User Manual for SuperChannel on WP54/WPP54
(Activation Key Feature)

Revision 1

<u>Notice</u>

a) Please make sure that your country supports the extra frequency range that Compex SuperChannel supports. Please also make sure that your country is able to use the different bandwidth of channels that SuperChannel supports. Compex does not bear any responsibility for any of SuperChannel's features that might be deemed illegal in the country that customer used its products.

b) Please contact Compex salesperson / support team for any enquiries regarding sales of activation keys.

c) Each customer might be given up to 4 free activation key samples. Please contact Compex salesperson/ support team for enquiries.

Revision	Reasons for Change
Revision 1	First Release

1. Features of SuperChannel

1. Ability to choose bandwidth of channels from 5MHz, 10MHz and 20MHz.

2. Ability to select frequency from
    2GHz Band   : 2312MHz – 2502MHz
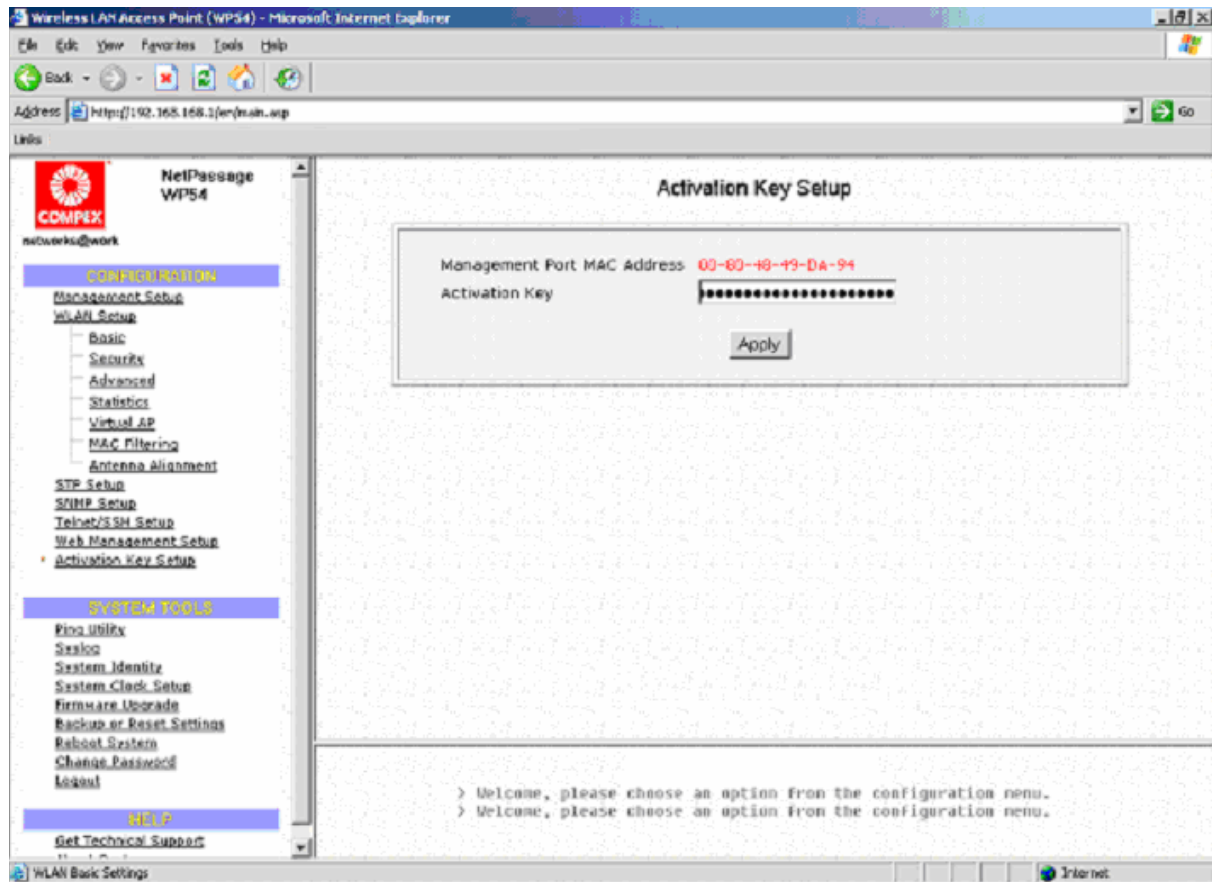   5GHz Band   : 4915MHz – 6085MHz

2. Usefulness of SuperChannel

1. Reduction of bandwidth will reduce the throughput, but it will slightly increase the power of the card. Also, since it can work in a smaller bandwidth, the interference that it received will be smaller. Also, with a smaller bandwidth, it can cause less interference to others working in the similar frequencies around its own. For e.g., one channel using 2437MHz span from 2427MHz to 2447MHz for a normal 20MHz bandwidth. If it reduced to 5MHz, it will only span from 2432.5MHz.

