The performance of the proposed beamformer with the estimated interference-plus-noise covariance matrix by collecting $L = 1 \times K$, $10 \times K$, and $100 \times K$ samples in the absence of signal of interest, where $K = 512$, SNR = 0dB, UR = 20dB and the signal power is known exactly. (a) The output SINR versus STI index for the Max-SINR beamformer, the proposed beamformers with the true and estimated INCM, (b) The vectorial angle error versus STI index for the proposed beamformers with the true and estimated INCM.

Figure 5

The performance of the proposed beamformer when signal power is estimated by using (26) and $L = 100 \times K$ samples without signal of interest are collected to estimate INCM, where $K = 512$, SNR = 0dB, UR = 20dB. (a) The output SINR versus STI index for the Max-SINR beamformer, the proposed beamformers with the true and estimated signal power and INCM, (b) The vectorial angle error versus STI index for the proposed beamformers with the true and estimated signal power and INCM.

Figure 6