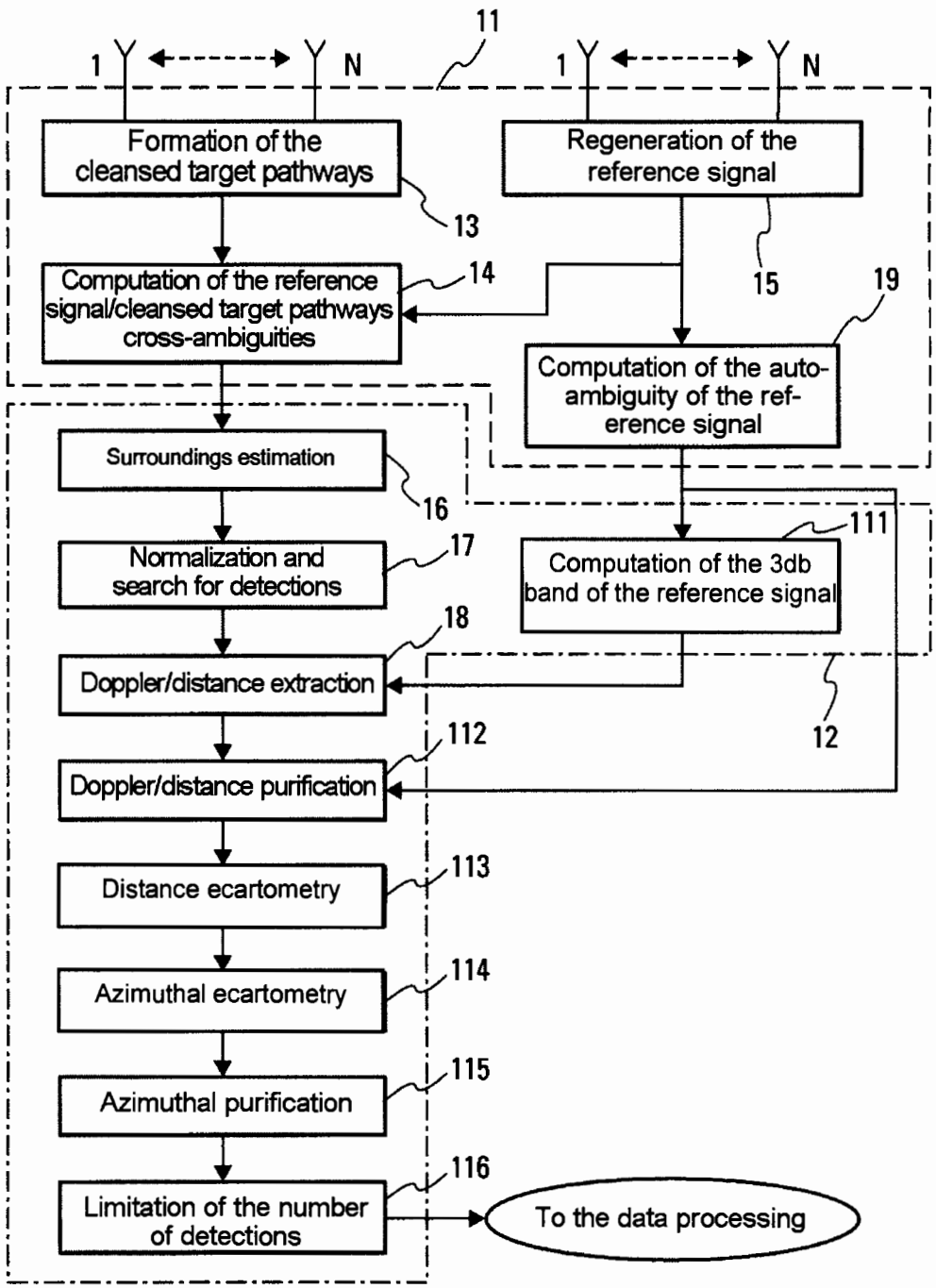
11
1
N
1
N
Formation of the cleansed target pathways
13
Regeneration of the reference signal
15
Computation of the reference signal/cleansed target pathways cross-ambiguities
14
19
Computation of the auto-ambiguity of the reference signal
Surroundings estimation
16
111
Normalization and search for detections
17
Computation of the 3db band of the reference signal
18
Doppler/distance extraction
12
112
Doppler/distance purification
Distance ecartometry
113
Azimuthal ecartometry
114
Azimuthal purification
115
116
Limitation of the number of detections
To the data processing

