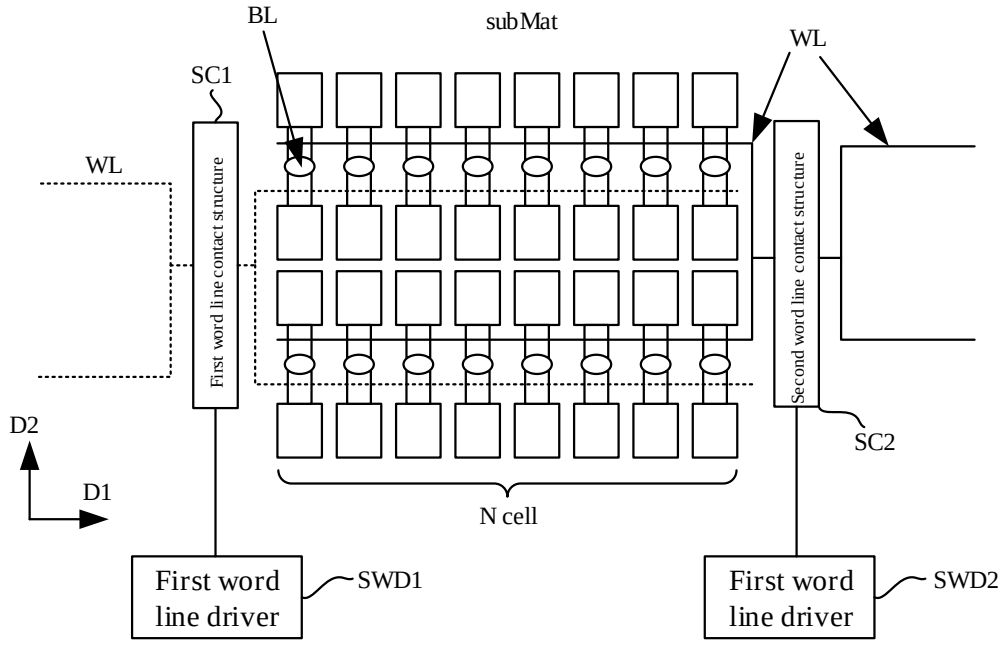

BL
subMat
WL
SC1
WL
First word line contact structure
Second word line contact structure
SC2
D2
D1
N cell
First word line driver
SWD1
First word line driver
SWD2

