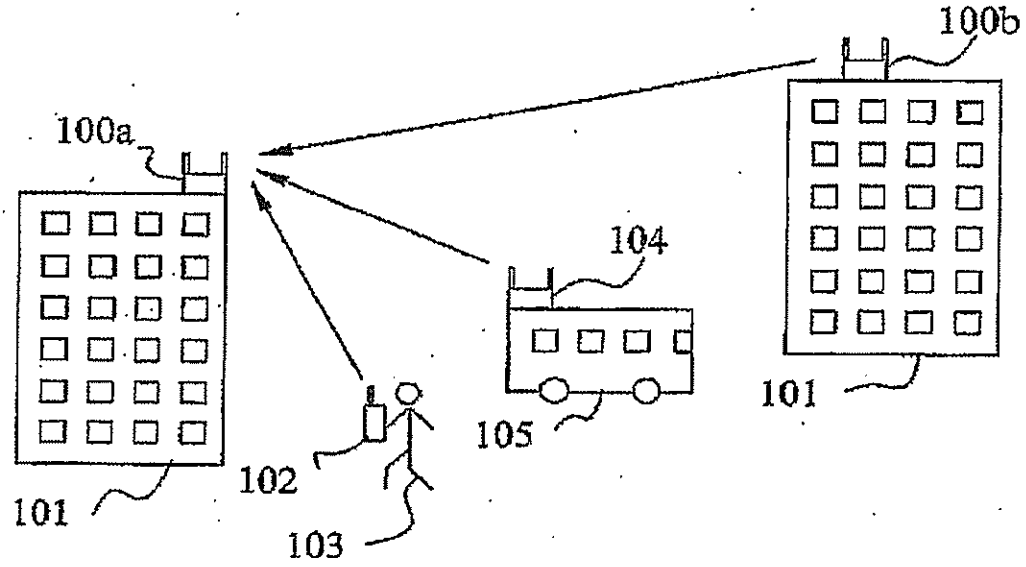


Figure 1

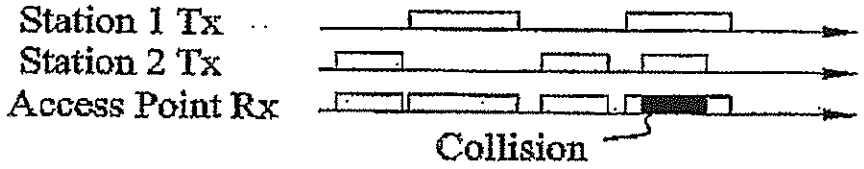


Figure 2 (Related Art)

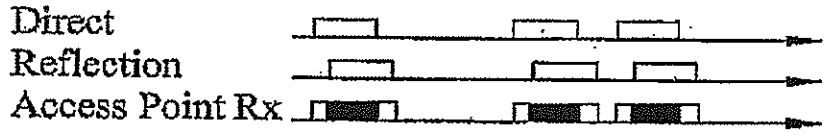


Figure 3 (Related Art)

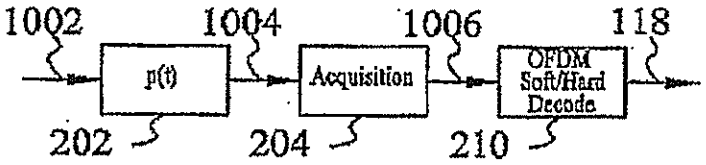
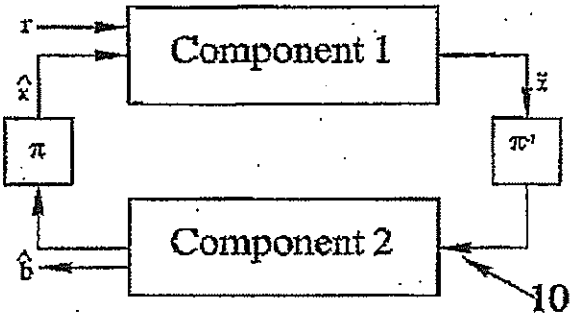
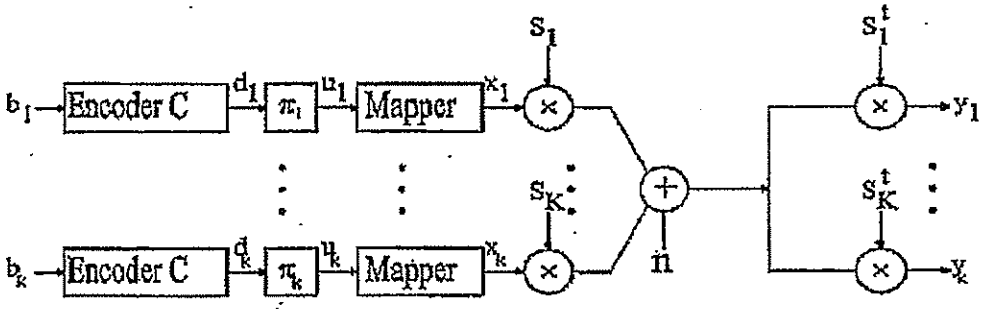


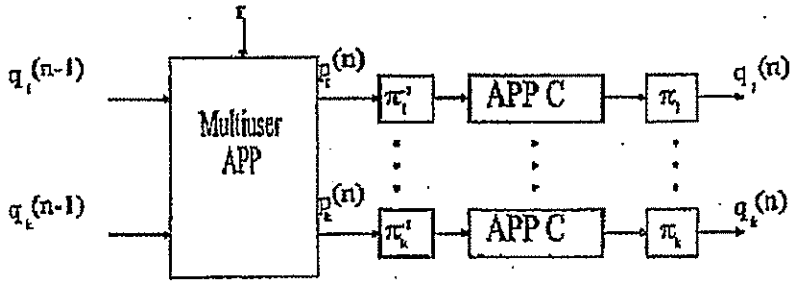
Figure 10 (Related Art)



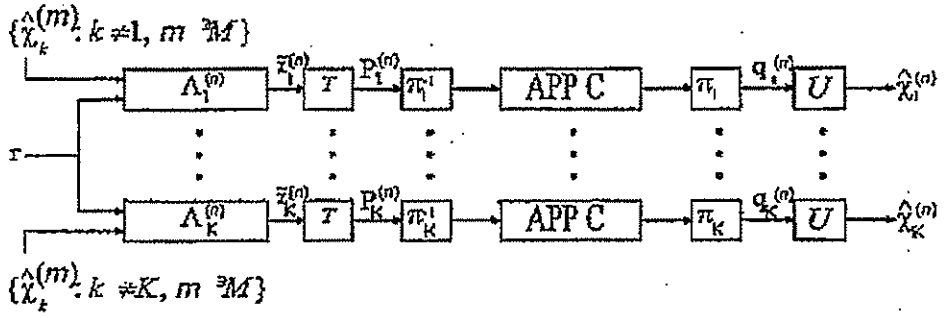
Generic iterative receiver structure
Figure 4



