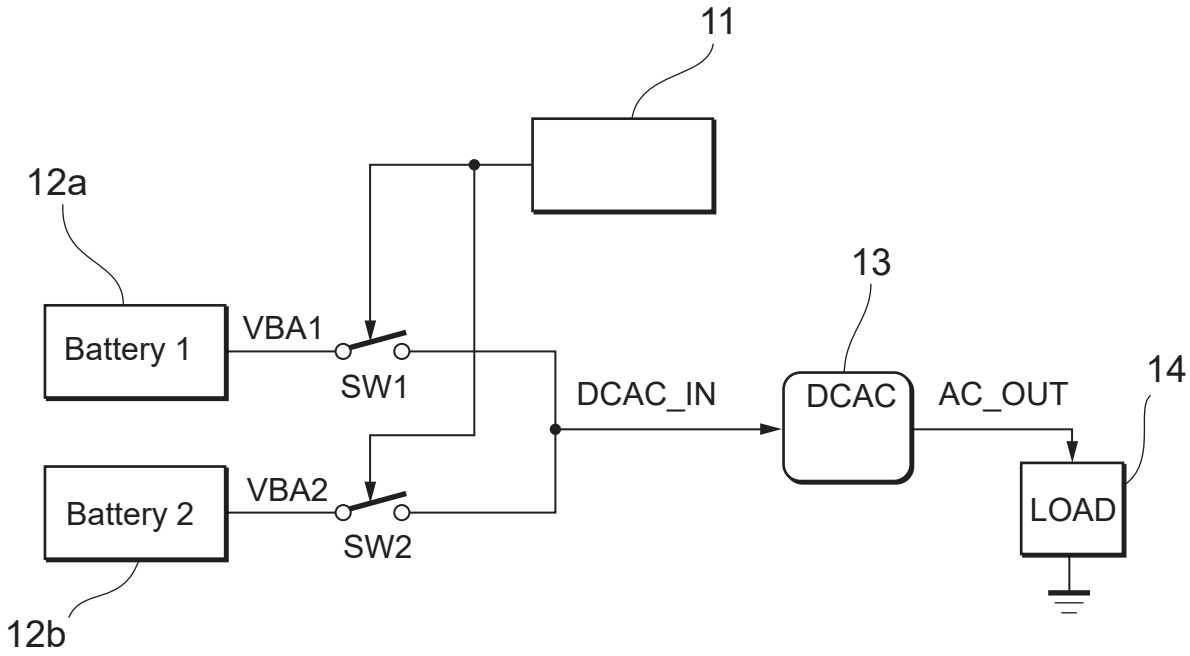
FIG.1


11
12a
Battery 1
VBA1
SW1
13
DCAC_IN
DCAC
AC_OUT
14
LOAD
Battery 2
VBA2
SW2
12b

10

FIG. 2

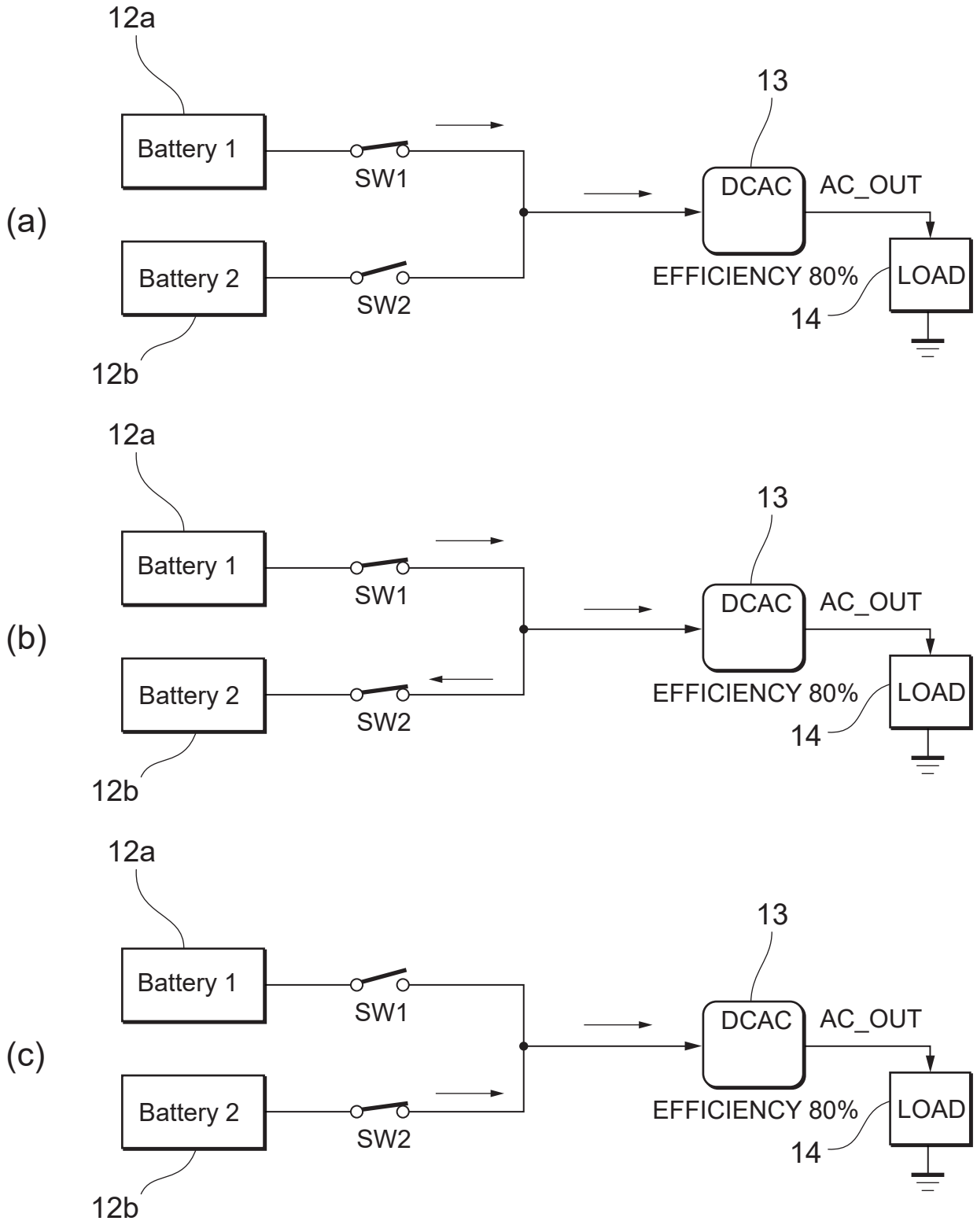

(a)
12a
Battery 1
SW1
13
DCAC
AC_OUT
Battery 2
SW2
EFFICIENCY 80%
LOAD
14
12b
(b)
12a
Battery 1
SW1
13
DCAC
AC_OUT
Battery 2
SW2
EFFICIENCY 80%
LOAD
14
12b
(c)
12a
Battery 1
SW1
13
DCAC
AC_OUT
Battery 2
SW2
EFFICIENCY 80%
LOAD
14
12b