2. With a smaller bandwidth, the range might be able to increase due to less interference and slightly higher power.

3. The number of frequencies that can be used increases, enabling the customers to be able to select more frequencies for their implementation.
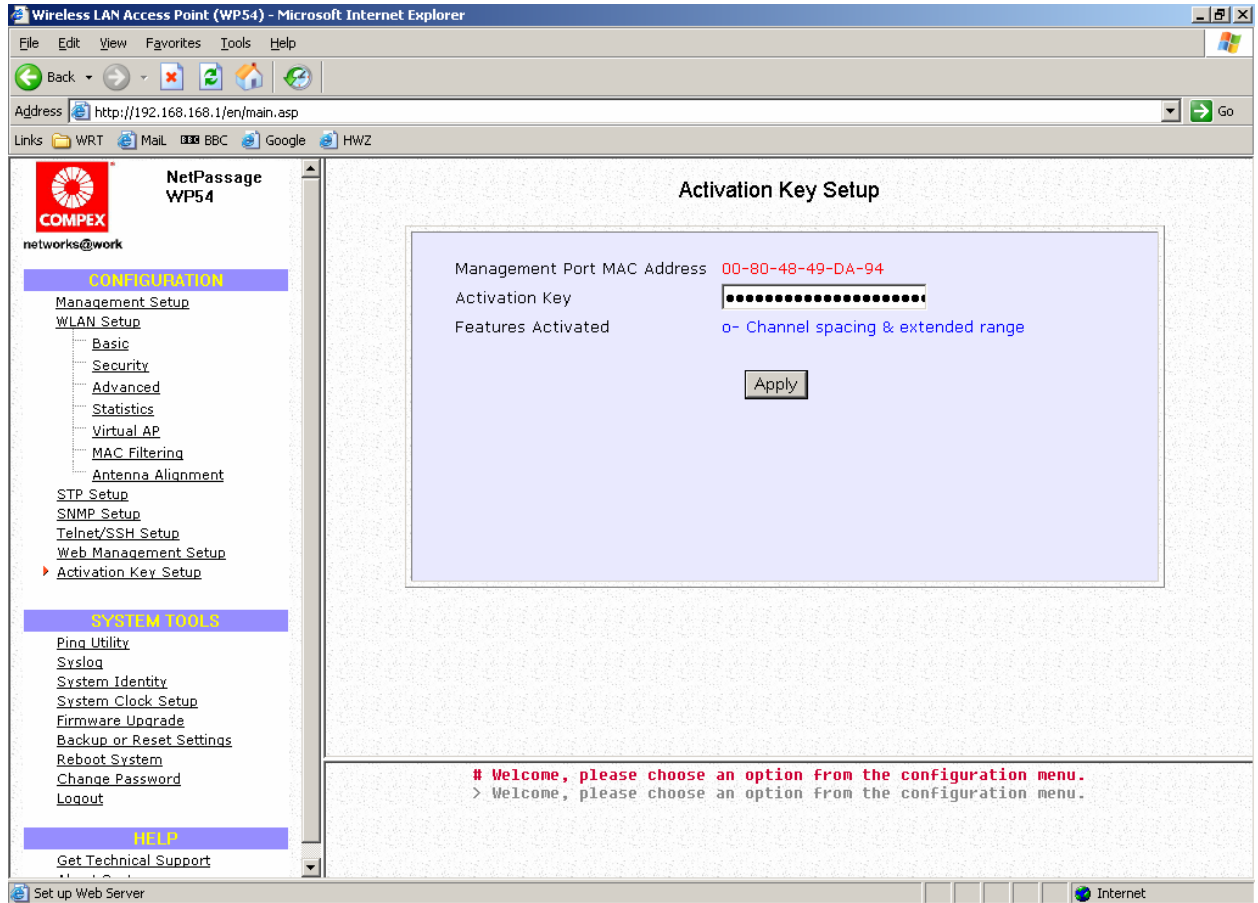
3. Setup