Fig. 1

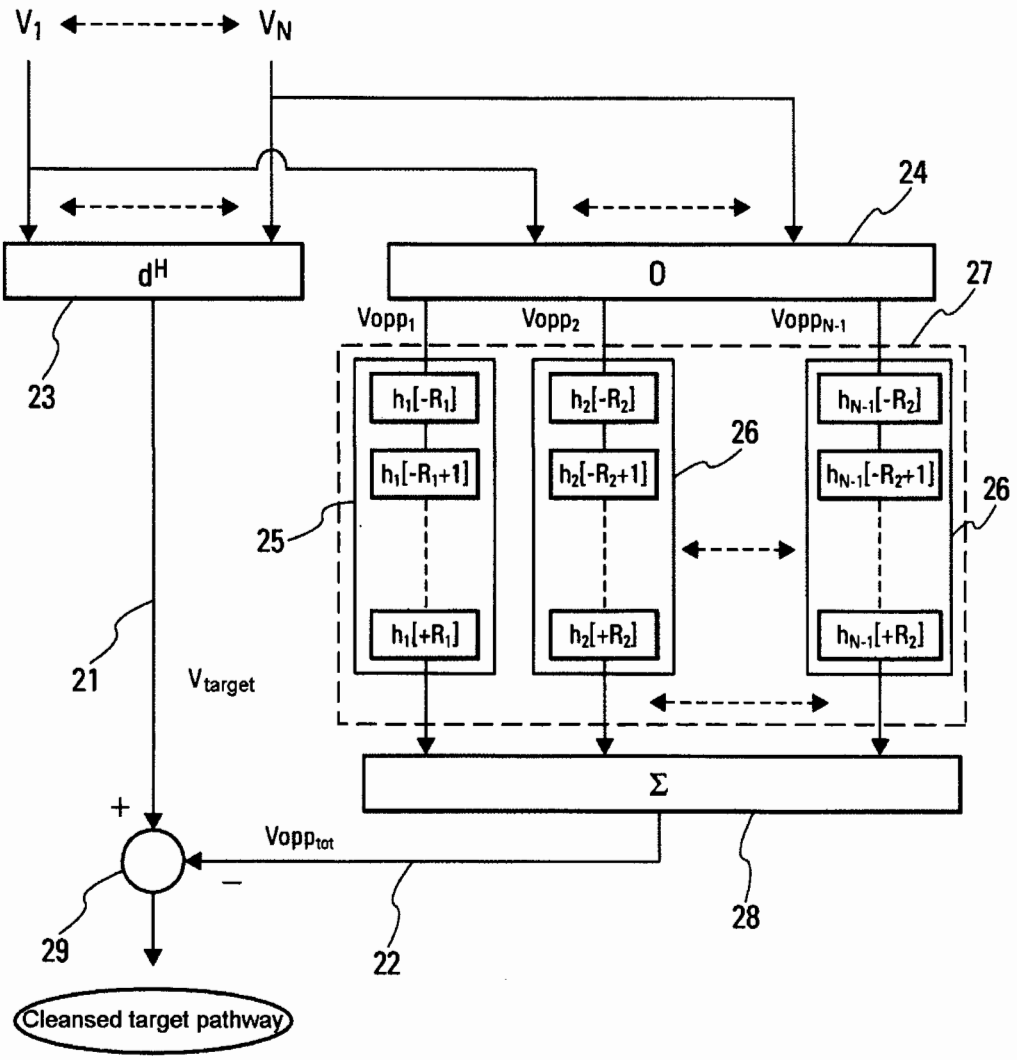
V1
VN
24
dH
O
27
Vopp1
Vopp2
VoppN-1
23
h1[-R1]
h2[-R2]
hN-1[-R2]
26
h1[-R1+1]
h2[-R2+1]
hN-1[-R2+1]
26
25
h1[+R1]
h2[+R2]
hN-1[+R2]
21
Vtarget
Σ
+
Vopptot
−
29
22
28
Cleansed target pathway

