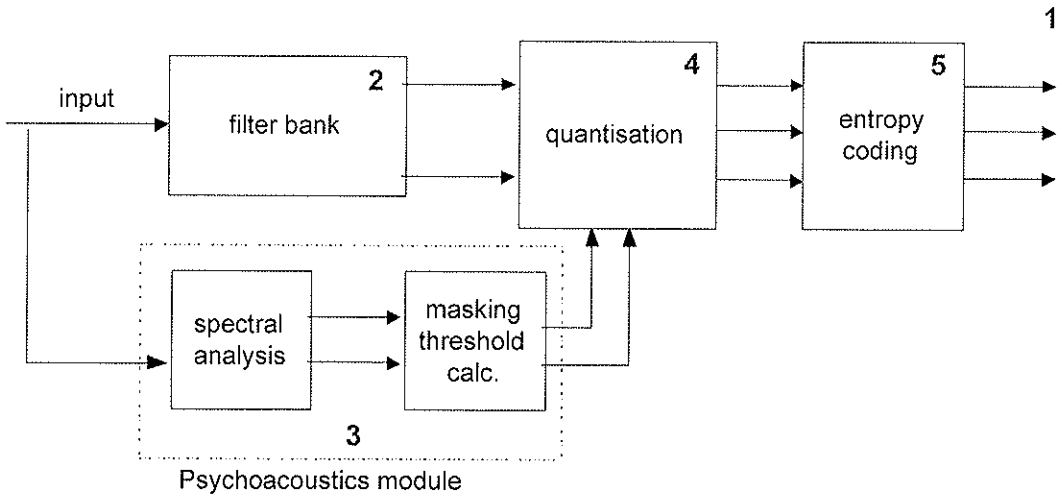

FIG 1 (Prior Art)