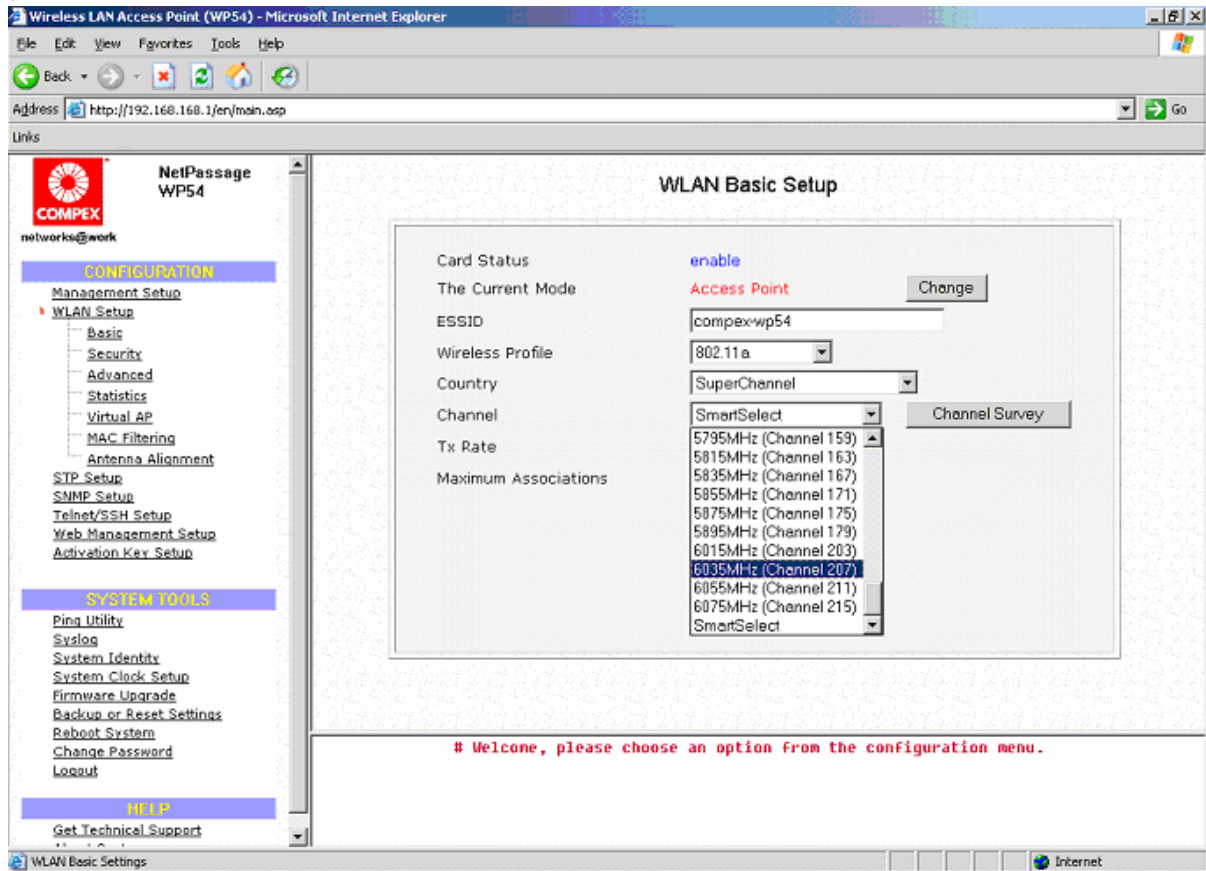## 3.1 Activate the "SuperChannel" feature.

3.1.1   In order to activate the feature we need an "Activation Key" that you might need to put in the "Activation Key Setup" in the SuperChannel Firmware.

