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18. The medical imaging system of claim 16, wherein the medical positioning system includes an ultrasound console that sends pulses to the coil and the imaging transducer.

19. The medical imaging system of claim 16, wherein the coil is electrically coupled to the transducer in series.

20. The medical imaging system of claim 16, wherein the coil is electrically coupled to the transducer in parallel.

21. The medical imaging system of claim 16, further comprising a coaxial cable surrounded by the drive shaft.

22. The medical imaging system of claim 16, further comprising a tri-axial cable surrounded by the drive shaft.

23. The medical imaging system of claim 16, further comprising a non-conductive epoxy layer surrounding the coil of the sensor.

24. The medical imaging system of claim 23, wherein the non-conductive epoxy layer surrounds the imaging transducer and couples the imaging transducer to the distal end of the drive shaft.

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25. A medical imaging system comprising:
 a medical positioning system; and
 an imaging device adapted to be inserted into a lumen of a body, the imaging device including:
 a catheter having distal and proximal ends and a lumen;
 a drive shaft, having proximal and distal ends, within the lumen; and
 an imaging transducer assembly, including:
 an imaging transducer coupled to the distal end of the drive shaft;
 a coil of a sensor at a distal portion of the drive shaft, the sensor adapted to communicate with the medical positioning system, wherein the sensor is electrically isolated from the lumen of the catheter; and
 a matching circuit coupled with the imaging transducer.

26. The medical imaging system of claim 25, wherein the coil is configured to be the matching circuit.

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