CLAIMS

1. A radio frequency (RF) power delivery system comprising:

a first RF generator providing a first pulsed RF signal for delivery to a load; and

a second RF generator providing a second pulsed RF signal for delivery to the load including a first detector, the first detector detecting an electrical property of the first RF signal and a second detector, the second detector detecting an electrical property of the second RF signal,

wherein the pulsing operation of the second RF generator is coordinated with operation of the first RF generator in accordance with the electrical property detected by the first detector.

2. The RF power delivery system of claim 1 further comprising a controller controlling operation of the first RF generator and the second RF generator.

3. The RF power delivery system of claim 1 further comprising:

a first matching network disposed between the first RF generator and the load; and

a second matching network disposed between the second RF generator and the load.

4. The RF power delivery system of claim 1 wherein the first detector is configured to detect at least one of a rising edge of the first RF signal or a falling edge of the first RF signal.

5. The RF power delivery system of claim 4 wherein the first detector detects an intermodulation distortion (IMD) product, and the first detector is configured to detect at least one of a rising edge or a falling edge of the first RF signal.

6. The RF power delivery system of claim 1 wherein the second RF generator is configured to activate simultaneously with the first RF generator.

7. The RF power delivery system of claim 1 wherein the second RF generator is configured to activate after a predetermined time from when the first RF generator activates.

8. The RF power delivery system of claim 1 wherein the second RF generator is configured to generate the second RF signal in a continuous wave mode of operation.

9. The RF power delivery system of claim 8 wherein the first RF generator is configured to selectively generate the first RF signal in a pulsed mode of operation.

10. The RF power delivery system of claim 1 wherein at least one of the RF generators operates at a fixed frequency.

11. The RF power delivery system of claim 1 wherein at least one of the RF generators operates at a variable frequency.

12. A radio frequency (RF) power delivery system comprising:

a plurality of RF generators providing a respective plurality of RF signals for delivery to a load, at least one of the generators providing a pulsed RF signal; and

a plurality of detectors associated with at least one of the plurality of RF generators, the plurality of detectors configured to detect an electrical property of selected ones of the plurality of RF signals,

wherein pulsing operation of at least one of the other RF generators is coordinated in accordance with the respective electrical properties detected by the detector associated with the one of the plurality of RF generators.

13. The RF power delivery system of claim 12 further comprising a controller controlling operation of selected ones of the plurality of RF generators.

14. The RF power delivery system of claim 12 wherein at least one of the plurality of detectors is configured to detect at least one of a rising edge of selected ones of the plurality of RF signals or a falling edge of the selected ones of the plurality of RF signals.

15. The RF power delivery system of claim 14 wherein at least one of the plurality of detectors detects an intermodulation distortion (IMD) product, and the at least one detector is configured to detect at least one of a rising edge or a falling edge of the selected ones of the plurality of RF signals.

16. The RF power delivery system of claim 12 wherein at least one of the plurality of RF generators is configured to activate simultaneously when it with at least another of the plurality of RF generators.

17. The RF power delivery system of claim 12 wherein at least one of the plurality of RF generators is configured to activate after a predetermined time from when another of the plurality of RF generators activates.

18. The RF power delivery system of claim 12 wherein at least one of the plurality of RF generators is configured to selectively generate the second RF signal in a continuous wave mode of operation.

19. The RF power delivery system of claim 18 wherein at least one of the plurality of RF generators is configured to generate a corresponding RF signal in a pulsed mode of operation.

20. The RF power delivery system of claim 12 wherein at least one of the plurality of RF generators operates at a fixed frequency.

21. The RF power delivery system of claim 12 wherein at least one of the plurality of RF generators operates at a variable frequency.

22. A radio frequency (RF) power delivery system comprising:

a first RF generator providing a first pulsed RF signal for delivery to a load; and

a second RF generator providing a second pulsed RF signal for delivery to the load,

a first matching network disposed between the first RF generator and the load; and

a second matching network disposed between the second RF generator and the load, the second matching network including a first detector, the first detector detecting an electrical property of the first RF signal and a second detector, the second detector detecting an electrical property of the second RF signal,

wherein the pulsing operation of the second RF generator is coordinated with operation of the first RF generator in accordance with the electrical property detected by the first detector.

23. The RF power delivery system of claim 22 further comprising a controller controlling operation of the first RF generator and the second RF generator.

24. The RF power delivery system of claim 22 wherein the first detector is configured to detect at least one of a rising edge of the first RF signal or a falling edge of the first RF signal.

25. The RF power delivery system of claim 24 wherein the first detector detects an intermodulation distortion (IMD) product, and the first detector is configured to detect at least one of a rising edge or a falling edge of the first RF signal.

26. The RF power delivery system of claim 22 wherein the second RF generator is configured to activate simultaneously with the first RF generator.

27. The RF power delivery system of claim 22 wherein the second RF generator is configured to activate after a predetermined time from when the first RF generator activates.

28. The RF power delivery system of claim 22 wherein the second RF generator is configured to selectively generate the second RF signal in a continuous wave mode of operation.

29. The RF power delivery system of claim 28 wherein the first RF generator is configured to generate the first RF signal in a pulsed mode of operation.

30. The RF power delivery system of claim 22 wherein at least one of the RF generators operates at a fixed frequency.

31. The RF power delivery system of claim 22 wherein at least one of the RF generators operates at a variable frequency.