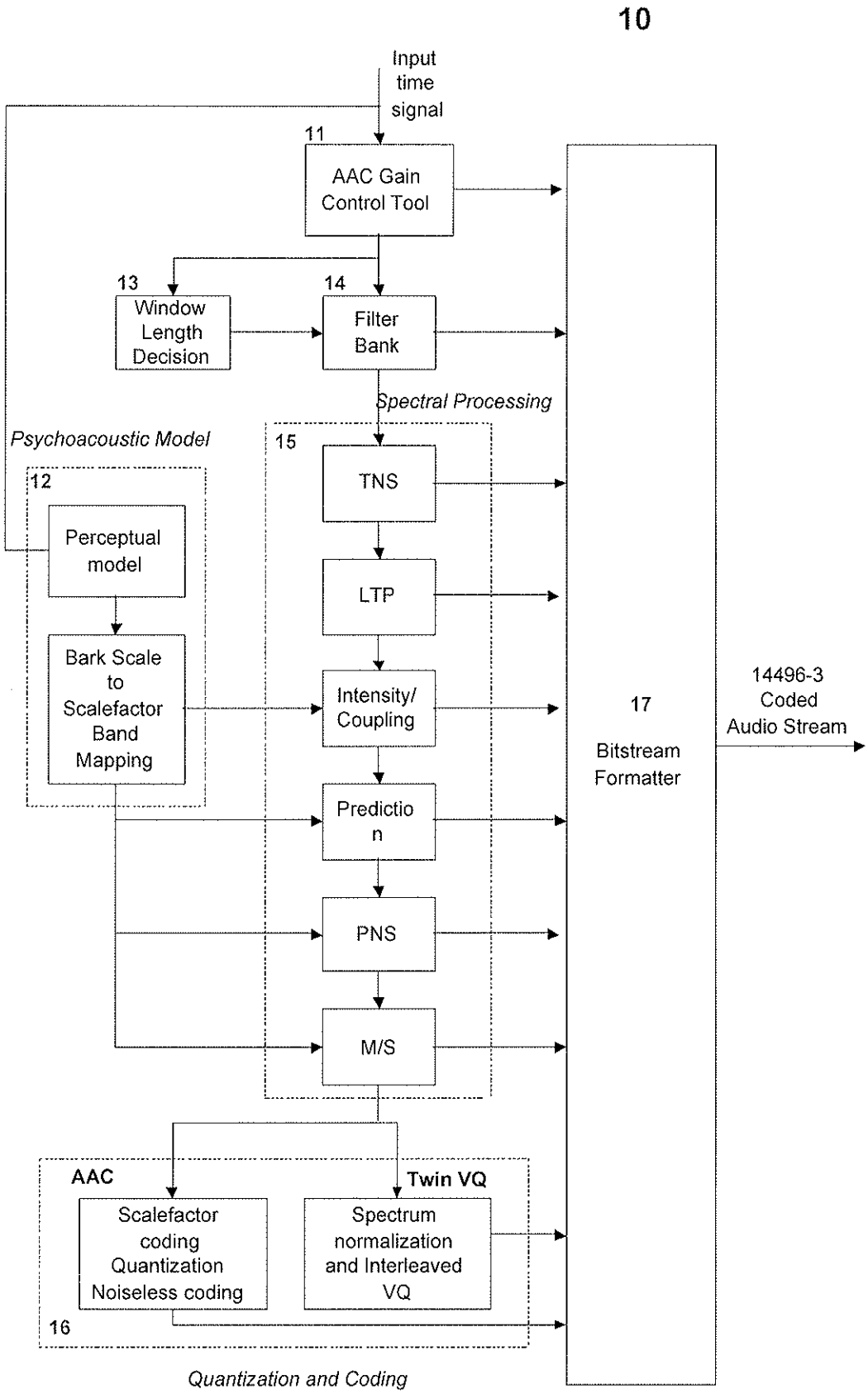

FIG 2 (Prior Art)

