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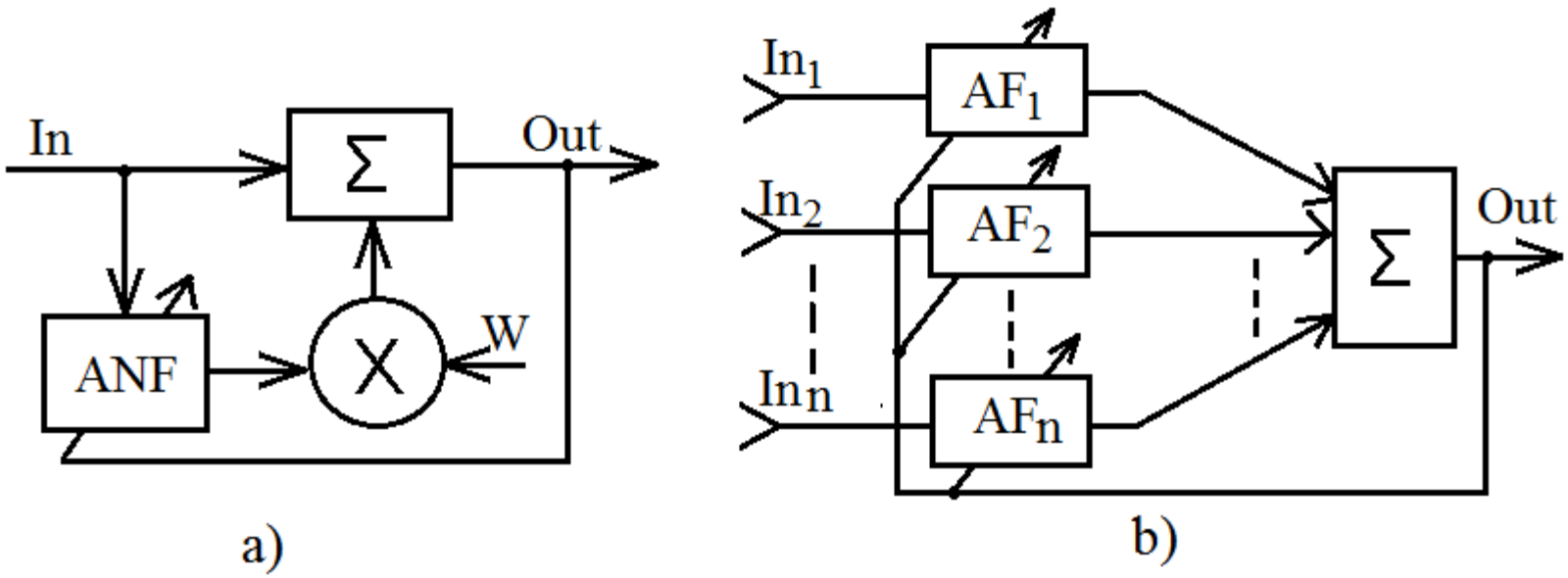


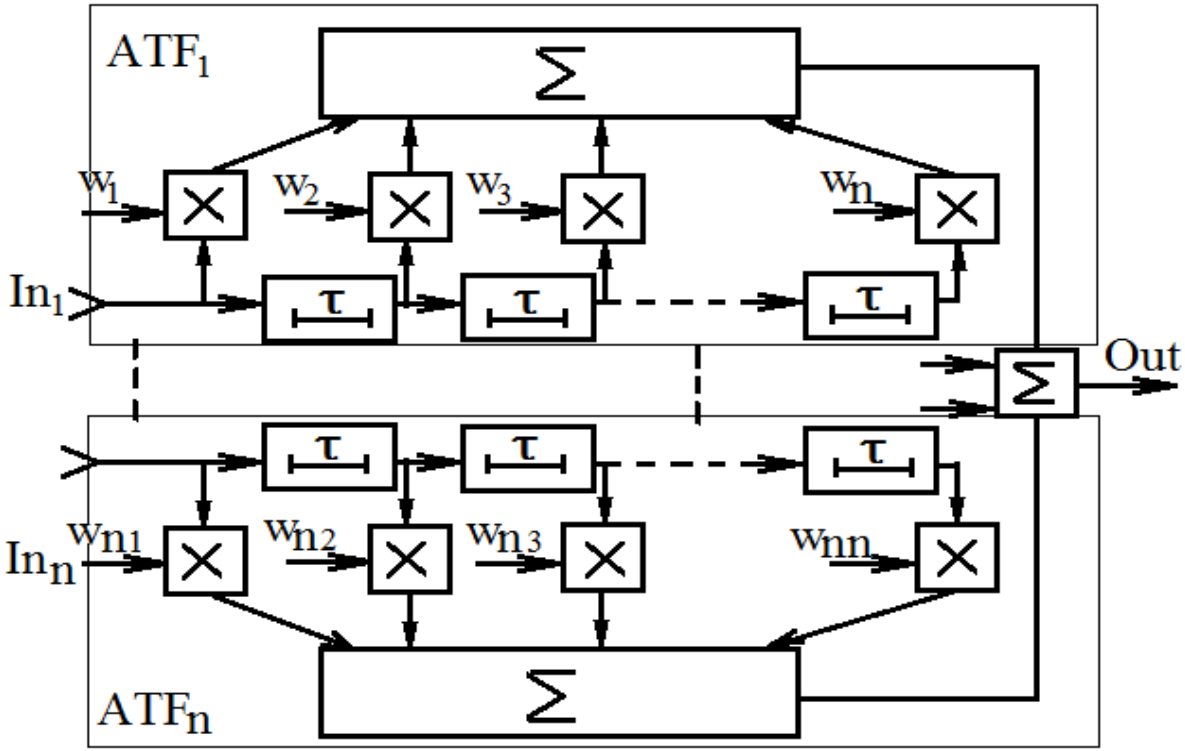
Adaptive interference compensators

(ANF - adaptive noise and interference filter, AF - adaptive filter)

$$\mathbf{Z} = \boldsymbol{\mu} S_0 + \eta \mathbf{Y} + \mathbf{n};$$

$$\mathbf{Z} = \begin{Bmatrix} Z_1 \\ Z_2 \\ \vdots \\ Z_i \\ \vdots \\ Z_n \end{Bmatrix}; \ \boldsymbol{\mu} = \begin{Bmatrix} \mu_1 \\ \mu_2 \\ \vdots \\ \mu_i \\ \vdots \\ \mu_n \end{Bmatrix}; \ \mathbf{n} = \begin{Bmatrix} n_1 \\ n_2 \\ \vdots \\ n_i \\ \vdots \\ n_n \end{Bmatrix}; \ \mathbf{Y} = \begin{Bmatrix} Y_1 \\ Y_2 \\ \vdots \\ Y_m \end{Bmatrix}; \mathbf{W} = \begin{Bmatrix} W_1 \\ W_2 \\ \vdots \\ W_i \\ \vdots \\ W_n \end{Bmatrix}.$$

$$W = B^{-1}\mu^{*}$$



B^{-1} is the inverse correlation matrix of interference;

μ^{*} a column vector characterizing the amplitude-phase distribution of the signal over the input receiving channels.

An interference compensator was built.

It suppresses impulse interference from radar by 30 to 40 dB at two-fold MIMO antenna spacing.