FIG.3

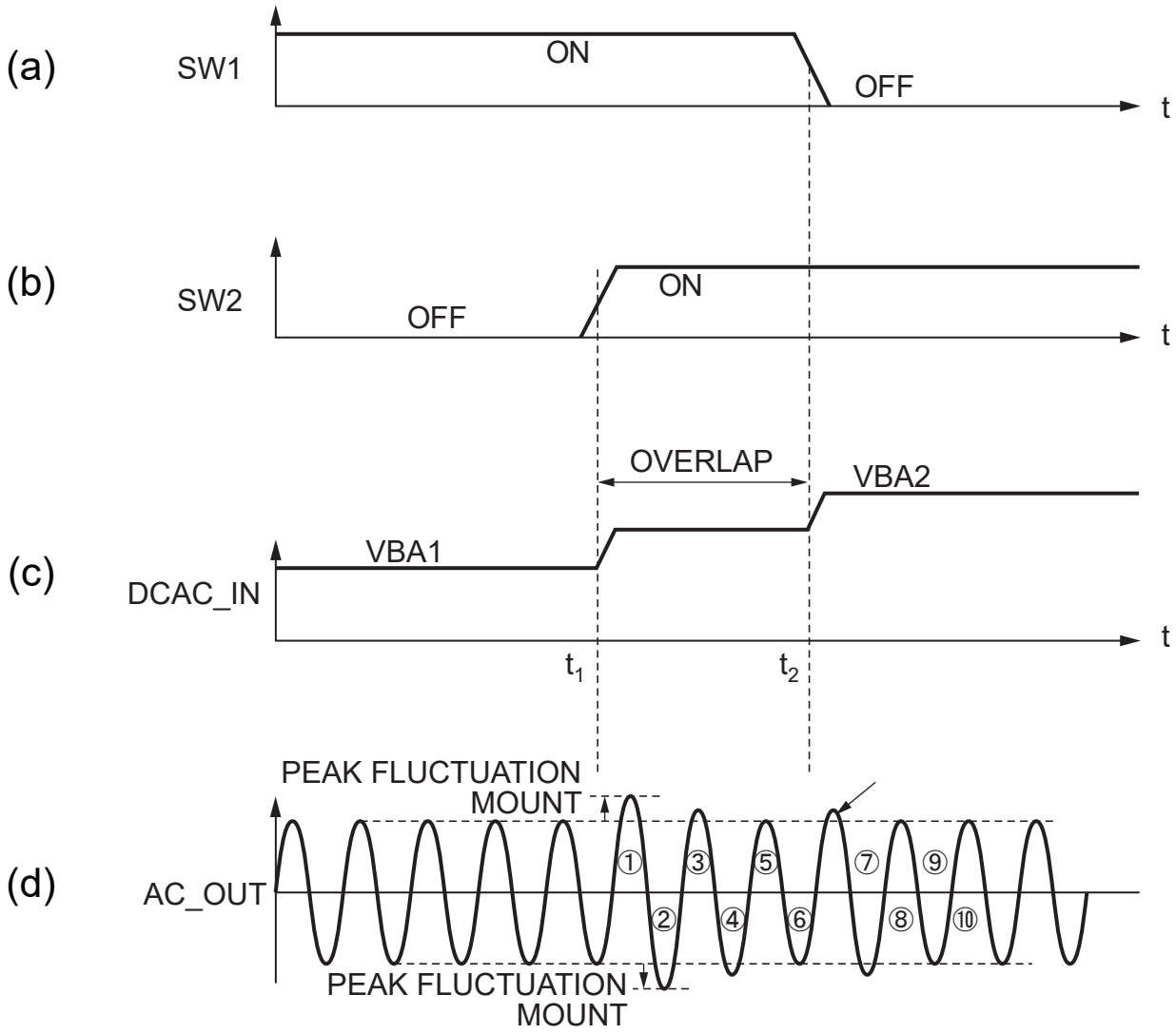
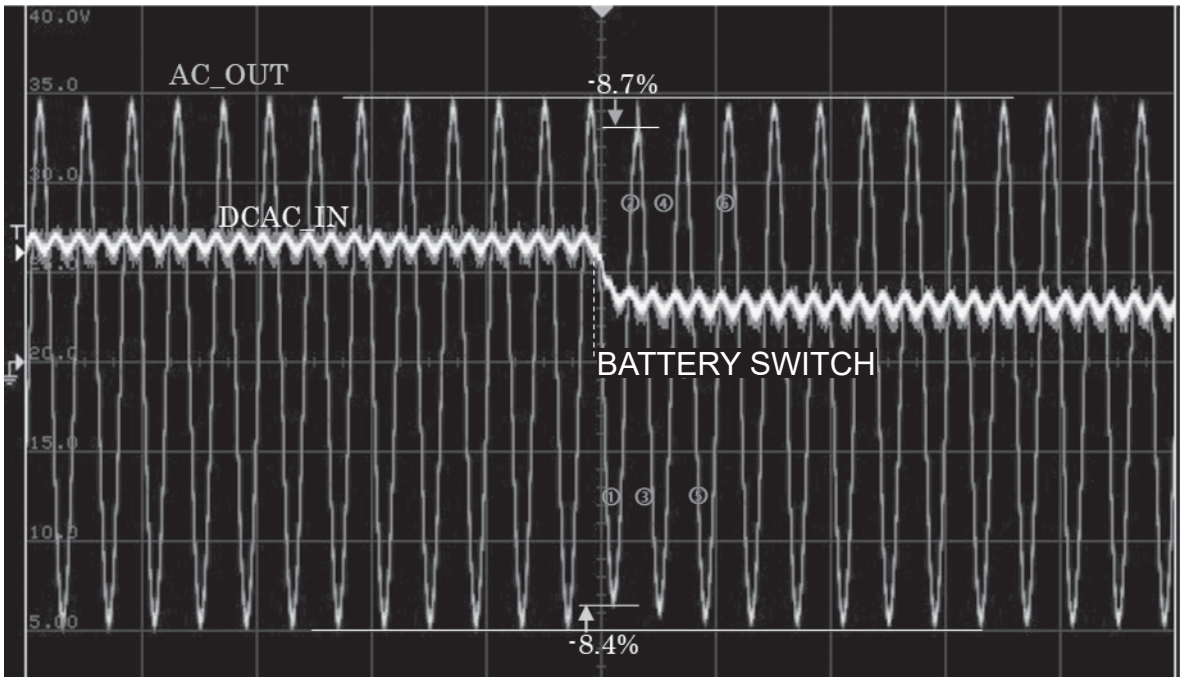

(a)
SW1
ON
OFF
t
(b)
SW2
OFF
ON
t
OVERLAP
VBA2
VBA1
(c)
DCAC_IN
t
t1
t2
PEAK FLUCTUATION MOUNT
(d)
AC_OUT
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
PEAK FLUCTUATION MOUNT

FIG.4

(a)


40.0V
35.0
AC_OUT
-8.7%
30.0
DCAC_IN
20.0
BATTERY SWITCH
15.0
10.0
5.00
-8.4%

(b)

