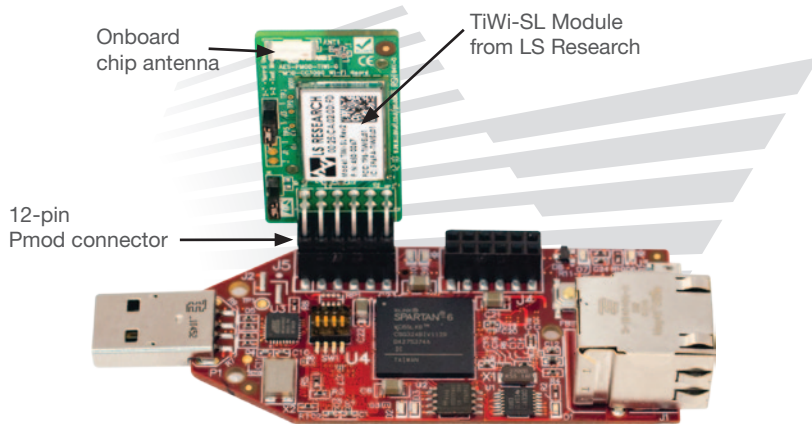


Avnet Product Brief

CC3000-Pmod™ Wi-Fi® Adapter for Xilinx FPGAs



Wi-Fi Pmod shown connected to the Spartan-6 FPGA LX9 MicroBoard (sold separately).



DESIGNED BY AVNET

Features

- >> 802.11b/g TiWi-SL Module from LS Research, utilizing the SimpleLink Wi-Fi CC3000 solution
- >> Onboard chip antenna
- >> RF link budget:
 - >> TX power: +20 dBm
 - >> RX sensitivity: -89 dBm
- >> Data throughput: up to 7 Mbps (UDP)
- >> Wi-Fi security modes: WEP, WPA/WPA2 (AES and TKIP – Personal)
- >> Networking support: TCP/IP stack (IPv4 - DHCP client, DNS, ARP), Wi-Fi driver, security supplicant, auto-transmit calibration
- >> Host Interface: SPI @ 15 MHz
- >> Host code size: as low as 6 KB Flash, 3 KB RAM
- >> Connections: four sockets (UDP or TCP)
- >> Headless connection: CC3000 first-time configuration
- >> Power: includes a shutdown mode <5 uA
- >> Conforms to the Digilent Pmod form factor and 2 x 6 pinout

Wi-Fi So Simple Even an FPGA Can Do It

The Avnet CC3000-Pmod™ is a self-contained, certified 802.11b/g Wi-Fi adapter based on the Texas Instruments SimpleLink™ CC3000. Conforming to the Digilent Pmod form factor and 2 x 6 pinout, it is designed to attach to Avnet FPGA development boards containing the Pmod interface. The built-in IP networking stack provides ubiquitous Wi-Fi and Internet access without needing a complex CPU and OS. The module's small API command set is easily incorporated into the FPGA using a MicroBlaze microcontroller core. Example VHDL code and application software are included.

Kit Includes

- >> Pmod-CC3000 Wi-Fi board
- >> FPGA-based Web server application example
- >> Getting Started Guide

To purchase this kit, visit www.em.avnet.com/pmodwifi

Pinouts

| Pin | Signal | Description | Pin | Signal | Description |
|-----|--------|--------------------------|-----|--------|----------------------|
| 1 | ~SS | Slave Select | 7 | ~INT | Interrupt Output |
| 2 | MOSI | Master out/Slave in Data | 8 | PWR_EN | Hibernate |
| 3 | MISO | Master in/Slave out Data | 9 | | |
| 4 | SCK | Serial Clock | 10 | | |
| 5 | GND | Power Supply Ground | 11 | GND | Power Supply Ground |
| 6 | VCC | Power Supply (3.3 V) | 12 | VCC | Power Supply (3.3 V) |



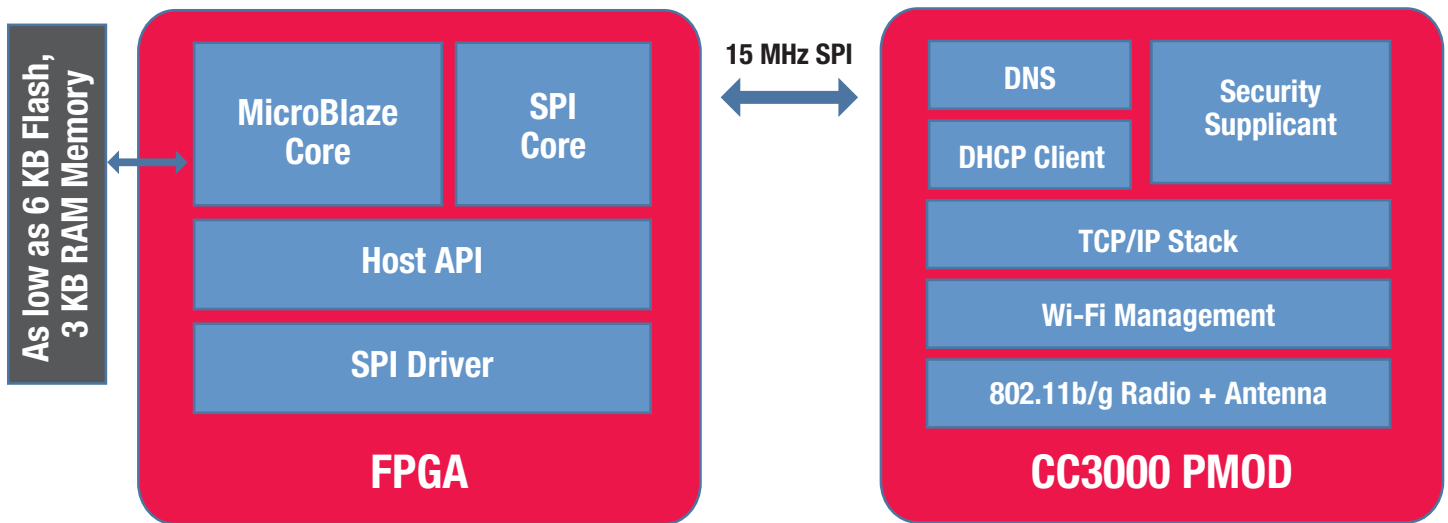
Target Applications

- >> Wireless sensors
- >> Machine-to-machine (M2M)
- >> Embedded Web server
- >> Over-the-Air FPGA configuration



Accelerating Your Success™

CC3000-Pmod™ Wi-Fi Adapter Block Diagram



Featured Manufacturers



Ordering

| Part Number | Hardware | Resale |
|-----------------|----------------------------|----------|
| AES-PMOD-TIWI-G | CC3000-Pmod™ Wi-Fi Adapter | \$59 USD |

To purchase this kit, visit www.em.avnet.com/pmodwifi

Contact Information

North America

2211 South 47th Street
Phoenix, Arizona 85034
United States of America
eval.kits@avnet.com
+1-800-585-1602

Europe

Gruber Str. 60c
85586 Poing
Germany
marketing@silica.com
+49-8121-77702

Japan

Yebisu Garden Place Tower, 29F
4-20-3 Ebisu, Shibuya-ku,
Tokyo 150-6029 Japan
eval-kits-jp@avnet.com
+81-(0)3-5792-8210

Asia

151 Lorong Chuan,
#06-03 New Tech Park
Singapore 556741
XilinxAPAC@avnet.com
+65-6580-6000