3.1.2. The activation key will enable the SuperChannel features that allow you to use other then the normal channel available. The "Features Activated" will indicate what type of features that you already been enabled in the device.
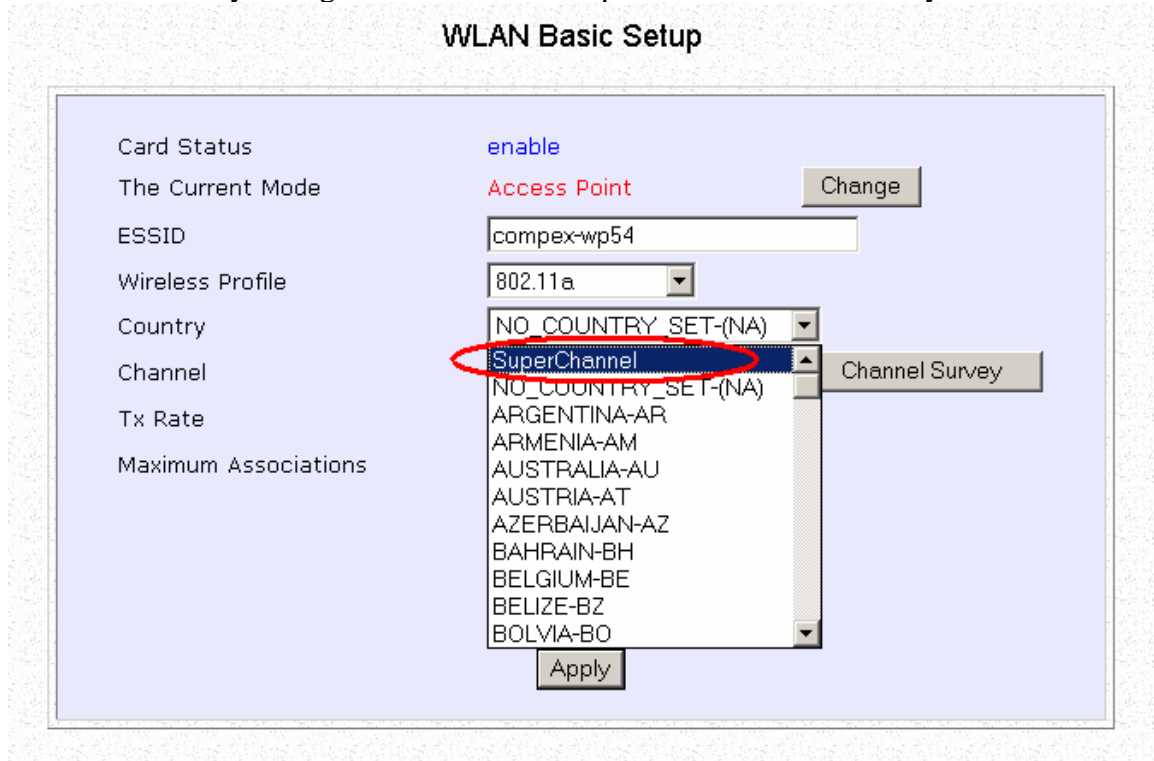
3.1.3   The basic wireless channel mode will be in the 20MHz different modulation for every different channel. Now you need to select the SuperChannel in order to use the function
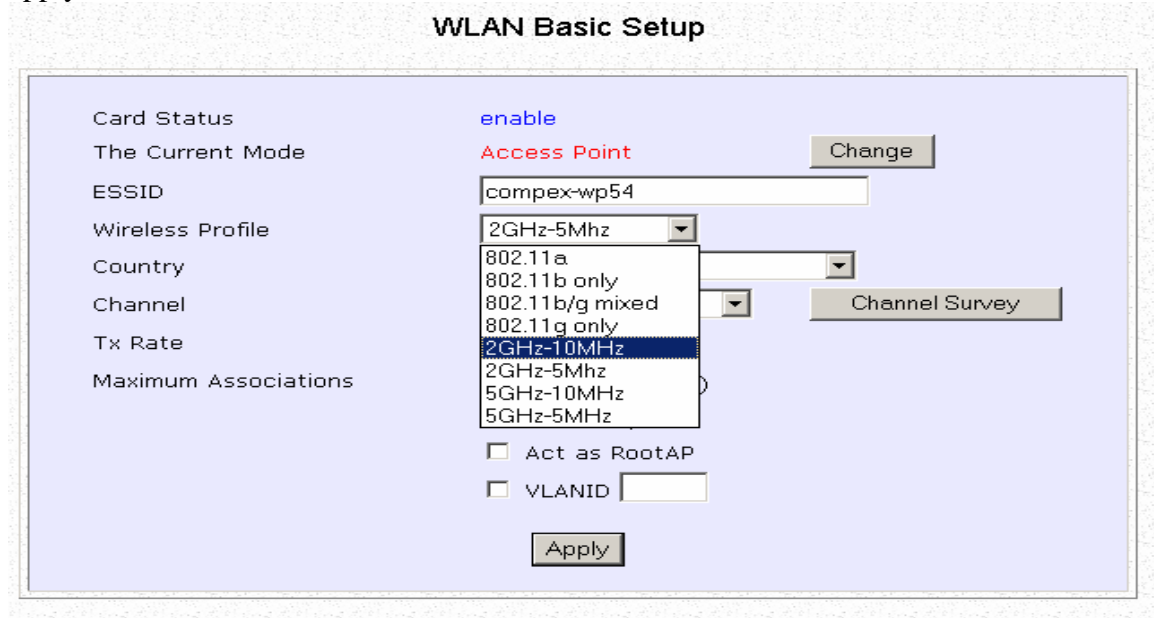.

