



(74)

:

---

(54)

---

가

38a

가

- (co - pending) :

PCT/AU00/00518, PCT/AU00/00519, PCT/AU00/00520, PCT/AU00/00521,  
PCT/AU00/00522, PCT/AU00/00523, PCT/AU00/00524, PCT/AU00/00525,  
PCT/AU00/00526, PCT/AU00/00527, PCT/AU00/00528, PCT/AU00/00529,  
PCT/AU00/00530, PCT/AU00/00531, PCT/AU00/00532, PCT/AU00/00533,  
PCT/AU00/00534, PCT/AU00/00535, PCT/AU00/00536, PCT/AU00/00537,  
PCT/AU00/00538, PCT/AU00/00539, PCT/AU00/00540, PCT/AU00/00541,

PCT/AU00/00542, PCT/AU00/00543, PCT/AU00/00544, PCT/AU00/00545,  
PCT/AU00/00547, PCT/AU00/00546, PCT/AU00/00554, PCT/AU00/00556,  
PCT/AU00/00557, PCT/AU00/00558, PCT/AU00/00559, PCT/AU00/00560,  
PCT/AU00/00561, PCT/AU00/00562, PCT/AU00/00563, PCT/AU00/00564,  
PCT/AU00/00565, PCT/AU00/00566, PCT/AU00/00567, PCT/AU00/00568,  
PCT/AU00/00569, PCT/AU00/00570, PCT/AU00/00571, PCT/AU00/00572,  
PCT/AU00/00573, PCT/AU00/00574, PCT/AU00/00576, PCT/AU00/00577,  
PCT/AU00/00578, PCT/AU00/00579, PCT/AU00/00581, PCT/AU00/00580,  
PCT/AU00/00582, PCT/AU00/00587, PCT/AU00/00588, PCT/AU00/00589,  
PCT/AU00/00583, PCT/AU00/00593, PCT/AU00/00590, PCT/AU00/00591,  
PCT/AU00/00592, PCT/AU00/00594, PCT/AU00/00595, PCT/AU00/00596,  
PCT/AU00/00597, PCT/AU00/00598, PCT/AU00/00516, PCT/AU00/00517

- (cross - reference) -

가 ,  
가 ,  
가 ,  
1 , 가  
;

(a)

(b)

(c)

(d)

, 1

, 가 (zone)

, 1 가

(pasting); (relocation) (strikeout); (underlining); (cutting);

2 , 가

(a)

(b)

(c)

(d)

2 , 가

(a)



5

6 5 (視野)(field of vi  
ew)

7

8 (field of view cone)

9 8

10 8 9

11 -

12 11

12a 2 (glue) 12

13 11 12 , , ,

14 11 12

15 14 2 ( ) (Memjet<sup>TM</sup> )

16 14 15

17 10 12 ( )

18

19a, 19b, 19c 13

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

38a 38

39

40

41

42

43 가

44

45

46

47

: ( ) (Memjet™ )  
ty Ltd)

(Silverbrook Research P





2 (9) (101) (1) (interaction) (601)  
(10)  
(13)

(Memjet™) (MEMS; microelectromechanical system)

가

20%가 가 95%가

가 가

(14)

가

가

가

가가

(e - commerce) (11)

(biometrics)가

가

1

UML(Unified Modeling Language)  
 (relationships)  
 : , 2 가  
 (instances)  
 : B  
 가 A 가 UML 2 - A B , B

(multiplicity) (\*) " " 2

(" " )(" is - part - of" ) ,

(" " )(" is - a" ) 2 ( )가

1.1

가 -

(記述) (

)

가

(identifier)가 ID

가

ID

- 가

가 4

1.2

1.2.1

LED

ID

가

가

ID

가

ID

ID

[ 1 ] -

[ 1 ]

	( )
ID	100
ID	16
	4
	120

1 120 64 가  
 , 16 - ID 1024  
 ID 가  
 $2^{100} (\sim 10^{30})$  (兆) (兆) . 100 - ID

1.2.2

120 (15, 5) - (Reed - Solomon) 가  
 15 4 - 6 360 (15, 5) 5  
 , 33%  
 4 - , 6 )가

1.2.3

5 (15)(16)(17) 가 (18)  
 가 3  
 , 4mm , 256 x 256 , 1600  
 , 16 가 , 16 " "  
 6 (15) 가  
 가 (16) 가 (yaw)  
 (skew) . 4 ( )  
 17) 가 2 , 3

가  
 , 2 , 2  
 , 1600 dpi 8 , ( )가

4-

2x2

6 15 4- 4 (18a..18d)

2

" "

가 , 6

1.2.4

가 (21) 2 가 (20 ) (22 ) 7 ( , (23))

(25) 가 (24 ) ,

(15) (26 ) (aspect) 2 (27) (approximation)

(16) (28 ) 2 가 , 가 가 가 (yaw)(29)

4 (17) (30 ) 2 (31)가 .4 (33) 8- 4

(32 )

( : Heckbert, P.,

Fundamentals of Texture Mapping and Image Warping, Masters Thesis, Dept. of EECS, U. of California at Berkeley, Technical Report No. UCB/CSD 89/516, June 1989, ).