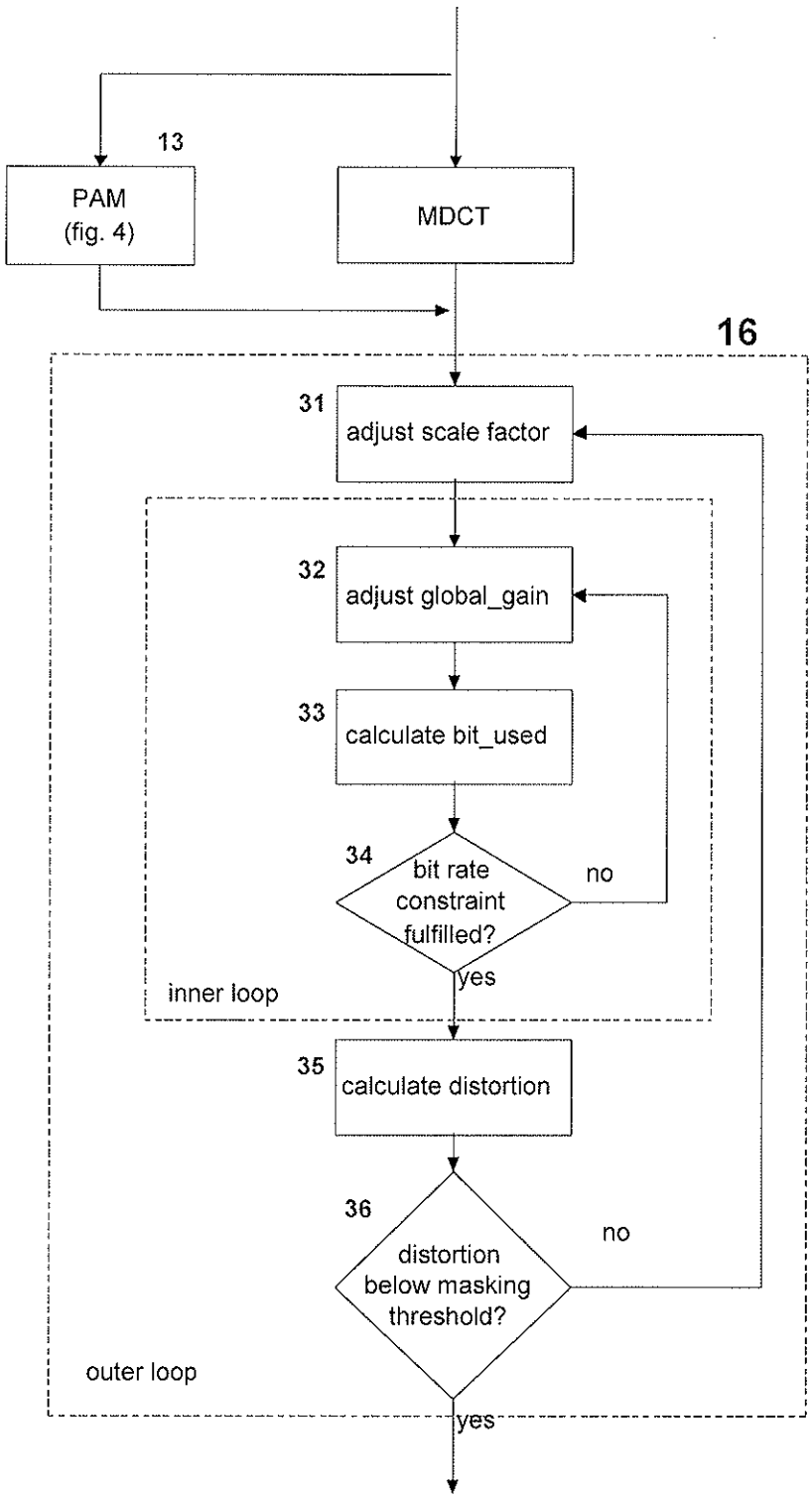

FIG 3 (Prior Art)

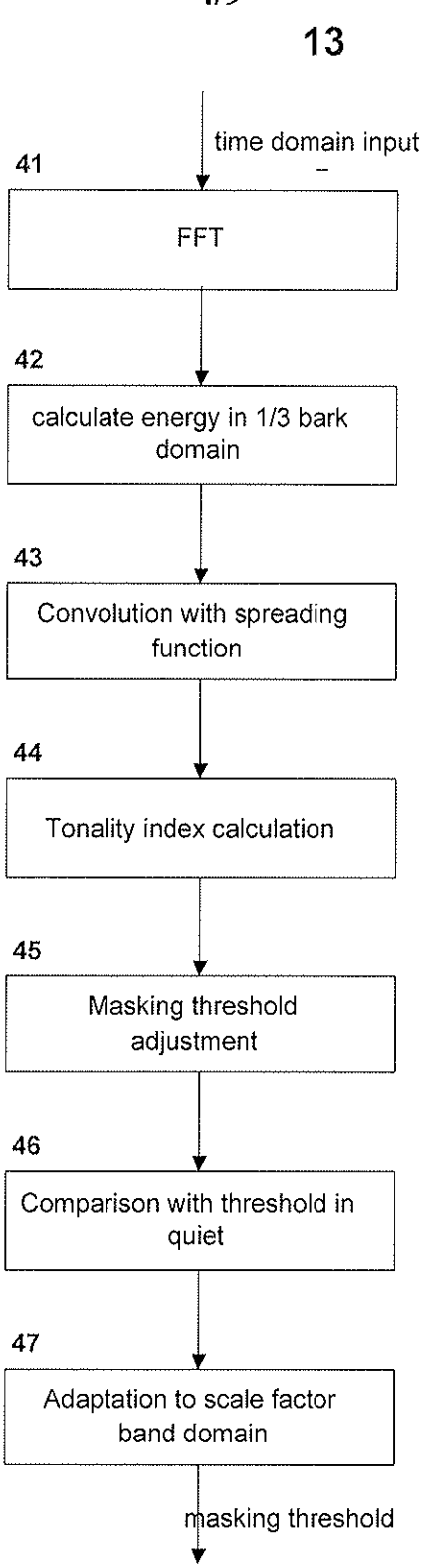

FIG 4 (Prior Art)