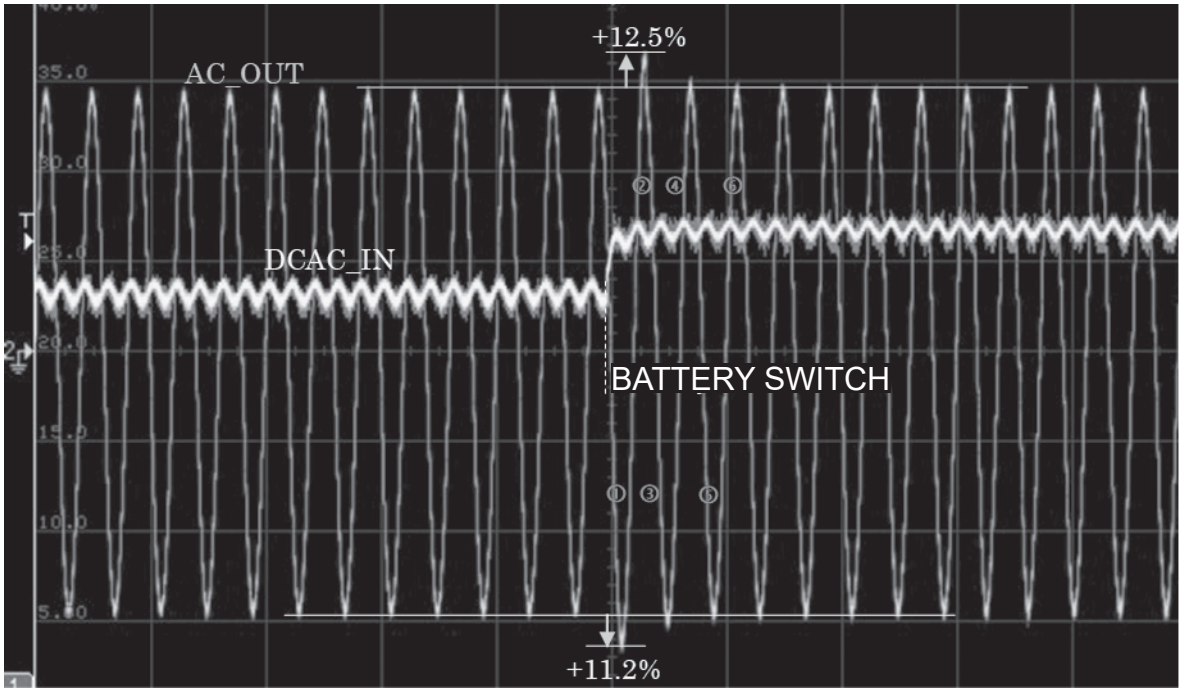

+12.5%
35.0
AC_OUT
30.0
DCAC_IN
20.0
BATTERY SWITCH
15.0
10.0
+11.2%

FIG.5