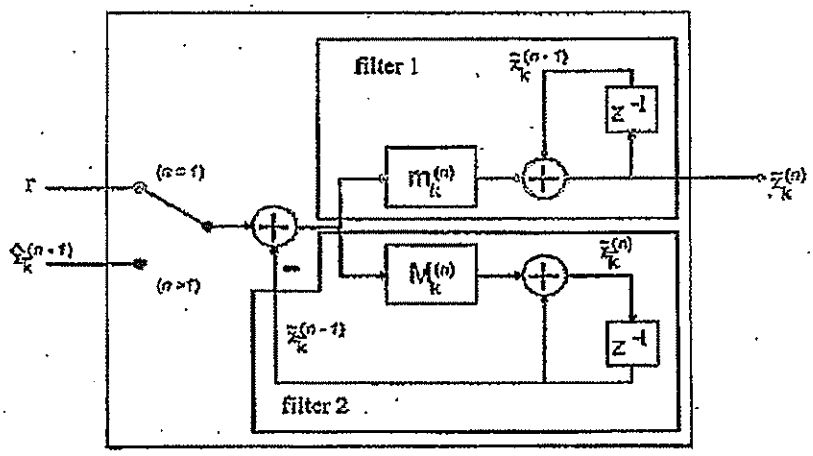
The transmission system model for coded CDMA
Figure 5



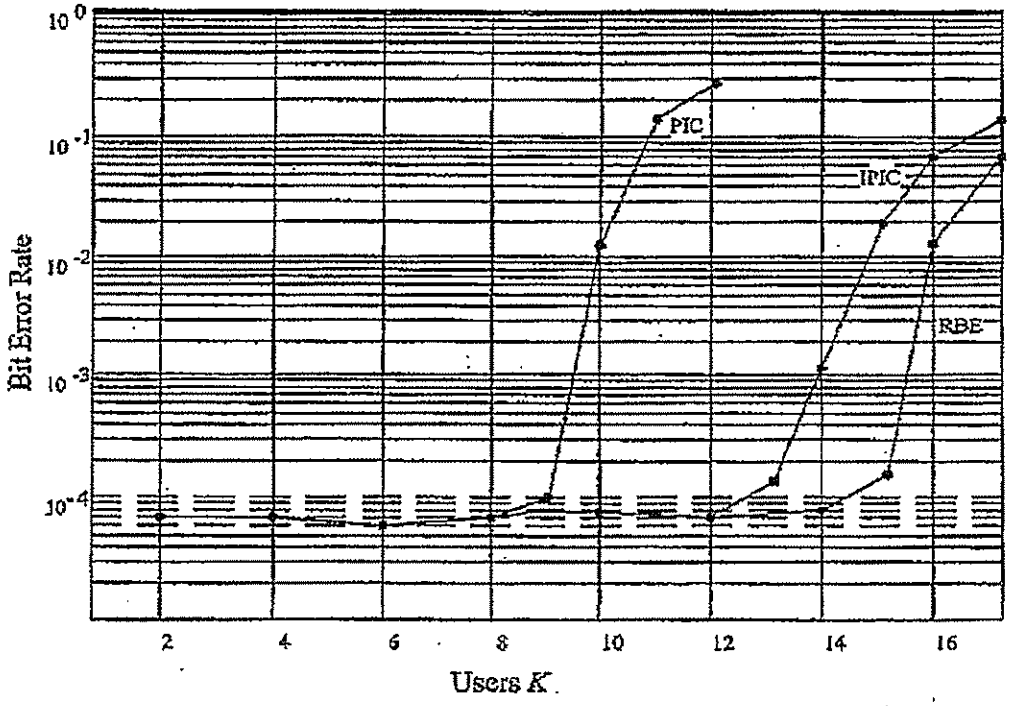
Canonical iterative multiuser decoder
Figure 6



