11. The miniature passive structure in accordance with any of Claims 1 to 10 wherein the at least one shunt stub includes at least one shunt transmission line stub, and wherein the at least one load line includes at least one load transmission line.

12. The miniature passive structure in accordance with any of Claims 1 to 11 wherein the at least one shunt stub and the at least one load line are formed into one or more shapes to reduce size of the miniature passive structure for ESD protection, the one or more shapes selected from the group of shapes comprising a straight line shape, a spiral shape and a meandering line shape.

13. The miniature passive structure in accordance with any of Claims 1 to 12 wherein one or more of the at least one shunt stub and the at least one load line include one or more smaller open stubs therealong for slow-wave loaded line performance thereof.

~~14. A high frequency electrostatic discharge (ESD) protection network for~~ integrated circuits comprising:

a high frequency signal carrying transmission line; and

one or more miniature passive structures, each of the one or more miniature passive structures comprising:

at least one shunt stub for providing a corresponding at least one ESD discharge path; and

at least one load line coupled to the at least one shunt stub, the at least one load line providing loading effects for the at least one shunt stub,

wherein the integrated circuits are based on an integrated circuit technology selected from the group comprising CMOS, GaAs, SiGe, and InP.

15. The high frequency ESD protection network in accordance with Claim 14 wherein the high frequency ESD protection network is coupled to core circuits of the integrated circuits by capacitive coupling selected from the group comprising capacitor coupling and coupled transmission line coupling for one or more of protection of the core circuits and DC bias of the core circuits.

16. The high frequency ESD protection network in accordance with Claim 14 wherein the high frequency ESD protection network is coupled to core circuits of the integrated circuits by direct connection for protection of the core circuits.

17. The high frequency ESD protection network in accordance with Claim 14 wherein differential configuration of the high frequency ESD protection network provides ESD protection for differential input/output ports.

18. The high frequency ESD protection network in accordance with Claim 14 further comprising a plurality of ESD discharge paths wherein cascading of the high frequency ESD protection network distributes ESD current into multiple ones of the plurality of ESD discharge paths.

19. The high frequency ESD protection network in accordance with Claim 14 wherein the high frequency ESD protection network acts as an element in an input/output matching network.

20. The high frequency ESD protection network in accordance with any of Claims 14 to 19 wherein the at least one shunt stub includes at least one shunt transmission line stub, and wherein the at least one load line includes at least one load transmission line.

21. The high frequency ESD protection network in accordance with any of Claims 14 to 20 wherein the at least one shunt stub and the at least one load line are formed into one or more shapes to reduce size of the miniature passive structure for ESD protection, the one or more shapes selected from the group of shapes comprising a straight line shape, a spiral shape and a meandering line shape.

22. The high frequency ESD protection network in accordance with any of Claims 14 to 21 wherein one or more of the at least one shunt stub and the at least one load line include one or more smaller open stubs connected therealong for slow-wave loaded line performance thereof.

23. A high frequency electrostatic discharge (ESD) protection scheme for integrated circuits comprising:

power supply rails;

a supply clamp, providing transient clamping of the electrical potential difference between the power supply rails; and

a high frequency ESD protection network comprising:

a high frequency signal carrying transmission line; and

one or more miniature passive structures, each of the one or more miniature passive structures comprising:

at least one shunt stub for providing a corresponding at least one ESD discharge path; and

at least one load line coupled to the at least one shunt stub, the at least one load line providing loading effects for the at least one shunt stub.

24. The high frequency ESD protection scheme in accordance with Claim 23 further comprising an input/output (I/O) pin, and wherein the power supply rails comprise a positive power supply rail and a negative power supply rail, and wherein the high frequency ESD protection scheme provides ESD stress for the integrated circuits, the ESD stress selected from the group comprising (a) positive ESD stress at the I/O pin with reference to the negative power supply rail, (b) negative ESD stress at the I/O pin with reference to the negative power supply rail, (c) positive ESD stress at the I/O pin with reference to the positive power supply rail, (d) negative ESD stress at the I/O pin with reference to the positive power supply rail, (e) positive ESD stress at the positive

power supply rail with reference to the negative power supply rail, and (f) negative ESD stress at the positive power supply rail with reference to the negative power supply rail.

25. The high frequency ESD protection scheme in accordance with Claims 23 or 24 wherein the at least one shunt stub includes at least one shunt transmission line stub, and wherein the at least one load line includes at least one load transmission line.

26. The high frequency ESD protection scheme in accordance with any of Claims 23 to 25 wherein the at least one shunt stub and the at least one load line are formed into one or more shapes to reduce size of the miniature passive structure for ESD protection, the one or more shapes selected from the group of shapes comprising a straight line shape, a spiral shape and a meandering line shape.

27. The high frequency ESD protection scheme in accordance with any of Claims 23 to 26 wherein one or more of the at least one shunt stub and the at least one load line include one or more smaller open stubs connected along the at least one load line for slow-wave loaded line performance thereof.