4 (bilinearly)

(36 )

(21)

(37)

360

(37)가

, 6 60 -

20 가

(39)

120

(15) ,

가,

가

가

(193)가

(35)

(35)

(33)

(34 ).

1.2.5

ID,

ID,

ID

가

ID

22

가

(tiling)

(numbering)

ID

ID

ID,

ID

가

1.2.6 (Tagging Schemes)

2

" - "

ID

가

가

가

ID

2

(stroke)

가 (encountered)  
가

가 가

1.3

가 25 26

3  
(839)

가

(836)

(840)

가

(factor)

가

(8

35)

830)

가

가

(834)

(5)

(58)

(835)

(831)

(834)

(830)

(5)

(830)

1)

ID(50)

(832)

ID(55)

extflow) (t

27 (843), (844), (845)  
(854) (846) (843) 28 (848),  
(847), (855) (850),  
(856) (849), (857)  
(858) (851), (859)  
(852), (860) (853)

(833)  
(811)

1.4

(11), ID (12), 3 (10), (14),  
(19) (601) (13),

(11) (handwriting)  
(10)

ID (12) ID (51) ID -

ID(50)  
(DNS)

(14) (13) 2

IBM, - (Hewlett - Packard), (Sun)  
(functionality) , ID



1.5

(601)

(subscription)

ID(62) 가

가

(10)

(14)

2

가

가

가

가

(segmentation)

가

가

(760)

( )

(350)

2

2

(RIP)

:

DSP (757)

2

(dither)

(IR)

가

(tiling)

(811)

2

(11)



(308) (319) (309)  
 (310)(311) (308)(309)(310)(311)(319)  
 (electrothermal) (bend) (320)

18 (315) (300) (315)  
 (301) (312)

19a, 19b, 19c ( ) (300)

19a (meniscus)(316)  
 (316) (304) (306) (305)

CMOS

(Joule heating) 가 1 (308) (318)  
 가 (308) 가 (309) (308)

04) 가 (301) (307) (320) (302)  
 (304) 19b 2 (321) (302)  
 (316)가 (316)가 (304) 가 (303)

(308)(309) 가 (320) 19c  
 (316) (321) (317) (break - off)

20 (350) (351)  
 ( 210mm) (352) 0.4mm ( 0.2%)  
 (300) 6 (row) (312)

(302) (330)가 (301)  
 (331) (331) 가 가  
 (332) 가 (321)가 가

1.6 (101) (134)

0 dpi ( , 20  
 , 100 Hz )

( ) , ( )

(aspect) , (marking) - , ID(61) . 23  
(10) -

(force) , " (up)" " (down)"  
가 ,

(193)

가 ,  
(handwriting)

ID가 ID(50)

(826) 가 (paste)  
가  
(application)

(824) 가  
(825) 가  
가  
가

" " LED가  
" " LED  
" LED

10

6 8 10

1.7

(601)  
(4)

(1)  
(3)

(101)

가

S

가  
ID(50)

(830)

DN  
(10)  
가

( )

가

가

가

가 가

" "

(sloppy)"

" " LED

2

가 :

1.7.1

(844) ID(54) , (71) , (alias) ID(65)  
" " , 가 29 .

가 , ID(64) ID DNS . 3가  
가 : 30 (863), (865),  
(864). , (preference)

가

ID(55) " " ID (862) 가 ( )  
" " (826) 가 "  
" 가 , 가 (863)

(866) 31 (844)가 (838)

" " , " "

1.7.2

(collection)

가

(867) (868) (838) (839)  
(870) (871) , (845)

32

, (frozen), ,

(872) 가 가 " " 가 , , , , (833) , , , (59 ) , 가 가 (873) (874) (875) (876) 33 , (845) (877), 34 (878), (879), (880) , (58) , x , , ) (true) (881) ( 35 , 36 (882) .

( , , Tappert, C., C.Y. Suen and T. Wakahara, " The State of the Art in On - line Handwriting Recognition" , IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol.12, No.8, August 1990, the contents of which are herein incorporated by cross - reference).