FIG. 1

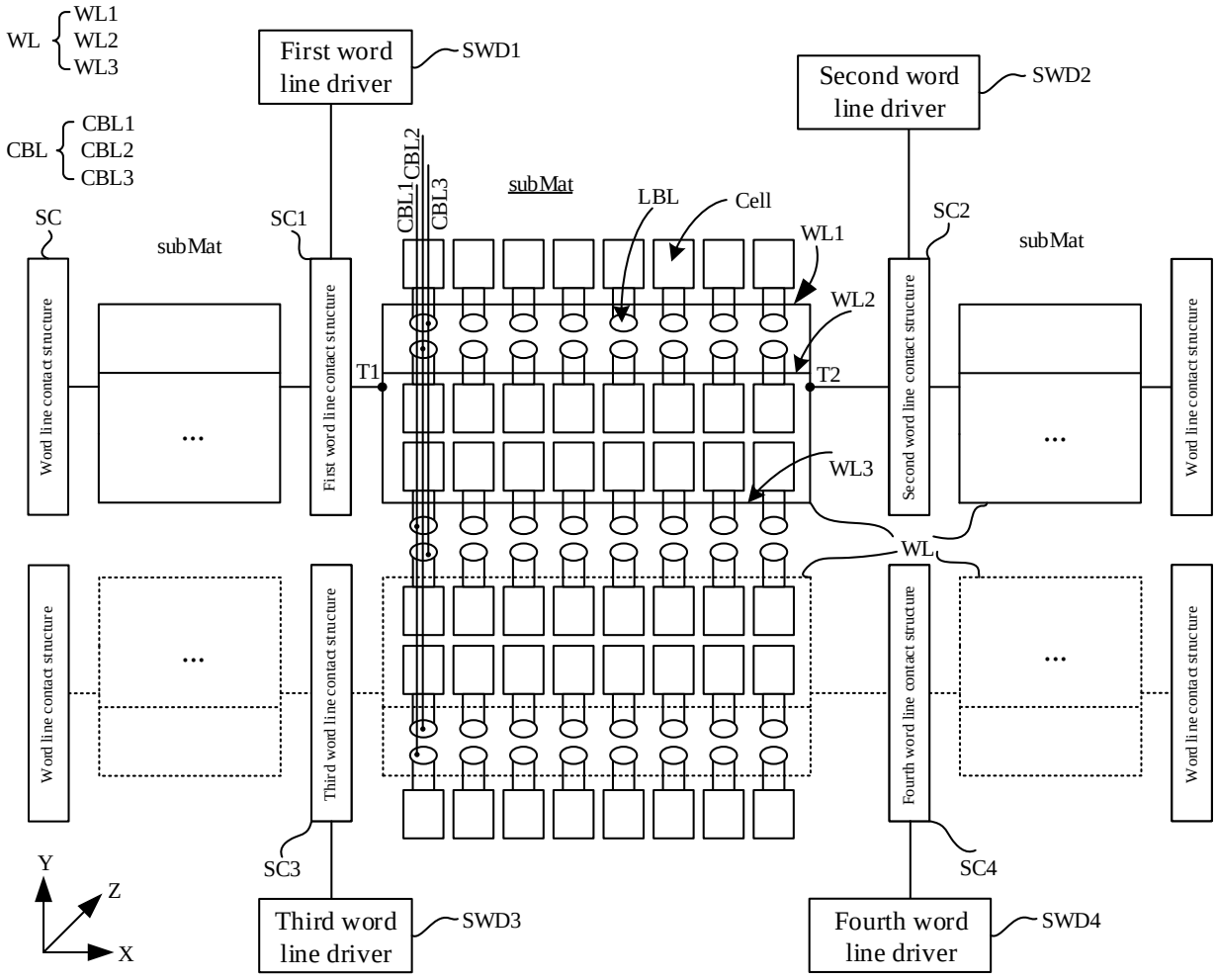

WL
WL1
WL2
WL3
CBL
CBL1
CBL2
CBL3
First word line driver
SWD1
Second word line driver
SWD2
subMat
LBL
Cell
SC
SC1
SC2
subMat
subMat
WL1
WL2
WL3
T1
T2
Word line contact structure
First word line contact structure
Second word line contact structure
Word line contact structure
WL
Word line contact structure
Third word line contact structure
Fourth word line contact structure
Word line contact structure
SC3
SC4
Y
Z
X
Third word line driver
SWD3
Fourth word line driver
SWD4

