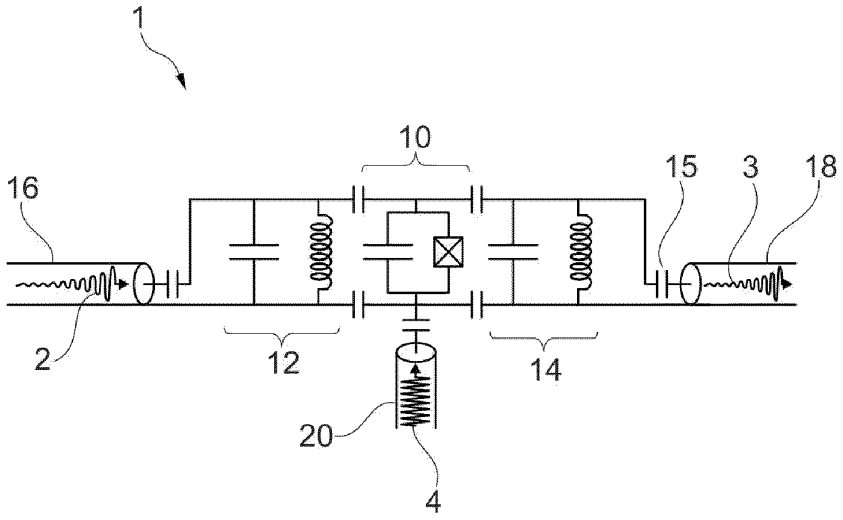


Prior art

Figure 1

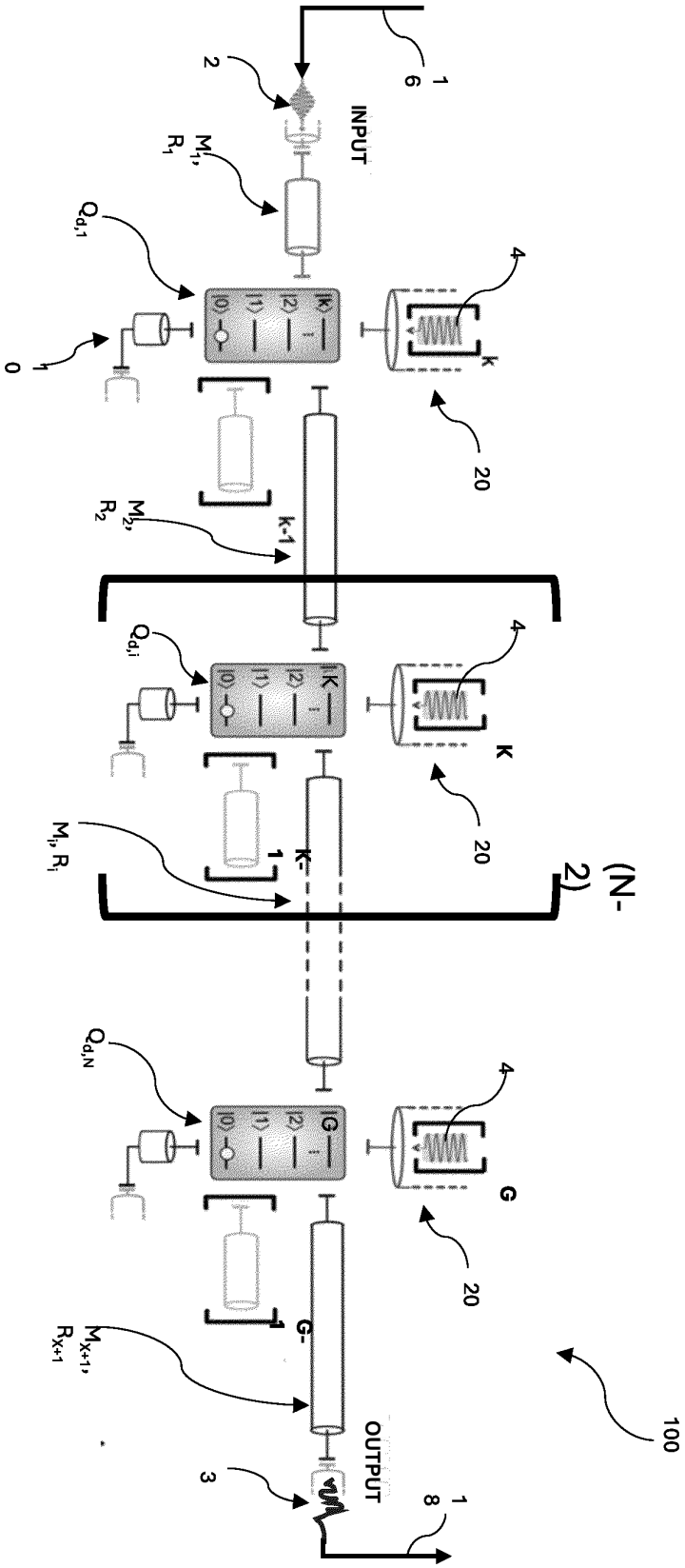


Figure 2

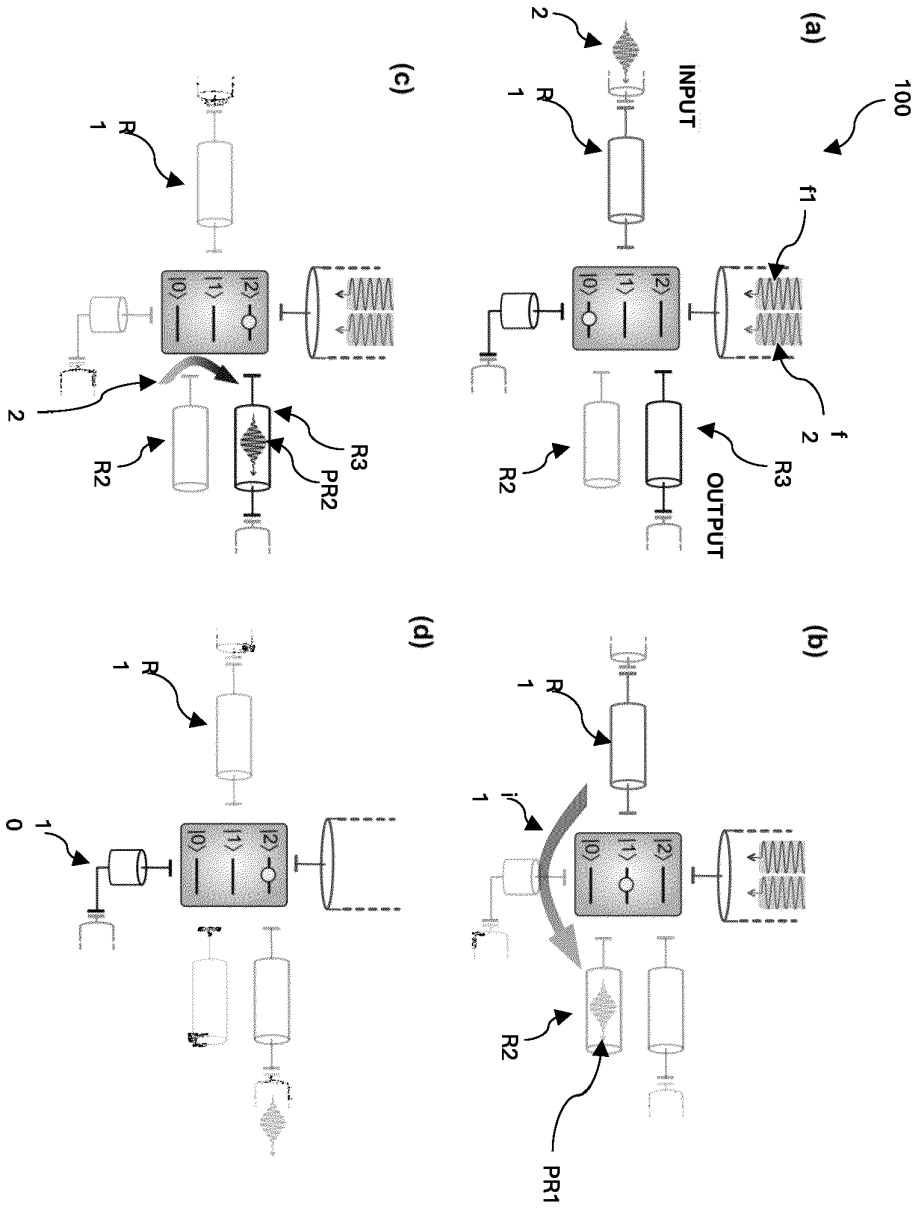
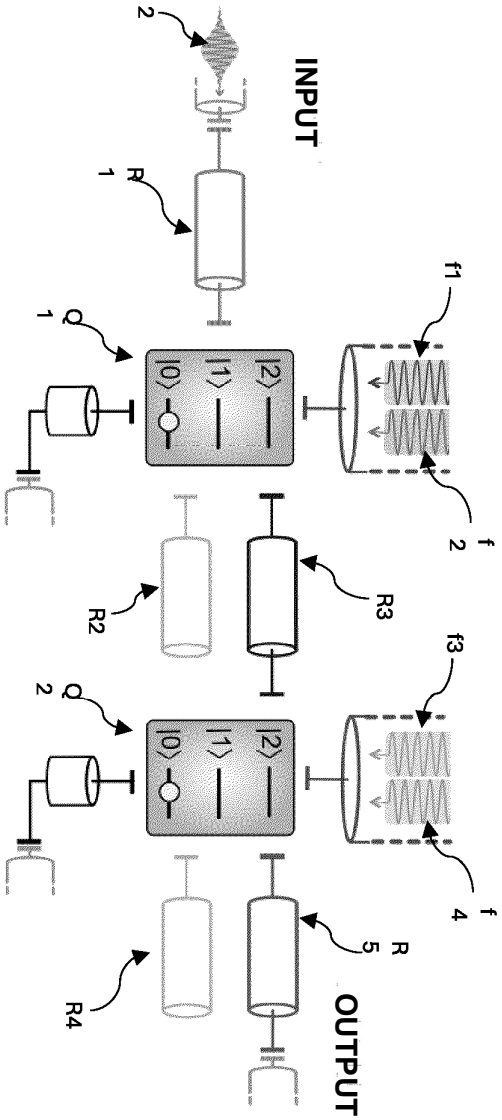