Fig. 2

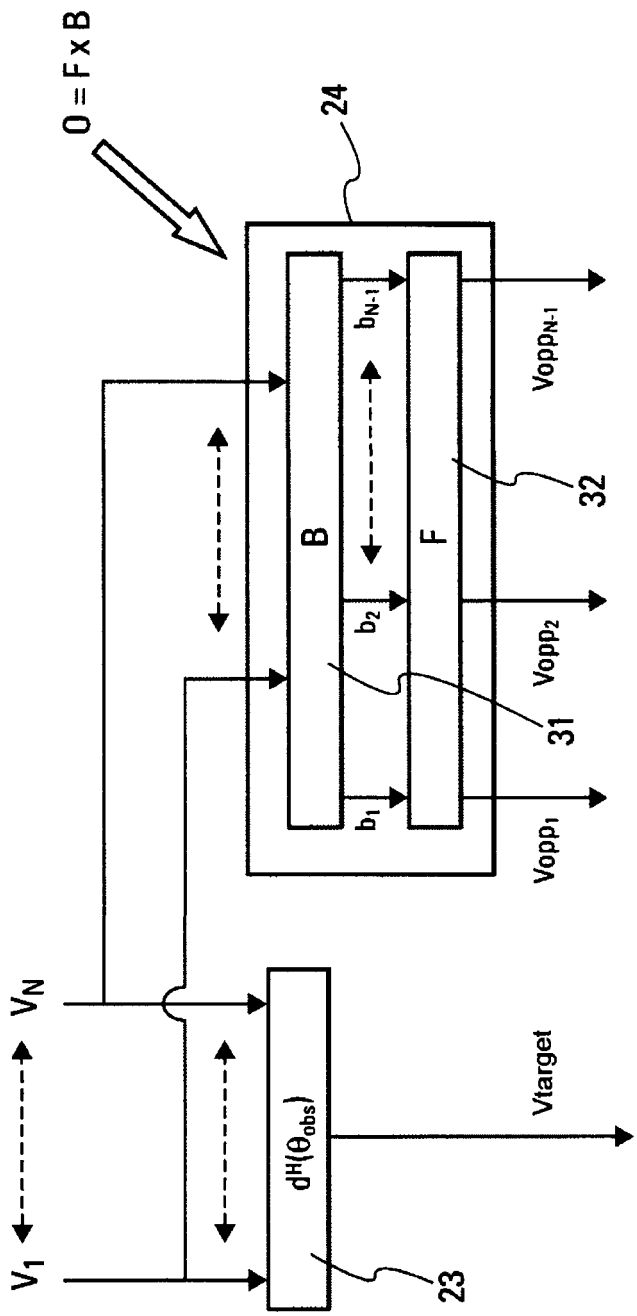
O = F x B
24
B
F
b_{N-1}
b_2
b_1
$Vopp_{N-1}$
$Vopp_2$
$Vopp_1$
32
31
V_N
V_1
$d^H(\theta_{obs})$
Vtarget
23