37 (883) 가 , ( , , Plamondon, R. and G. Lorette, " Automatic Signature Verification and Writer Identification - The State of the Art" , Pattern Recognition, Vol.22, No.2, 1989, the contents of which are herein incorporated by cross - reference).

가 (strike - throughs) " (editing)" " ( , ) " ( , ) (本刷)(run - on) - -

2

[ 2 ] -

[ 2 ]

			(true)
			;
			;
			;

가

가

가

가

가

38

5 ); (884 ); ID(50)가 (830) (88  
 (5) (886 ); 가 (58) (839)  
 (887 ); 가 (871) (888 ),  
 (893 ), 가 (892 ),  
 (894 ), (866)  
 가 (895 ); ,  
 (895 ); (889 ),  
 (833) (890 ); ,



(826) (891 );

38a 38 (893) , 가 (896 )  
 가 (898 ); , 가 (897 ), (899 ),  
 (901 ); , 가 (900 ) , (9  
 02 ), (903 ) , (904 ),  
 (905 ) .

1.7.3

910), (907) 39 (908), (909), ( (914),  
 (911), (912), (913),  
 (915), (916), (917) .

ID , ,

, 가 ,

ID , ,

가 , 가 ,

가 , 가 ,

가 , 가 ,

가 가 , ,

가 , .  
가 , 가 ,

" (on selected)"

가

가

가 " (hidden)"  
" " 가 ,

1.8

가

1.9

" (Help)"

.

:

.  
.
.

, 가,

가

" 900" "

"

"

"

가

,

"

가

2.

가

가

가

2.1

가 2

:

:

"

"

가

가

가

가 (Page One Plus) , "

가

(Personal) (" " " ")

( , , , ) ( ,

) ( , ) ( , , , ,

( )

가 (版) , 가

가 ( , " " " ")

가

(serendipity) ( , )

가

가

( , )

가 (in situ)

가





(809) , 가

(820); , (818), (819) (815); (click - through) , (817); SET (821)

2.3.2

" " (922) , (924)  
41

2.3.3 (history)

(929) , 42

2.4

(roofing)

가

2.5

XSL(Extensible Stylesheet Language)

XML(Extensible Markup Language)

. XSL

가

JPEG 2000

(wavelet) -

SV

G(Scalable Vector Graphics)

2D

가

3

[ 3] -

[ 3]

		-
	ID	JPEG 2000
		-
	ID	SVG
	ID	-
		-
	ID	XML/XSL
		-
		-
	ID,	-
		-
		-
		-
		-

2.6

ID (12)

가

ID

가

가



1/4

가 ,  
64MB

400KB  
100

1

400KB 3Mbit

가

100 -

가

가

2.7 (On - Demand)

가

가

가

PDF(Adobe's Portable Document Format)  
. HTML

HTML(Hypertext Markup Language)

가

3.

3.1

(transit)

2

가

2

2

2

. 2

1

(holder)

, 2

가

가

(hash)

가

"

"

가

가

3

가

가

가

(session)

가

가

3.2

(ROM; read - only memory)

ID(62)

ID

가

가

ID

ID

ID

ID

D

가

가

가

3.3

ID(61) ROM

" " , " "

가

ID 가 , ID 가 , 가

가

가, 가

가

가

ID

ID

ID

ID

ID

가

3.4

가  
 " " (dither)  
 - - (back - to - back)

가  
 1.9

가  
 ID ID  
 2

가  
 3.5 (Non - Repudiation)

가  
 4 (commerce)  
 가

4.  
 4.1 (SET; Secure Electronic Transaction)  
 (Visa) SET (SET) (MasterCard)

SET  
 가 가

, SET

4.2 SET

SET ( , )

SET (biometric)

SET 1 가

. SET 가 S

ET

가 ID SET ID

4.3

가 가

가 (e - commerce) ( , )

4.4

가 ID(55) ID

, 가 " 가 ID(60) 가 "

24 ID(65) 가 " ID(61) ID(64) ID(65) 가 ID

ID

(UPC) "

4.5

가 40

(842)

(D

ublin Core)

(W3C; World Wide Web Consortium)

(RDF; Resource Description Framework)

(920)

가

5

( )

(lifeline)

가

2

가

, 가 가

5.1

가 43

( , ) ID (12) ID(51) ID (10)  
ID ID(64), 가 ID(65),

ID(60), ID(62)(

ID ID ),

가

ID ID가 (808)

ID ID 가 ID (50)

ID

가

가

가

5.2

45

가 가 , (601)

ID(61)

, DNS

ID(50)

(10a)

, ID, 가

ID(62),

ID

(58) ID (5) ,  
ID(64) ID(54) , DNS (844) 가 ,  
(71)

