* Wi-Fi testing Guide

1. Command introduction

To Change frequency, you need to enter below sets of commands.

|  |  |
| --- | --- |
| ./wl pkteng\_stop tx | -Used to stop the Tx/Rx mode |
| ./wl ver | Get wl and driver version information |
| ./wl down | Reset and mark adapter down (disabled) |
| ./wl mpc 0 | Set minimum power consumption mode |
| ./wl phy\_watchdog 0 | PHY watchdog can hit periodically to run some calibration tests. This is known to create trouble when we intend to run pkteng for several minutes. Hence it is recommended to disable watchdog before running test. (wl phy\_watchdog 0) |
| ./wl country **DE** | To select country |
| ./wl band **a** | To select the band  i.e wl band **b** **= 2.4GHz** = wl 2g\_rate  wl band **a** = **5 GHz** = wl 5g\_rate |
| ./wl chanspec 36 | To select the channel |
| ./wl 5g\_rate -r **6** | To select the band and data-rate |
| ./wl up | Reinitialize and mark adapter up |
| ./wl phy\_forcecal 1 | Force the PHY calibration to run immediately |
| ./wl phy\_activecal |  |
| ./wl txpwr1 -1 | Set TX power in dBm  Use wl txpwr1 -1 to restore defaults  ./wl txpwr1 -1 - to restore defaults  ./wl txpwr1 -d **11** -To set power in dbm ,to change the power change the highlighted value |
| ./wl scansuppress 1 | Suppress all scans for testing |
| ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 | PKT Engine is a feature in driver+ucode. |

List of available Channels:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Channel** | **Code** | **Channel** | **Code** | **Channel** | **Code** |
| 1 | (0x1001) | 3l | (0x1805) | 128 | (0xd080) |
| 2 | (0x1002) | 4l | (0x1806) | 132 | (0xd084) |
| 3 | (0x1003) | 5l | (0x1807) | 136 | (0xd088) |
| 4 | (0x1004) | 6l | (0x1808) | 140 | (0xd08c) |
| 5 | (0x1005) | 7l | (0x1809) | 144 | (0xd090) |
| 6 | (0x1006) | 36 | (0xd024) | 149 | (0xd095) |
| 7 | (0x1007) | 40 | (0xd028) | 153 | (0xd099) |
| 8 | (0x1008) | 44 | (0xd02c) | 157 | (0xd09d) |
| 9 | (0x1009) | 48 | (0xd030) | 161 | (0xd0a1) |
| 10 | (0x100a) | 52 | (0xd034) | 165 | (0xd0a5) |
| 11 | (0x100b) | 56 | (0xd038) | 40u | (0xd926) |
| 5u | (0x1903) | 60 | (0xd03c) | 48u | (0xd92e) |
| 6u | (0x1904) | 64 | (0xd040) | 56u | (0xd936) |
| 7u | (0x1905) | 100 | (0xd064) | 64u | (0xd93e) |
| 8u | (0x1906) | 104 | (0xd068) | 104u | (0xd966) |
| 9u | (0x1907) | 108 | (0xd06c) | 112u | (0xd96e) |
| 10u | (0x1908) | 112 | (0xd070) | 120u | (0xd976) |
| 11u | (0x1909) | 116 | (0xd074) | 128u | (0xd97e) |
| 1l | (0x1803) | 120 | (0xd078) | 136u | (0xd986) |
| 2l | (0x1804) | 124 | (0xd07c) | 144u | (0xd98e) |