Fig. 3

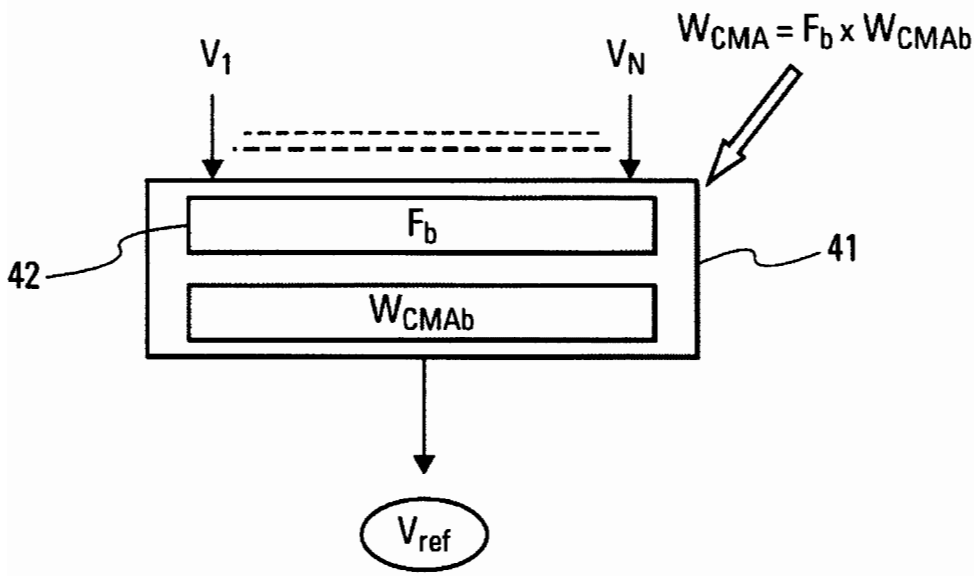

Fig. 4

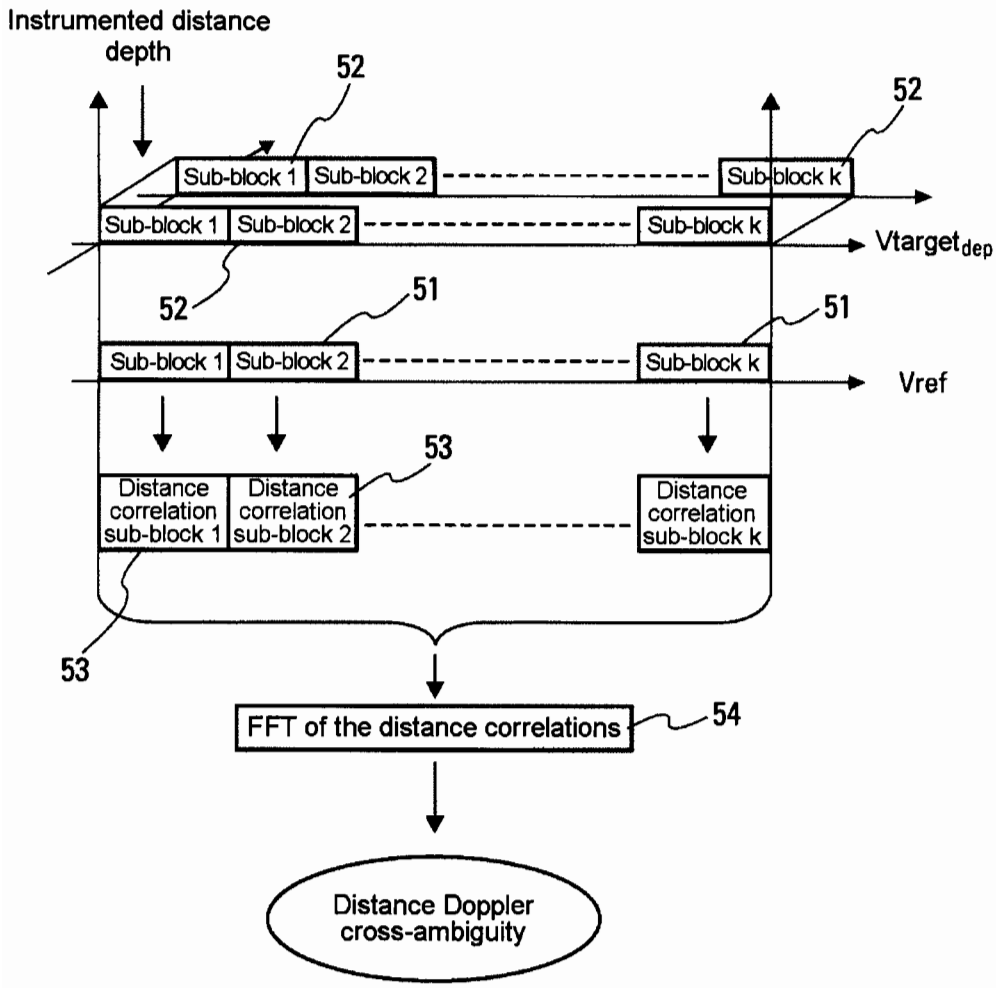
Instrumented distance depth
52
52
Sub-block 1
Sub-block 2
Sub-block k
Sub-block 1
Sub-block 2
Sub-block k
Vtarget$_{dep}$
52
51
51
Sub-block 1
Sub-block 2
Sub-block k
Vref
53
Distance correlation sub-block 1
Distance correlation sub-block 2
Distance correlation sub-block k
53
FFT of the distance correlations
54
Distance Doppler cross-ambiguity