FIG. 2

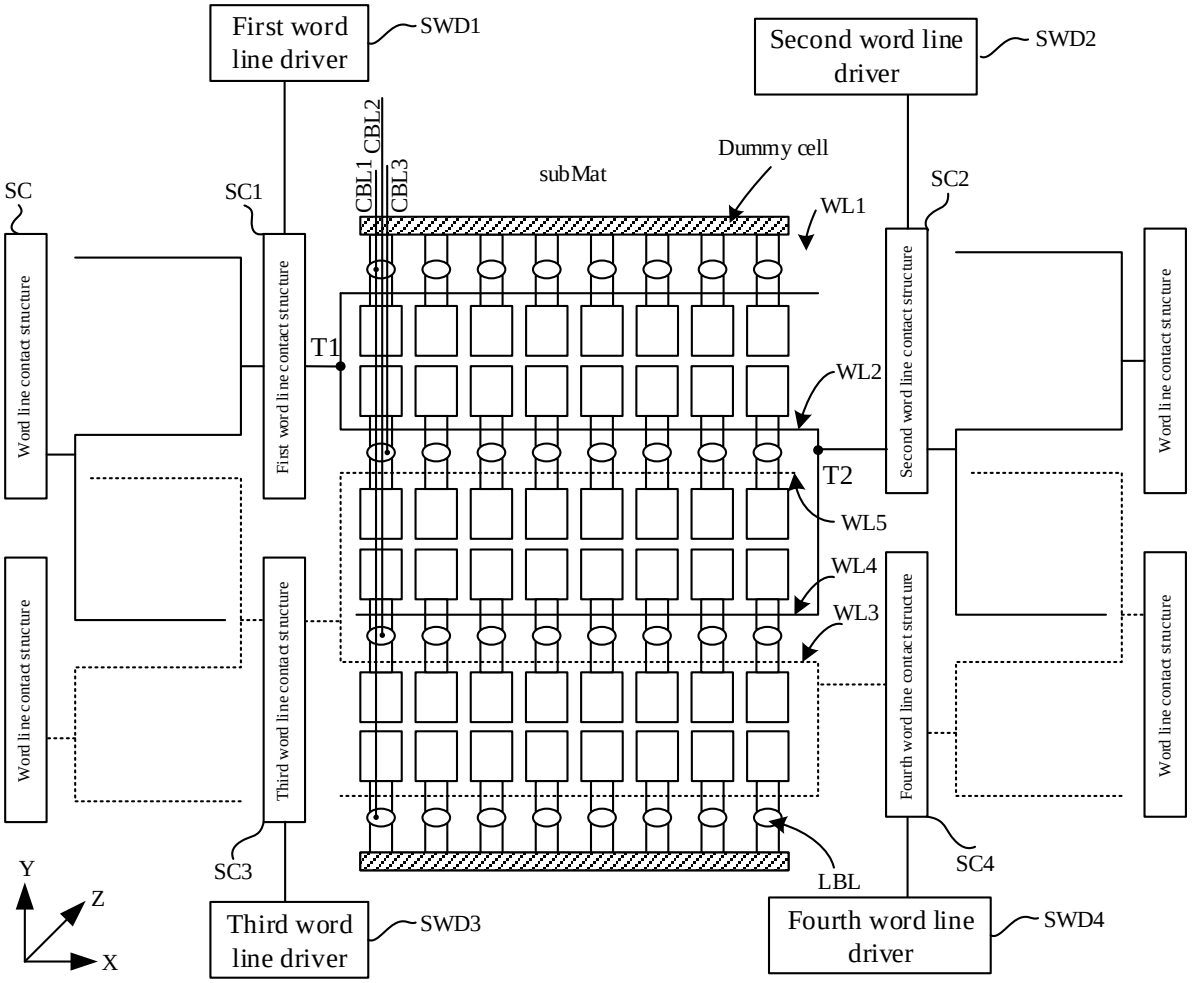

First word line driver
SWD1
Second word line driver
SWD2
CBL1
CBL2
CBL3
subMat
Dummy cell
SC
SC1
SC2
WL1
Word line contact structure
First word line contact structure
T1
WL2
Second word line contact structure
Word line contact structure
T2
WL5
WL4
WL3
Word line contact structure
Third word line contact structure
Fourth word line contact structure
Word line contact structure
SC3
SC4
LBL
Y
Z
X
Third word line driver
SWD3
Fourth word line driver
SWD4