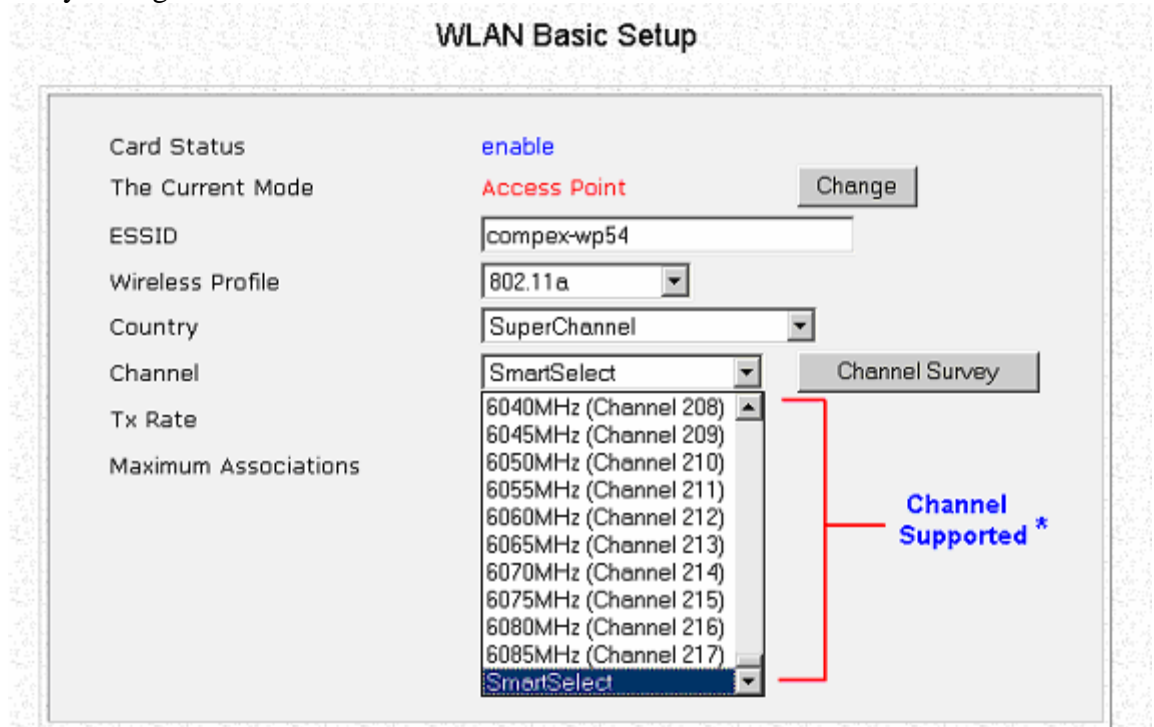## 3.2 Configuration of "SuperChannel" Feature.

3.2.1. First of all you might need to choose SuperChannel in the Country selection.

3.2.2. Followed by the desire frequency and bandwidth in the "Wireless Profile" and apply then restart.

3.2.3 .Support up to 235 channels in A band and 39 channels in B/G band will be appear and you might select one of these channel.

