

NCN5140S

KNX Wall Switch System-in-Package

The NCN5140S System-In-Package enables building a complete KNX switch system in a very small form factor, utilizing a minimal number of external components, allowing the design of ultra-slim switch applications.

The NCN5140S integrates the market leading ON Semiconductor KNX Transceiver and an ARM Cortex-M0+ microcontroller, together with the majority of the necessary passive components, into one package. The high degree of integration and minimal height of the remaining components allows for the design of ultra-slim KNX switch applications.

Combined with a certified KNX stack and pre-certified software for up to 8 configurable rocker or touch switch buttons, the KNX System-in-Package enables development of KNX switch applications in a very short time frame. The pre-certified application software includes driving and dimming up to 8 RGB LEDs to illuminate the buttons or touch pads.

Registration of a derivative design at the KNX Association suffices to achieve KNX certification.

- Fully-certified KNX switch application:
 - Certified Physical Layer
 - Certified KNX Stack
- Several Pre-certified Hardware Designs:
 - Up to 8 Rocker Switch Buttons with RGB LEDs
 - Up to 8 Capacitive Touch Switch Buttons with RGB LEDs
- Very High Degree of Integration
- Low Profile, Reduced Footprint
- Fast time to market, cost reduction
- Reduced R&D effort
- Low BOM cost
- Improves slimline aesthetics
- Capacitive Touch Switches, up to 8 Buttons
- Rocker Switches, up to 8 Buttons
- RGB LEDs illuminating the Buttons
- Building Automation
- Smart Home
- Smart Lighting Switches
- Shutters and Blinds Control
- Ventilation Control

| | Pricing (\$/Unit) | Compliance | Status | Data Transmission Standard | Data Rate | Number of Drivers | Number of Receivers | V _{CC} Min (V) | V _{CC} Max (V) | t _{PLH} Max (μs) | I _O Max (μA) | I _{IH} Max (mA) | Package Type |
|-------------|-------------------|------------|--------|----------------------------|-----------|-------------------|---------------------|-------------------------|-------------------------|---------------------------|-------------------------|--------------------------|--------------|
| NCN5140SG | 8.5445 | | Active | KNX | 9600 baud | 1 | 1 | 3.13 | 3.47 | | | | SIP50, 10x8 |
| NCN5140STXG | 8.5445 | | Active | KNX | 9600 baud | 1 | 1 | 3.13 | 3.47 | | | | SIP50, 10x8 |