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| **Channel** | **Code** | **Channel** | **Code** |
| 153u | (0xd997) | 149/80 | (0xe09b) |
| 161u | (0xd99f) | 40/80 | (0xe12a) |
| 36l | (0xd826) | 56/80 | (0xe13a) |
| 44l | (0xd82e) | 104/80 | (0xe16a) |
| 52l | (0xd836) | 120/80 | (0xe17a) |
| 60l | (0xd83e) | 136/80 | (0xe18a) |
| 100l | (0xd866) | 153/80 | (0xe19b) |
| 108l | (0xd86e) | 44/80 | (0xe22a) |
| 116l | (0xd876) | 60/80 | (0xe23a) |
| 124l | (0xd87e) | 108/80 | (0xe26a) |
| 132l | (0xd886) | 124/80 | (0xe27a) |
| 140l | (0xd88e) | 140/80 | (0xe28a) |
| 149l | (0xd897) | 157/80 | (0xe29b) |
| 157l | (0xd89f) | 48/80 | (0xe32a) |
| 36/80 | (0xe02a) | 64/80 | (0xe33a) |
| 52/80 | (0xe03a) | 112/80 | (0xe36a) |
| 100/80 | (0xe06a) | 128/80 | (0xe37a) |
| 116/80 | (0xe07a) | 144/80 | (0xe38a) |
| 132/80 | (0xe08a) | 161/80 | (0xe39b) |

1. Wi-Fi testing commands for ETSI:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr.No | IEEE std | Channel | Frequency | Data-rate | Command |
| 1 | 802.11b | 1 | 2412 | 1Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -r 1  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 17  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 2 | 802.11b | 1 | 2412 | 11Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -r 11  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 17  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 3 | 802.11b | 11 | 2462 | 1Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -r 1  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 17  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 4 | 802.11b | 11 | 2462 | 11Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -r 11  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 17  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 5 | 802.11g | 1 | 2412 | 6Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -r 6  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 16  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 6 | 802.11g | 1 | 2412 | 54Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -r 54  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 11  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 7 | 802.11g | 11 | 2462 | 6Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -r 6  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 8 | 802.11g | 11 | 2462 | 54Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -r 54  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 9 | 802.11n | 1 | 2412 | 6.5 MCS0 | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -h 0 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 11  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 10 | 802.11n | 1 | 2412 | 65 MCS7 | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -h 7 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 11  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 11 | 802.11n | 11 | 2462 | 6.5 MCS0 | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -h 0 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 12 | 802.11n | 11 | 2462 | 65 MCS7 | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -h 7 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 12  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 13 | 802.11n | 40 | 5200 | 6.5MCS0-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 40  ./wl 5g\_rate -h 0 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 14 | 802.11n | 40 | 5200 | 65MCS7-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 40  ./wl 5g\_rate -h 7 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 15 | 802.11n | 48 | 5240 | 6.5MCS0-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -h 0 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 16 | 802.11n | 48 | 5240 | 65 MCS7-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -h 7 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 17 | 802.11n | 36 | 5180 | 13.5MCS0-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 149l  ./wl 5g\_rate -h 0 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 13  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 18 | 802.11n | 36 | 5180 | 135MCS7-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 36  ./wl 5g\_rate -h 7 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 19 | 802.11n | 48 | 5240 | 13.5MCS0-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -h 0 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 20 | 802.11n | 48 | 5240 | 135MCS7-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -h 7 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 21 | 802.11a | 36 | 5180 | 6Mbps  20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 36  ./wl 5g\_rate -r 6  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 22 | 802.11a | 36 | 5180 | 54Mbps  20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 165  ./wl 5g\_rate -r 54  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 13  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 23 | 802.11a | 36 | 5180 | 6.5 MCS0 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 36  ./wl 5g\_rate -v 0 -s 1 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 15  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0  Or  ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 36  ./wl 5g\_rate -h 7 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 13  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 24 | 802.11a | 48 | 5240 | 6Mbps-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -r 6  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 25 | 802.11a | 48 | 5240 | 54Mbps-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -r 54  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 26 | 802.11a | 48 | 5240 | 78 MCS8 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -v 8 -s 1 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 27 | 802.11ac | 48 | 5240 | 13.5 MCS0 40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 48u  ./wl 5g\_rate -v 9 -s 1 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 10  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
|  |  |  |  |  |  |
| 28 | 802.11ac | 48 | 5210 | 390 MCS9 80M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -v 9 -s 1 -b 80  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 29 | 802.11ac | 153 | 5765 | 78 MCS8 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country DE  ./wl band a  ./wl chanspec 153  ./wl 5g\_rate -v 8 -s 1 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |

* FOR FCC testing

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr.No | IEEE std | Channel | Frequency | Data-rate | Command |
| 1 | 802.11b | 1 | 2412 | 1Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -r 1  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 17  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 2 | 802.11b | 1 | 2412 | 11Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -r 11  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 3 | 802.11b | 11 | 2462 | 1Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -r 1  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 4 | 802.11b | 11 | 2462 | 11Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -r 11  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 5 | 802.11g | 1 | 2412 | 6Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -r 6  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 11  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 6 | 802.11g | 1 | 2412 | 54Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -r 54  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 11  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 7 | 802.11g | 11 | 2462 | 6Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -r 6  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 8 | 802.11g | 11 | 2462 | 54Mbps | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -r 54  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 9 | 802.11n | 1 | 2412 | 6.5 MCS0 | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -h 0 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 11  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 10 | 802.11n | 1 | 2412 | 65 MCS7 | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 1  ./wl 2g\_rate -h 7 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 11  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 11 | 802.11n | 11 | 2462 | 6.5 MCS0 | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -h 0 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 12 | 802.11n | 11 | 2462 | 65 MCS7 | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band b  ./wl chanspec 11  ./wl 2g\_rate -h 7 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 12  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 13 | 802.11n | 40 | 5200 | 6.5MCS0-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 40  ./wl 5g\_rate -h 0 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 14 | 802.11n | 40 | 5200 | 65MCS7-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 40  ./wl 5g\_rate -h 7 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 15 | 802.11n | 48 | 5240 | 6.5MCS0-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -h 0 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 16 | 802.11n | 48 | 5240 | 65 MCS7-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -h 7 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 17 | 802.11n | 149 | 5745 | 6.5MCS0-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 149  ./wl 5g\_rate -h 0 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 13  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 18 | 802.11n | 149 | 5745 | 65MCS7-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 149  ./wl 5g\_rate -h 7 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 19 | 802.11n | 165 | 5825 | 6.5MCS0-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 165  ./wl 5g\_rate -h 0 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 20 | 802.11n | 165 | 5825 | 65MCS7-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 165  ./wl 5g\_rate -h 7 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 21 | 802.11n | 36 | 5190 | 13.5MCS0-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 149l  ./wl 5g\_rate -h 0 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 13  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 22 | 802.11n | 36 | 5190 | 135MCS7-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 36  ./wl 5g\_rate -h 7 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 23 | 802.11n | 48 | 5240 | 13.5MCS0-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -h 0 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 24 | 802.11n | 48 | 5240 | 135MCS7-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -h 7 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 25 | 802.11n | 149 | 5755 | 13.5MCS0-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 149  ./wl 5g\_rate -h 0 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 26 | 802.11n | 149 | 5755 | 135MCS7-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 149  ./wl 5g\_rate -h 7 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 27 | 802.11n | 165 | 5795 | 13.5MCS0-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 165  ./wl 5g\_rate -h 0 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 28 | 802.11n | 165 | 5795 | 135MCS7-40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 165  ./wl 5g\_rate -h 7 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 29 | 802.11a | 36 | 5180 | 6Mbps  20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 36  ./wl 5g\_rate -r 6  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 30 | 802.11a | 36 | 5180 | 54Mbps  20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 165  ./wl 5g\_rate -r 54  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 13  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 31 | 802.11a | 36 | 5210 | 6.5 MCS0 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -v 0 -s 1 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 15  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0  Or  ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -h 7 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 13  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 32 | 802.11a | 48 | 5240 | 6Mbps-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -r 6  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 33 | 802.11a | 48 | 5240 | 54Mbps-20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -r 54  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 34 | 802.11a | 48 | 5240 | 78 MCS8 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 48  ./wl 5g\_rate -v 8 -s 1 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 35 | 802.11a | 149 | 5745 | 6Mbps 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 149  ./wl 5g\_rate -r 6  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 36 | 802.11a | 149 | 5745 | 54Mbps 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 149  ./wl 5g\_rate -r 54  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 37 | 802.11a | 165 | 5825 | 6Mbps 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 165  ./wl 5g\_rate -r 6  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 38 | 802.11a | 165 | 5825 | 54Mbps 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 165  ./wl 5g\_rate -r 54  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 39 | 802.11ac | 48 | 5190 | 13.5 MCS0 40M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 48u  ./wl 5g\_rate -v 9 -s 1 -b 40  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 10  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 40 | 802.11ac | 161 | 5210 | 29.3 MCS0 80M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 161/80  ./wl 5g\_rate -v 0 -s 1 -b 80  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 12  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 41 | 802.11ac | 48 | 5210 | 390 MCS9 80M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 48/80  ./wl 5g\_rate -v 9 -s 1 -b 80  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 42 | 802.11ac | 149 | 5745 | 6.5 MCS0 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 165  ./wl 5g\_rate -v 0 -s 1 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -d 10  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 43 | 802.11ac | 149 | 5755 | 13.5 MCS0 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 149  ./wl 5g\_rate -v 0 -s 1 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |
| 44 | 802.11ac | 153 | 5765 | 78 MCS8 20M | ./wl pkteng\_stop tx  ./wl ver  ./wl down  ./wl mpc 0  ./wl phy\_watchdog 0  ./wl country US  ./wl band a  ./wl chanspec 153  ./wl 5g\_rate -v 8 -s 1 -b 20  ./wl up  ./wl phy\_forcecal 1  ./wl phy\_activecal  ./wl txpwr1 -1  ./wl scansuppress 1  ./wl pkteng\_start 00:11:22:33:44:55 tx 100 1024 0 |