235 Supported Channels that available for A Band

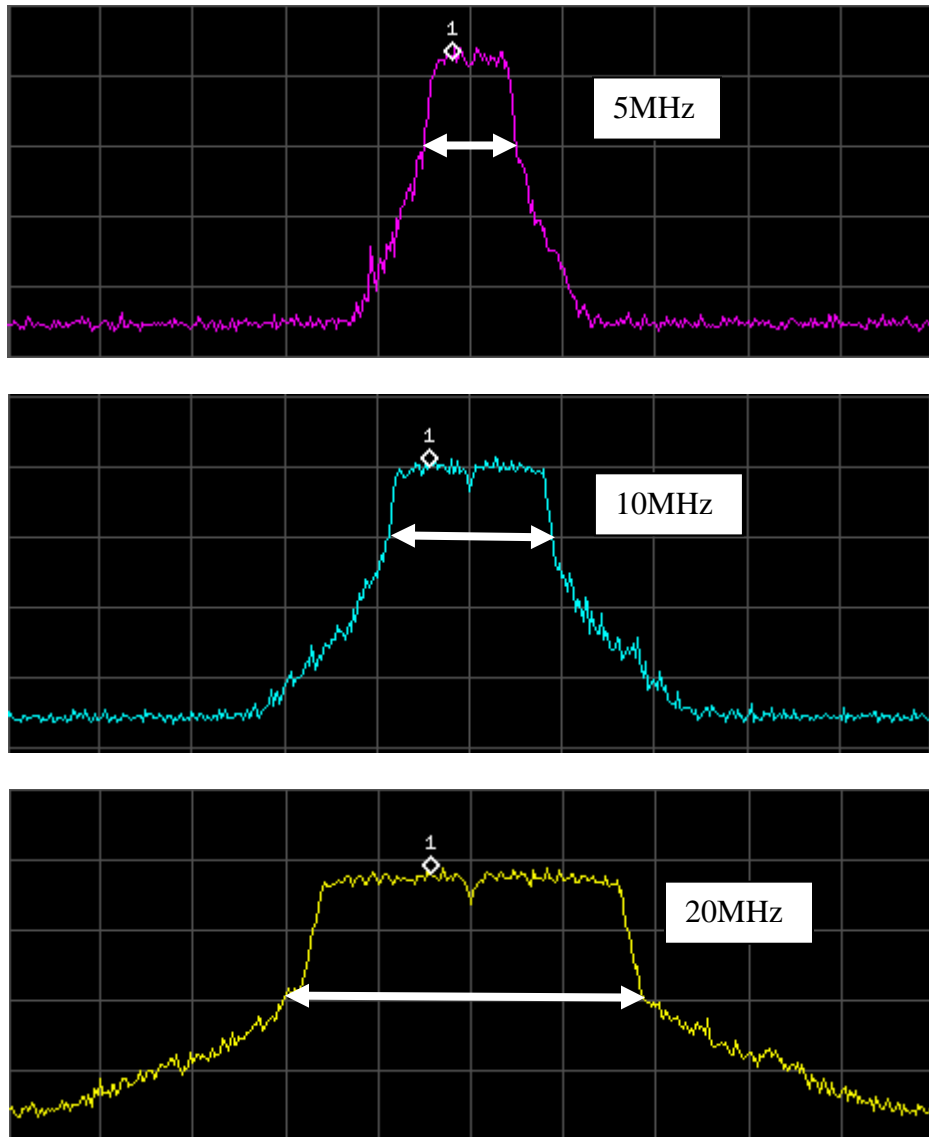|		
4915MHz (Channel 218)	5130MHz (Channel 26)	5345MHz (Channel 69)
4920MHz (Channel 219)	5135MHz (Channel 27)	5350MHz (Channel 70)
4925MHz (Channel 220)	5140MHz (Channel 28)	5355MHz (Channel 71)
4930MHz (Channel 221)	5145MHz (Channel 29)	5360MHz (Channel 72)
4935MHz (Channel 222)	5150MHz (Channel 30)	5365MHz (Channel 73)
4940MHz (Channel 223)	5155MHz (Channel 31)	5370MHz (Channel 74)
4945MHz (Channel 224)	5160MHz (Channel 32)	5375MHz (Channel 75)
4950MHz (Channel 225)	5165MHz (Channel 33)	5380MHz (Channel 76)
4955MHz (Channel 226)	5170MHz (Channel 34)	5385MHz (Channel 77)
4960MHz (Channel 227)	5175MHz (Channel 35)	5390MHz (Channel 78)
4965MHz (Channel 228)	5180MHz (Channel 36)	5395MHz (Channel 79)
4970MHz (Channel 229)	5185MHz (Channel 37)	5400MHz (Channel 80)
4975MHz (Channel 230)	5190MHz (Channel 38)	5405MHz (Channel 81)
4980MHz (Channel 231)	5195MHz (Channel 39)	5410MHz (Channel 82)
4985MHz (Channel 232)	5200MHz (Channel 40)	5415MHz (Channel 83)
4990MHz (Channel 233)	5205MHz (Channel 41)	5420MHz (Channel 84)
4995MHz (Channel 234)	5210MHz (Channel 42)	5425MHz (Channel 85)
5000MHz (Channel 235)	5215MHz (Channel 43)	5430MHz (Channel 86)
5005MHz (Channel 1)	5220MHz (Channel 44)	5435MHz (Channel 87)
5010MHz (Channel 2)	5225MHz (Channel 45)	5440MHz (Channel 88)
5015MHz (Channel 3)	5230MHz (Channel 46)	5445MHz (Channel 89)
5020MHz (Channel 4)	5235MHz (Channel 47)	5450MHz (Channel 90)
5025MHz (Channel 5)	5240MHz (Channel 48)	5455MHz (Channel 91)
5030MHz (Channel 6)	5245MHz (Channel 49)	5460MHz (Channel 92)
5035MHz (Channel 7)	5250MHz (Channel 50)	5465MHz (Channel 93)
5040MHz (Channel 8)	5255MHz (Channel 51)	5470MHz (Channel 94)
5045MHz (Channel 9)	5260MHz (Channel 52)	5475MHz (Channel 95)
5050MHz (Channel 10)	5265MHz (Channel 53)	5480MHz (Channel 96)
5055MHz (Channel 11)	5270MHz (Channel 54)	5485MHz (Channel 97)
5060MHz (Channel 12)	5275MHz (Channel 55)	5490MHz (Channel 98)
5065MHz (Channel 13)	5280MHz (Channel 56)	5495MHz (Channel 99)
5070MHz (Channel 14)	5285MHz (Channel 57)	5500MHz (Channel 100)
5075MHz (Channel 15)	5290MHz (Channel 58)	5505MHz (Channel 101)
5080MHz (Channel 16)	5295MHz (Channel 59)	5510MHz (Channel 102)
5085MHz (Channel 17)	5300MHz (Channel 60)	5515MHz (Channel 103)
5090MHz (Channel 18)	5305MHz (Channel 61)	5520MHz (Channel 104)
5095MHz (Channel 19)	5310MHz (Channel 62)	5525MHz (Channel 105)
5100MHz (Channel 20)	5315MHz (Channel 63)	5530MHz (Channel 106)
5105MHz (Channel 21)	5320MHz (Channel 64)	5535MHz (Channel 107)
5110MHz (Channel 22)	5325MHz (Channel 65)	5540MHz (Channel 108)
5115MHz (Channel 23)	5330MHz (Channel 66)	5545MHz (Channel 109)
5120MHz (Channel 24)	5335MHz (Channel 67)	5550MHz (Channel 110)
5125MHz (Channel 25)	5340MHz (Channel 68)	5555MHz (Channel 111)