Figure 3

Figure 4



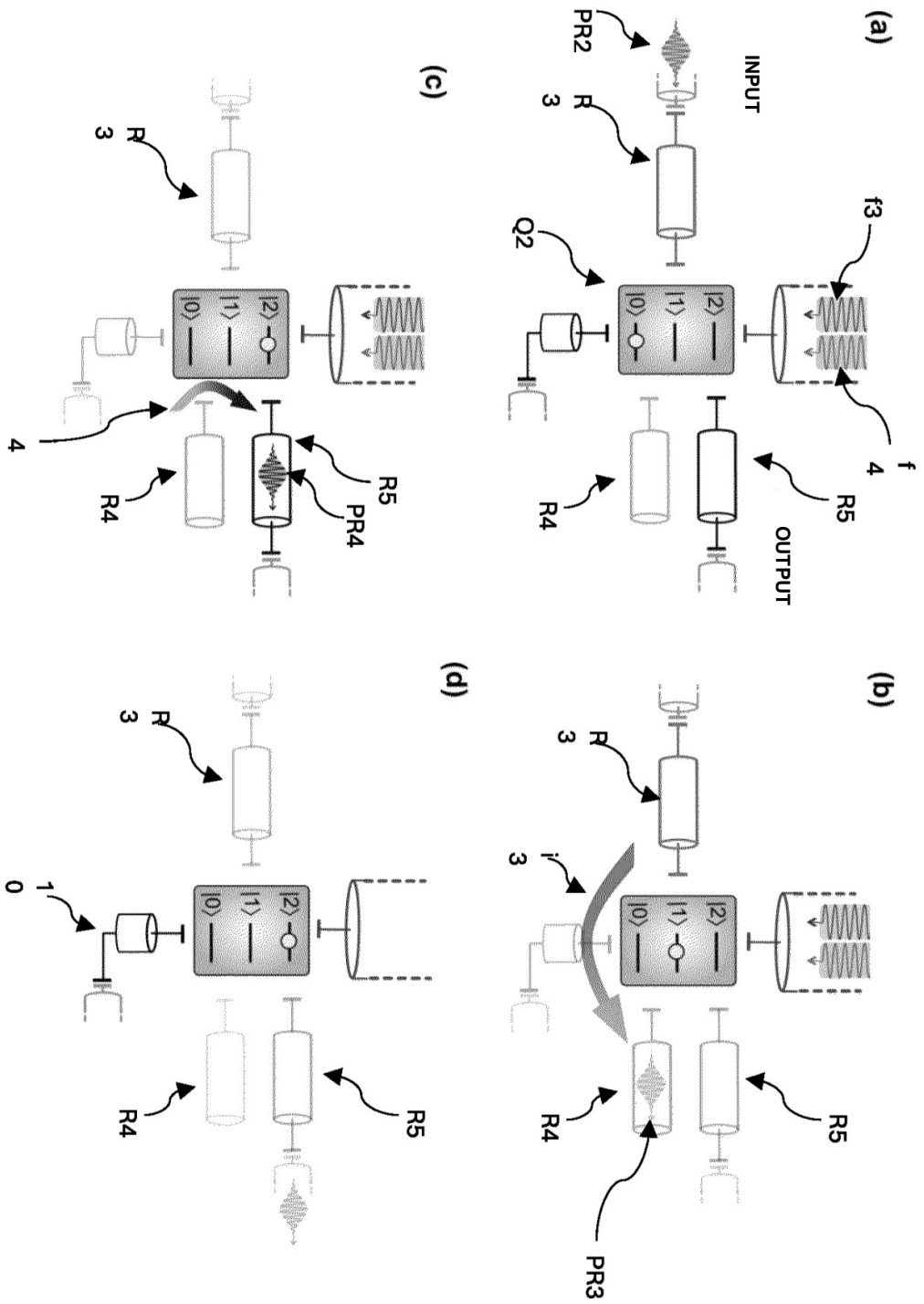
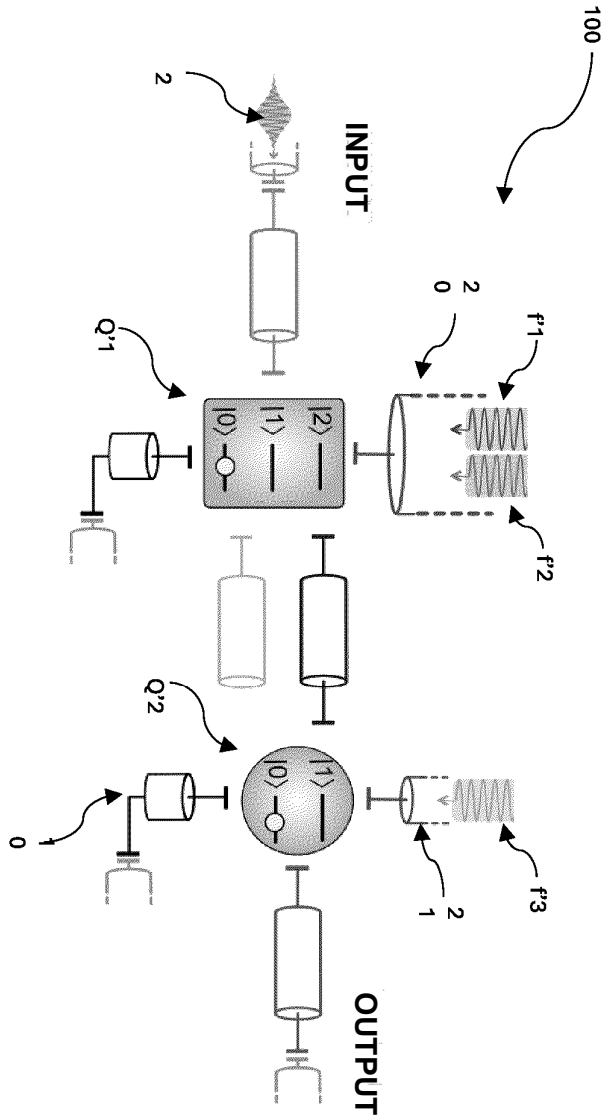