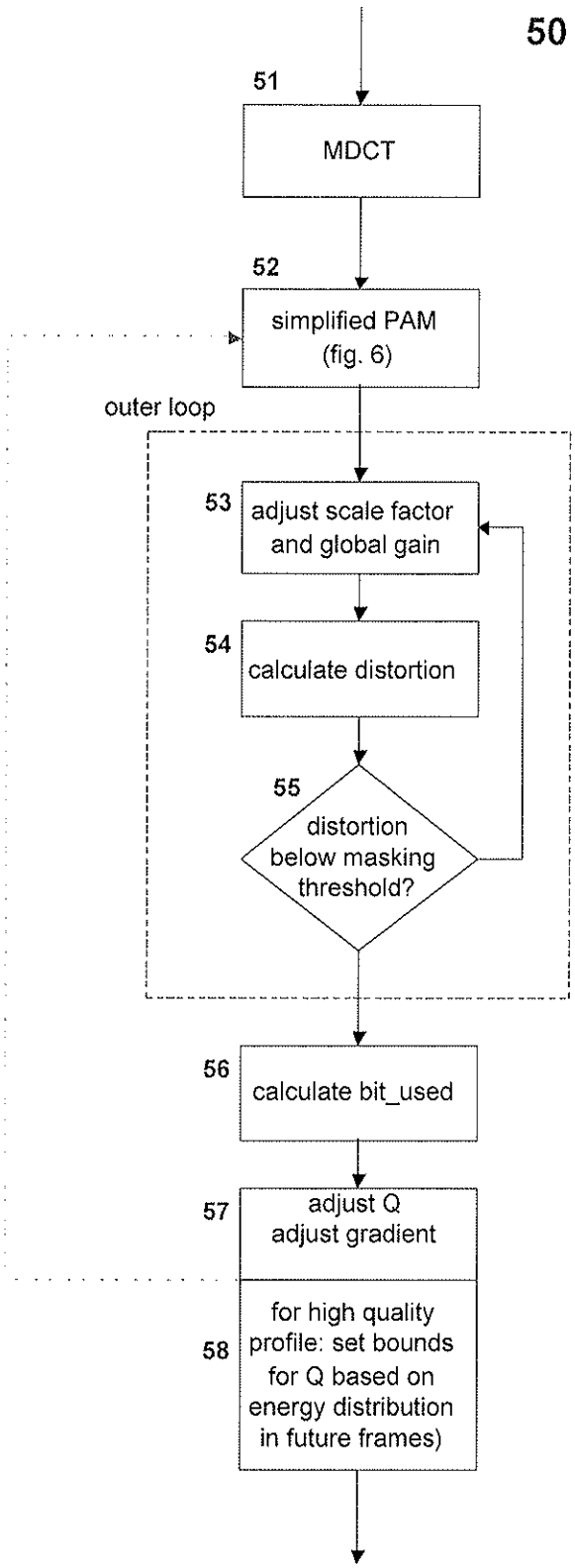
50
51
MDCT
52
simplified PAM
(fig. 6)
outer loop
53
adjust scale factor
and global gain
54
calculate distortion
55
distortion
below masking
threshold?
56
calculate bit_used
57
adjust Q
adjust gradient
58
for high quality
profile: set bounds
for Q based on
energy distribution
in future frames)