Fig. 5

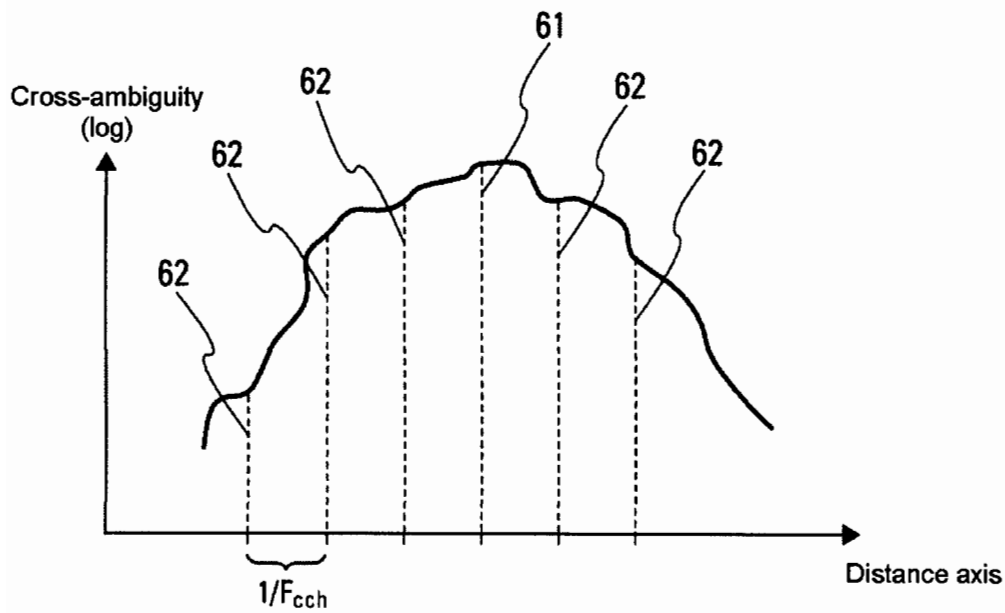

Fig. 6

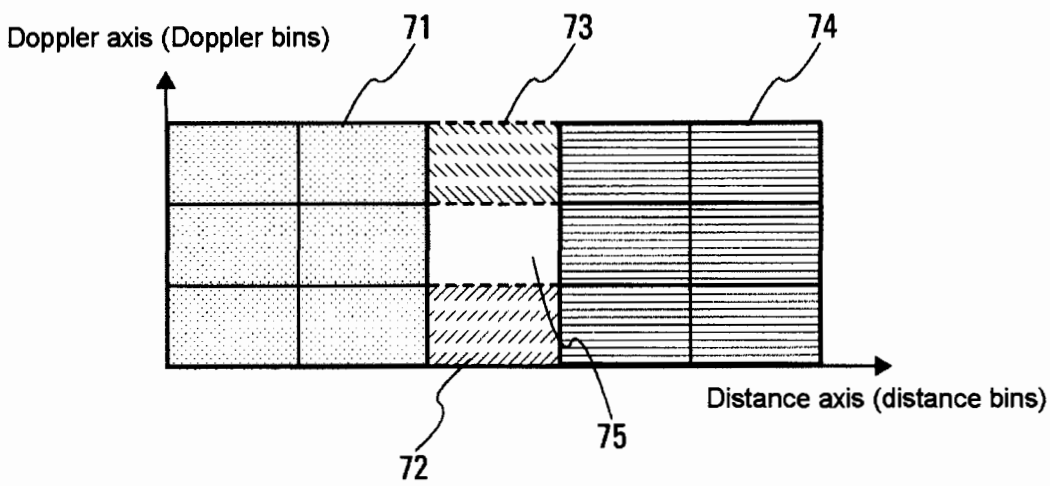
Doppler axis (Doppler bins)
71
73
74
