



*The Capacity to Do Great Things.*

# 4.9 GHz Public Safety Channel Plan

# FCC 4.9 GHz Channel Specifications

From FCC Part 90 the following 18 channels have been defined for the US Public Safety band. The following channel center frequencies (and bandwidths) are permitted to be aggregated for channel bandwidths of 5, 10, 15 or 20 MHz. Channel numbers 1 through 5 and 14 through 18 are 1 MHz channels and channel numbers 6 through 13 are 5 MHz channels. The lower edge of the band is 4940 GHz and the upper edge of the band is 4990 GHz.

FCC Channel Numbers	FCC Channel Center Freq	FCC Channel Bandwidth
1	4940.5	1
2	4941.5	1
3	4942.5	1
4	4943.5	1
5	4944.5	1
6	4947.5	5
7	4952.5	5
8	4957.5	5
9	4962.5	5
10	4967.5	5
11	4972.5	5
12	4977.5	5
13	4982.5	5
14	4985.5	1
15	4986.5	1
16	4987.5	1
17	4988.5	1
18	4989.5	1

# Proxim 4.9 GHz Channel Plan

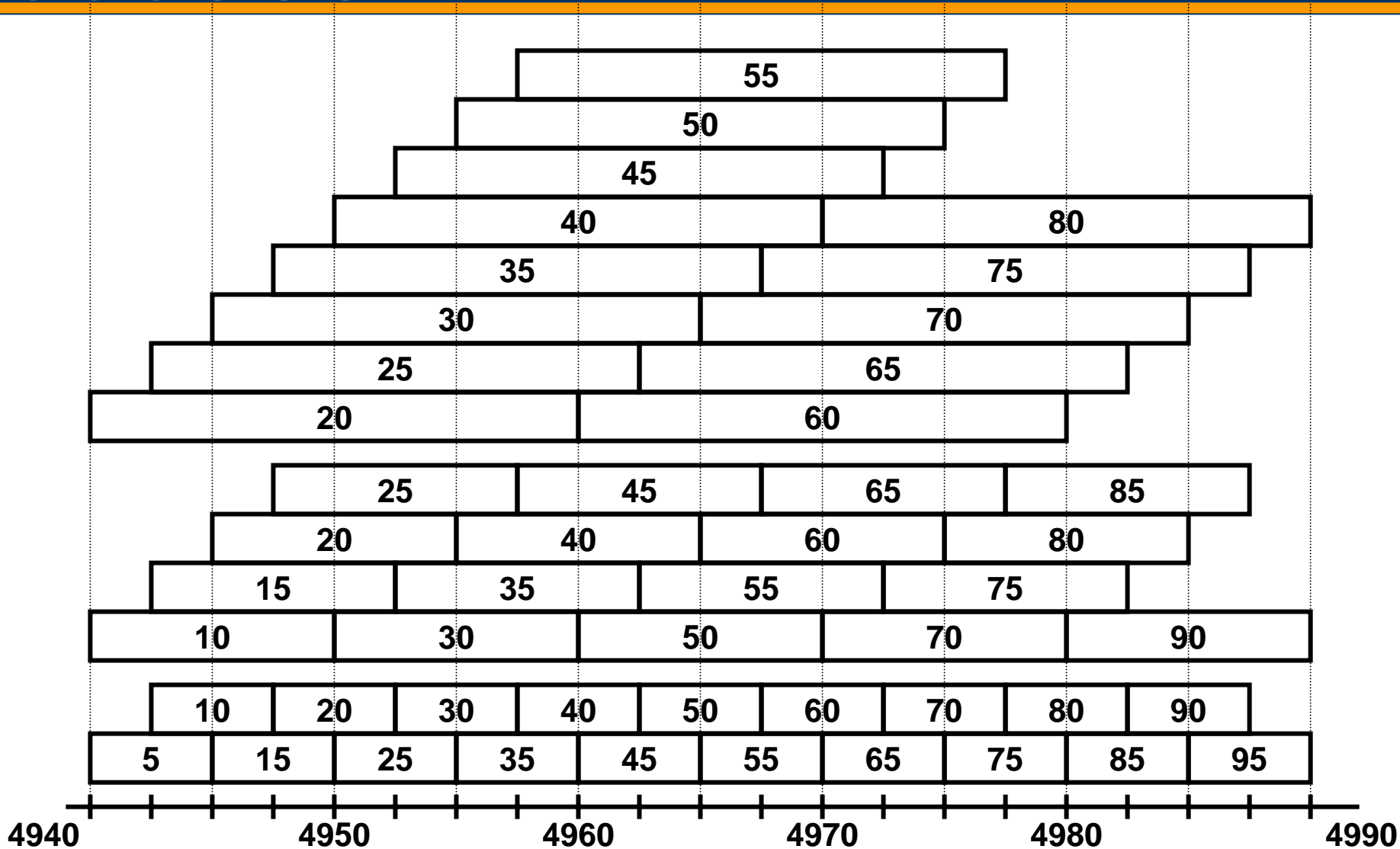
For the US Public Safety band,  
 $F_{center} = 4940 + 0.5 * N_{ch}$   
 (MHz), where  $N_{ch} = 5, 10, \dots,$   
 95.

