



ABSTRACT OF THE DISCLOSURE:

PRECISE DETECTION OF FREQUENCY ERROR FOR BURSTS MODULATED BY
PREDETERMINED SYMBOL SEQUENCE

With a received signal quadrature demodulated and with each burst of the received signal sampled (S_2) into $2n$ sampled vectors, a frequency error of a local frequency is detected by calculating zeroth to $(2n-2)$ -th phase errors, each phase error accompanying a phase difference which is present between two adjacent ones of the sampled vectors and is constant during each burst. Zeroth to $(n-1)$ -th averages are calculated ($\bar{\phi}(1)$), each average $\bar{\phi}(q)$ as regards n consecutive ones of the phase errors starting at a q -th phase error of the phase errors with q varied between zero and $(n-1)$, both inclusive. The frequency error is calculated by dividing a mean value ($\bar{\phi}(2)$) of these n averages by a divisor comprising the sampling period.

(Fig. 4)