FIG 5

52

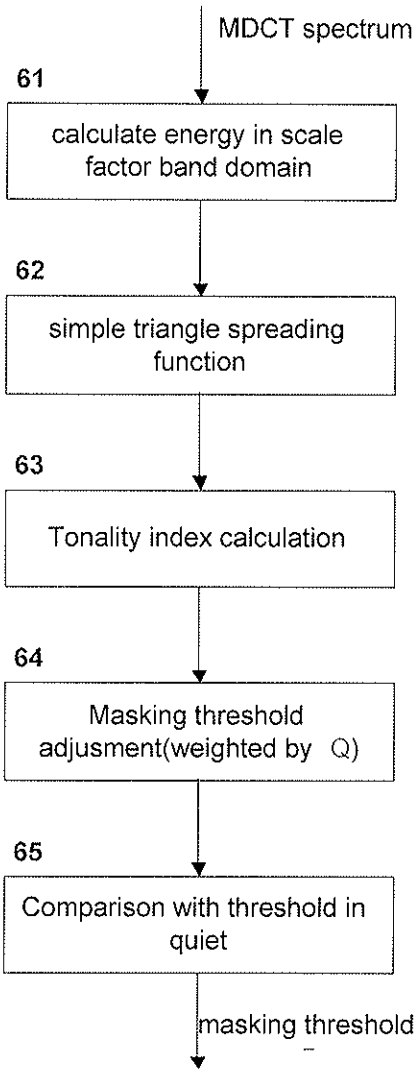
MDCT spectrum
61
calculate energy in scale factor band domain
62
simple triangle spreading function
63
Tonality index calculation
64
Masking threshold adjusment(weighted by Q)
65
Comparison with threshold in quiet
masking threshold

FIG 6

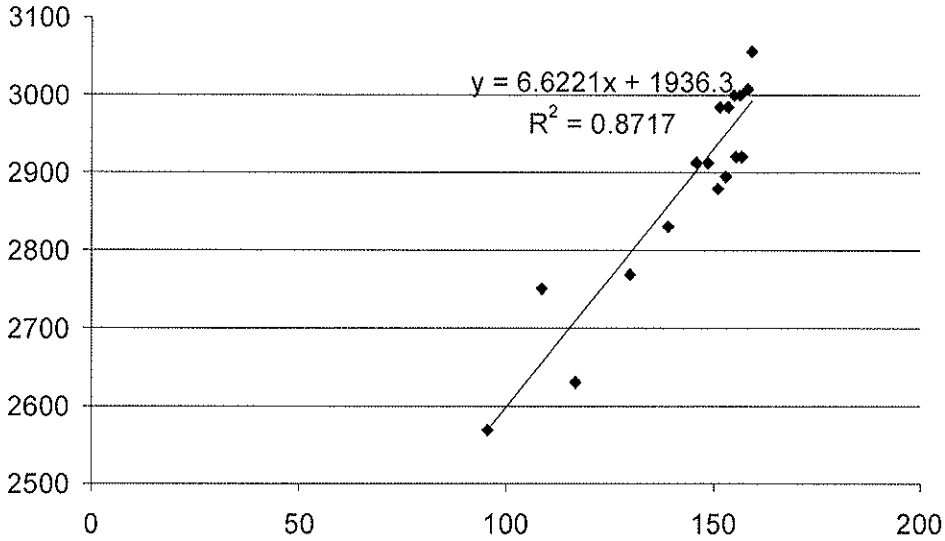
3100
3000
2900
2800
2700
2600
2500
0
50
100
150
200
y = 6.6221x + 1936.3
R2 = 0.8717

FIG 7

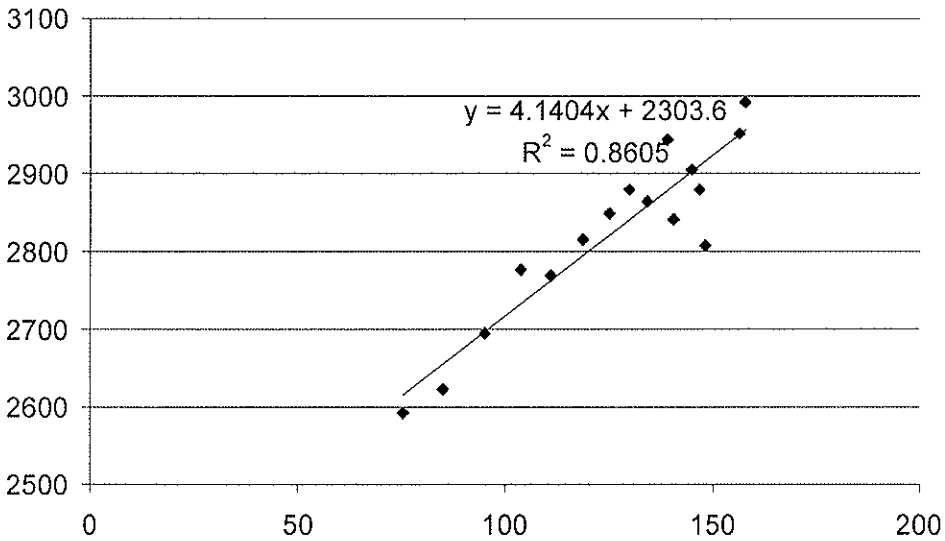
3100
3000
2900
2800
2700
2600
2500
0
50
100
150
200
y = 4.1404x + 2303.6
R2 = 0.8605

