

Second block

Output of quantizer encoders

-4	-11	6	-4	0	1	-1	0
1	0	-1	0	0	0	0	0
0	-1	0	0	0	0	0	0
1	0	-1	0	0	0	0	0
0	-1	0	0	0	0	0	0
1	0	0	0	0	0	0	0
-1	-1	0	0	0	0	0	0
-1	0	1	0	0	0	0	0

Output of quantizer decoders

-77	-158	101	-67	0	29	-59	0
13	0	-16	0	0	0	0	0
0	-17	0	0	0	0	0	0
19	0	-29	0	0	0	0	0
0	-31	0	0	0	0	0	0
48	0	0	0	0	0	0	0
-61	-72	0	0	0	0	0	0
-73	0	67	0	0	0	0	0

(c)

238	237	221	234	203	150	131	84
237	237	222	236	206	153	135	90
233	235	222	237	207	155	139	97
225	230	219	235	204	152	140	99
218	225	217	232	199	147	137	98
217	226	219	233	198	145	135	99
223	232	226	238	201	146	137	102
228	239	232	244	205	149	140	105
78	96	96	117	113	120	175	178
116	132	125	136	117	108	150	145
83	87	65	71	64	82	155	171
112	131	130	147	134	129	174	170
100	104	83	86	73	83	147	158
71	95	102	128	121	119	163	158
137	140	116	115	96	99	158	165
75	86	76	91	86	100	165	176

Block 1:

MSE, space domain = transform domain: 104.9740

PSNR: 27.9200

Block 2:

MSE, space domain = transform domain: 135.7895

PSNR: 26.8021

(d) Data to encode on zigzag scan

-29	-11	6	-4	0	1	-1	0
1	0	-1	0	0	0	0	0
0	-1	0	0	0	0	0	0
1	0	-1	0	0	0	0	0
0	-1	0	0	0	0	0	0
1	0	0	0	0	0	0	0
-1	-1	0	0	0	0	0	0
-1	0	1	0	0	0	0	0

Symbol	Codeword	Length
C_5	110	3
$(-29)_5$	00010	5
0/4	1011	4
$(-11)_4$	0100	4
0/1	00	2
$(1)_1$	1	1
2/3	1111110111	10
$(6)_3$	110	3
0/3	100	3
$(-4)_3$	011	3
0/1	00	2
$(-1)_1$	0	1
0/1	00	2
$(-1)_1$	0	1
0/1	00	2
$(1)_1$	1	1
5/1	1111010	7
$(1)_1$	1	1
2/1	11100	5
$(-1)_1$	0	1
0/1	00	2
$(-1)_1$	0	1
0/1	00	2
$(1)_1$	1	1
0/1	00	2
$(-1)_1$	0	1
5/1	1111010	7
$(-1)_1$	0	1
6/1	1111011	7
$(-1)_1$	0	1
0/1	00	2
$(-1)_1$	0	1
C/1	1111111010	10
$(1)_1$	1	1
EOB	1010	4
Total		104