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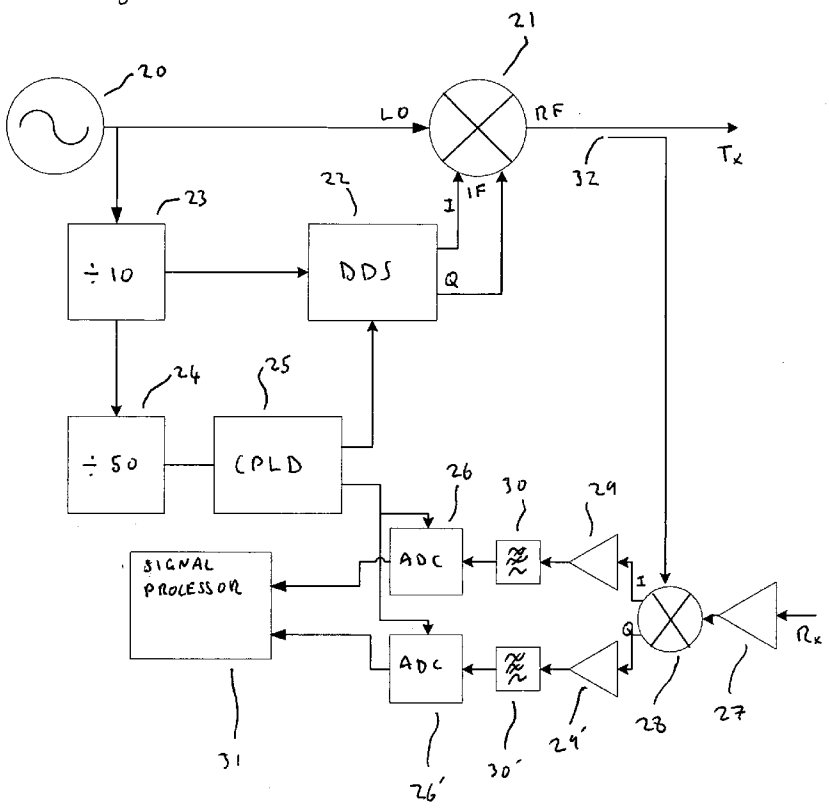
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(54) Title: LOW NOISE GENERATOR FOR FREQUENCY SWEPT SIGNALS

Figure 2



(57) Abstract: A signal generation system suitable for use in a radar system comprises a local oscillator (LO) and an intermediate frequency IF oscillator, wherein the IF oscillator is a Direct Digital Synthesiser, and the LO is a free running oscillator not itself locked to another oscillator but which acts as a clock reference for the DDS and is the highest frequency oscillator in the system. The LO may also act as a reference for a receive chain digitiser. The invention exploits phase noise advantages of a free running oscillator at some distance from the carrier whilst maintaining coherency with other system components. The system typically finds application in FMCW radars.

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