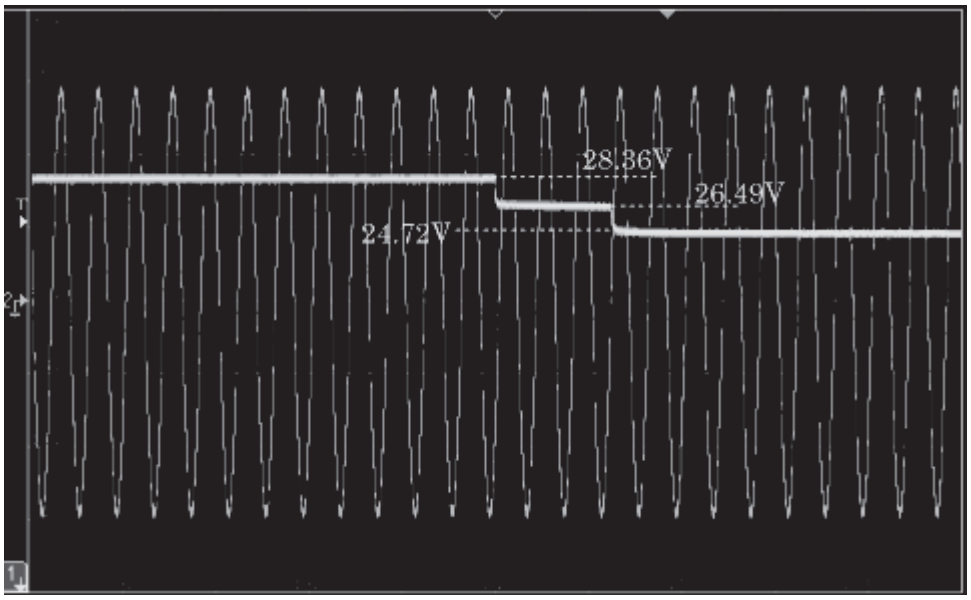
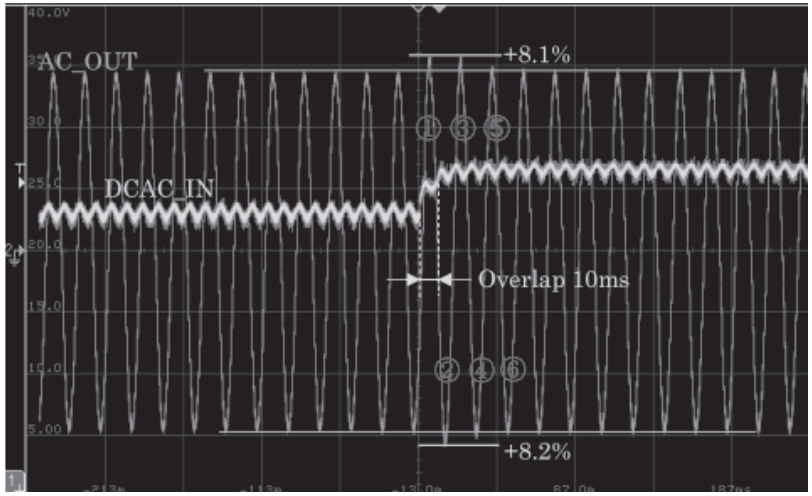
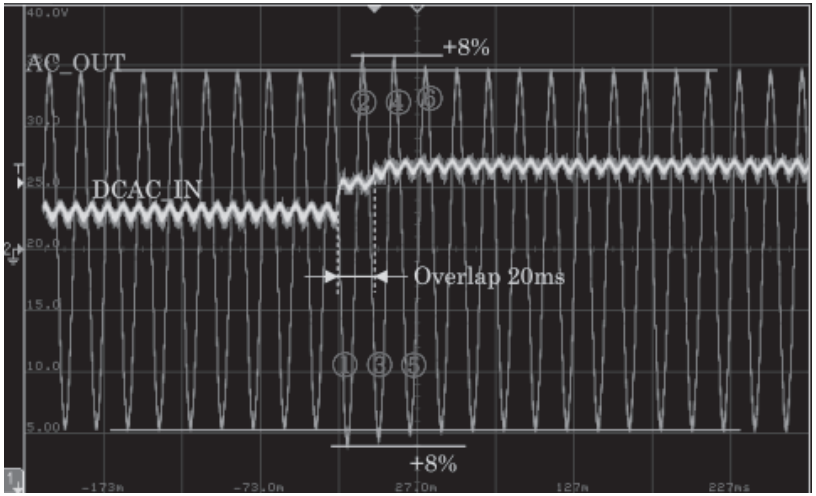