Iterative multiuser decoder with linear multiuser estimation
Figure 7

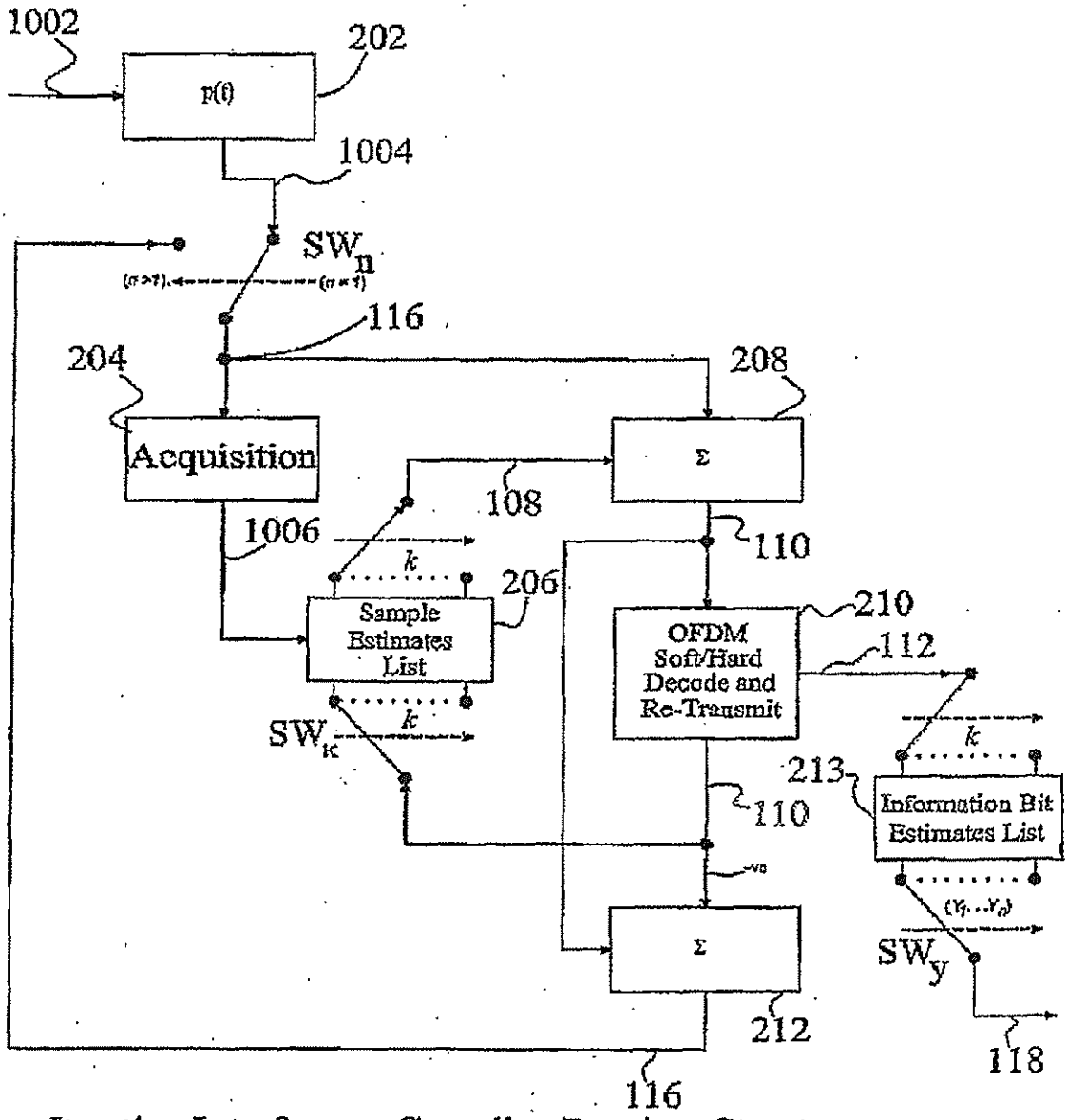


The recursive filter $\Lambda_k^{(n)}$ For $(n = 1)$ the input signal is r while for $n \geq 2$ the input signal is $\hat{\chi}_k(n-1)$
Figure 8