FIG 8

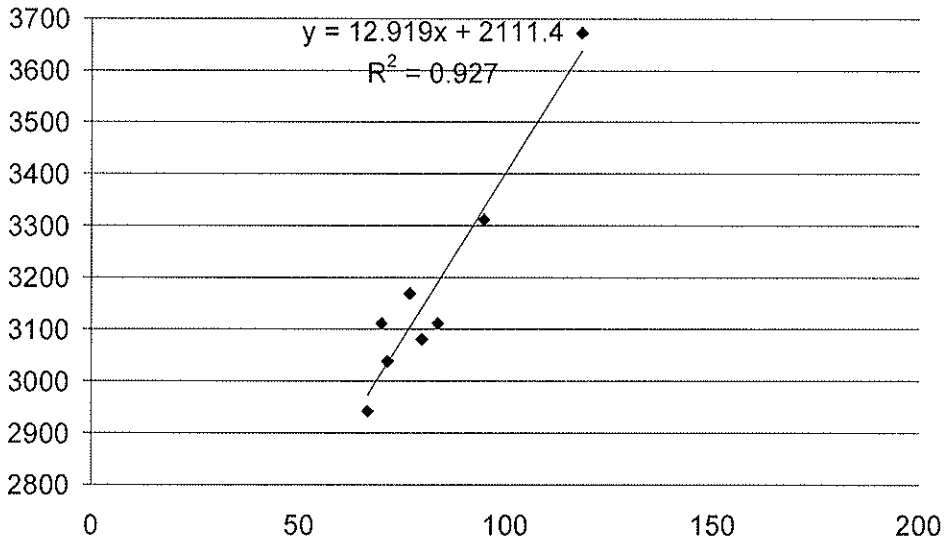
y = 12.919x + 2111.4
R2 = 0.927
3700
3600
3500
3400
3300
3200
3100
3000
2900
2800
0
50
100
150
200

FIG 9

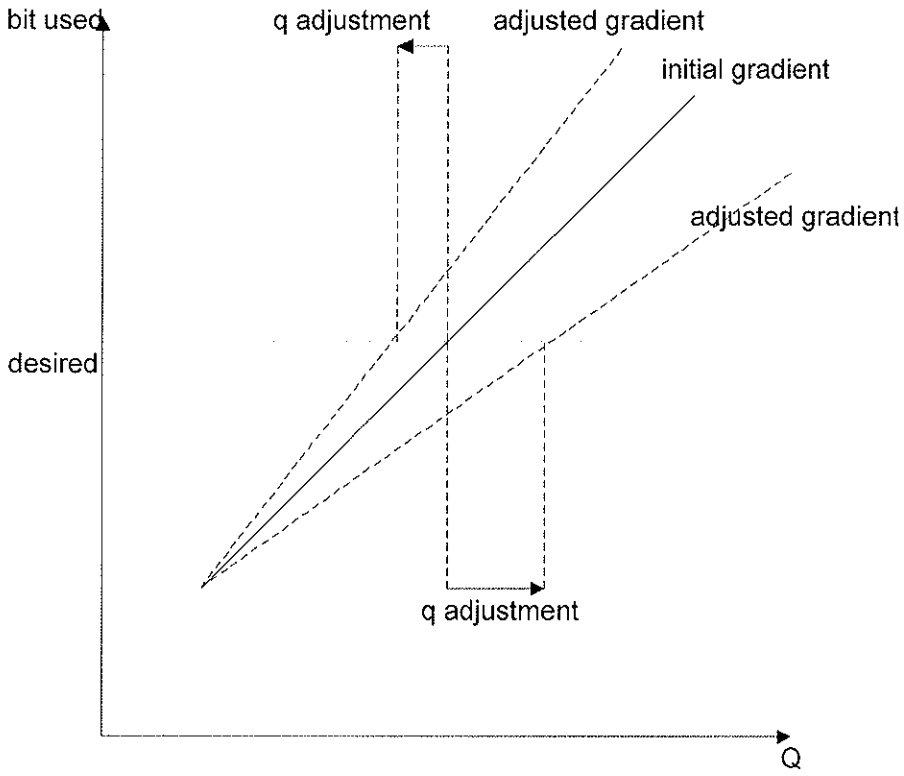
bit used
q adjustment
adjusted gradient
initial gradient
adjusted gradient
desired
q adjustment
Q