FIG.6

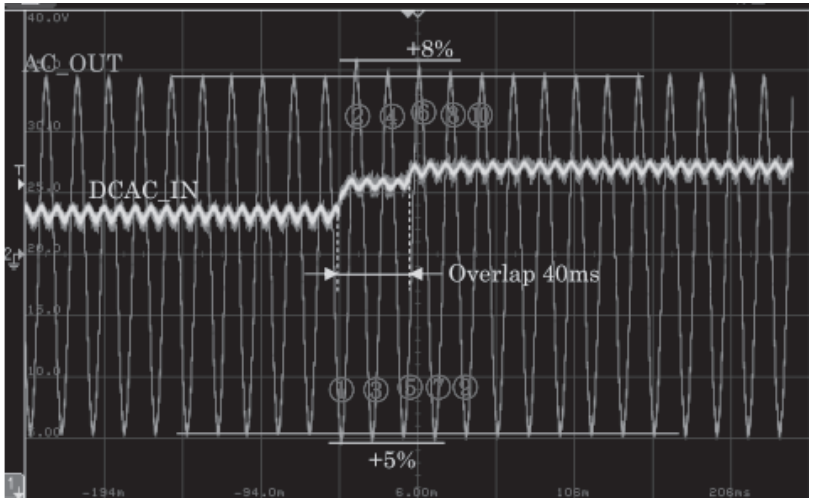
(a)


AC_OUT
+8.1%
DCAC_IN
Overlap 10ms
+8.2%

(b)


AC_OUT
+8%
DCAC_IN
Overlap 20ms
+8%

(c)


AC_OUT
+8%
DCAC_IN
Overlap 40ms
+5%

(d)

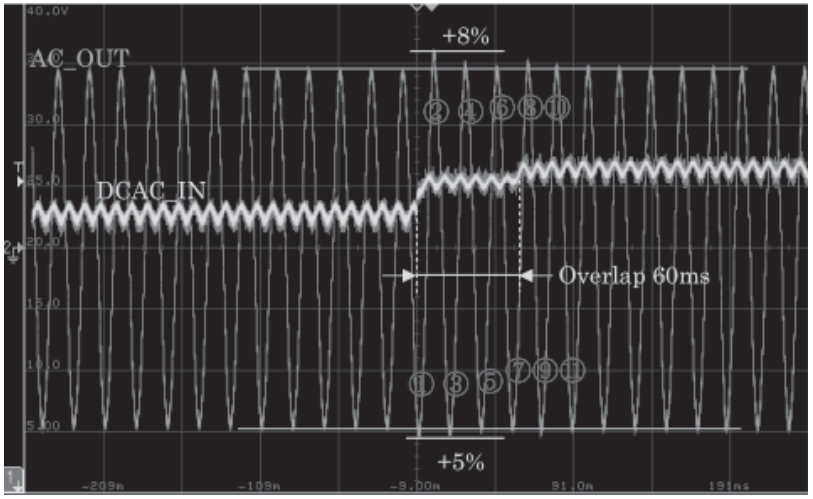
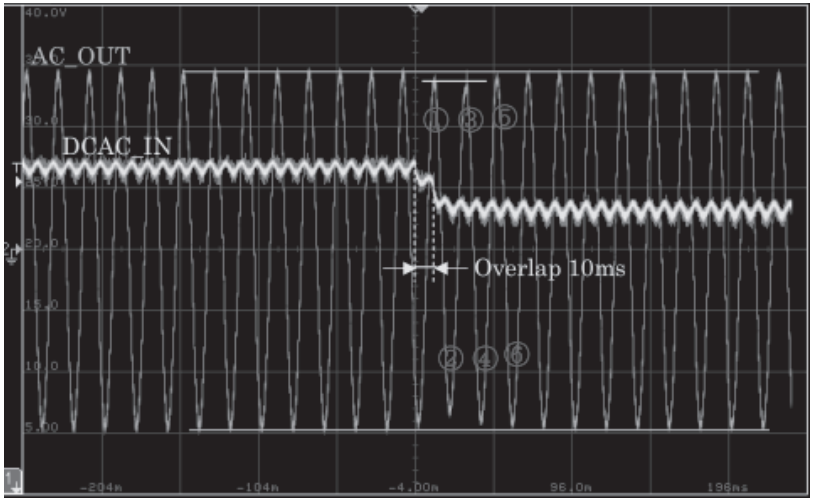
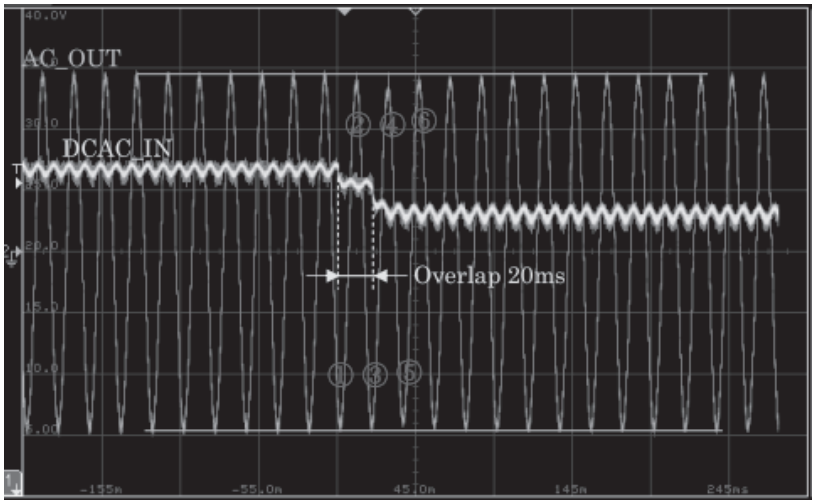

