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Nota di contenuto	Front Cover; Implementing 802.11 with Microcontrollers: Wireless Networking for Embedded Systems Designers; Copyright Page; Contents; Preface; What's on the CD-ROM?; Chapter 1: Why Are We Doing This?; Selecting a Suitable Microcontroller; Selecting a Suitable 802.11b Communications Device; 802.11b Hardware Overview; AirDrop Basics; Chapter 2: The AirDrop-P; The AirDrop-P Hardware; Learn to Play Guitar and Become Famous; Chapter 3: The AirDrop-A; The AirDrop-A Hardware; Bowling Out; Chapter 4: 802.11b CompactFlash Network Interface Cards; They Were Not Designed To Do This; The TEW-222CF Never Ignore an Inquisitive Author with Hand ToolsUnwrapping the TEW-222CF; An Undercover Look at the Zonet ZCF1100; What's Behind Door Number 4; RF, Witchcraft, Pointy Hats, Ghouls, Goblins...Same Thing; Chapter 5: Talking With 802.11b CompactFlash NICs; Physically Connecting a Microcontroller to a CompactFlash Card; Musical Overtones; Chapter 6: Touring the Card Information Structure; Talking in Tuples; First Steps with the AirDrop-P; Walking the Tuple Chain; CIS Reconnaissance; Dumping Linksys WCF12 Tuples; Dumping Netgear MA701 Tuples; Dumping Zonet ZCF100 Tuples

Enabling the 802.11b CompactFlash NIC  
The Value of Parsing the CIS;  
Full Throttle; Chapter 7: Learning to Talk to 802.11b CompactFlash  
NICs; What the 802.11b NIC Does for Us; The 802.11b CompactFlash  
NIC I/O Drivers; Chapter 8: Setting Up An AirDrop Wireless Network;  
Setting Up the AP; Something's in the Air; Guitars and Hollywood;  
Chapter 9: AirDrop Driver Basics; BAP; FID; RID; Reading a RID;  
Stringing Up the SSID; Good RIDdance; Retrieving the MAC Address;  
Status Check; Chapter 10: Putting an AirDrop on a Wireless LAN; Bogie  
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Bogie Number 2 - Enabling the MAC  
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Wireless LAN Station; Associating with the AIRDROP\_NETWORK AP;  
Chapter 11: Processing 802.11b Frames with the AirDrop; AirDrop  
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AirDrop; Examining the IP Header; Chapter 13: Flying Cargo with UDP  
and the AirDrop; Running a UDP Application on the AirDrop-P; The  
EDTP Internet Test Panel and the Code Behind It; Exercising the  
AirDrop-P with the EDTP Internet Test Panel; Notes; Chapter 14: Flying  
Cargo with TCP/IP and the AirDrop; TCP and the AirDrop-P  
The TCP/IP Stack's Physical Layer  
The TCP/IP Stack's Data Link Layer;  
The TCP/IP Stack's Network Layer; The TCP/IP Stack's Transport Layer;  
The TCP/IP Stack's Application Layer; TCP/IP - The Big Ugly; You've  
Done It!; Chapter 15: WEP and the AirDrop; Incorporating WEP into the  
AirDrop 802.11b Driver; Chapter 16: An Experimental AVR AirDrop  
Variant; The New Experimental AirDrop Hardware; The Experimental  
AirDrop Firmware; Coding a Simple 802.11b Web Server; The AirDrop  
SRAM; Chapter 17: A New Kid in Town Who Calls Himself ZigBee; Zig  
Wha???.; Making ZigBee Talk; The Microchip ZigBee Stack  
Chapter 18: Parting Frames

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## Sommario/riassunto

Wireless networking is poised to have a massive impact on communications, and the 802.11 standard is to wireless networking what Ethernet is to wired networking. There are already over 50 million devices using the dominant IEEE 802.11 (essentially wireless Ethernet) standard, with astronomical growth predicted over the next 10 years. New applications are emerging every day, with wireless capability being embedded in everything from electric meters to hospital patient tracking systems to security devices. This practical reference guides readers through the wireless technology forest, gi

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