(a)
INPUT
PR2
R 3
Q2
f3
f 4
R4
R5
OUTPUT
(b)
R 3
i 3
R4
R5
PR3
(c)
R 3
4
R4
R5
PR4
(d)
R 3
1 0
R4
R5

Figure 5

Figure 6



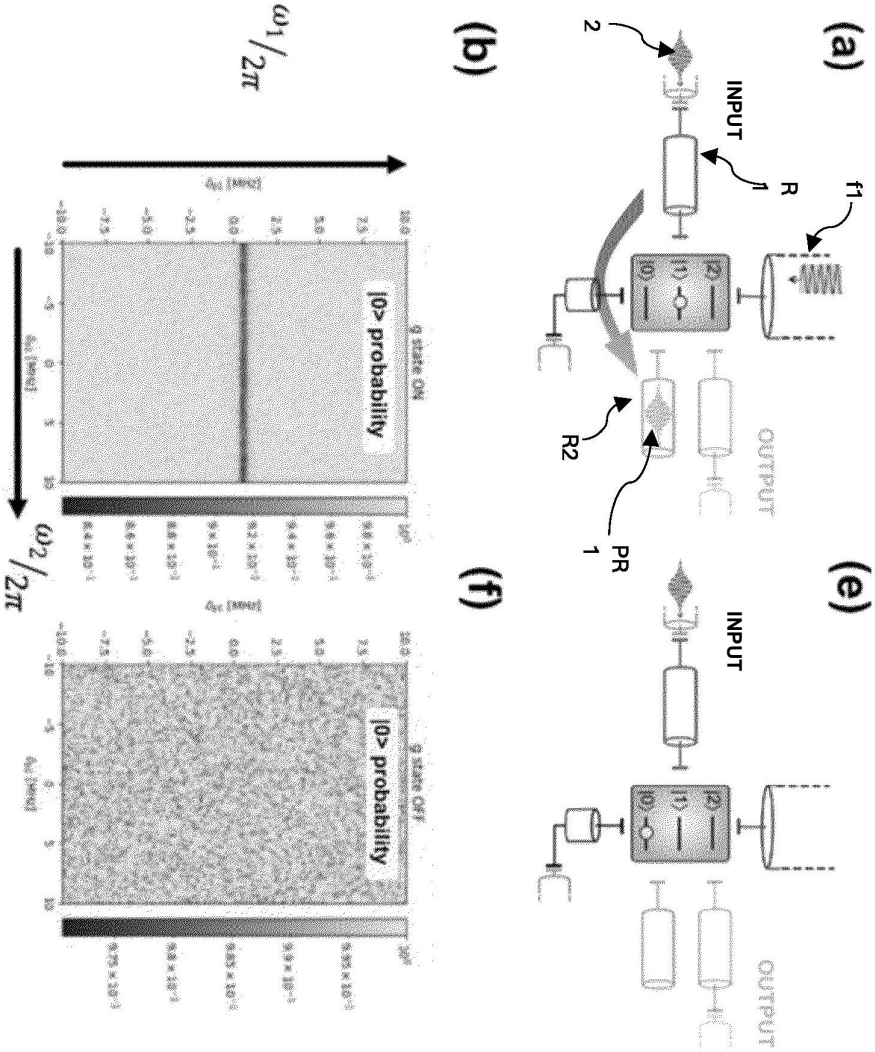

(a)
f1
R
1
INPUT
2
R2
PR
1
OUTPUT
(e)
INPUT
OUTPUT
(b)
|0> probability
g state ON
(f)
|0> probability
g state OFF

Figure 7

Figure 7

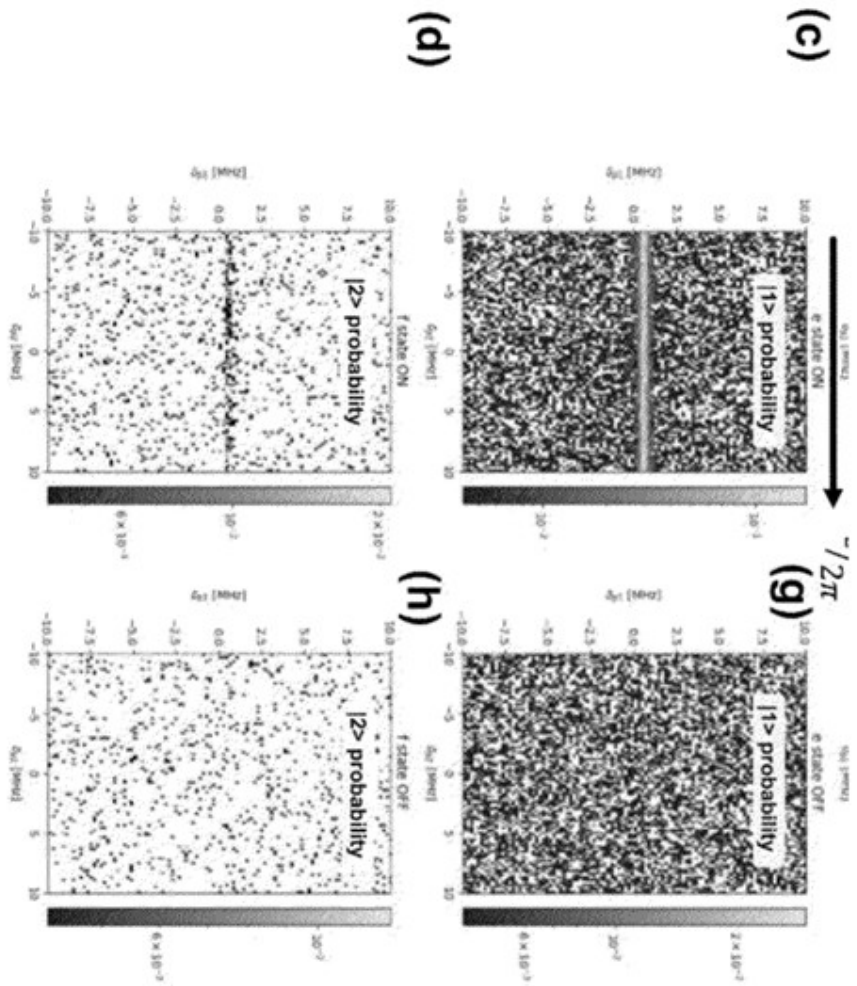

(c)
(d)
(g)
(h)
|1> probability
|2> probability
|1> probability
|2> probability
e state ON
f state ON
e state OFF
f state OFF
~/2π