AC_OUT
+8%
DCAC_IN
Overlap 60ms
+5%

FIG.7

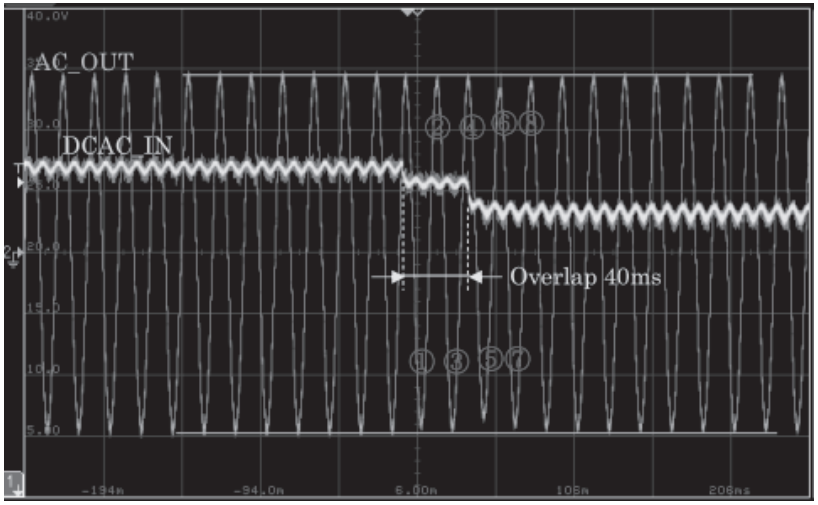
(a)


AC_OUT
DCAC_IN
Overlap 10ms

(b)


AC_OUT
DCAC_IN
Overlap 20ms

(c)


AC_OUT
DCAC_IN
Overlap 40ms

(d)

