```
   a
   -
f|  |b
   -g
e|  |c
   -
   d
```

common cathode

```
a = C + A + B'D' + BD
b = B' + C'D' + CD
c =  C' + D + B
d = A + B'D' + B'C + CD' + BC'D
e = B'D' + CD'
f = A + C'D' + BC' + BD'
g = A + B'C + CD' + BC'
```