Channels and Antenna Settings

This appendix lists the IEEE 802.11g (2.4-GHz) channels, maximum power levels, and antenna gains supported by the world's regulatory domains.

The following topics are covered in this appendix:

- Channels, page B-2
- Maximum Power Levels and Antenna Gains, page B-4

See the "Configuring Radio Transmit Power (2.4-GHz Radio Only)" section on page 3-5 for instructions about how to change the radio output power.

Channels

This section describes the channels for 802.11b/g (2.4-GHz) and the 4.9-GHz bands.

IEEE 802.11g (2.4-GHz Band)

The channel identifiers, channel center frequencies, and regulatory domains of each IEEE 802.11g 22-MHz-wide channel are shown in Table B-1.

Table B-1 Channels for IEEE 802.11g

Channel Identifier	Center Frequency (MHz)	Regulatory Domains							
		Americas (–A)		EMEA (–E)		Israel (–I)		Japan (–J)	
		CCK[1]	OFDM[2]	CCK	OFDM	CCK	OFDM	CCK	OFDM
1	2412	X	X	X	X	–	–	X	X
2	2417	X	X	X	X	–	–	X	X
3	2422	X	X	X	X	–	–	X	X
4	2427	X	X	X	X	–	–	X	X
5	2432	X	X	X	X	X	X	X	X
6	2437	X	X	X	X	X	X	X	X
7	2442	X	X	X	X	X	X	X	X
8	2447	X	X	X	X	X	X	X	X
9	2452	X	X	X	X	–	–	X	X
10	2457	X	X	X	X	–	–	X	X
11	2462	X	X	X	X	–	–	X	X
12	2467	–	–	X	X	–	–	X	X
13	2472	–	–	X	X	–	–	X	X
14	2484	–	–	–	–	–	–	X	–

1. Complementary Code Keying
2. Orthogonal Frequency Division Modulation

Note Mexico is included in the Americas (–A) regulatory domain; however, channels 1 through 8 are for indoor use only while channels 9 through 11 can be used both indoors and outdoors. Users are responsible for ensuring that the channel set configuration is in compliance with the regulatory standards of Mexico.

4.9-GHz Band

The channel identifiers, channel center frequencies, and channel width for the 4.90GHz band are shown in Table B-2.

Table B-2 Channels, Center Frequencies, and Channel Widths

Channel	Center Frequency (MHz)	Channel Width (MHz)
1	4942.5	5
2	4947.5	5
3	4952.5	5
4	4957.5	5
5	4962.5	5
6	4967.5	5
7	4972.5	5
8	4977.5	5
9	4982.5	5
10	4987.5	5
11	4945	10
12	4950	10
13	4955	10
14	4960	10
15	4965	10
16	4970	10
17	4975	10
18	4980	10
19	4985	10
20	4950	20
21	4955	20
22	4960	20
23	4965	20
24	4970	20
25	4975	20
26	4980	20

Maximum Power Levels and Antenna Gains

IEEE 802.11g (2.4-GHz Band)

An improper combination of power level and antenna gain can result in equivalent isotropic radiated power (EIRP) that exceeds the amount allowed per regulatory domain. Table B-3 indicates the maximum power levels and antenna gains allowed for each IEEE 802.11g regulatory domain.

Note To meet regulatory restrictions, the external antenna BR1300 must be professionally installed by someone such as the network administration or other IT professional. Following installation, access to the unit should be password protected by the network administrator to maintain regulatory compliance.

Table B-3 Maximum Power Levels Per Antenna Gain for IEEE 802.11g

Regulatory Domain	Antenna Gain (dBi)	Maximum Power Level (mW)	
		CCK	OFDM
Americas (–A) (4 W EIRP maximum)	2.2	100	30
	6	100	30
	6.5	100	30
	10	100	30
	13.5	100	30
	15	50	20
	21	20	10
EMEA (–E) and Israel(-I) (100 mW EIRP maximum)	2.2	50	30
	6	30	10
	6.5	20	10
	10	10	5
	13.5	5	5
	15	5	1
	21	1	—
Japan (-J) (10 mW/MHz EIRP maximum)	2.2	5	5
	6	5	5
	6.5	5	5
	10	5	5
	13.5	5	5
	15	5	5
	21	5	5