BER versus users after 10 iterations, $N = 8$, $E_b / N_0 = 6$ dB

Figure 9



Iterative Interference Canceling Receiver Structure

Figure 11

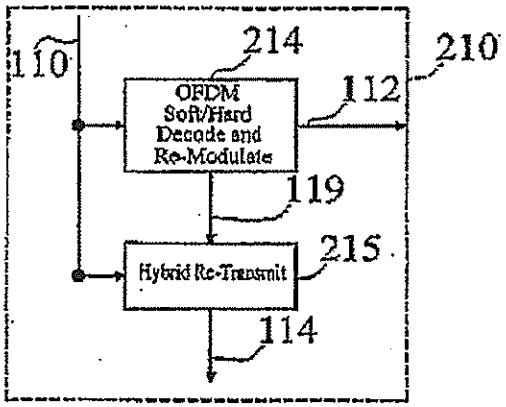


Figure 12

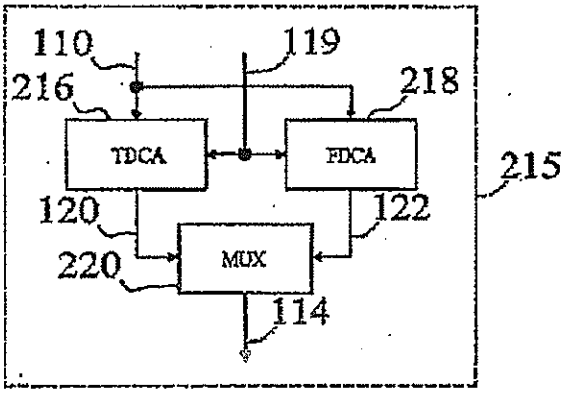


Figure 13

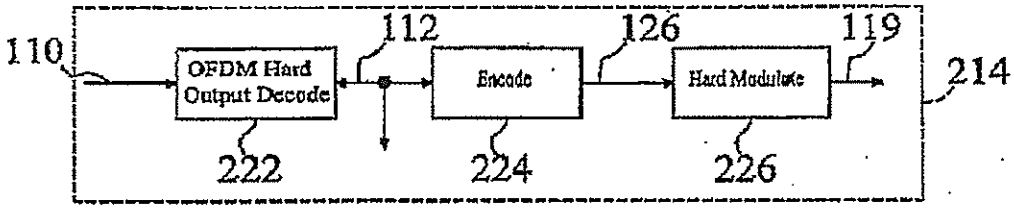


Figure 14

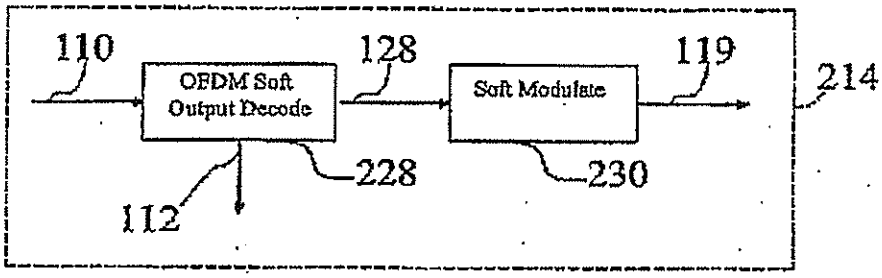


Figure 15

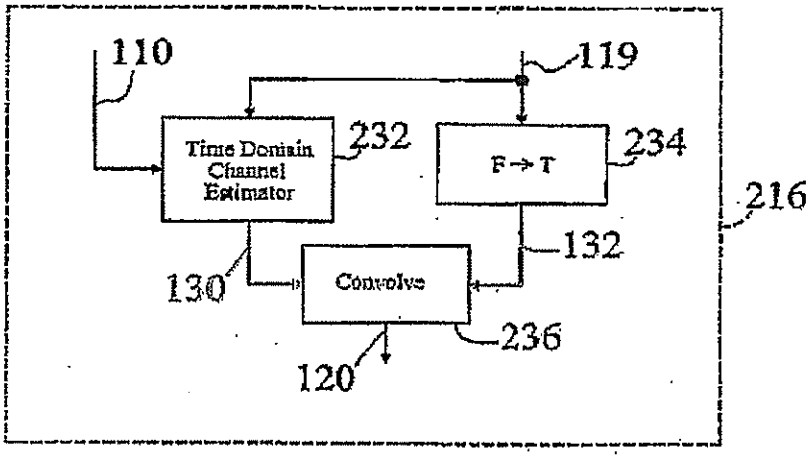


Figure 16

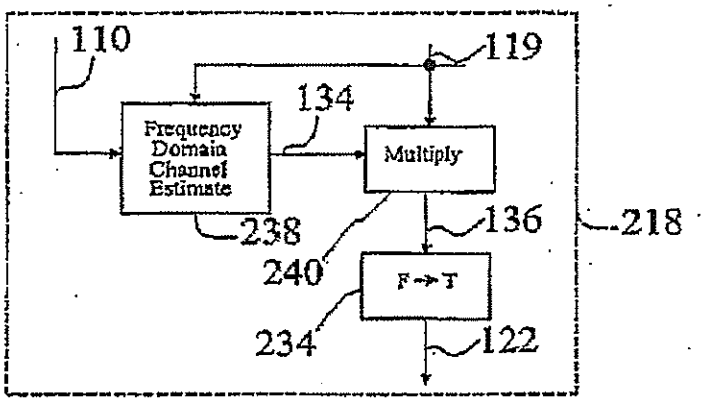


Figure 17

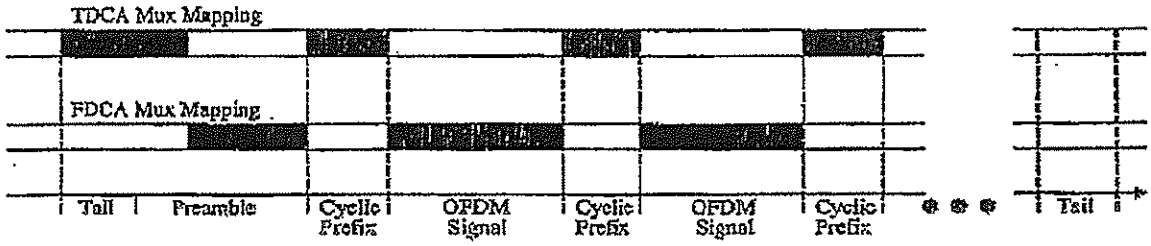


Figure 18

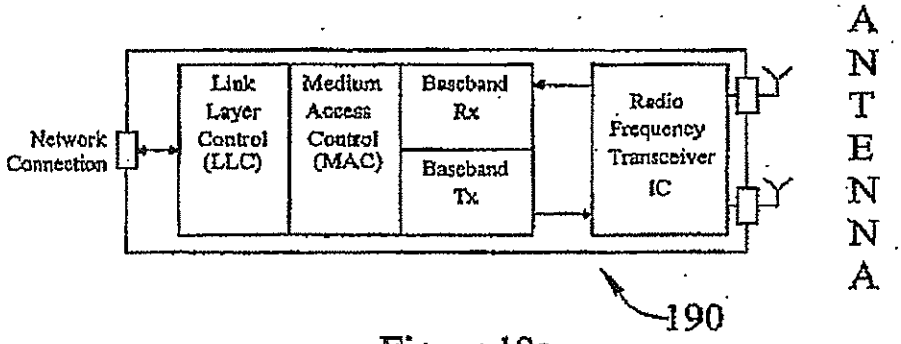


Figure 19a

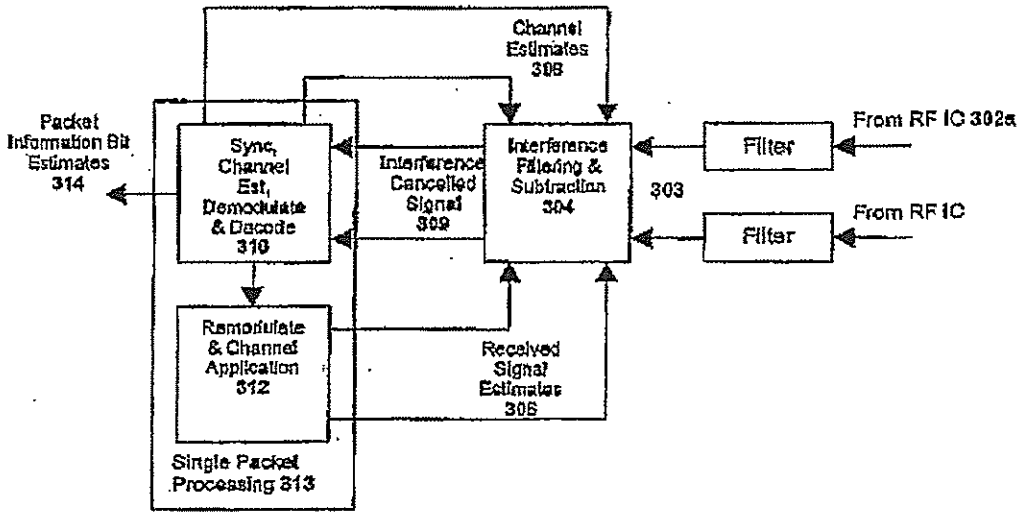

Channel Estimates 308
Packet Information Bit Estimates 314
Sync, Channel Est, Demodulate & Decode 310
Interference Cancelled Signal 302
Interference Filtering & Subtraction 304
303
Filter
From RF IC 302a
Filter
From RF IC
Remodulate & Channel Application 312
Received Signal Estimates 306
Single Packet Processing 313

Figure 19b

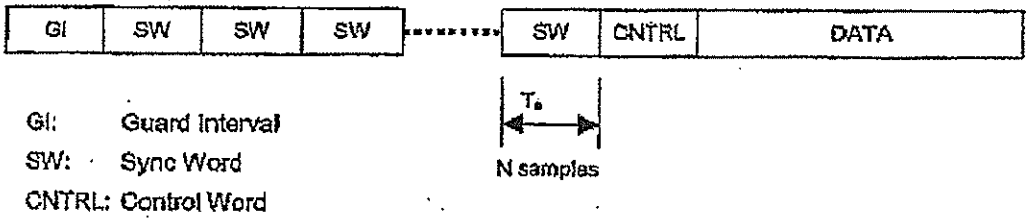


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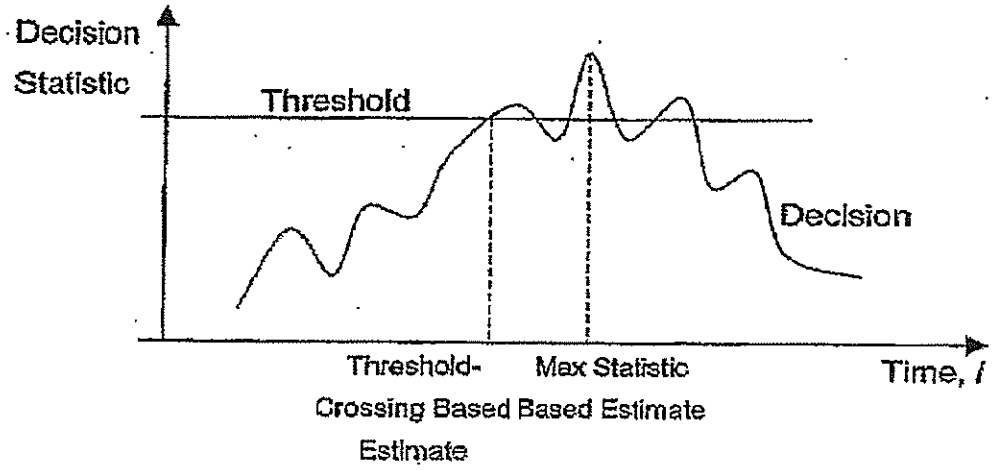