The power limits are provided by  
 FCC part 90.1215. There are 2  
 masks, one for low power  
 devices, and one for high power  
 devices.

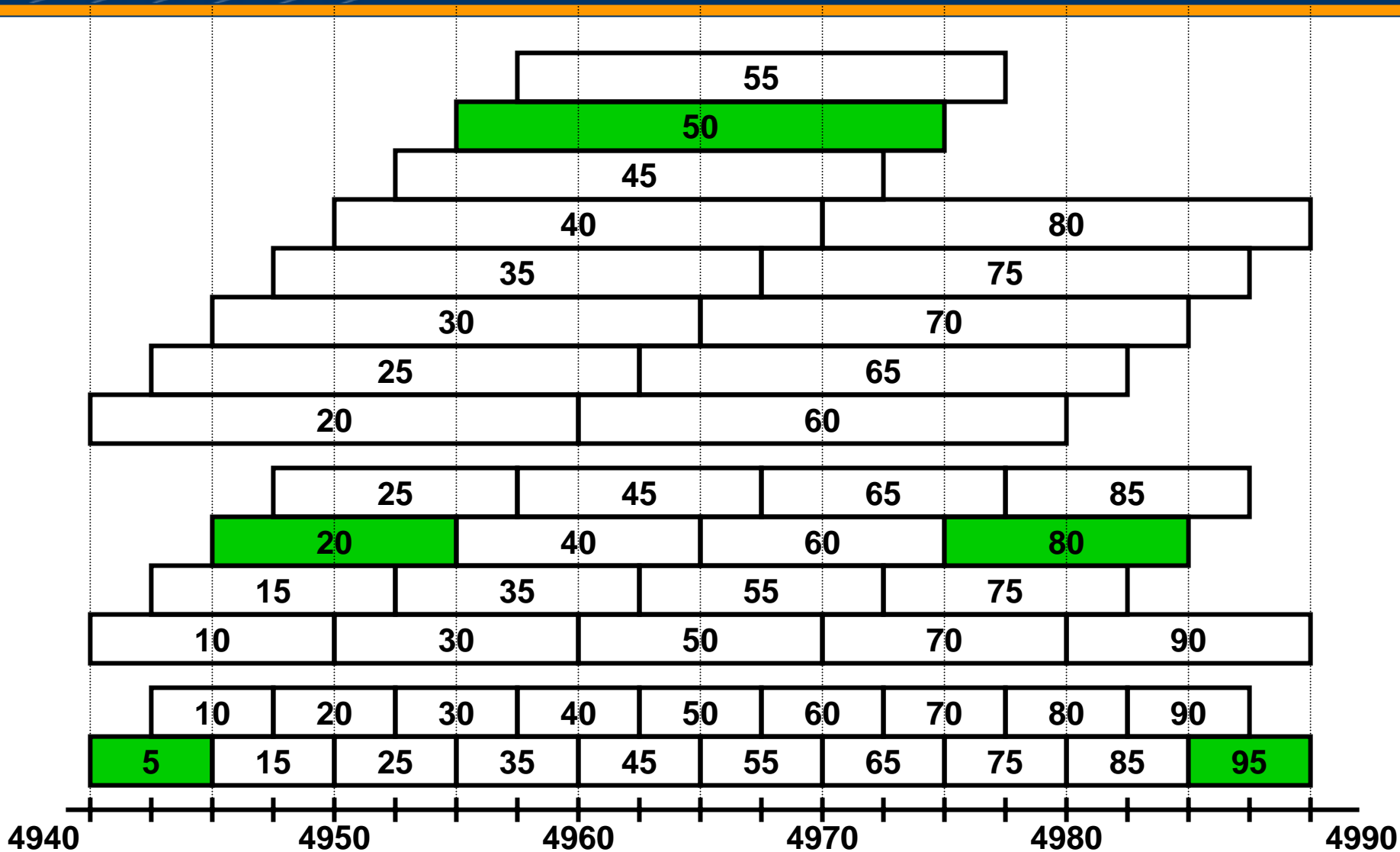
BW	Low Power 802.11a Mask (dBm)	High Power Tiger Mask (dBm)
1	7	20
5	14	27
10	17	30
20	20	33

Proxim Channel Numbers	FCC Channel Center Freq	Bandwidths		
		5	10	20
5	4942.5	5		
10	4945.0	5	10	
15	4947.5	5	10	
20	4950.0	5	10	20
25	4952.5	5	10	20
30	4955.0	5	10	20
35	4957.5	5	10	20
40	4960.0	5	10	20
45	4962.5	5	10	20
50	4965.0	5	10	20
55	4967.5	5	10	20
60	4970.0	5	10	20
65	4972.5	5	10	20
70	4975.0	5	10	20
75	4977.5	5	10	20
80	4980.0	5	10	20
85	4982.5	5	10	
90	4985.0	5	10	
95	4987.5	5		

# Proxim 4.9 GHz Channel Locations



# Proxim 4.9 GHz Channel Locations



# Public Safety Client Operation

## Public Safety Client Operation:

- Scans all nineteen channel numbers for all three bandwidths
- Builds a table listing the SSID, channel number, and bandwidth for each AP that it finds
- Selects the AP to associate with based upon matching the SSID