
20dB Bandwidth

Connect the antenna port(s) to the spectrum analyzer input. Using the spectrum analyzer Channel Bandwidth mode, configure the spectrum analyzer as shown below (enter all losses between the transmitter output and the spectrum analyzer).

Center Frequency: Frequency from table below
Span: 2 x Nominal Bandwidth (e.g. 40MHz for a 20MHz channel)
Reference Level: 20 dBm
Attenuation: 10 dB
Sweep Time: 5 s
Resolution Bandwidth: 1%-3% of 20 dB Bandwidth
Video Bandwidth: ≥Resolution Bandwidth
X dB Bandwidth: 20 dB
Detector: Peak
Trace: Single

Place the radio in continuous transmit mode. View the transmitter waveform on the spectrum analyzer, and record the pertinent measurements:

Frequency (MHz)	Mode	Data Rate (Mbps)	20dB BW (MHz)	Limit (MHz)	Margin (MHz)
5560	20 MHz Bandwidth	m0	20.0	20	0.0
5680	20 MHz Bandwidth	m0	20.0	20	0.0
5540/5560	40 MHz Bandwidth	m0	39.1	40	0.9

20dB Bandwidth, 5560 MHz, 20 MHz BW

<p>Agilent R T</p>		<p>Amplitude</p>	
<p>Ch Freq 5.56 GHz Trig Free</p>		<p>Ref Level 18.00 dBm</p>	
<p>Occupied Bandwidth</p>		<p>Attenuation 0.00 dB Auto Man</p>	
<p>Ref 18 dBm #Atten 0 dB</p>		<p>Scale/Div 10.00 dB</p>	
<p>Center 5.560 00 GHz Span 40 MHz</p> <p>#Res BW 390 kHz #VBW 4 MHz</p> <p>#Sweep 5 s (601 pts)</p>		<p>Scale Type Log Lin</p>	
<p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>18.1738 MHz x dB -20.00 dB</p>		<p>Presel Center</p>	
<p>Transmit Freq Error -33.143 kHz</p> <p>x dB Bandwidth 19.980 MHz*</p>		<p>Presel Adjust [3-26 GHz]* 0.000 Hz</p>	
<p>Copyright 2000-2007 Agilent Technologies</p>		<p>More 1 of 3</p>	

20dB Bandwidth, 5680 MHz, 20 MHz BW

<p>Agilent R T</p>		<p>Freq/Channel</p>	
<p>Ch Freq 5.68 GHz Trig Free</p>		<p>Center Freq 5.68000000 GHz</p>	
<p>Occupied Bandwidth</p>		<p>Start Freq 5.66000000 GHz</p>	
<p>Ref 18 dBm #Atten 0 dB</p>		<p>Stop Freq 5.70000000 GHz</p>	
<p>Center 5.680 00 GHz Span 40 MHz</p> <p>#Res BW 390 kHz #VBW 4 MHz</p> <p>#Sweep 5 s (601 pts)</p>		<p>CF Step 4.00000000 MHz Auto Man</p>	
<p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>18.1788 MHz x dB -20.00 dB</p>		<p>Freq Offset 0.00000000 Hz</p>	
<p>Transmit Freq Error -43.457 kHz</p> <p>x dB Bandwidth 19.981 MHz*</p>		<p>Signal Track On Off</p>	
<p>Copyright 2000-2007 Agilent Technologies</p>			

20dB Bandwidth, 5540/5560 MHz, 40 MHz BW

