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STR-NCS36510-ZB-EH-1-GEVK: Strata Enabled Zigbee® Green Power Kit

The STR-NCS36510-ZB-EH-1-GEVK demonstrates the use of NCS36510 in a battery-free Zigbee® Green Power application. The kit consists of one Zigbee® Coordinator (ZC) USB device, which interfaces with Strata, and two energy-harvesting nodes, which act as Zigbee® Green Power Devices (ZGPD). By pressing the switch on each of these devices, energy is generated and used to power the NCS36510 module. Within Strata, the module sends out Zigbee®







Green Power frames to control the smart home scene. One switch controls the lighting in the scene, and acts as a battery-free light switch when pressed. The other switch represents a door sensor. The advanced tab displays a live feed of debug messages being sent. See the Strata webpage at www.onsemi.com/strata for more details!

Click to Download Strata

Features and Applications

Features

- 2.4 GHz IEEE® 802.15.4 module Pre-Certified with FCC and Zigbee® PRO R21
- Firmware based on the DSR ZBOSS
 Zigbee® 3.0 & Zigbee® Green Power
 Stacks
- 32-bit ARM® Cortex-M3 Processor
- Ultra-Low Transmit Power
 Consumption (as low as 6.9 mW)
- Ultra-Low Receive Power
 Consumption (as low as 6.6 mW)
- Multiple Sleep Modes (Including 0.65 uA Coma Mode Sleep Current, 0.18 uA Coma Mode Leakage Current)
- Embedded Memory Configurations (640 kB FLASH and 48kB RAM)
- Exceptional Receiver Sensitivity of -99 dBm
- Programmable Output Power Up to ~8 dBm









- Smart Home Security, Automation, and Lighting
- Building and Industrial Automation

Evaluation/Development Tool Information							
Product	Status	Compliance	Short	Parts Used	Action		
			Description				
STR- NCS36510- ZB-EH-1-GEVK	Active	Pb-free	Strata Enabled Zigbee® Green Power Kit	EMI2121MTTAG, MM3Z6V2ST1G, MM3Z6V2ST1G, NCP170BXV330T2G, NCP170BXV330T2G, NCS36510MNTXG, NSR1030QMUTWG,	Buy		

Technical Documents							
Туре	Document Title	Document ID/Size	Rev				
Software	Strata Setup Software for Microsoft Windows	Strata setup Windows - 82652 KB 🔒	3.0.1.1				
Eval Board: BOM	STR-NCS36510-ZB-EH-1-GEVK Bill of Materials (ROHS Compliant)	STR-NCS36510-ZB-EH-1- GEVK_BOM_ROHS - 361 KB	0				
Eval Board: Gerber	STR-NCS36510-ZB-EH-1-GEVK Gerber Layout Files (Zip Format)	STR-NCS36510-ZB-EH-1- GEVK_GERBER - 12978 KB	0				
Eval Board: Schematic	STR-NCS36510-ZB-EH-1-GEVK Schematic	STR-NCS36510-ZB-EH-1- GEVK_SCHEMATIC - 226 KB	0				
Eval Board: Manual	STR-NCS36510-ZB-EH-1-GEVK User Manual	STR-NCS36510-ZB-EH-1- GEVK_USER_MANUAL - 1400 KB	0				
White Papers	Creating an Energy Harvesting Zigbee® Green Power™ Switch for Smart Homes and Buildings	TND6343/D - 1723 KB	1				
Video	Strata Enabled Zigbee Green Power Kit	WVD17731/D					
Video	Energy-Harvesting Battery-less Switches for Smart Homes and Buildings	WVD17741/D					

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