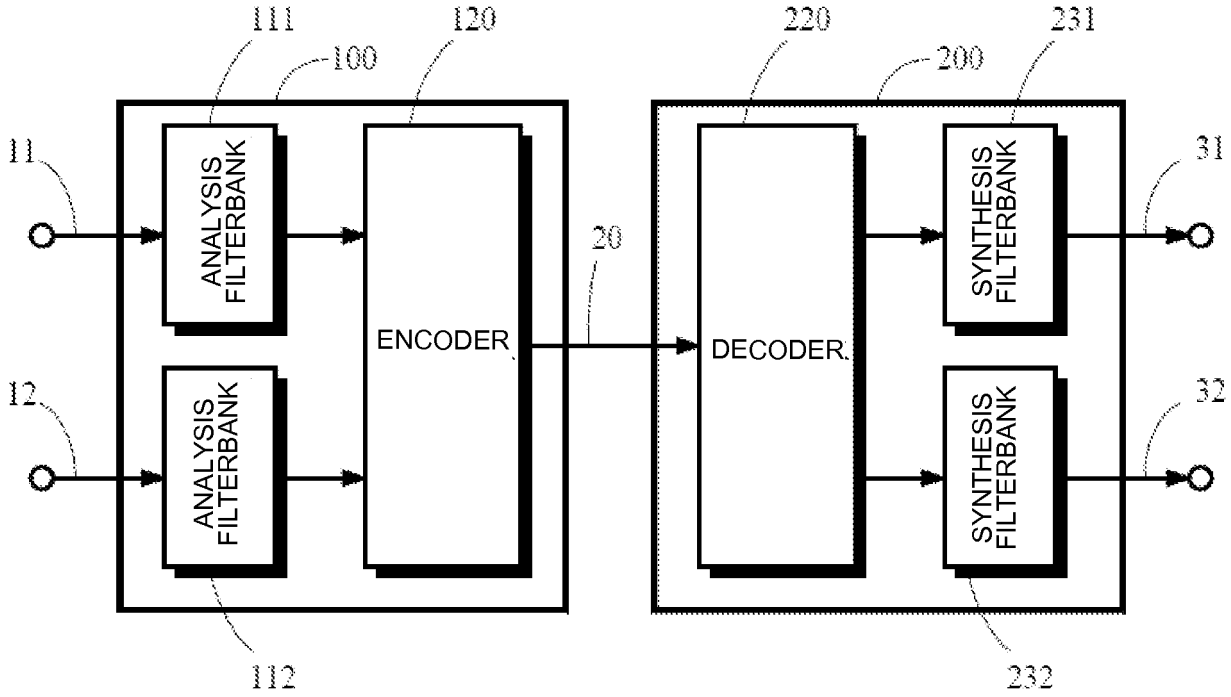
111
120
220
231
100
200
11
ANALYSIS FILTERBANK
ENCODER
20
DECODER
SYNTHESIS FILTERBANK
31
12
ANALYSIS FILTERBANK
SYNTHESIS FILTERBANK
32
112
232