* BT testing guide

Enter below commands to start Bluetooth interface.

# stty -F /dev/ttyUSB0 3000000

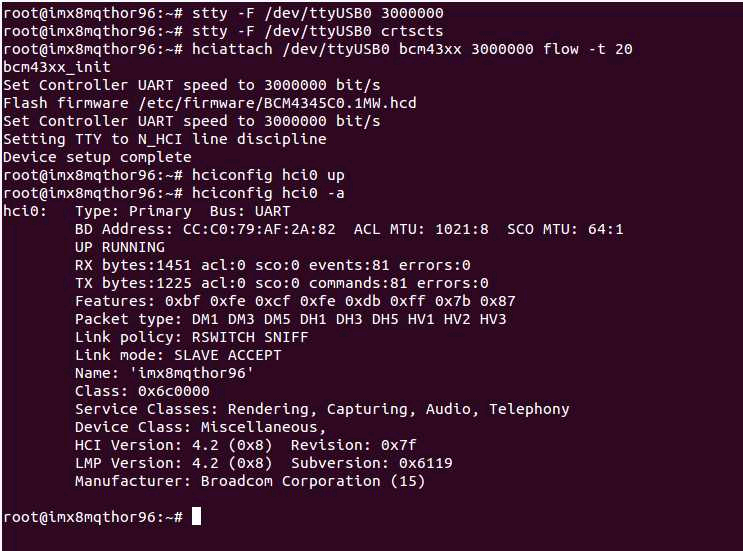
# stty -F /dev/ttyUSB0 crtscts

# hciattach /dev/ttyUSB0 bcm43xx 3000000 flow -t 20

# hciconfig hci0 up

# hciconfig hci0 -a

Below image is for reference. Above command is mandatory to start Bluetooth interface