Figure 8

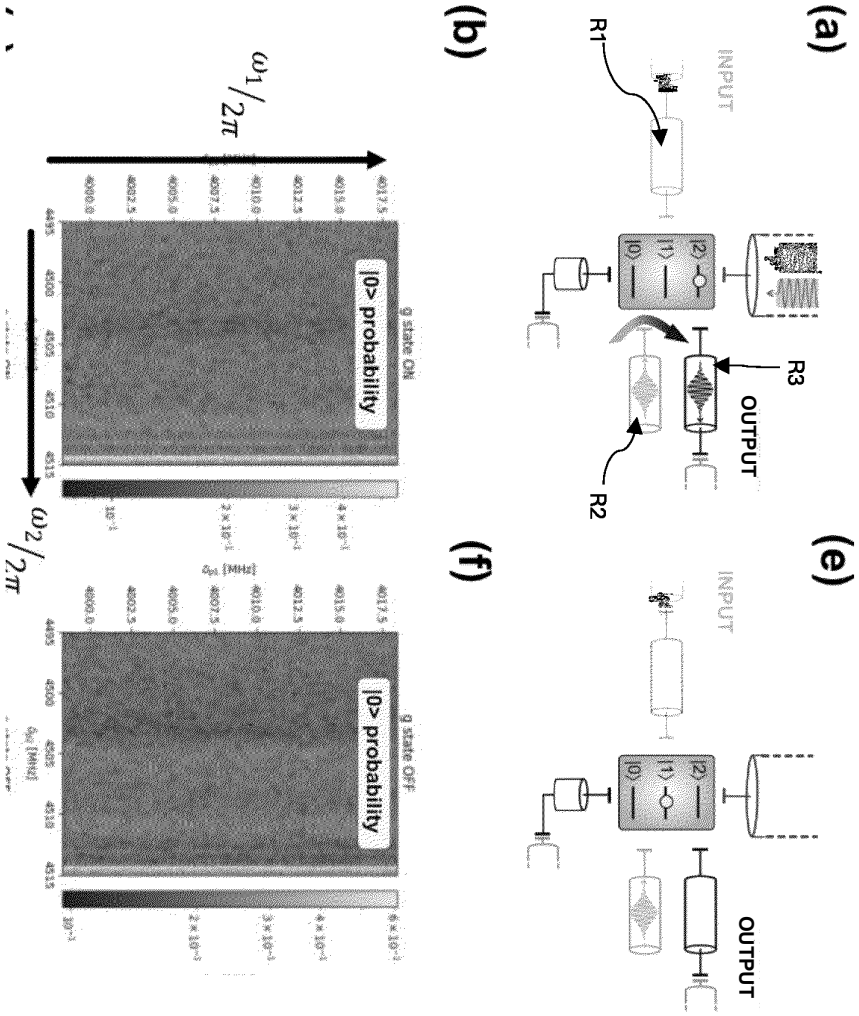
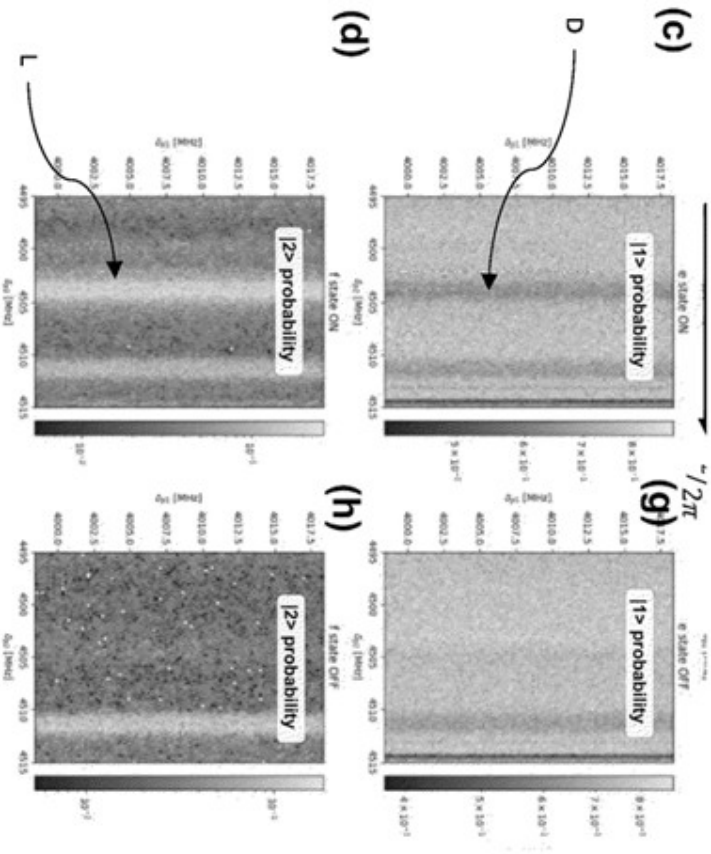

(a)
INPUT
R1
R3
R2
OUTPUT
(b)
g state ON
|0> probability
(e)
INPUT
OUTPUT
(f)
g state OFF
|0> probability

