



## Radio Channel Frequencies

---

This note lists the radio channels supported by Cisco access products in the regulatory domains of the world.

- [IEEE 802.11n \(2.4-GHz Band\), page 1](#)
- [IEEE 802.11n \(5-GHz Band\), page 2](#)
- [IEEE 802.11b \(2.4-GHz Band\), page 3](#)
- [IEEE 802.11g \(2.4-GHz Band\), page 4](#)
- [IEEE 802.11a \(5-GHz Band\), page 5](#)
- [4.9 GHz \(public safety\) Channels and Frequencies, page 6](#)

### IEEE 802.11n (2.4-GHz Band)

The channel identifiers, channel center frequencies, and regulatory domains of each IEEE 802.11n 22-MHz-wide channel are shown in [Table 1](#).

**Table 1** Channels for IEEE 802.11n 2.4-GHz Radio Band

Channel Identifier	Center Frequency (MHz)	Regulatory Domains		
		Americas (-A)	EMEA (-E)	Japan (-P)
1	2412	X	X	X
2	2417	X	X	X
3	2422	X	X	X
4	2427	X	X	X
5	2432	X	X	X
6	2437	X	X	X
7	2442	X	X	X
8	2447	X	X	X



---

**Americas Headquarters:**  
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

© 2008 Cisco Systems, Inc. All rights reserved.

**Table 1** Channels for IEEE 802.11n 2.4-GHz Radio Band

Channel Identifier	Center Frequency (MHz)	Regulatory Domains		
		Americas (-A)	EMEA (-E)	Japan (-P)
9	2452	X	X	X
10	2457	X	X	X
11	2462	X	X	X
12	2467	-	X	X
13	2472	-	X	X
14	2484	-	-	-

1. 802.11n is not supported on the Cisco 3200 Series WMIC.

## IEEE 802.11n (5-GHz Band)

The channel identifiers, channel center frequencies, and regulatory domains of each IEEE 802.11n 20-MHz-wide channel are shown in [Table 2](#).

**Table 2** 5-GHz Radio Band

Channel Identifier	Center Frequency (MHz)	Regulatory Domains				
		North America (-A)	EMEA (-E)	Japan (-P)	China (-C)	Israel (-I)
36	5180	X	X	X	-	X
40	5200	X	X	X	-	X
44	5220	X	X	X	-	X
48	5240	X	X	X	-	X
52	5260	X	X	X	-	X
56	5280	X	X	X	-	X
60	5300	X	X	X	-	X
64	5320	X	X	X	-	X
100	5500	-	X	-	-	-
104	5520	-	X	-	-	-
108	5540	-	X	-	-	-
112	5560	-	X	-	-	-
116	5580	-	X	-	-	-
120	5600	-	X	-	-	-
124	5620	-	X	-	-	-
128	5640	-	X	-	-	-
132	5660	-	X	-	-	-

**Table 2** 5-GHz Radio Band (continued)

Channel Identifier	Center Frequency (MHz)	Regulatory Domains				
		North America (-A)	EMEA (-E)	Japan (-P)	China (-C)	Israel (-I)
136	5680	–	X	–	–	–
140	5700	–	X	–	–	–
149	5745	X	–	–	X	–
153	5765	X	–	–	X	–
157	5785	X	–	–	X	–
161	5805	X	–	–	X	–
165	5809	X	–	–	X	–

2. 802.11n is not supported on the Cisco 3200 Series WMIC.

## IEEE 802.11b (2.4-GHz Band)

The channel identifiers, channel center frequencies, and regulatory domains of each IEEE 802.11b 22-MHz-wide channel are shown in [Table 3](#).