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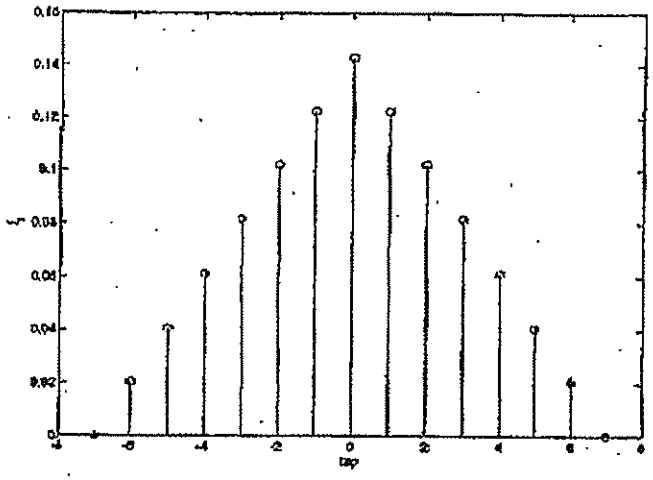


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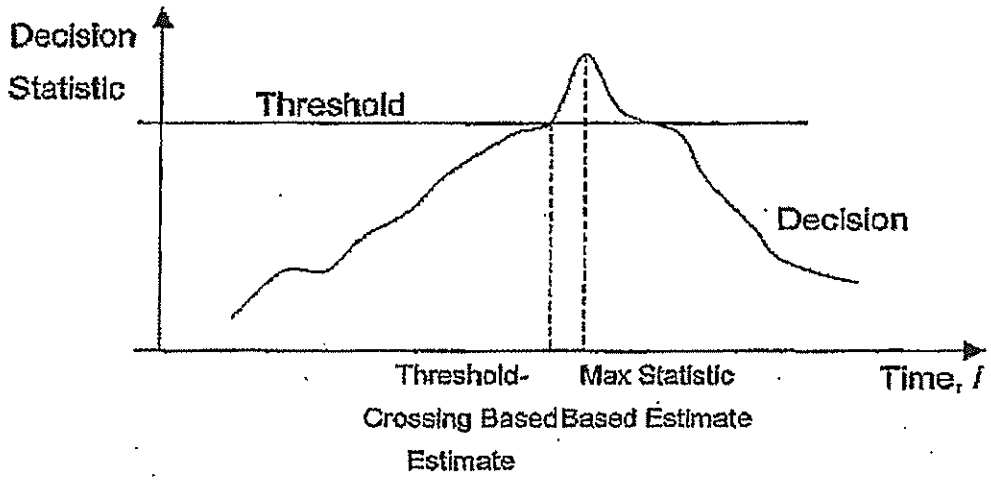


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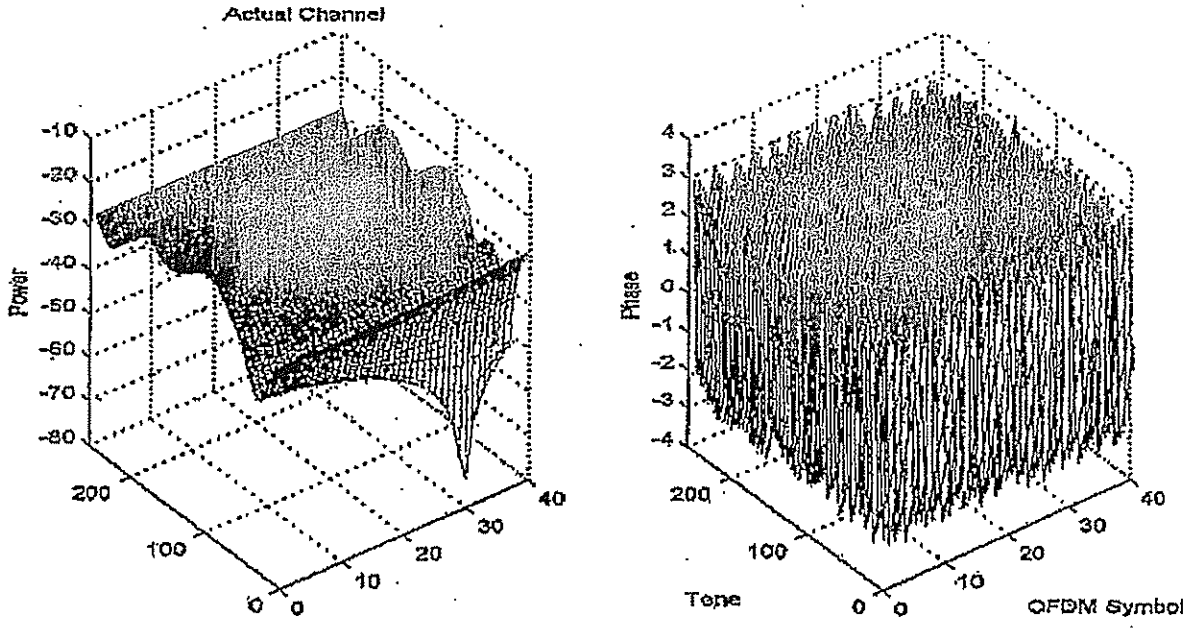


