

Key Benefits & Features

The benefits and features of TCS3701 are listed below:

Figure 1:
Added Value of Using TCS3701

Benefits	Features
<ul style="list-style-type: none">• Invisible ALS and color sensing under any glass type	<ul style="list-style-type: none">• Configurable, high sensitivity<ul style="list-style-type: none">• Programmable gain and integration time• 1024x dynamic range by gain adjustment only• 1mlux minimum detectable illuminance (100ms)• Tailored ALS and color response<ul style="list-style-type: none">• UV/IR blocking filter for RGBC channels• Wideband reference channel without filters• ALS/color interrupt with thresholds
<ul style="list-style-type: none">• Invisible proximity detection behind OLED displays	<ul style="list-style-type: none">• Capable to drive external IR emitter LED or VCSEL• Crosstalk and threshold calibration on chip• Programmable timings and sensitivity• Calibrated LED output power
<ul style="list-style-type: none">• Low power consumption and minimum I²C traffic	<ul style="list-style-type: none">• 1.8V_{DD} operation• Configurable sleep mode• Interrupt-driven device• On-chip self-calibration of ALS and proximity functions
<ul style="list-style-type: none">• Integrated status checking for all functions	<ul style="list-style-type: none">• Digital and analog ALS saturation flags• Proximity saturation flag

Applications

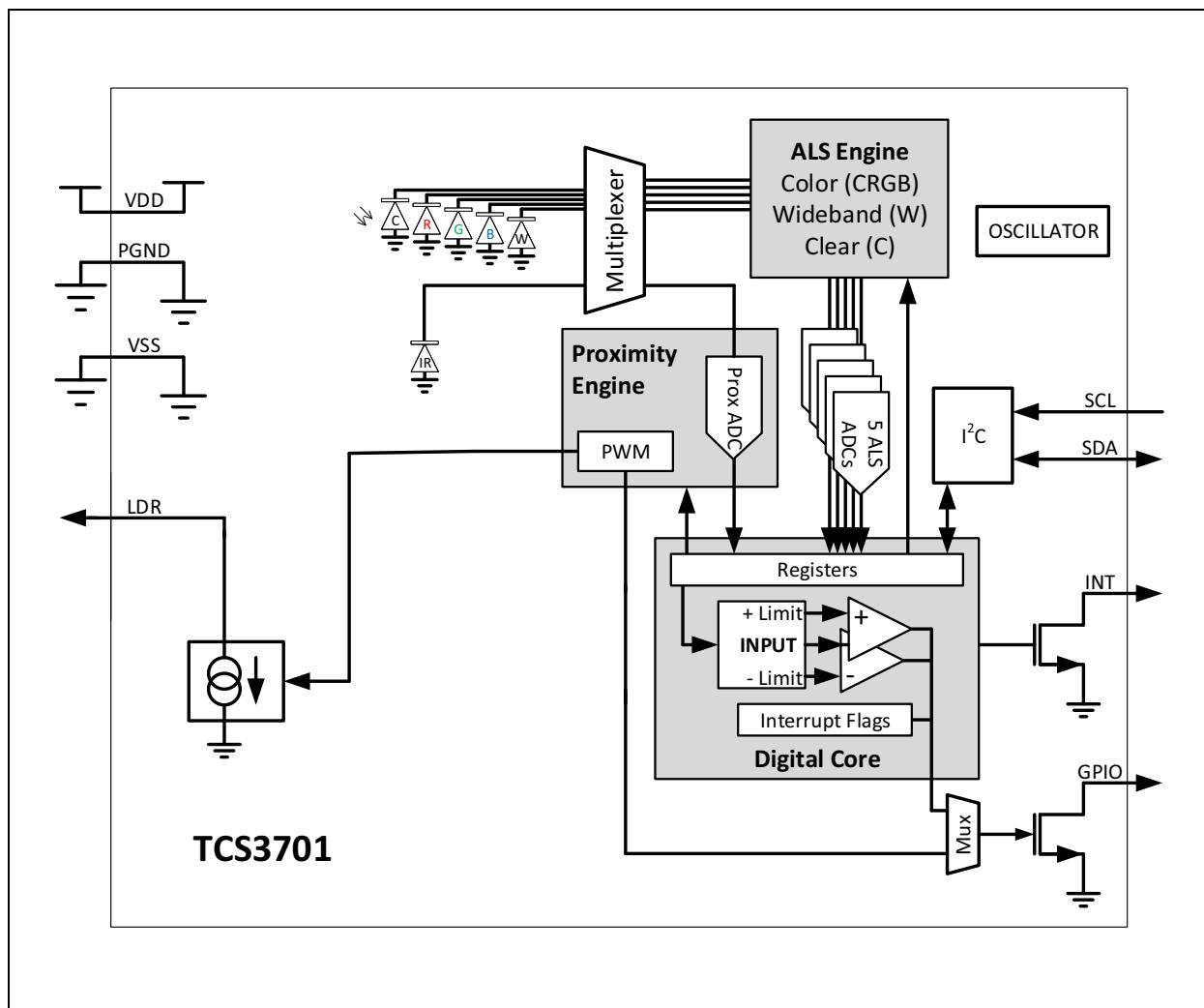
TCS3701 integrates multiple applications within one device. The applications for TCS3701 include:

- Brightness management for displays
- Color management for displays
- Proximity detection
- Touch screen disable

Block Diagram

The functional blocks of this device are shown below:

Figure 2:
Functional Blocks of TCS3701



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