Research of weak signal conditioning measurement method using in proton magnetometer

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Abstract: For improving the measuring accuracy and stability of weak magnetic signal of sensor output, based on principles of the proton magnetometer, signal detecting conditioning circuit used analog circuits technology is designed. The feasibility of conditioning circuit is analyzed, the measured data is obtained. In current conditions, The results showed that the signal to noise ratio achieved 30dB.It can measure geomagnetic field in precision and mobile mode.And the error is less than 2nT. ©2010 IEEE.

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