**3**. The system for wireless data transmission according to claim **1** wherein at least one primary coil is operably coupled to a driver circuit adapted for driving the primary coil with a data signal.

**4**. The system for wireless data transmission according to claim **1** wherein at least one secondary coil is operably coupled with data receiving circuitry.

**5**. The system for wireless data transmission according to claim **1** wherein at least one primary coil is operably coupled to a driver circuit adapted for driving the primary coil with a power transmission signal.

**6**. The system for wireless data transmission according to claim **1** wherein at least one secondary coil is operably coupled with power receiving circuitry.

**7**. The system for wireless data transmission according to claim **1** wherein at least one coil further comprises one or more switchable taps selectable for changing the frequency characteristics of the coil.

**8**. The system for wireless data transmission according to claim **1** wherein at least one coil is operably coupled to one or more switchable capacitor network selectable for changing the frequency characteristics of the coil.

**9**. A multiple coil data transfer system comprising:

at least one primary coil operably coupled to a circuit for transmitting data;

at least one secondary coil operably coupled to a circuit for receiving data;

wherein at least one primary coil and at least one secondary coil are adapted for inductively coupling for data transfer; and

primary side circuitry configured for selecting at least one primary coil for transmitting data based on sensed proximity to a secondary coil.

**10**. The multiple coil data transfer system according to claim **9** wherein a plurality of primary coils are operably coupled with circuitry for sensing secondary coil proximity and for responsively transmitting a signal to detected secondary coils.

**11**. The multiple coil data transfer system according to claim **9** wherein at least one primary coil is operably coupled to a driver circuit adapted for driving the primary coil with a data signal.

**12**. The multiple coil data transfer system according to claim **9** wherein at least one secondary coil is operably coupled with data receiving circuitry.

**13**. The multiple coil data transfer system according to claim **9** wherein at least one primary coil is operably coupled to a driver circuit adapted for driving the primary coil with a power transmission signal.

**14**. The multiple coil data transfer system according to claim **9** wherein at least one secondary coil is operably coupled with power receiving circuitry.

**15**. The multiple coil data transfer system according to claim **9** wherein at least one coil further comprises one or more switchable taps selectable for changing the frequency characteristics of the coil.

**16**. The multiple coil data transfer system according to claim **9** wherein at least one coil is operably coupled to one or more switchable capacitor network selectable for changing the frequency characteristics of the coil.

**17**. A multiple coil data transfer system comprising:

at least one primary coil operably coupled to a circuit for transmitting data;

at least one secondary coil operably coupled to a circuit for receiving data;

wherein at least one primary coil is operably coupled with circuitry adapted for sensing secondary coil proximity and for selecting at least one primary coil for transmitting data based on sensed proximity to a secondary coil; and

wherein at least one primary coil is dynamically configurable for operation at selectable frequencies for transmitting the data to one or more secondary coil.

**18**. The multiple coil data transfer system according to claim **17** wherein at least one primary coil is operably coupled to a driver circuit adapted for driving the primary coil with a power transmission signal.

**19**. The multiple coil data transfer system according to claim **17** wherein at least one secondary coil is operably coupled with power receiving circuitry.

**20**. The multiple coil data transfer system according to claim **17** wherein at least one coil further comprises one or more switchable taps selectable for changing the frequency characteristics of the coil.

**21**. The multiple coil data transfer system according to claim **17** wherein at least one coil is operably coupled to one or more switchable capacitor network selectable for changing the frequency characteristics of the coil.

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