CLAIMS:

1. A receiver module coupled to a plurality of Wi-Fi receiver chains, the receiver module comprising:

   a controller module configured to:

   collect signal quality parameters from each of the plurality of Wi-Fi receiver chains, wherein each of the signal quality parameters comprises a signal quality parameter level;

   control a state of each of the plurality of receiver chains, by comparing the signal quality parameter level of the receiver chain with a predetermined signal quality parameter threshold; and

   selectively turn off, receiver chains that are in an “ON” state and have signal quality parameter levels that are lower than those of at least some of the other receiver chains among the plurality of receiver chains such that a total number of receiver chains that remain in an “ON” state is equal or less than a predetermined number, wherein the controlling of the state of each of the plurality of receiver chains comprises:

   setting an “ON” state for receiver chains having measured signal quality parameter levels that exceed a predetermined signal quality parameter threshold.

2. The receiver module according to claim 1 wherein each of the signal quality parameters comprises at least one of a receiver signal strength indicator (RSSI), a signal-to-noise-ratio (SNR), or a correlation value.

3. The receiver module according to claim 1 or 2 wherein the controlling of the state of each of the plurality of receiver chains comprises :

   setting an “OFF” state for receiver chains having measured signal quality parameter levels that are less than a predetermined signal quality parameter threshold.

4. The receiver module according to claim 1 whereby each of the Wi-Fi receiver chains comprises an antenna, an analogue chain, an analogue-to-digital converter, a synchronizer and filters, a Fast-Fourier-Transform module, an equalizer and demodulator, and a Forward-Error-Correction decoder.

5. The receiver module according to claim 2 whereby the signal quality parameters comprise RSSI levels and the predetermined signal quality parameter threshold

comprises a predetermined RSSI threshold between -50dBM and -105dBM.

6. A method for controlling a state of each of a plurality of Wi-Fi receiver chains that are coupled to a receiver module, the method comprising:

collecting, using the receiver module, signal quality parameters measured by each of the plurality of Wi-Fi receiver chains, wherein each of the signal quality parameters comprises a signal quality parameter level;

controlling, using the receiver module, a state of each of the plurality of receiver chains, by comparing the signal quality parameter of the receiver chain with a predetermined signal quality parameter threshold; and

turning off selectively, using the receiver module, receiver chains that are in an "ON" state and have signal quality parameter levels that are lower than those of at least some of the other receiver chains among the plurality of receiver chains such that a total number of receiver chains that remain in an "ON" state is equal or less than a predetermined number, wherein the controlling of the state of each of the plurality of receiver chains comprises:

setting, using the receiver, an "ON" state for receiver chains having measured RSSI levels that exceed a predetermined signal quality threshold.

7. The method according to claim 6 wherein each of the signal quality parameters comprises at least one of a receiver signal strength indicator (RSSI), a signal-to-noise-ratio (SNR), or a correlation value.

8. The method according to claim 6 or 7 wherein the controlling of the state of each of the plurality of receiver chains comprises:

setting, using the receiver module, an "OFF" state for receiver chains having measured RSSI levels that are less than a predetermined signal quality parameter threshold.

9. The method according to claim 6 wherein each of the plurality of Wi-Fi receiver chains comprises an antenna, an analogue chain, an analogue-to-digital converter, a synchronizer and filters, a Fast-Fourier-Transform module, an equalizer and demodulator, and a Forward-Error-Correction decoder.

10. The method according to claim 6 wherein the signal quality parameters comprise RSSI levels and the predetermined signal quality parameter threshold comprises a

predetermined RSSI threshold between -50dBM and -105dBM.

11. An integrated circuit, comprising: a plurality of Wi-Fi receiver chains coupled to a receiver module; and

a controller module configured to:

collect signal quality parameters from each of the plurality of Wi-Fi receiver chains, wherein each of the signal quality parameters comprises a signal quality parameter level;

control a state of each of the plurality of receiver chains, by comparing the signal quality parameter level of the receiver chain with a predetermined signal quality parameter threshold; and

turn off selectively, receiver chains that are in an “ON” state and have signal quality parameter levels that are lower than those of at least some of the other receiver chains among the plurality of receiver chains such that a total number of receiver chains that remain in an “ON” state is equal or less than a predetermined number, wherein the controlling of the state of each of the plurality of receiver chains comprises:

setting an “ON” state for receiver chains having measured signal quality parameter levels that exceed a predetermined signal quality parameter threshold.

12. The integrated circuit according to claim 11 wherein each of the signal quality parameters comprises at least one of a receiver signal strength indicator (RSSI), a signal-to-noise-ratio (SNR), or a correlation value.

13. The receiver module according to claim 11 or 12 wherein the controlling of the state of each of the plurality of receiver chains comprises:

setting an “OFF” state for receiver chains having measured signal quality parameter levels that are less than a predetermined signal quality parameter threshold.

14. The receiver module according to claim 11 wherein each of the plurality of Wi-Fi receiver chains comprises an antenna, an analogue chain, an analogue-to-digital converter, a synchronizer and filters, a Fast-Fourier-Transform module, an equalizer and demodulator, and a Forward-Error-Correction decoder.

15. The receiver module according to claim 12 wherein the signal quality parameters comprise RSSI levels and the predetermined signal quality parameter threshold

comprises a predetermined RSSI threshold between -50dBM and -105dBM.