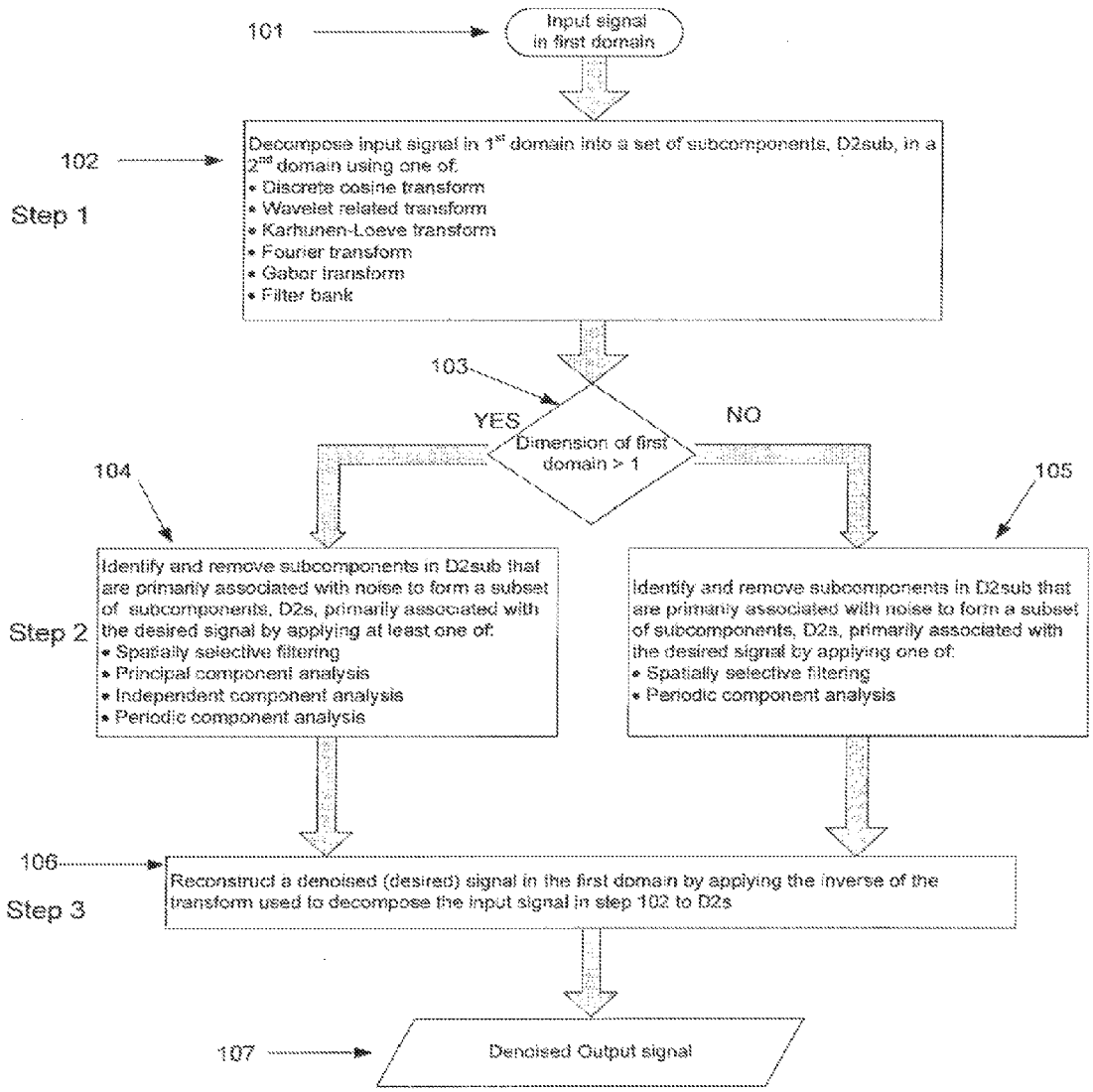
Figure 1


101
Input signal in first domain
102
Step 1
Decompose input signal in 1st domain into a set of subcomponents, D2sub, in a 2nd domain using one of:
• Discrete cosine transform
• Wavelet related transform
• Karhunen-Loeve transform
• Fourier transform
• Gabor transform
• Filter bank
103
YES
NO
Dimension of first domain > 1
104
105
Step 2
Identify and remove subcomponents in D2sub that are primarily associated with noise to form a subset of subcomponents, D2s, primarily associated with the desired signal by applying at least one of:
• Spatially selective filtering
• Principal component analysis
• Independent component analysis
• Periodic component analysis
Identify and remove subcomponents in D2sub that are primarily associated with noise to form a subset of subcomponents, D2s, primarily associated with the desired signal by applying one of:
• Spatially selective filtering
• Periodic component analysis
106
Step 3
Reconstruct a denoised (desired) signal in the first domain by applying the inverse of the transform used to decompose the input signal in step 102 to D2s
107
Denoised Output signal