1. To set Bluetooth in Transmit mode

|  |  |  |
| --- | --- | --- |
| Transmit frequency | Data-rate | Command |
| 2402 | 1mbps | hcitool cmd 0x03 0x003  hcitool cmd 0x3F 0x051 0xee 0xff 0xc0 0x88 0x00 0x00 0x01 0x00 0x04 0x01 0x0F 0x53 0x01 0x09 0x00 0x00 |
| 2421 | 1mbps | hcitool cmd 0x03 0x003  hcitool cmd 0x3F 0x051 0xee 0xff 0xc0 0x88 0x00 0x00 0x01 0x13 0x04 0x01 0x0F 0x53 0x01 0x09 0x00 0x00 |
| 2480 | 1mbps | hcitool cmd 0x03 0x003  hcitool cmd 0x3F 0x051 0xee 0xff 0xc0 0x88 0x00 0x00 0x01 0x4E 0x04 0x01 0x0F 0x53 0x01 0x09 0x00 0x00 |
| 2402 | 3Mbps | hcitool cmd 0x03 0x003  hcitool cmd 0x3F 0x051 0xee 0xff 0xc0 0x88 0x00 0x00 0x01 0x00 0x04 0x00 0x0F 0xfd 0x03 0x09 0x00 0x00 |
| 2480 | 3Mbps | hcitool cmd 0x03 0x003  hcitool cmd 0x3F 0x051 0xee 0xff 0xc0 0x88 0x00 0x00 0x01 0x4E 0x04 0x00 0x0F 0xfd 0x03 0x09 0x00 0x00 |

1. To set hopping channels in BT

|  |  |
| --- | --- |
| Channel | Command |
| 2402  Payload - 339 | hcitool cmd 0x3F 0x051 0xee 0xff 0xc0 0x88 0x00 0x00 0x00 0x00 0x04 0x01 0x0F 0x53 0x01 0x09 0x00 0x00 |
| 2402  Payload - 1021 | hcitool cmd 0x3F 0x051 0xee 0xff 0xc0 0x88 0x00 0x00 0x00 0x00 0x04 0x00 0x0F 0xfd 0x03 0x09 0x00 0x00 |

* BLE test

To test BLE in transmit mode enter below commands first.

# stty -F /dev/ttyUSB0 3000000

# stty -F /dev/ttyUSB0 crtscts

# hciattach /dev/ttyUSB0 bcm43xx 3000000 flow -t 20

# hciconfig hci0 up

# hciconfig hci0 –a

After above commands enter below commands for different frequency.

|  |  |
| --- | --- |
| Transmit frequency | Command |
| 2402 | hcitool cmd 0x03 0x003  hcitool cmd 0x08 0x01f  hcitool cmd 0x08 0x01e 0x00 0x25 0x00 |
| 2480 | hcitool cmd 0x03 0x003  hcitool cmd 0x08 0x01f  hcitool cmd 0x08 0x01e 0x27 0x25 0x00 |

For BT and BLE,

To stop any running transmission enter below command.

hcitool cmd 0x03 0x003

ZigBee Test:

|  |  |  |  |
| --- | --- | --- | --- |
| Channel | Frequency(MHz) | Power | Command |
| 11 | 2405 | 10dBm | systemctl stop zigbee  ./Z3GatewayHost\_3  plugin mfglib mfgenable 1  plugin mfglib start 0  plugin mfglib set-channel 11  plugin mfglib set-power 10 0  plugin mfglib stream start |
| 19 | 2445 | 10dBm | systemctl stop zigbee  ./Z3GatewayHost\_3  plugin mfglib mfgenable 1  plugin mfglib start 0  plugin mfglib set-channel 19  plugin mfglib set-power 10 0  plugin mfglib stream start |
| 25 | 2475 | 10dBm | systemctl stop zigbee  ./Z3GatewayHost\_3  plugin mfglib mfgenable 1  plugin mfglib start 0  plugin mfglib set-channel 25  plugin mfglib set-power 10 0  plugin mfglib stream start |
| 26 | 2480 | 10dBm | systemctl stop zigbee  ./Z3GatewayHost\_3  plugin mfglib mfgenable 1  plugin mfglib start 0  plugin mfglib set-channel 26  plugin mfglib set-power 10 0  plugin mfglib stream start |