Distance axis (distance bins)
72
75

Fig. 7

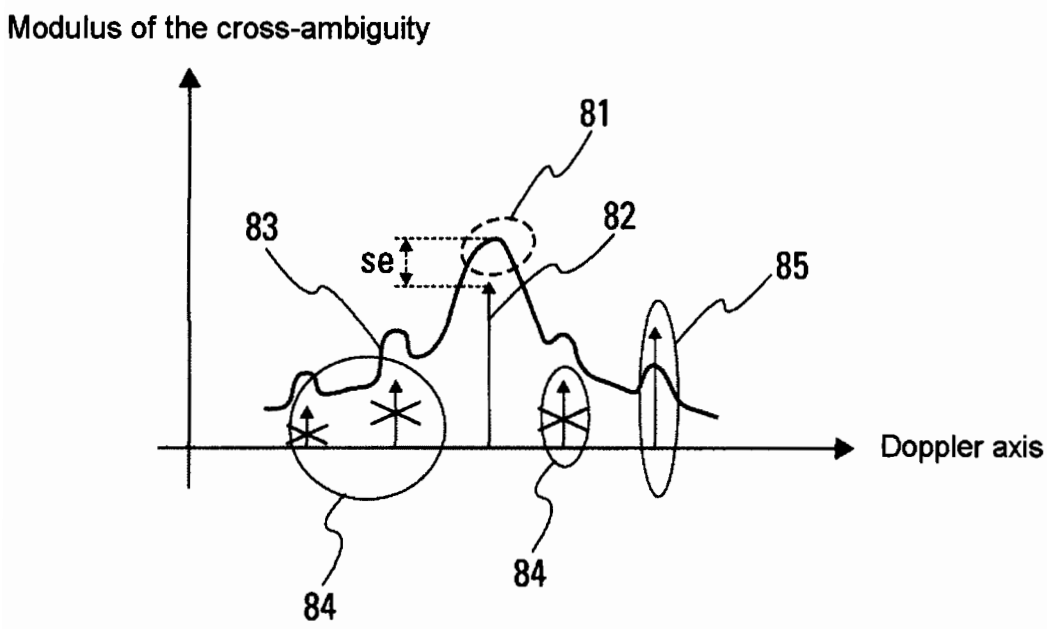
Modulus of the cross-ambiguity
81
82
83
se
85
Doppler axis
84
84

Fig. 8