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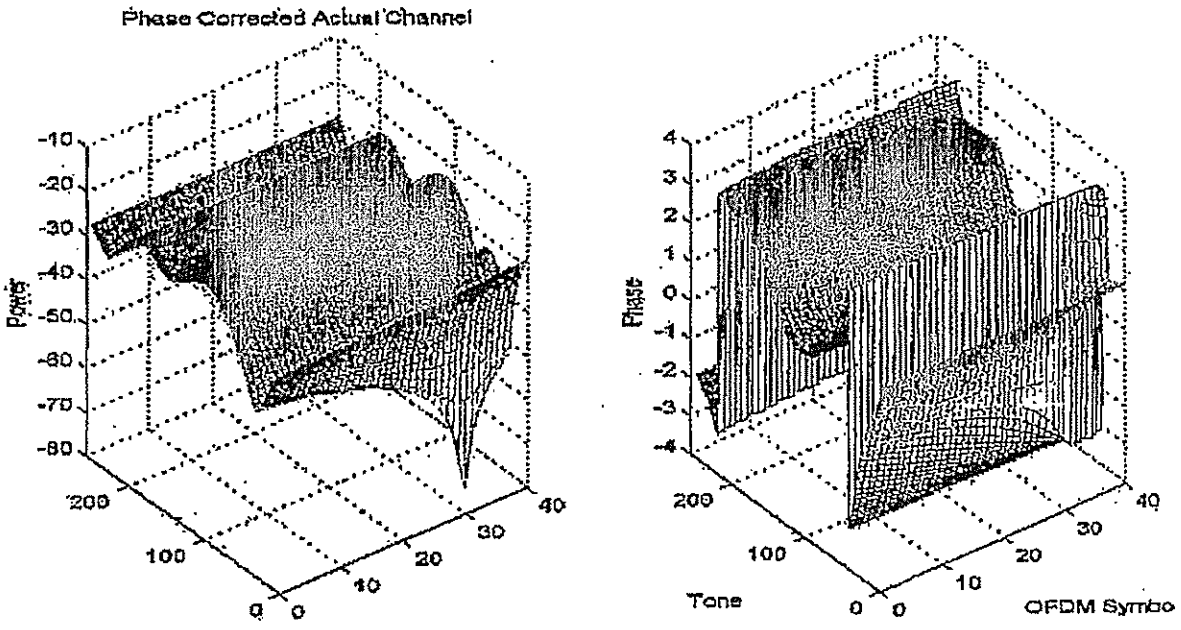

Phase Corrected Actual Channel
Power
-10
-20
-30
-40
-50
-60
-70
-80
200
100
0
0
10
20
30
40
Phase
4
3
2
1
0
-1
-2
-3
-4
Tone
OFDM Symbo