Figure 8


(c)
(d)
(g)
(h)
D
L
|1> probability
|2> probability
e state ON
f state ON
e state OFF
f state OFF
$\pi/2\pi$

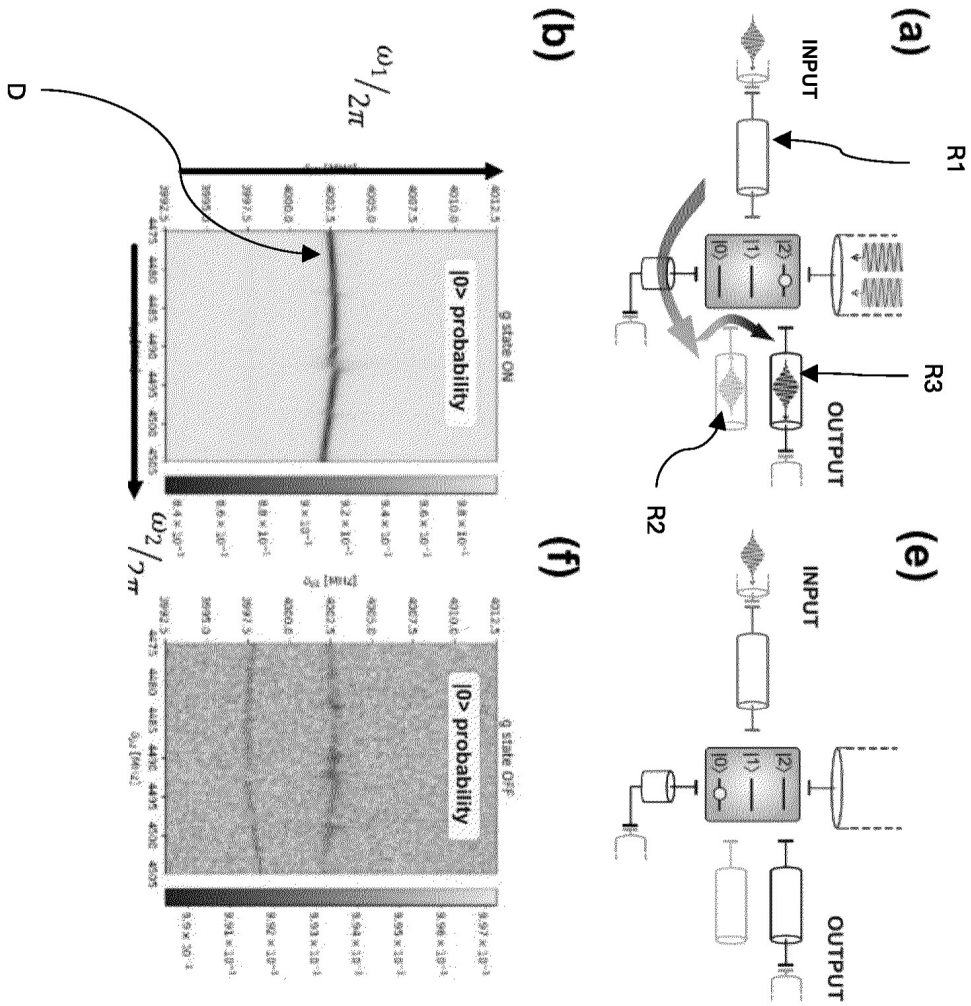
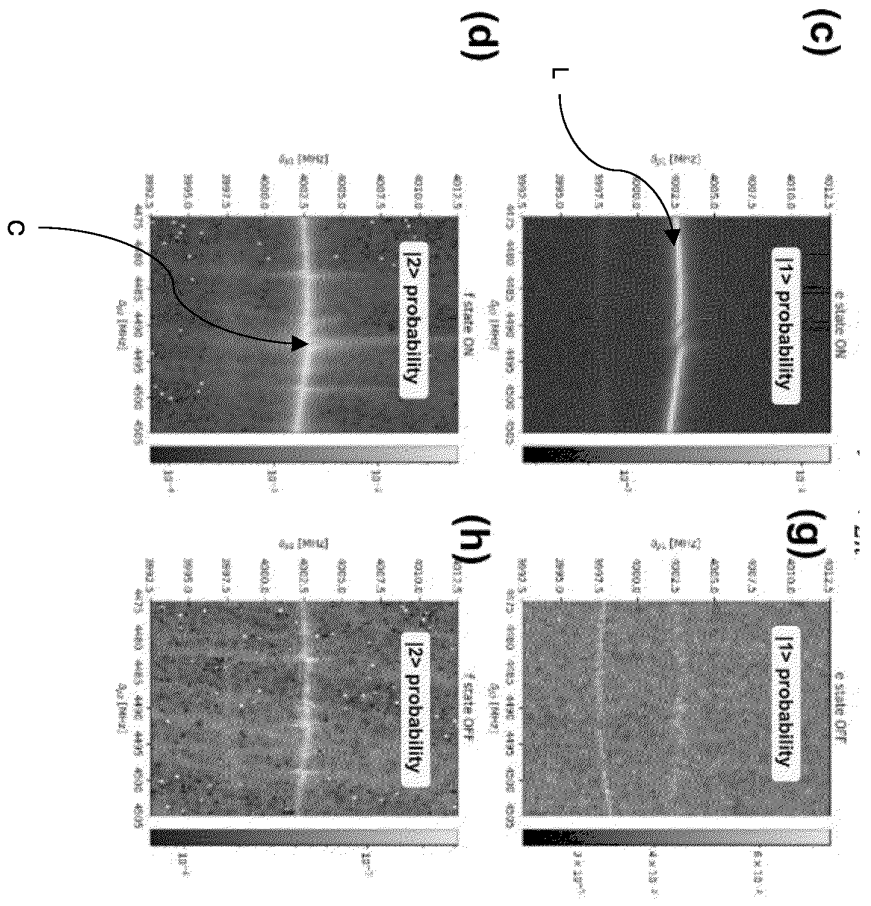

