LSR
a Laird Business

TiWi-C-W
2.4 GHz 802.11 b/g/n
Embedded Wi-Fi®

FC CE Industry Canada

LSR
Model: TiWi-C-W
P/N: 450-0118-R1
FCC ID: TF8-1001
IC: 5969A-1001
50C000001

Actual size (10.5 mm x 10.5 mm)

TiWi-C-W™

2.4 GHz Embedded Wi-Fi Module

This stand-alone WLAN (IEEE 802.11 b/g/n) module with application processor simplifies and accelerates the work of adding Wi-Fi connectivity to your products. The TiWi-C-W module's breadth of capabilities ensures a straight-forward integration with your product design.

- Features 2 operating modes:
    Hostless operation with on-board ARM Cortex-M3 application processor
    Hosted operation via UART interface with either

- Serial-to-WiFi™ or TiWiConnect™ cloud agent firmware

- Fully Integrated TCP/IP stack

- Small footprint: 10.5 mm x 10.5 mm x 1.35 mm

- Supports true Antenna Diversity

- FCC (USA), IC (Canada) and ETSI (Europe) Module Certification

- Both 2 layer and 4 layer reference designs available

- Multiple 2.4 GHz antenna options: SMT Chip, Dipole, and FlexPIFA™

- Additional customer specific antennas can be added to certification for little or no cost

Pre-integrated cloud agent for LSR's exclusive

TiWiConnect™
Module | Cloud | App

cloud-connectivity platform

IP

Accelerate your Socket-Based Wi-Fi Implementation

Serial-to-WiFi
API

Practical Applications:

- M2M Connectivity / Internet of Things
- Remote diagnostics & monitoring
- Remote interactivity & control

TIWI-C-W MODULE PERFORMANCE

SPECIFICATION	VALUE
Footprint	10.5 mm x 10.5 mm x 1.35 mm
Operating Temp	-40 to +85° C
Operating Voltage	3.13 V to 3.46 V
WLAN Transmit Power	+17 dBm, 1 Mbps, CCK (b) +13 dBm, 54 Mbps, OFDM (g) +11 dBm, HT20 MCS7 (n)
WLAN Sensitivity	-87 dBm, 8% PER, 11 Mbps (b) -70 dBm, 10% PER, 54 Mbps (g) -70 dBm, 10% PER, MCS7 (n)

For full specifications on TiWi-C-W, please refer to datasheet.

TECHNICAL DETAILS
IEEE 802.11 b/g/n Compliant
Integrated ARM Cortex-M3 application processor
Wireless Security WEP, WPA Personal, and WPA2 Personal

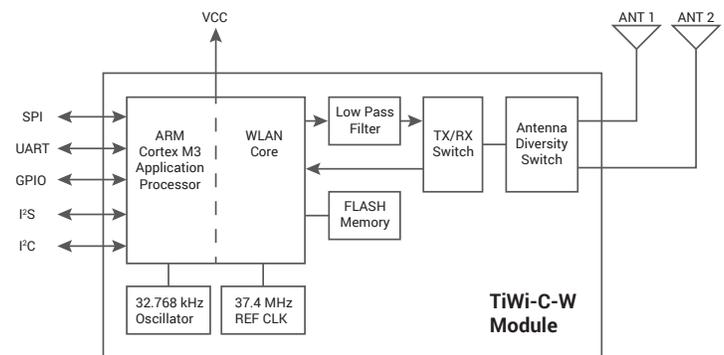| KEY FEATURES |
|---|
| Host or hostless mode operations |
| Embedded TCP/IP Stack |
| FCC / IC / CE Certification |

ORDER INFORMATION

PART NUMBER	DESCRIPTION
450-0118C	TiWi-C-W Module
450-0118R	TiWi-C-W Module, TR
450-0143	TiWi-C-W Development Kit featuring TiWiConnect™
450-0164	TiWi-C-W Development Kit featuring Serial-to-WiFi™

These LSR products are all REACH and EU ROHS compliant.

LSR is the leader in Wireless Product Development, offering true end-to-end solutions through its array of services and technical expertise.

Design Services

LSR delivers complete system solutions from concept to manufacturing. We are your wireless M2M solutions partner, providing complete turnkey services and solutions.

- RF Design/Engineering
- Software/Firmware Design
- Antenna Design
- Industrial Design
- Mechanical Engineering

EMC Testing & Certification

At LSR, we understand it is critical for your company to have a compliant product supported by the appropriate documentation, ready for deployment into the market. LSR provides the experience and knowledge to provide quality test services that meet your timeline and budget.

- On-Site FCC / IC /CE EMC Certification
- Wireless & Antenna Testing
- EMC Testing
- International Testing Services

Wireless Products

LSR offers the fastest, lowest cost way to add wireless capabilities to your product concept. LSR's fully-certified modules and antennas accelerate your time-to-market and support the full breadth of communication technologies, including:

- Wi-Fi®
- Bluetooth®
- Bluetooth® Smart
- ZigBee®
- 802.15.4 & proprietary protocols