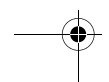
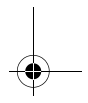
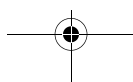
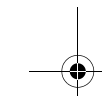
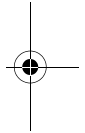
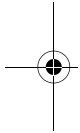
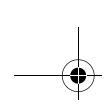


Important: Turn off the wireless function when inside an airplane to prevent interference with navigation systems.





Card Specifications

Physical Specifications

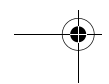
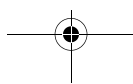
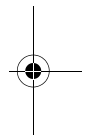
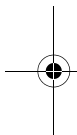
Form Factor	MINI PCI Card	
Dimensions	(LxWxH)	59.75x 50.95 x 4.5 mm
Weight	15 gram (PC Card)	
Temperature & Humidity		
Operation	5° to 35° C	maximum humidity 95%
Transit	-20° to 70° C	15 to 95% (no condensation allowed)
Storage	-10° to 60° C	10 to 90% (no condensation allowed)



Note: Although the PCI Card may still operate in the range of -20° to 70° C, operation outside the range of 0° to 55° C may no longer be according to specifications.

Power Characteristics

Doze Mode	30mA
Receive Mode	230 mA
Transmit Mode	330 mA
Power Supply	3.3 V ± 0.2 V



Networking Characteristics

Data Rate	High	11 Mb/s
	Medium	5.5 Mb/s
	Standard	2 Mb/s
	Low	1 Mb/s
The cards use an automatic Transmit Rate Select mechanism.		

Radio Characteristics

Radio Characteristics of the MPC13A-20/R WIRELESS LAN CARD may vary:

- According to the country where the product was purchased.
- According to the type of product that was purchased.

Wireless communication is often subject to local radio regulations. Although the MPC13A-20/R WIRELESS LAN CARD has been designed for operation in the license-free 2.4 GHz band, local radio regulations may impose a number of limitations to the use of wireless communication equipment.

To comply with such regulations, MPC13A-20/R WIRELESS LAN CARD is marketed with dedicated channel-sets with a number of factory-programmed channels identified by the following acronyms:

- ETS for countries that adhere to the regulations as defined by the European Telecommunications Standards Institute (ETSI),
- FCC for countries that adhere to the regulations as defined by the US Federal Communications Commission (FCC),
- FR for France, and
- JP for Japan.

Radio Characteristic Specifications

R-F Frequency Band	2.4 GHz (2400-2500 MHz)			
Number of selectable sub-channels	North America (FCC)	11		
	Europe (ETS)	11		
	France (FR)	2		
	Japan (JP)	11		
	Other Countries:	11		
Modulation Technique	Direct Sequence Spread Spectrum CCK for High & Medium Transmit Rate DQPSK for Standard Transmit Rate DBPSK for Low Transmit Rate			
Spreading	11-chip Barker Sequence			
Bit Error Rate (BER)	Better than 10^{-5}			
Nominal Output Power	15 dBm			
Range (100 bytes User Data) / Transmit Rate	High Speed 11 Mb/s	Medium Speed 5.5 Mb/s	Standard Speed 2 Mb/s	Low Speed 1 Mb/s
Open Office Environment	160 m (525 ft.)	270 m (885 ft.)	400 m (1300 ft.)	550 m (1750 ft.)
Semi-Open Office Environment	50 m (165 ft.)	70 m (230 ft.)	90 m (300 ft.)	115 m (375 ft.)
Closed Office	25 m (80 ft.)	35 m (115 ft.)	40 m (130 ft.)	50 m (165 ft.)
Receiver Sensitivity	-83 dBm	-87 dBm	-91 dBm	-94 dBm
Delay Spread (at FER of <1%)	65 ns	225 ns	400 ns	500 ns



Supported Frequency Sub-bands

Subject to the radio regulations that apply in your country, your MPC13A-20/R WIRELESS LAN CARD may support a different set of 2.4 GHz channels (see table below).

Consult your authorized sales office for information about the radio regulations that apply in your country

MPC13A-20/R IEEE 802.11 Channels Sets

Frequency Range	2400-2500 MHz^a			
Channels ID	FCC	ETSI	France	Japan
1	2412	2412	-	2412
2	2417	2417	-	2417
3	2422	2422	-	2422
4	2427	2427	-	2427
5	2432	2432	-	2432
6	2437	2437	-	2437
7	2442	2442	-	2442
8	2447	2447	-	2447
9	2452	2452	-	2452
10	2457	2457	2457	2457
11	2462	2462	2462	2462

a. Numbers printed in bold are the factory-set default channels.