(a)
INPUT
R1
R3
R2
OUTPUT
|0⟩
|1⟩
|2⟩
(b)
D
$\omega_1/2\pi$
$\omega_2/2\pi$
|0> probability
g state ON
(e)
INPUT
OUTPUT
|0⟩
|1⟩
|2⟩
(f)
|0> probability
g state OFF

Figure 9

Figure 9


(c)
(d)
(g)
(h)
|1> probability
|2> probability
e state ON
f state ON
e state OFF
f state OFF
L
C

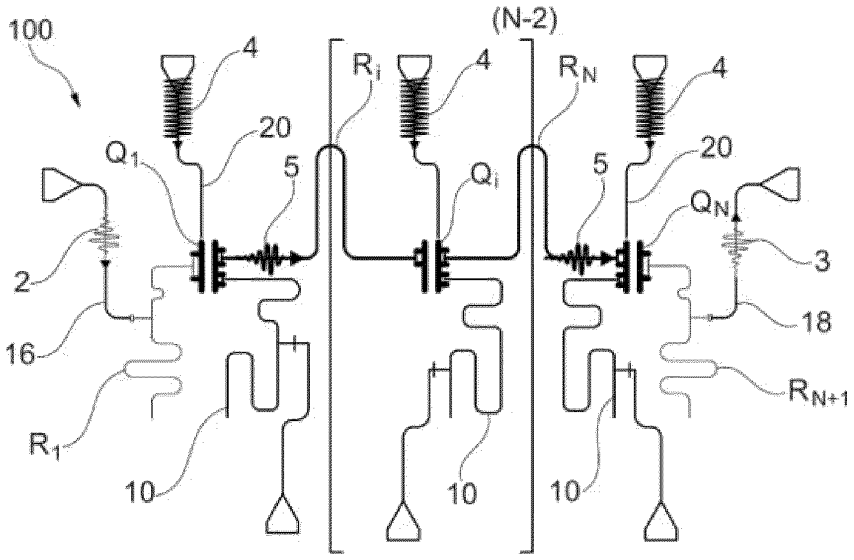


Figure 10

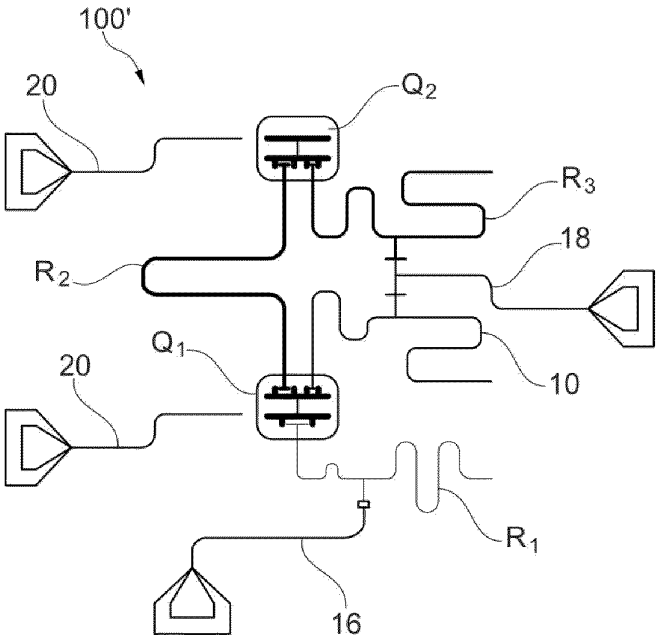


Figure 11

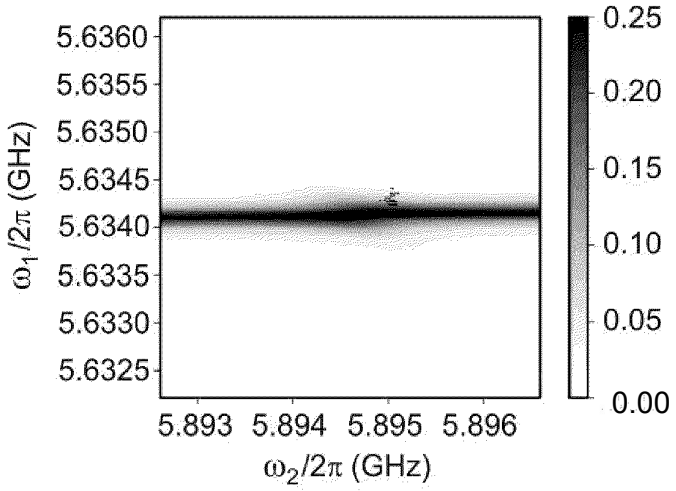

5.6360
5.6355
5.6350
5.6345
5.6340
5.6335
5.6330
5.6325
$\omega_1/2\pi$ (GHz)
5.893
5.894
5.895
5.896
$\omega_2/2\pi$ (GHz)
0.25
0.20
0.15
0.10
0.05
0.00