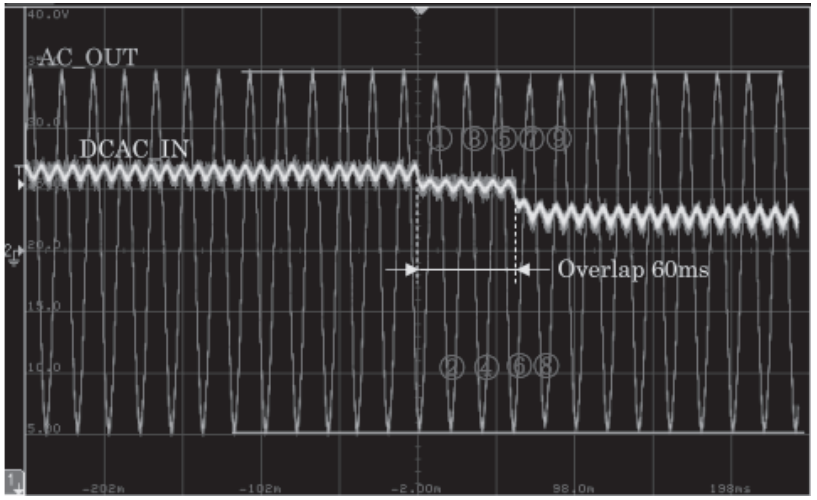
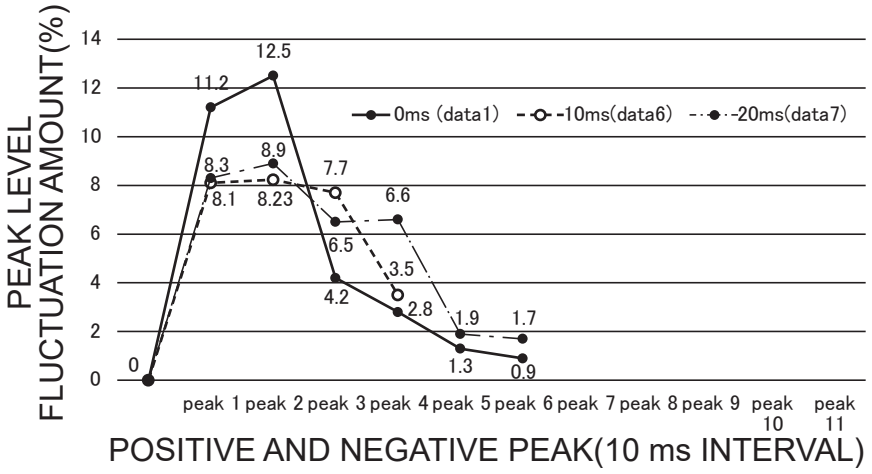
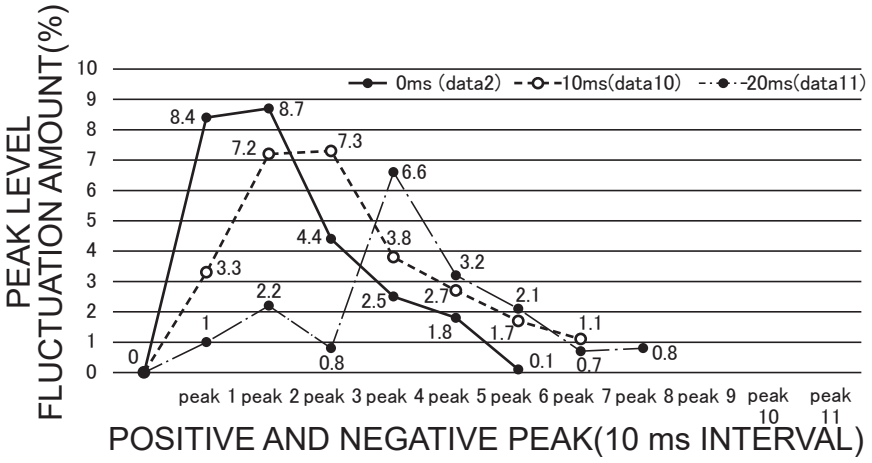

AC_OUT
DCAC_IN
Overlap 60ms

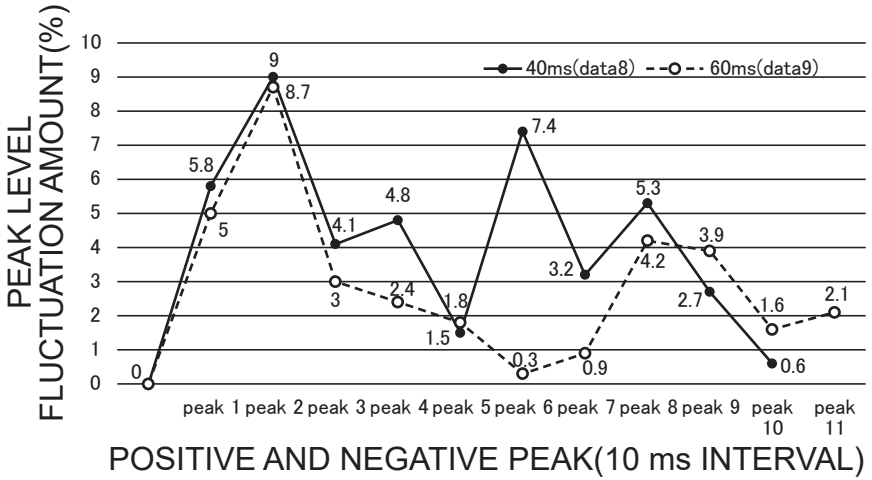
FIG.8


PEAK LEVEL FLUCTUATION AMOUNT(%)
0ms (data1)
-10ms(data6)
-20ms(data7)
POSITIVE AND NEGATIVE PEAK(10 ms INTERVAL)

(a)

