1
2
??
$_i nput[]()$.
S1
3
5×
5
4
$\pi/8$
$\pi/4+$
$\pi/8$
$\pi/2+$
$\pi/8$
$3\pi/4+$
$\pi/8$
100%
70%
50%
36%
25%
C1
7×
7
7×
7
6×
6=
36
?
5
11×
11
S2
6
16×
16
96×
96
C2

$$\{\Delta w_{ij} = a^+ w_{ij}(1-w_{ij}) if \quad t_j - t_i \leq 0 \Delta w_{ij} = a^- w_{ij}(1-w_{ij}) if \quad t_j - t_i > 0 \tag{1}$$

i
j
t_i
t_j
Δw_{ij}
i
j
a^+
a^-
t_i-
t_j
$_RFs$
7
8
0.15
0.05
30
0.8
0.05
4
1/64
$-3/4 \times Ap$
0.25
??
??
83%
?
1715
10306580100
51020
?
?
9
10
?
??

$$\tau_m \frac{dV_m}{dt} = -(V_m - v_{rest}) + R_m(I_{syn} + I_{inject} + I_{noise}) \tag{2}$$

$\tau_m =$
$30ms$
$R_m =$
$1M\Omega$
$I_{inject} =$
$13.5pA$
I_{noise}
V_m
$13.5mV$
$15mV$
V_m
$15mV$
$13.5mV$
11

?
12
13
?

$$A_k = w.u.R_k u_k = U + u_{k-1}(1-U)\exp(-\Delta_{k-1}/F) R_k = 1 + (R_{k-1} - u_{k-1}R_{k-1} - 1)\exp(-\Delta_{k-1}/F) \quad (3)$$

w
A_k
14
k
Δ_{k-1}
$k-1$
k
u_k
15
R_k
16
D
F
U
$u_1 =$
U
$R_1 =$
1

U
D
F
?
U
D
F
0.5
1.1