Figure 12

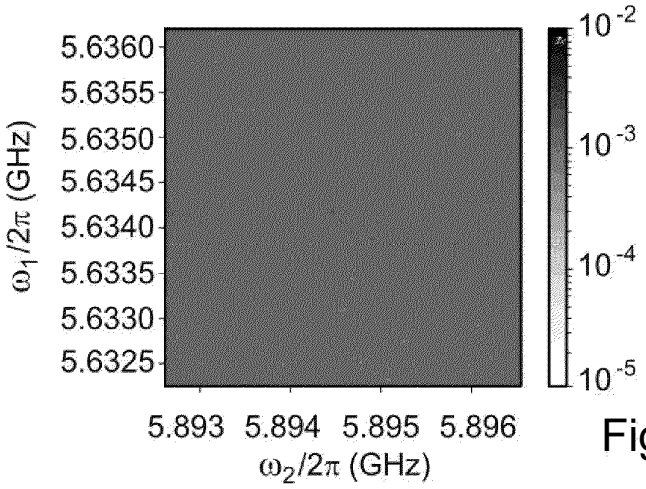

5.6360
5.6355
5.6350
5.6345
5.6340
5.6335
5.6330
5.6325
$\omega_1/2\pi$ (GHz)
5.893
5.894
5.895
5.896
$\omega_2/2\pi$ (GHz)
10^{-2}
10^{-3}
10^{-4}
10^{-5}

Figure 13

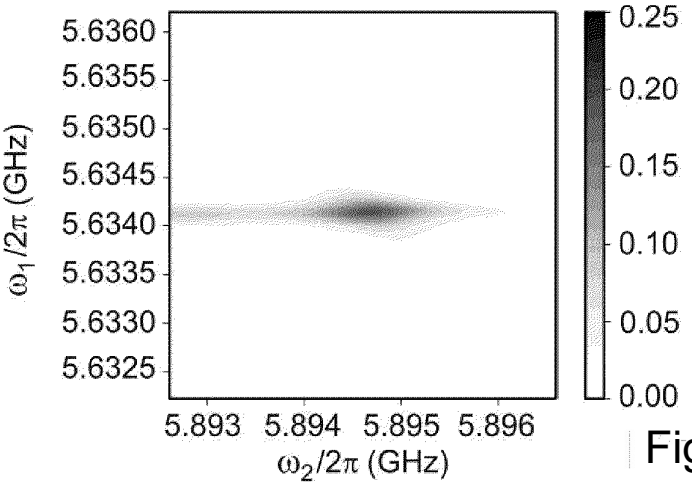

5.6360
5.6355
5.6350
5.6345
5.6340
5.6335
5.6330
5.6325
ω1/2π (GHz)
5.893
5.894
5.895
5.896
ω2/2π (GHz)
0.25
0.20
0.15
0.10
0.05
0.00

Figure 14

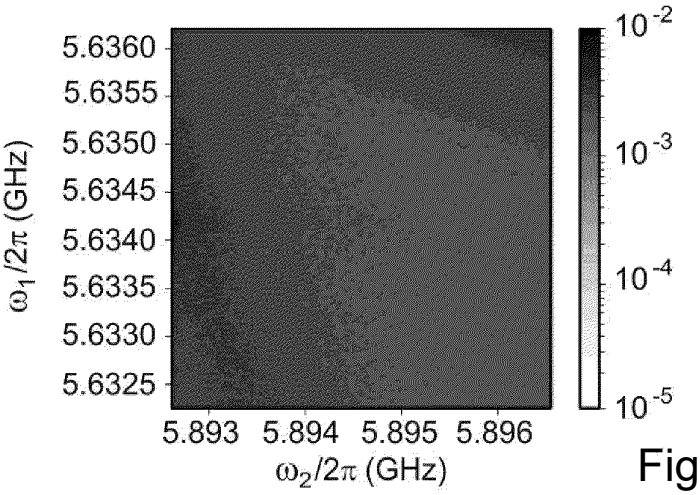

5.6360
5.6355
5.6350
5.6345
5.6340
5.6335
5.6330
5.6325
ω1/2π (GHz)
5.893
5.894
5.895
5.896
ω2/2π (GHz)
10-2
10-3
10-4
10-5

Figure 15

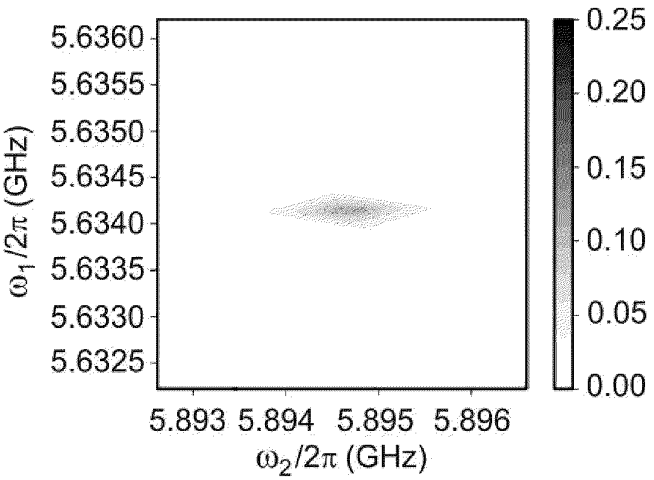

5.6360
5.6355
5.6350
5.6345
5.6340
5.6335
5.6330
5.6325
ω1/2π (GHz)
5.893 5.894 5.895 5.896
ω2/2π (GHz)
0.25
0.20
0.15
0.10
0.05
0.00

