

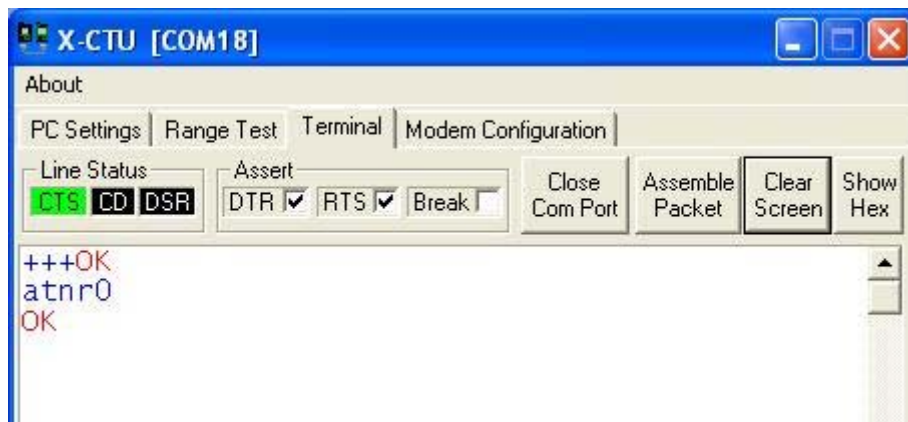
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## Setting up the Network and Changing Channels with XBee ZNet 2.5 or ZB Radios

If you power up your router/end node and it does not join the same channel as the coordinator, verify that the PAN ID is the same on both the coordinator and remote module. If they are the same, follow these steps to reset the remote module.

- Connect the module to the board.
- Launch X-CTU and select the corresponding COM Port.
- Click on the Terminal tab.
- Enter command mode by typing three '+'s in succession.
- Enter the ATNR0 to issue a network reset to the module.
- The module will attempt to locate a network with a matching PAN ID. (Once the reset is complete, the radio will automatically exit command mode.)

\*Note\* The default time-out for exiting command mode is 10 seconds of no activity. If you don't receive an OK response after typing ATNR0, the radio has most likely already exited command mode and you will need to reenter the 3 '+'s.



If your end node still is on a different channel than your coordinator, try changing the PAN ID of both radios (coordinator first).

If you wish to use a particular channel or channels, you can limit the channel range using the Scan Channel or SC parameter. The SC value is a 16 bit value with each bit representing a channel. For a single channel, set the SC parameter accordingly using the chart below.

Channel*	SC	Frequency (MHz)	Bitmap	XBee ZNet 2.5/ZB	XBee ZNet 2.5/ZB PRO
B	1	2.405	0000 0000 0000 0001	x	
C	2	2.410	0000 0000 0000 0010	x	x
D	4	2.415	0000 0000 0000 0100	x	x
E	8	2.420	0000 0000 0000 1000	x	x
F	10	2.425	0000 0000 0001 0000	x	x
10	20	2.430	0000 0000 0010 0000	x	x
11	40	2.435	0000 0000 0100 0000	x	x
12	80	2.440	0000 0000 1000 0000	x	x
13	100	2.445	0000 0001 0000 0000	x	x
14	200	2.450	0000 0010 0000 0000	x	x
15	400	2.455	0000 0100 0000 0000	x	x
16	800	2.460	0000 1000 0000 0000	x	x
17	1000	2.465	0001 0000 0000 0000	x	x
18	2000	2.470	0010 0000 0000 0000	x	x
19	4000	2.475	0100 0000 0000 0000	x	
1A	8000	2.480	1000 0000 0000 0000	x	

You can also specify multiple channels for the module to choose from. For example if you wanted to use only channels 12, 13, and 14, you would add all the corresponding bitmaps together.

0000 0000 1000 0000 + 0000 0001 0000 0000 + 0000 0010 0000 0000 = 0000 0011 1000 0000 = 0x0380

Thus, setting the SC parameter to the hex value 380 would specify to the radios to only join channel 12, 13, or 14.

\*This table applies to our XBee 802.15.4 products. The channel limitations between the XBee and XBee PRO modules also pertain to the XBee 802.15.4 product line.

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