5560MHz (Channel 112)	5740MHz (Channel 148)	5920MHz (Channel 184)
5565MHz (Channel 113)	5745MHz (Channel 149)	5925MHz (Channel 185)
5570MHz (Channel 114)	5750MHz (Channel 150)	5930MHz (Channel 186)
5575MHz (Channel 115)	5755MHz (Channel 151)	5935MHz (Channel 187)
5580MHz (Channel 116)	5760MHz (Channel 152)	5940MHz (Channel 188)
5585MHz (Channel 117)	5765MHz (Channel 153)	5945MHz (Channel 189)
5590MHz (Channel 118)	5770MHz (Channel 154)	5950MHz (Channel 190)
5595MHz (Channel 119)	5775MHz (Channel 155)	5955MHz (Channel 191)
5600MHz (Channel 120)	5780MHz (Channel 156)	5960MHz (Channel 192)
5605MHz (Channel 121)	5785MHz (Channel 157)	5965MHz (Channel 193)
5610MHz (Channel 122)	5790MHz (Channel 158)	5970MHz (Channel 194)
5615MHz (Channel 123)	5795MHz (Channel 159)	5975MHz (Channel 195)
5620MHz (Channel 124)	5800MHz (Channel 160)	5980MHz (Channel 196)
5625MHz (Channel 125)	5805MHz (Channel 161)	5985MHz (Channel 197)
5630MHz (Channel 126)	5810MHz (Channel 162)	5990MHz (Channel 198)
5635MHz (Channel 127)	5815MHz (Channel 163)	5995MHz (Channel 199)
5640MHz (Channel 128)	5820MHz (Channel 164)	6000MHz (Channel 200)
5645MHz (Channel 129)	5825MHz (Channel 165)	6005MHz (Channel 201)
5650MHz (Channel 130)	5830MHz (Channel 166)	6010MHz (Channel 202)
5655MHz (Channel 131)	5835MHz (Channel 167)	6015MHz (Channel 203)
5660MHz (Channel 132)	5840MHz (Channel 168)	6020MHz (Channel 204)
5665MHz (Channel 133)	5845MHz (Channel 169)	6025MHz (Channel 205)
5670MHz (Channel 134)	5850MHz (Channel 170)	6030MHz (Channel 206)
5675MHz (Channel 135)	5855MHz (Channel 171)	6035MHz (Channel 207)
5680MHz (Channel 136)	5860MHz (Channel 172)	6040MHz (Channel 208)
5685MHz (Channel 137)	5865MHz (Channel 173)	6045MHz (Channel 209)
5690MHz (Channel 138)	5870MHz (Channel 174)	6050MHz (Channel 210)
5695MHz (Channel 139)	5875MHz (Channel 175)	6055MHz (Channel 211)
5700MHz (Channel 140)	5880MHz (Channel 176)	6060MHz (Channel 212)
5705MHz (Channel 141)	5885MHz (Channel 177)	6065MHz (Channel 213)
5710MHz (Channel 142)	5890MHz (Channel 178)	6070MHz (Channel 214)
5715MHz (Channel 143)	5895MHz (Channel 179)	6075MHz (Channel 215)
5720MHz (Channel 144)	5900MHz (Channel 180)	6080MHz (Channel 216)
5725MHz (Channel 145)	5905MHz (Channel 181)	6085MHz (Channel 217)
5730MHz (Channel 146)	5910MHz (Channel 182)	
5735MHz (Channel 147)	5915MHz (Channel 183)	