Figure 16

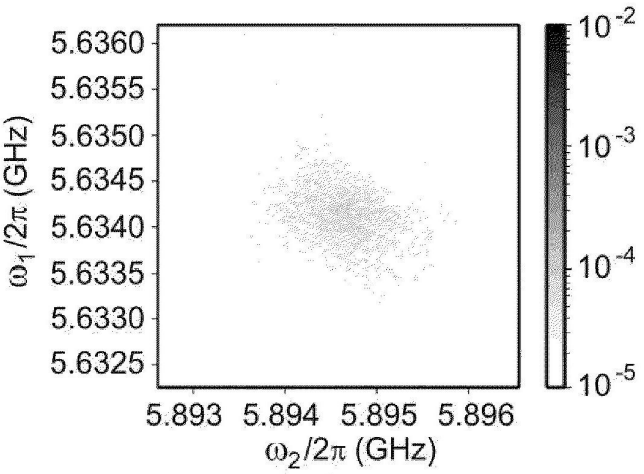

5.6360
5.6355
5.6350
5.6345
5.6340
5.6335
5.6330
5.6325
ω1/2π (GHz)
5.893
5.894
5.895
5.896
ω2/2π (GHz)
10-2
10-3
10-4
10-5

Figure 17

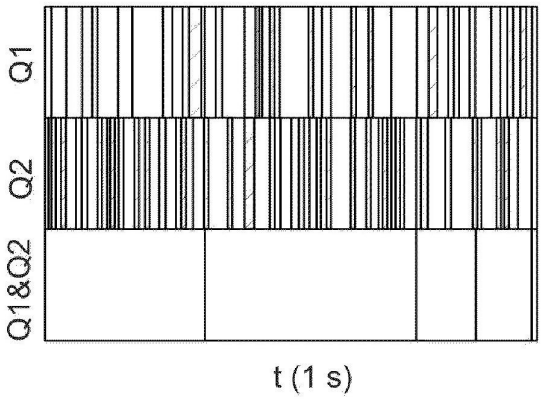


Figure 18

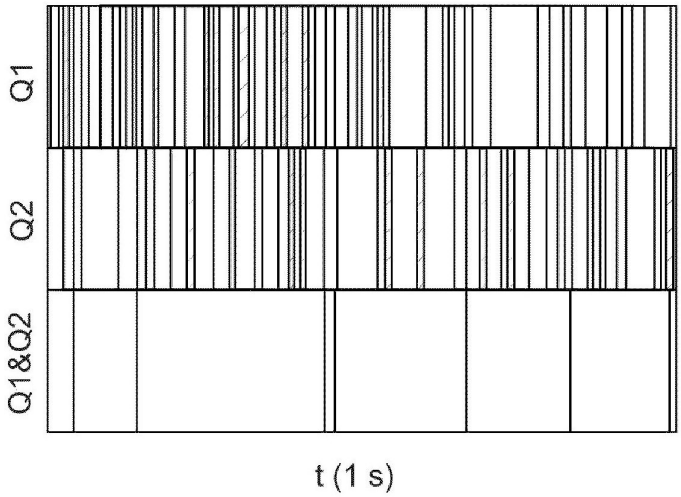


Figure 19

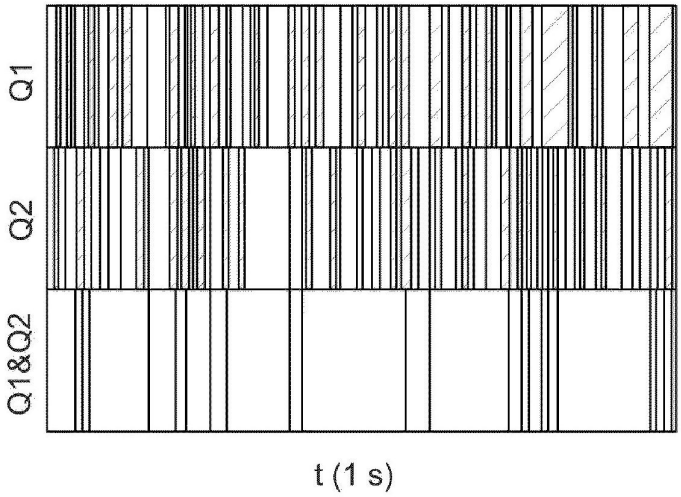


Figure 20

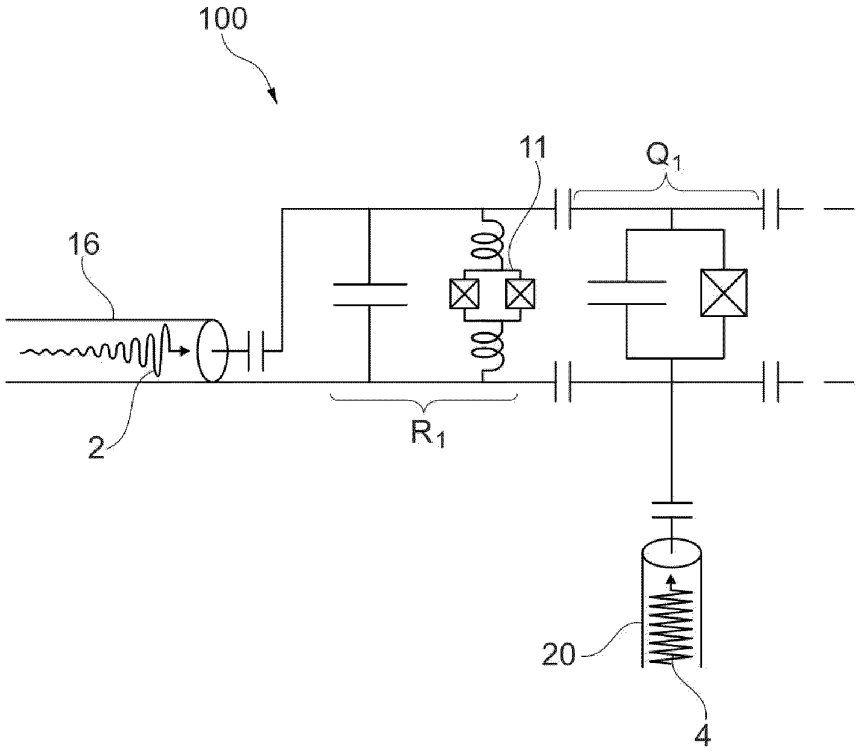


Figure 21