Figure 25

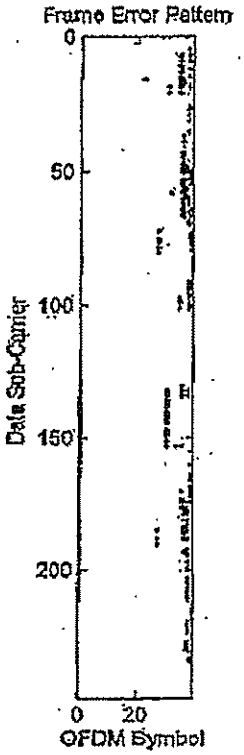


Figure 26

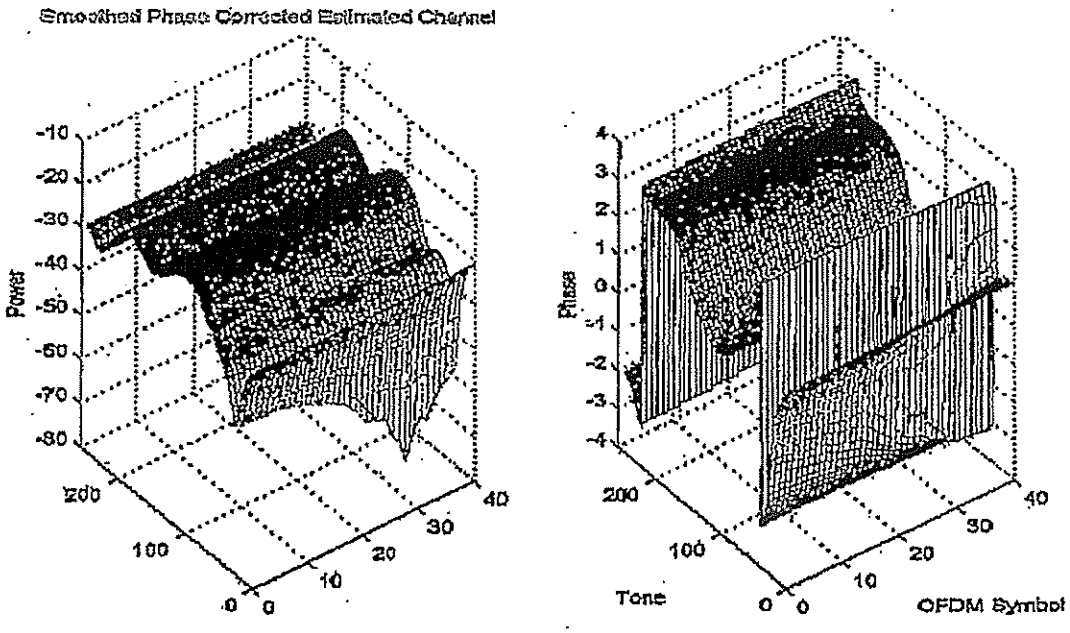


Figure 27

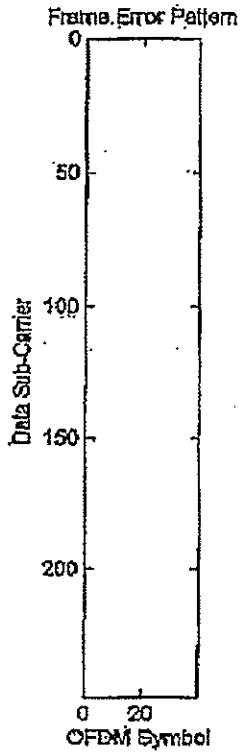


Figure 28

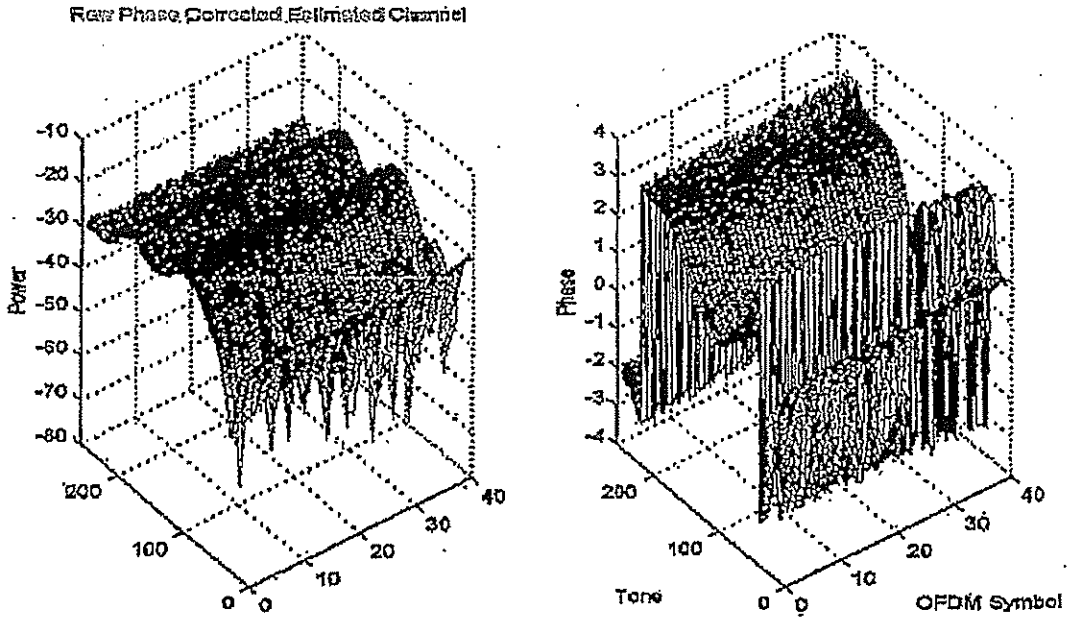


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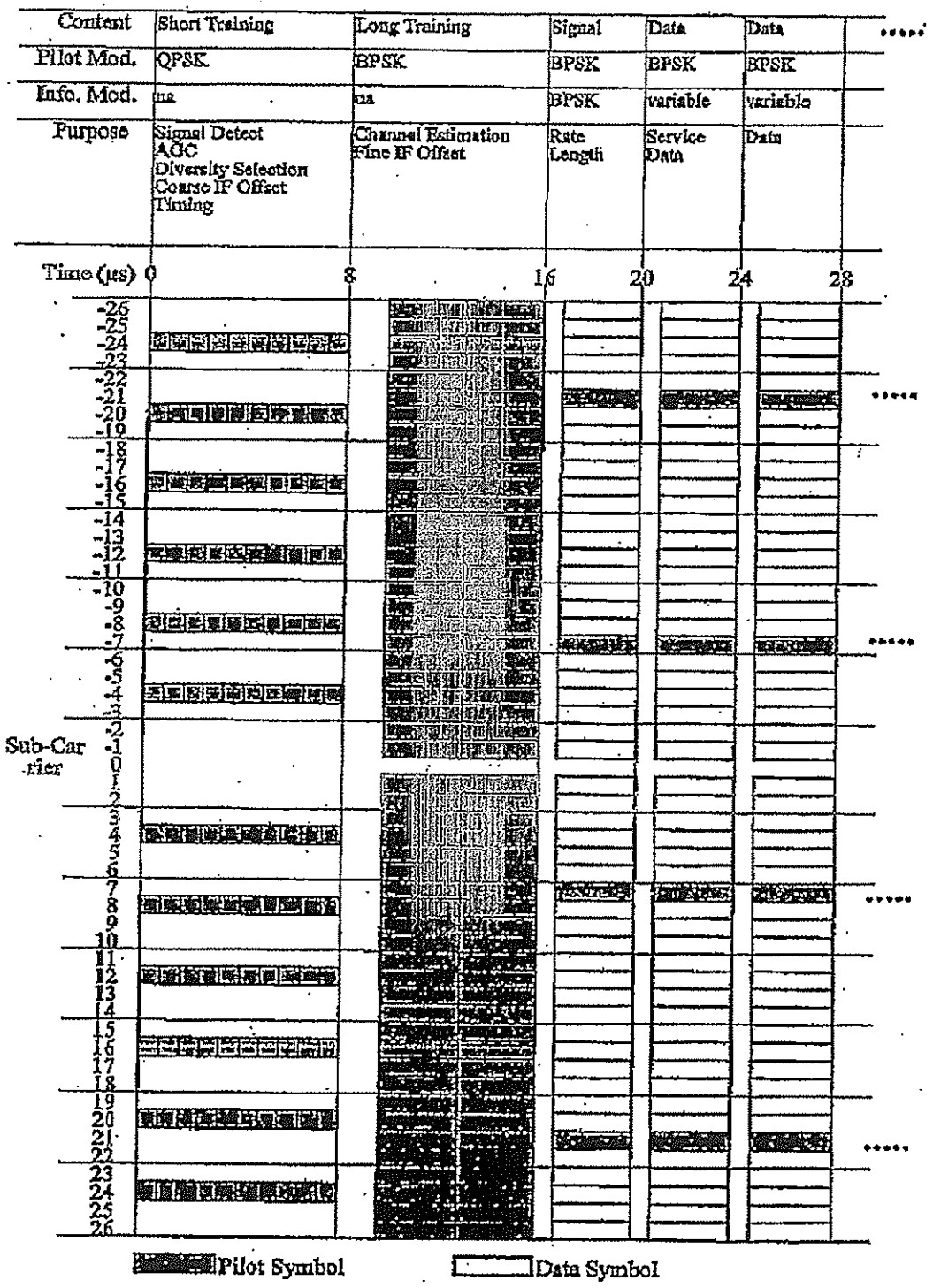

Content
Short Training
Long Training
Signal
Data
Data
Pilot Mod.
QPSK
BPSK
BPSK
BPSK
BPSK
Info. Mod.
na
na
BPSK
variable
variable
Purpose
Signal Detect
AGC
Diversity Selection
Coarse IF Offset
Timing
Channel Estimation
Fine IF Offset
Rate
Length
Service
Data
Data
Time (µs)
0
8
16
20
24
28
Sub-Carrier
Pilot Symbol
Data Symbol

