

Abstracts

Application of a Narrow Band FM-CW System in the Measurement of Ice Thickness

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An application of a narrow band radar technology for ice thickness measurement is presented. The method employed offers particular advantages for short distance measurements, conforms to FCC regulations for unlicensed operation and functions in unfavorable environmental conditions that affect optical and ultrasonic devices. The conventional FM-CW resolution is improved by inclusion of a phase shifter and by performing additional signal processing functions. Presented experimental data show better than 0.5" accuracy using only 150 MHz bandwidth.

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