FIG. 3

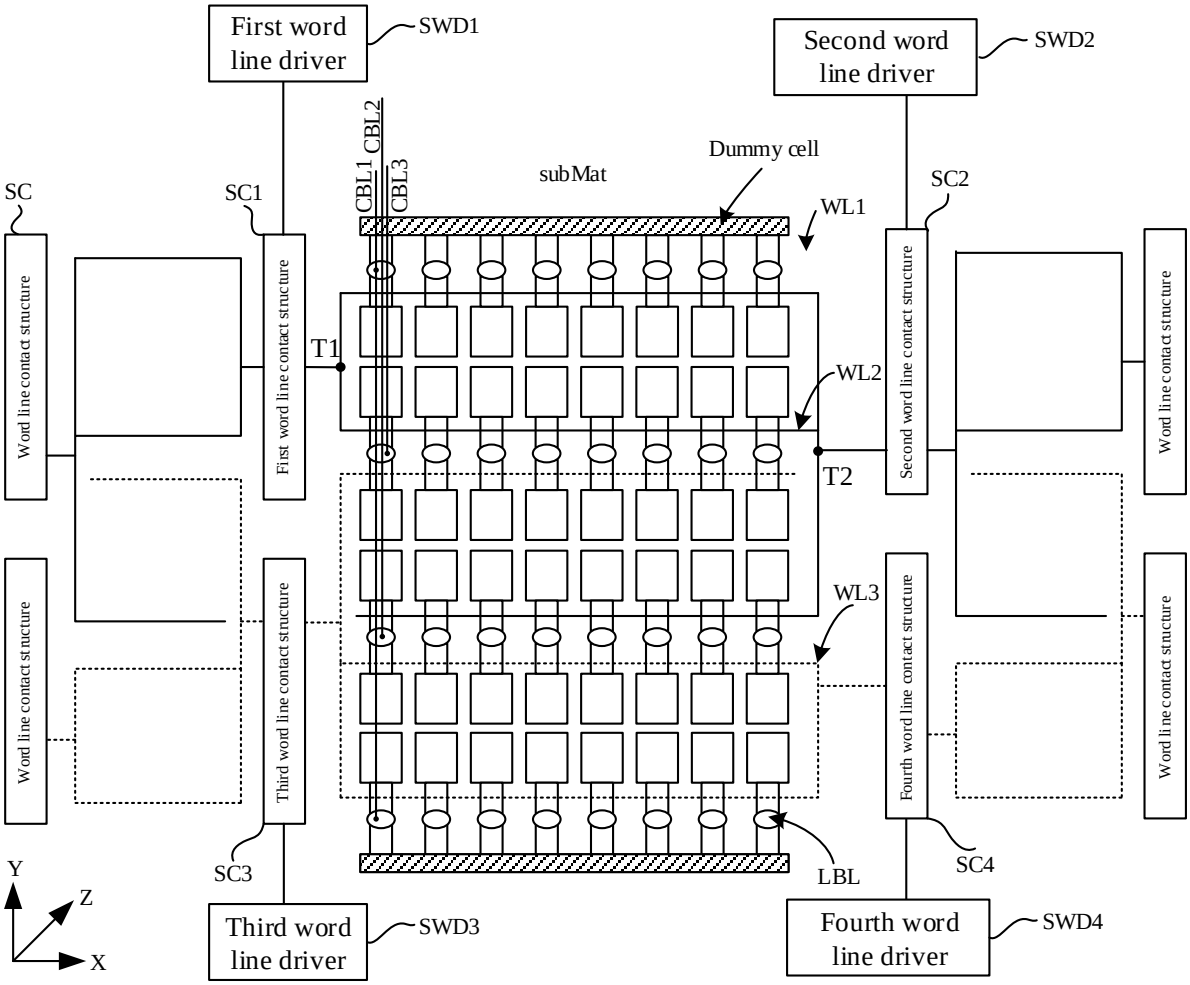

First word line driver
SWD1
Second word line driver
SWD2
CBL1
CBL2
CBL3
subMat
Dummy cell
WL1
WL2
WL3
SC
SC1
SC2
SC3
SC4
T1
T2
LBL
Word line contact structure
First word line contact structure
Second word line contact structure
Third word line contact structure
Fourth word line contact structure
Y
Z
X
Third word line driver
SWD3
Fourth word line driver
SWD4

FIG. 4

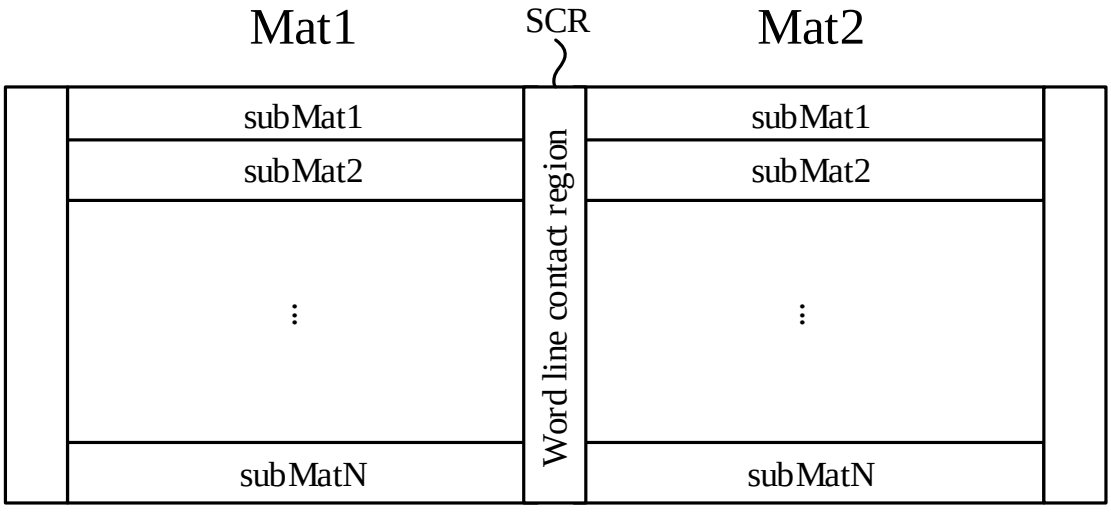

Mat1
SCR
Mat2
subMat1
subMat2
subMatN
Word line contact region

FIG. 5