Fig. 1

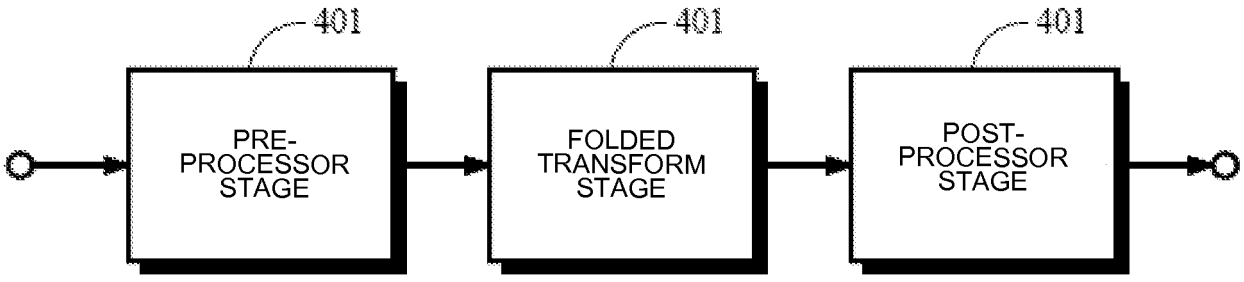
401
401
401
PRE-PROCESSOR STAGE
FOLDED TRANSFORM STAGE
POST-PROCESSOR STAGE

Fig. 2

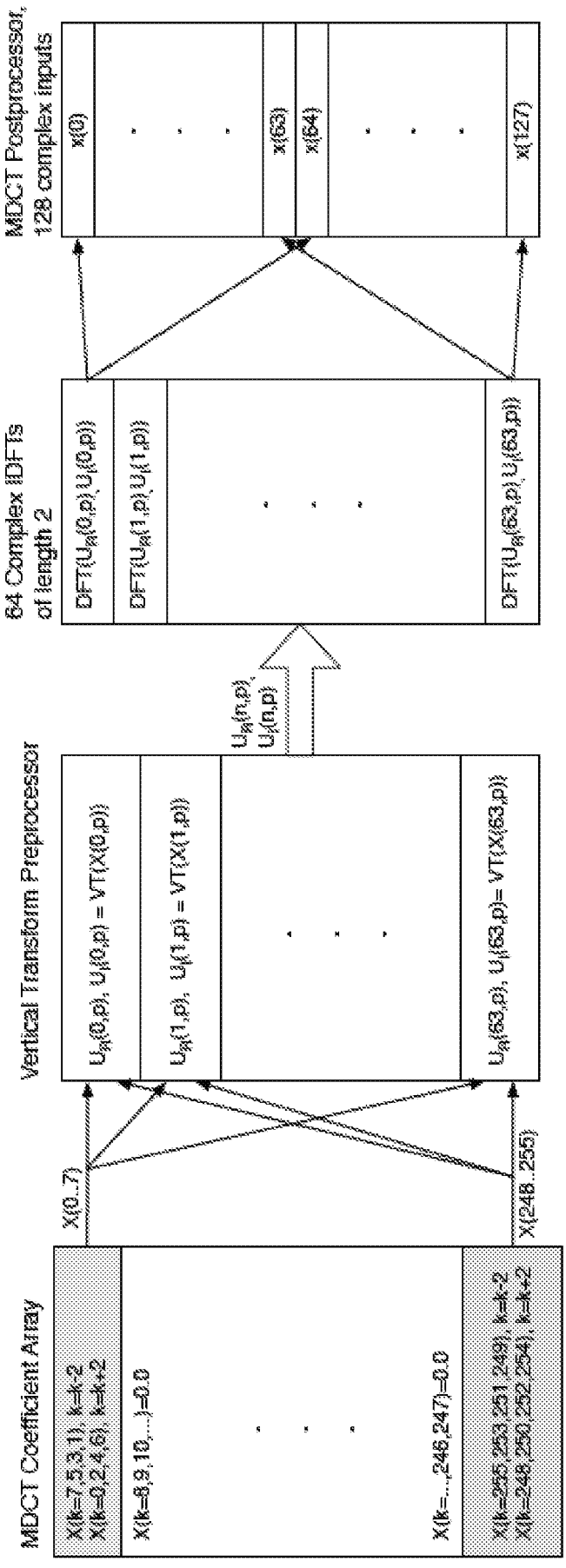
MDCT Coefficient Array
X(k=7,5,3,1), k=k-2
X(k=0,2,4,6), k=k+2
X(k=8,9,10,...)=0.0
X(k=...,246,247)=0.0
X(k=255,253,251,249), k=k-2
X(k=248,250,252,254), k=k+2
X(0..7)
X(248..255)
Vertical Transform Preprocessor
U_k(0,p), U_i(0,p) = VT(X(0,p))
U_k(1,p), U_i(1,p) = VT(X(1,p))
U_k(63,p), U_i(63,p)= VT(X(63,p))
U_k(n,p), U_i(n,p)
64 Complex iDFTs of length 2
DFT{U_k(0,p),U_i(0,p)}
DFT{U_k(1,p),U_i(1,p)}
DFT{U_k(63,p),U_i(63,p)}
MDCT Postprocessor, 128 complex inputs
x(0)
x(63)
x(64)
x(127)

