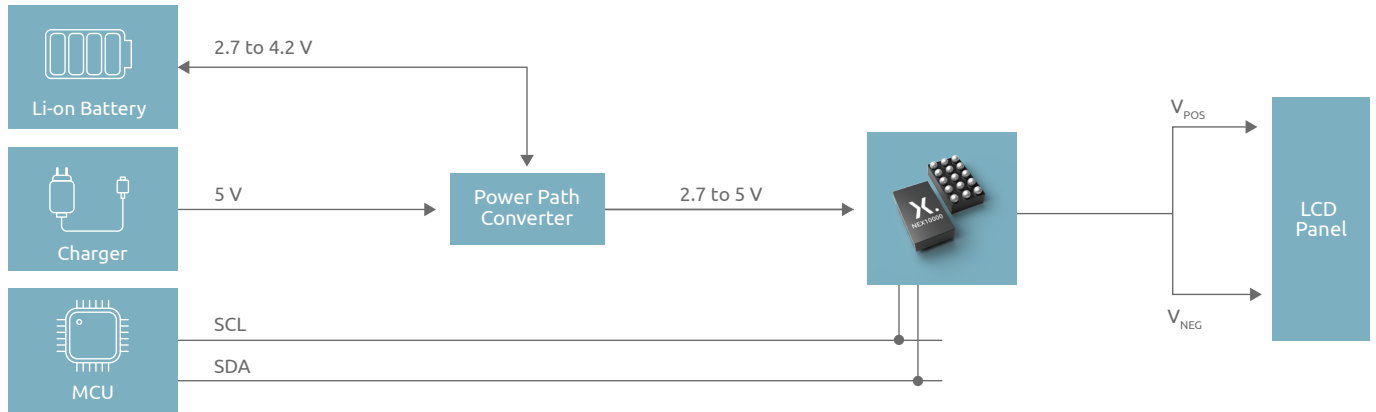› Small size for mobile application

Key applications

› Smartphone & tablets LCD bias
› Portable device LCD bias
› Handheld IoT devices
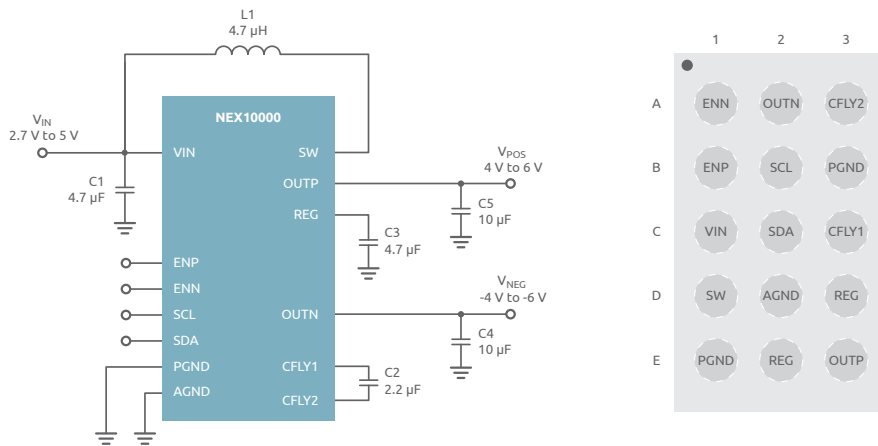
nexperia
EFFICIENCY WINS.

Typical application

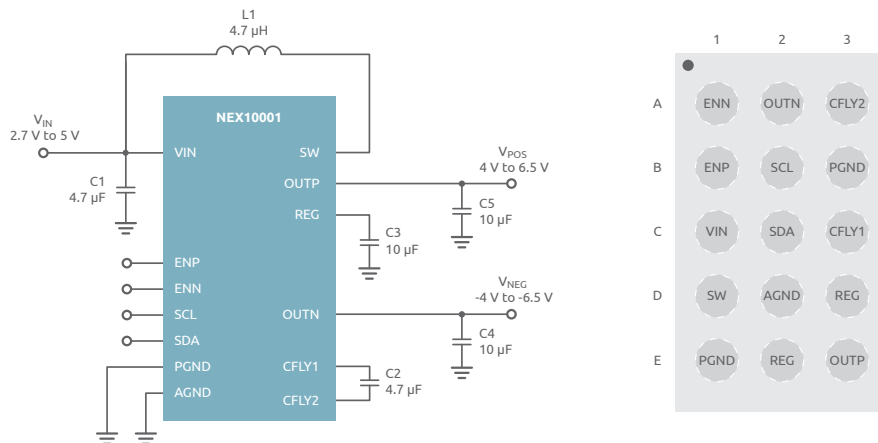NEX10000/1 is designed to provide positive and negative output voltage for TFT-LCD panel

Part number	Maximum output current (mA)	Panel size (mm)	Typical applications
NEX10000	80	178 x 127	Smart phone, VR
NEX10001	220	355.6 x 304.8	Pad, IoT display panel

NEX10000

NEX10001