39 Supported Channels that available for B or G Band

2312MHz (Channel 60)	2412MHz (Channel 1)
2317MHz (Channel 61)	2417MHz (Channel 2)
2322MHz (Channel 62)	2422MHz (Channel 3)
2327MHz (Channel 63)	2427MHz (Channel 4)
2332MHz (Channel 64)	2432MHz (Channel 5)
2337MHz (Channel 65)	2437MHz (Channel 6)
2342MHz (Channel 66)	2442MHz (Channel 7)
2347MHz (Channel 67)	2447MHz (Channel 8)
2352MHz (Channel 68)	2452MHz (Channel 9)
2357MHz (Channel 69)	2457MHz (Channel 10)
2362MHz (Channel 70)	2462MHz (Channel 11)
2367MHz (Channel 71)	2467MHz (Channel 12)
2372MHz (Channel 72)	2472MHz (Channel 13)
2377MHz (Channel 73)	2477MHz (Channel 14)
2382MHz (Channel 74)	2482MHz (Channel 15)
2387MHz (Channel 75)	2487MHz (Channel 16)
2392MHz (Channel 76)	2492MHz (Channel 17)
2397MHz (Channel 77)	2497MHz (Channel 18)
2402MHz (Channel 78)	2502MHz (Channel 19
2407MHz (Channel 79)	

4. Performance

For WP54 running on 5/10/20MHz, the output on the Spectrum Analyser will be:

5MHz

10MHz

20MHz

For WP54 running at 10MHz, the throughput will be reduced by half than the normal 20MHz. For WP54 running at 5MHz, the throughout will be reduced by 4 times than the normal 20MHz.