FIG 10

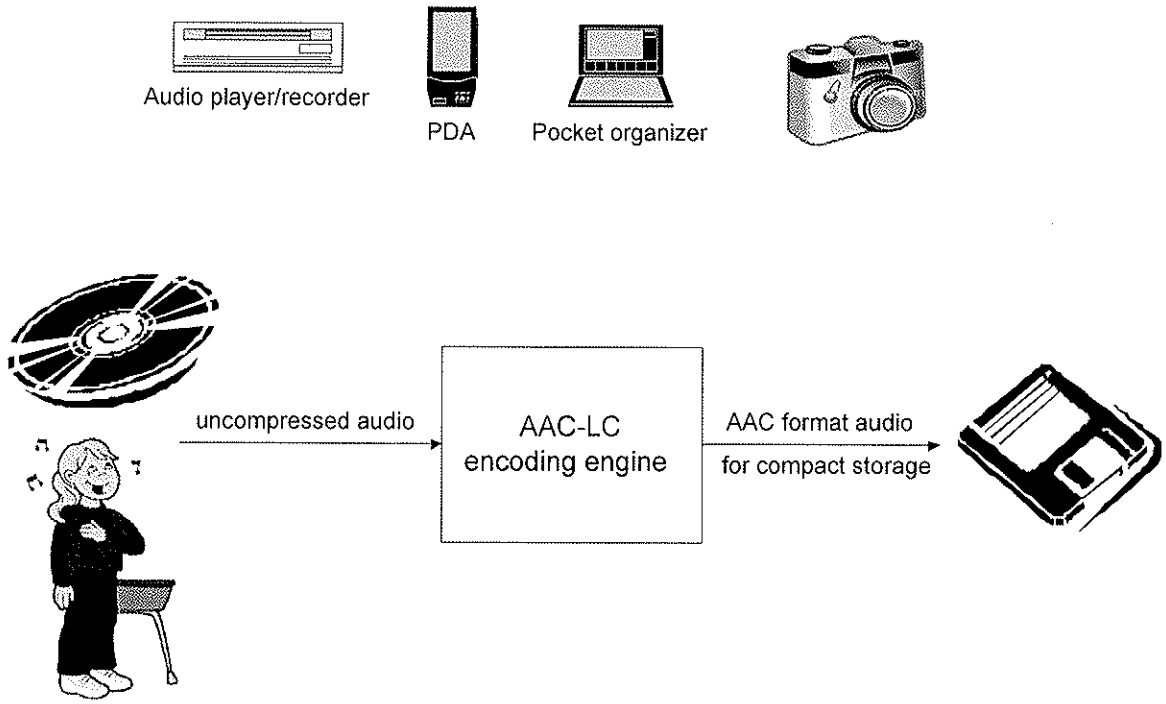
Audio player/recorder
PDA
Pocket organizer
uncompressed audio
AAC-LC
encoding engine
AAC format audio
for compact storage

FIG 11