Fig. 3

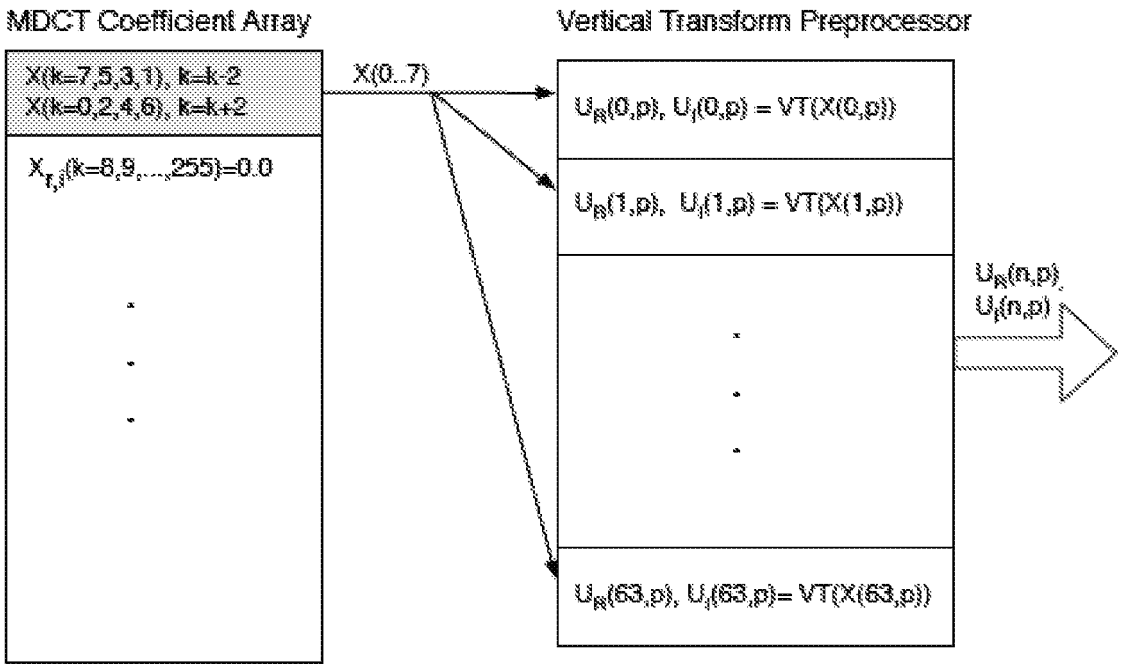
MDCT Coefficient Array
Vertical Transform Preprocessor
X(k=7,5,3,1), k=k-2
X(k=0,2,4,6), k=k+2
X(0..7)
$X_{r,s}$(k=8,9,...,255)=0.0
U_R(0,p), U_I(0,p) = VT(X(0,p))
U_R(1,p), U_I(1,p) = VT(X(1,p))
U_R(n,p), U_I(n,p)
U_R(63,p), U_I(63,p)= VT(X(63,p))

Fig. 4

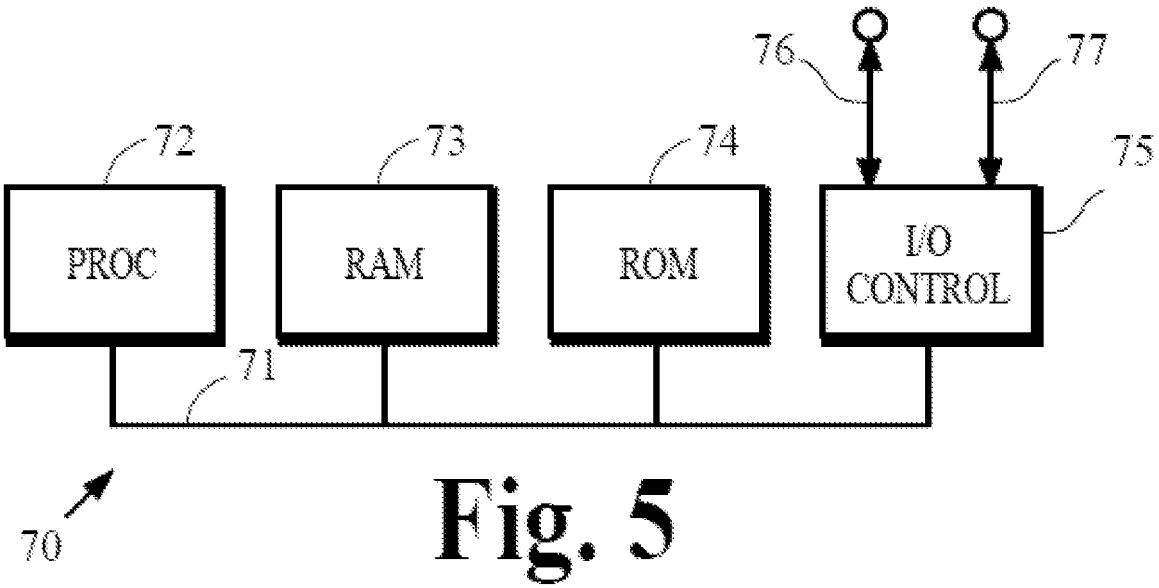
76
77
72
73
74
75
PROC
RAM
ROM
I/O CONTROL
71
70

Fig. 5