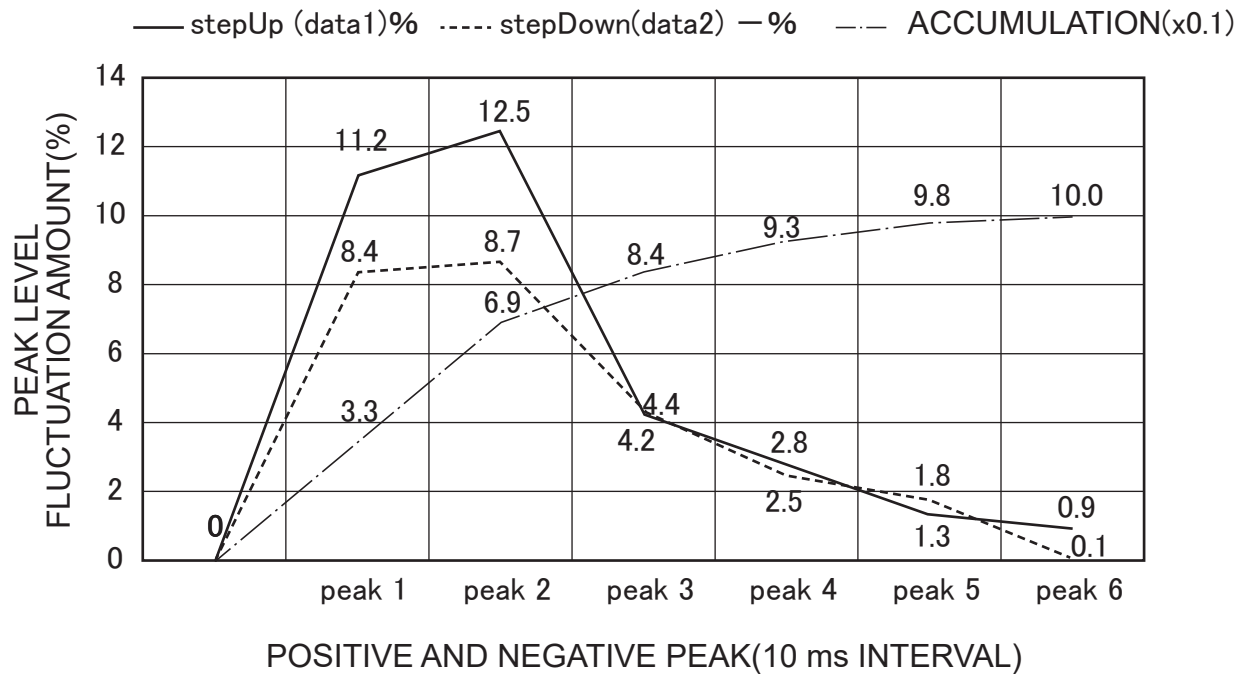

PEAK LEVEL FLUCTUATION AMOUNT(%)
0ms (data2)
-10ms(data10)
-20ms(data11)
POSITIVE AND NEGATIVE PEAK(10 ms INTERVAL)

(b)


PEAK LEVEL FLUCTUATION AMOUNT(%)
40ms(data8)
60ms(data9)
POSITIVE AND NEGATIVE PEAK(10 ms INTERVAL)

(c)

FIG.9


stepUp (data1)%
stepDown(data2) −%
ACCUMULATION(x0.1)
PEAK LEVEL FLUCTUATION AMOUNT(%)
14
12
10
8
6
4
2
0
11.2
12.5
8.4
8.7
6.9
8.4
9.3
9.8
10.0
3.3
4.4
4.2
2.8
2.5
1.8
1.3
0.9
0.1
0
peak 1
peak 2
peak 3
peak 4
peak 5
peak 6
POSITIVE AND NEGATIVE PEAK(10 ms INTERVAL)

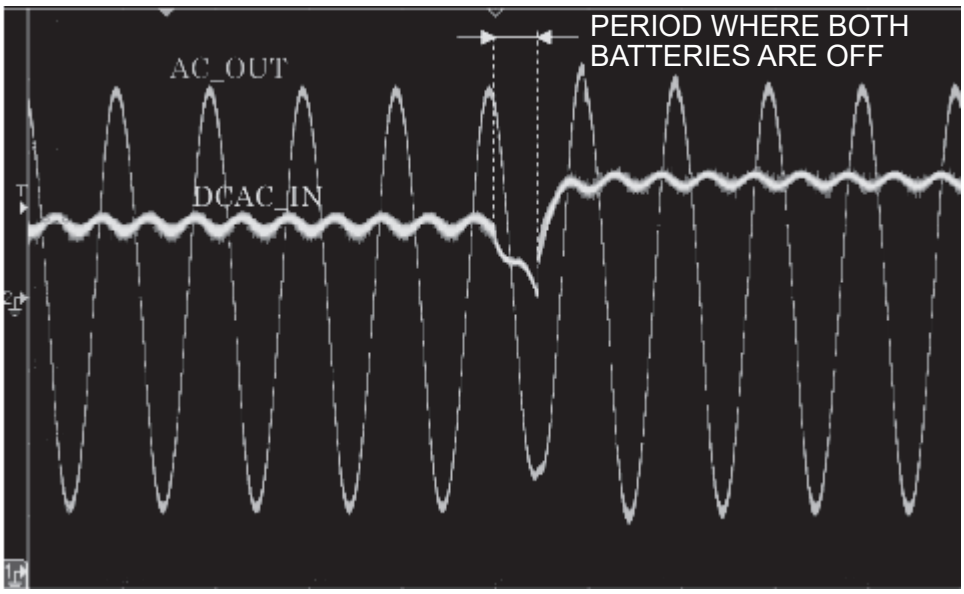



FIG.10