

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

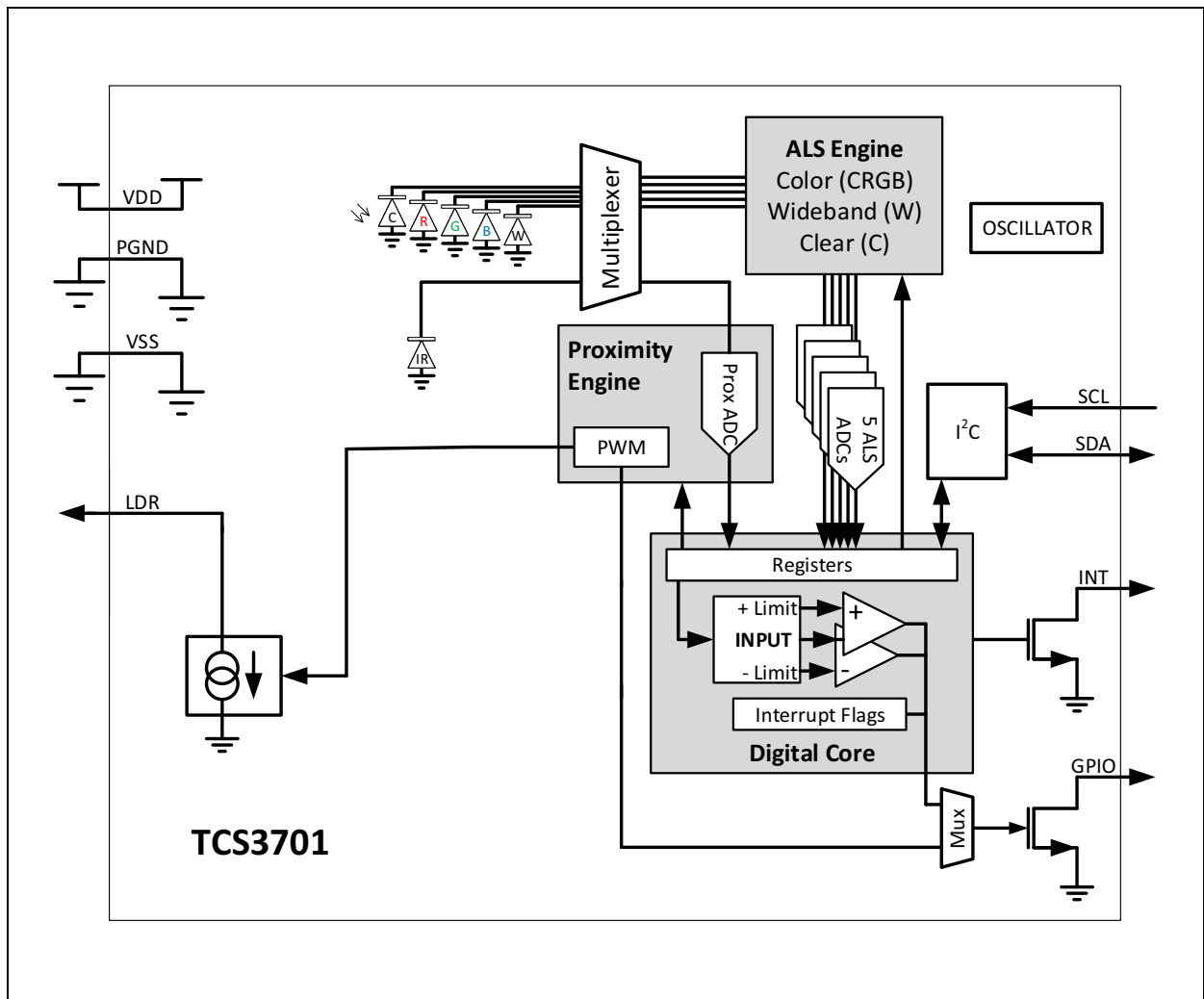
TCS3701 integrates multiple applications within one device. The applications for TCS3701 include:

- 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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