**Table 3** Channels for IEEE 802.11b

Channel Identifier	Center Frequency (MHz)	Regulatory Domains				
		America (-A)	EMEA (-E)	Japan (-P)	China (-C)	Australia (-N)
1	2412					
2	2417	X	X	X	X	X
3	2422	X	X	X	X	X
4	2427	X	X	X	X	X
5	2432	X	X	X	X	X
6	2437	X	X	X	X	X
7	2442	X	X	X	X	X
8	2447	X	X	X	X	X
9	2452	X	X	X	X	X
10	2457	X	X	X	X	X
11	2462	X	X	X	X	X
12	2467	X	X	X	X	X
13	2472	–	X	X	X	X
14	2484	–	X	X	X	–

**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 indoors and outdoors. Users are responsible for ensuring that the channel set configuration is in compliance with the regulatory standards of Mexico.

## 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 4](#).

**Table 4** Channels for IEEE 802.11g

Channel Identifier	Center Frequency (MHz)	Regulatory Domains				
		America (-A)	EMEA (-E)	Japan (-P)	China (-C)	Australia (-N)
1	2412	X	X	X	X	X
2	2417	X	X	X	X	X
3	2422	X	X	X	X	X
4	2427	X	X	X	X	X
5	2432	X	X	X	X	X
6	2437	X	X	X	X	X
7	2442	X	X	X	X	X
8	2447	X	X	X	X	X
9	2452	X	X	X	X	X
10	2457	X	X	X	X	X
11	2462	X	X	X	X	X
12	2467	–	X	X	X	X
13	2472	–	X	X	X	X
14	2484	–	–	X		–

# IEEE 802.11a (5-GHz Band)

The channel identifiers, channel center frequencies, and regulatory domains of each IEEE 802.11a 20-MHz-wide channel are shown in [Table 5](#).

**Table 5** 5-GHz Radio Band

Channel Identifier	Center Frequency (MHz)	Regulatory Domains				
		North America (-A)	EMEA (-E)	Japan (-P)	China (-C)	Australia (-N)
34	5170	–	–	–	–	–
36	5180	X	X	X	–	X
38	5190	–	–	–	–	–
40	5200	X	X	X	–	X
42	5210	–	–	–	–	–
44	5220	X	X	X	–	X
46	5230	–	–	–	–	–
48	5240	X	X	X	–	X
52	5260	X	X	X	–	X
56	5280	X	X	X	–	X
60	5300	X	X	X	–	X
64	5320	X	X	X	–	X
100	5500	–	X	–	–	–
104	5520	–	X	–	–	–
108	5540	–	X	–	–	–
112	5560	–	X	–	–	–
116	5580	–	X	–	–	–
120	5600	–	X	–	–	–
124	5620	–	X	–	–	–
128	5640	–	X	–	–	–
132	5660	–	X	–	–	–
136	5680	–	X	–	–	–
140	5700	–	X	–	–	–
149	5745	X	–	–	X	X
153	5765	X	–	–	X	X
157	5785	X	–	–	X	X
161	5805	X	–	–	X	X



**Note**

All channel sets are restricted to indoor usage except the Americas (–A), which allows for indoor and outdoor use on channels 52 through 64 in the United States.

## 4.9 GHz (public safety) Channels and Frequencies

This band is available only in the U.S. The radio operates on 5-MHz wide, 10-MHz wide, or 20-MHz wide channels between 4940-MHz and 4990-MHz for the licensed public safety community.

The channel identifiers, channel center frequencies, and channel width for the 4.9GHz band are shown in [Table 6](#).

**Table 6** Channels, Center Frequencies, and Channel Widths

Channel Number	Center Frequency (MHz)	Channel Width (MHz)	Channel Number 12.3(2)JK2 and earlier
1	4942.5	5	5
2	4947.5	5	15
3	4952.5	5	25
4	4957.5	5	35
5	4962.5	5	45
6	4967.5	5	55
7	4972.5	5	65
8	4977.5	5	75
9	4982.5	5	85
10	4987.5	5	95
11	4945	10	10
12	4950	10	20
13	4955	10	30
14	4960	10	40
15	4965	10	50
16	4970	10	60
17	4975	10	70
18	4980	10	80
19	4985	10	90
20	4950	20	20
21	4955	20	30
22	4960	20	40
23	4965	20	50
24	4970	20	60
25	4975	20	70
26	4980	20	80