Figure 30

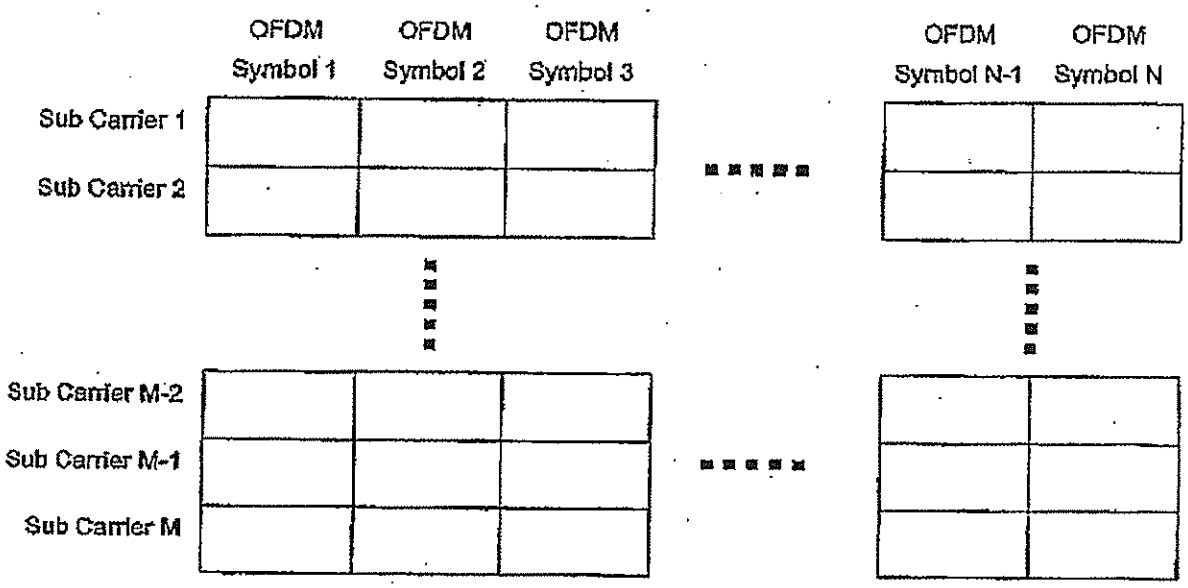


Figure 31

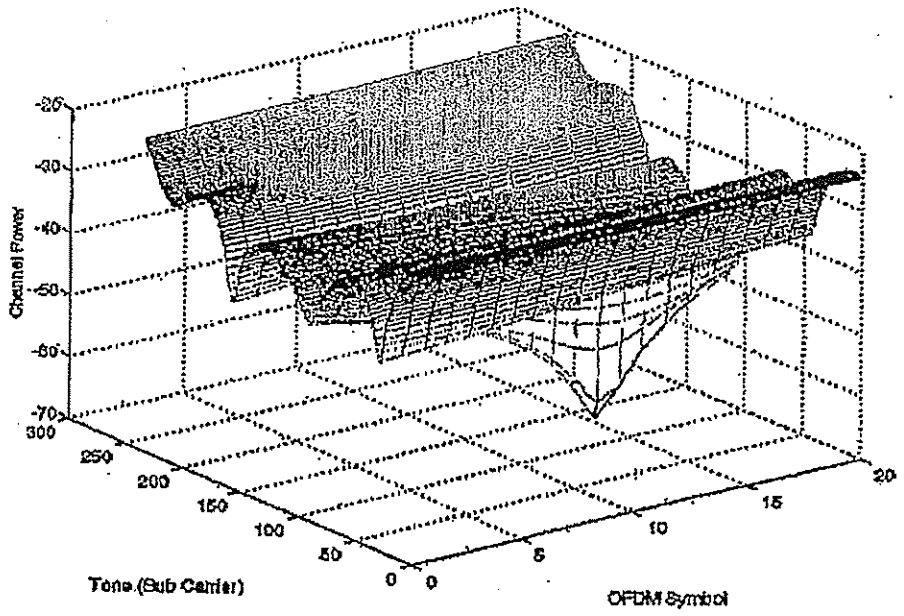


Figure 32

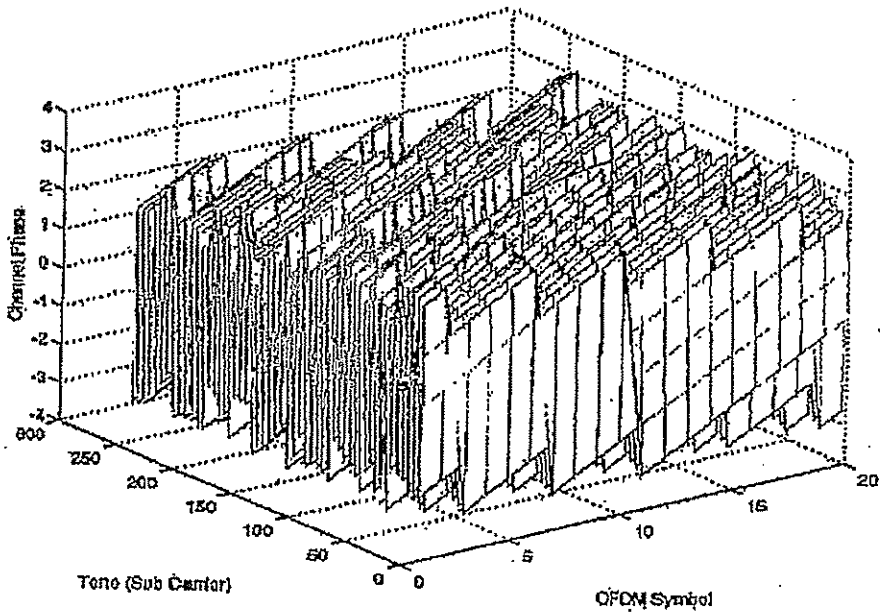


Figure 33

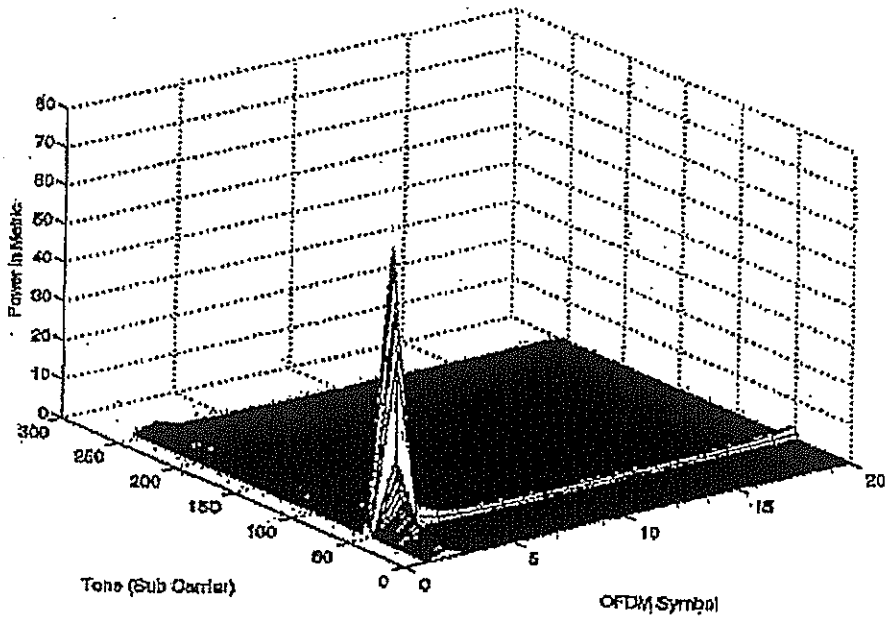


Figure 34