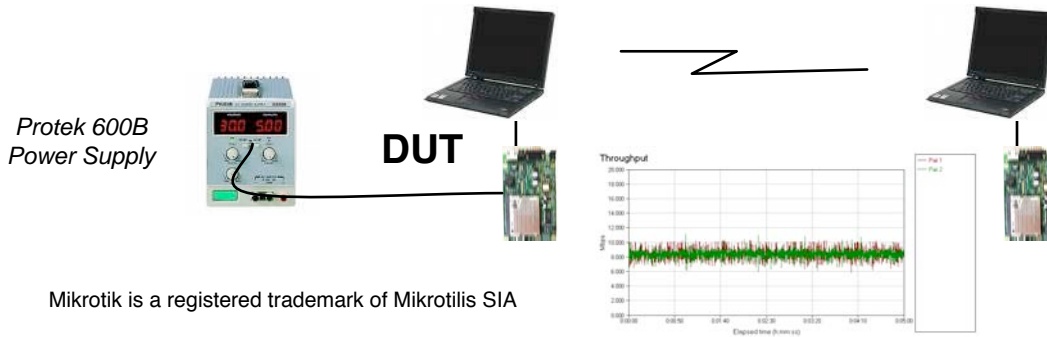




XR5 Power Consumption Study

Test Setup: The XR5 was used in Mikrotik RB112 and RB532 host boards. A link was established and a continuous throughput testing using IXP Chariot was active to stress the radio. The DUT was powered through the POE port of the Mtik boards using a Protek600B power supply. The below tables report the power consumption for different scenarios.



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RB112 / XR5

| 6Mbps, 5.825GHz | |
|------------------------------|--------|
| Input Voltage | 18V |
| Idle Mode Current | 0.200A |
| Idle Power Consumption | 3.600W |
| Throughput Mode Current | 0.440A |
| Throughput Power Consumption | 7.920W |

| 6Mbps, 5.825GHz | |
|------------------------------|--------|
| Input Voltage | 18V |
| Idle Mode Current | 0.200A |
| Idle Power Consumption | 3.600W |
| Throughput Mode Current | 0.280A |
| Throughput Power Consumption | 5.040W |

| 6Mbps, 5.825GHz | |
|------------------------------|--------|
| Input Voltage | 24V |
| Idle Mode Current | 0.160A |
| Idle Power Consumption | 3.840W |
| Throughput Mode Current | 0.330A |
| Throughput Power Consumption | 7.920W |

| 54Mbps, 5.825GHz | |
|------------------------------|--------|
| Input Voltage | 24V |
| Idle Mode Current | 0.160A |
| Idle Power Consumption | 3.840W |
| Throughput Mode Current | 0.210A |
| Throughput Power Consumption | 5.040W |

RB532 / XR5

| 6Mbps, 5.825GHz | |
|------------------------------|--------|
| Input Voltage | 18V |
| Idle Mode Current | 0.140A |
| Idle Power Consumption | 2.520W |
| Throughput Mode Current | 0.320A |
| Throughput Power Consumption | 5.720W |

| 54Mbps, 5.825GHz | |
|------------------------------|--------|
| Input Voltage | 18V |
| Idle Mode Current | 0.140A |
| Idle Power Consumption | 4.320W |
| Throughput Mode Current | 0.240A |
| Throughput Power Consumption | 4.320W |

| 6Mbps, 5.825GHz | |
|------------------------------|--------|
| Input Voltage | 24V |
| Idle Mode Current | 0.180A |
| Idle Power Consumption | 4.320W |
| Throughput Mode Current | 0.240A |
| Throughput Power Consumption | 7.440W |

| 54Mbps, 5.825GHz | |
|------------------------------|--------|
| Input Voltage | 24V |
| Idle Mode Current | 0.180A |
| Idle Power Consumption | 4.320W |
| Throughput Mode Current | 0.240A |
| Throughput Power Consumption | 7.440W |

Test Results and Conclusions: The XR5 datasheet does specify max current consumption of 5.7W (3.3V,1.75A). This figure is dependent of the card being exercised in 100% continuous TX duty cycle at lower datarates (maximum TX power). In our experiments, we found that in reality, the figure could be a little less and most likely because the TX duty cycle is less than 100% with 802.11 half-duplex and interframe idle windows. There should not be any problem running XR5 with Mikrotik RB112 and RB532 boards.