

STEVAL-STWINWFV1

Data brief

Wi-Fi expansion for the SensorTile Wireless Industrial Node (STWIN) kit





| Product summary | | |
|---|----------------------|--|
| Wi-Fi expansion board for the STWIN development kit | STEVAL- STWINWFV1 | |
| STWIN SensorTile Wireless Industrial Node development kit | STEVAL- STWINKT1 | |
| Firmware for STEVAL- STWINKT1 evaluation kit | STSW- STWINKT01 | |

Features

- Wi-Fi adapter for STWIN (STEVAL-STWINKT1)
- Plugs into STWIN core system board through dedicated 12-pin connector
- Single 3.3 V power supply input
- ISM43362-M3G-L44-E Wi-Fi module:
 - 802.11 b/g/n Compatible based on Broadcom MAC/Baseband/Radio device
 - Fully contained TCP/IP stack
 - Host interface: SPI up to 25 MHz
 - Network features ICMP (Ping), ARP, DHCP, TCP, UDP
 - Low power operation (3.3 V supply) with built-in low power modes
 - Secure Wi-Fi authentication WEP-128, WPA-PSK (TKIP), WPA2-PSK
 - CE certified
 - FCC certified
 - IC certified
- RoHS and China RoHS compliant
- WEEE compliant

Description

The STEVAL-STWINWFV1 expansion board adds 2.4 GHz Wi-Fi connectivity to the SensorTile Wireless Industrial Node (STWIN) kit (STEVAL-STWINKT1).

Application examples that take advantage of this expansion board can be found in STSW-STWINKT01 firmware package as well as in the FP-IND-PREDMNT1 Predictive Maintenance Function Pack.

Schematic diagrams

Figure 1. STEVAL-STWINWFV1 schematic WIFI_WAKEUP 3V3 Ŷ U1 ISM43362-M3G-L44-E 41 15 9<u>8</u>6 SPI_MISO_UART_RX SPI_MOSI_UART_TX SB 22 21 VDD1 VDD2 MKUP DP MD VBAT TX RX 3V3 WIFI RST SB2
 RSTN
 34

 BOOT0
 32

 RES1
 31

 RES2
 30

 RES3
 29

 CFG1
 26

 GPI04
 26

 GPI03
 25

 GPI01
 35

 GPI03
 25

 GPI04
 35

 GPI03
 35

 GPI04
 35

 GPI03
 35

 GPI04
 35

 GPI05
 37
34 0 WIFI_BOOT0 .11 3V3 4 5 3 4 5 STRIP254P-M-5-90-SMD TMS TCK TDI TDO Q 5 R2 NC (10k) R3 NC (10k) 6 7 8 TRSTN MOSI SPI_MOSI_UART_TX SPI_MISO_UART_RX 9 ÷ 10 MISO SCK SSN DATARDY ÷ SPI CLK 11 12 WIFT CS WIFI DRDY 13 3V3 0 ÷ C1 C2 3V3 O 100nF 10uF CN1 54 WIFI DRDY b1 a1 WIFI_CS SPI_CLK SPI_MISO_UART_RX SPI_MOSI_UART_TX a2b2 a3 a4 a5 a6 WIFI WAKEUP ÷ WIFI_BOOT0 WIFI_RST b3 ÷ b4 b5 b6 ÷ M55-6001242R

> STEVAL-STWINWFV1 Schematic diagrams



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Revision history

Table 1. Document revision history

| Date | Version | Changes |
|-------------|---------|------------------|
| 29-Jul-2019 | 1 | Initial release. |



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