

A MULTI-PURPOSE, DUAL-CHANNEL MODEM FOR C/N_0 THRESHOLD



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A description is given of a newly developed modem based on the synthesis of a constant-envelope quadra-phase signal with dual-channel frequencydivision multiplexing of analog-voice with data, data with data, time code With data, ranging signal with d:Ata, etc. The technique is capable of providing low-threshold operation down to carrier power-to-(noice power density) ratios, about 40 db, and includes a built-in, on-line measurement and display of the C/N_0 for quantitative performance monitoring purposes.