(11) ID(60) ID(61) ,  
ID(52) (934) ID ,  
44 ID(53), ID, ID  
(862)

(10b) ID (12) ID(51)  
ID ID

D ID ID(62) ID I

ID (50) ID  
가 ,

ID ID(55) -

가 ID " " ID(65)  
ID(61) ID ID(64) ID (11)

ID

5.3

가 가 ,

(10) ID(61), ID(62), ID(50)

8) 가 (58) ID 가 (5) , 가 가 (87)

ID (pending)



(11) . (822) . , 가

5.4

가 (880) 가 , (10)

(11) . , ID(56) ID(61) 가  
ID(64) . (818)  
가 ID(64) ID(60) , -

ID(65)

5.5

가 46

5.2 , -

가 , (10) (71)  
ID(56) ID(65) (11)

5.6

가 47

ID(52) (70a)( ; ) (70b)( ;  
) , (70b) (72)

5.2 가 (10)

ID  
(11) ID(64) ID(53), (827) ID ID

가 ID ID (814) ID

6.

6.1

8 9 101 (103) (102) (105) (104)  
07) (106) 가 (107) (102) (108) (102) (102)  
(107) (102) 가 (102) LED (109) (109)  
(112) (102) (103) (111) (110) (113A)  
(113) (115) (114) (114)

(117) PCB(117) 3 - LED(116)가 (107) (112) PCB  
LED(116) (101)

(121) (120) (stylus) (nib; 119)  
(119) (121) (118) (102) (122)  
(123)(124) (118) (120) 가  
(125) (105) (123)(124) (125)  
(181) (126) (123)(124)  
(127)(128) (126) (125) (123)(124) (114)  
(122) (119) (121) 가 (101)  
3가 (105) 90° 3가 가 :

(120) (121) ;  
(118) (119) ;

(118) (119) (120) (121)

2 PCB(129) (102) (130) 2 PCB(129)

LED(131) (132)가

2 PCB(129) (134) RF RF

(133) , (101) (135)(

) (107) (132)

(136) 2 PCB(129) (125)

(137) (137) (125) . 3

(139) (125) (140)

(120) (118) 2 PCB(129) , 2 PCB(129) ,

가 가 (119) (121)

(144) (125) (123)(124) LED(143)

LED(143) ( )

(grip) (141)(142) (101) (102) (108) ,

(105) (101) (142) .

6.2

(101) , , ( (121)

(119)) , ,

(135) (134) (121) (119)

(134)

RF (133) (112) (101) (

)

, (101) ( (101)

), (101)

12

(134) (101) 2 PCB(129) 10 (134)

LED(131), 10 RF (133), (132), 3 - LED(116),

(144)

(134) (145) (146) (134)

(147) 512KB DRAM(148) - (149)

(144)

(152) (132) (153)

(154) RF (155) (112) RF (156) RF (133)

(145) , (132)  
 , (144) , LED (116)(131)(143) , (153)  
 . (~40MHz) - RISC .  
 (145), (153) (154)),  
 (152), (147) 512KB DRAM(148) ASIC RF  
 (RF (155) RF (156)) RF .  
 215 × 215 CCD(  
 , Itakura, K T Nobusada, N Okusenya, R Nagayoshi, and M Ozaki, " A 1mm 50k - Pixel I  
 T CCD Image Sensor for Miniature Camera System" , IEEE Transactions on Electronic Devices, Volt 47, n  
 umber 1, January 2000, ) .

ASIC(134) , (101)  
 ASIC , (144) (151)  
 (134) (150) .  
 , 가 (cordless) 가 900MHz  
 가 2.4GHz , (ISM; industrial, scientific and medical)  
 , (hopping) .

(IrDA; Infrared Data Association)

0) 9 10 , (101) (101) 가 . 가 (19  
 (ghost outline) .  
 가 (10) 가 , 가  
 , 가 ID ,  
 ID ( ; ) ,  
 x y 가 가 .  
 가 , 가 , 가

7.

7.1

12a 2 8½" (601) 11 . 12  
 (602)(603) , (602)(603) /A4  
 (bleed) 2  
 (602)(603) .  
 (605) , 가 , 가 (618) .

2 , 13 가 (627) , , , , ,  
 (bladder) (639) (638)  
 (350)  
 3000 (1500 )  
 가

12 , (626) 2 1 (6  
 02) (602)(60  
 3) - (in - line) (604)  
 가 (626) 1 (602) (604) 가  
 가

(602) 가 ( ) 1  
 가 (604) 2 (603)

12 12a , (604) 2 (602)(603) (605)  
 가 가 / (670)  
 가 (673)  
 가 (670)

(679) (673) (627) (641)  
 (679) (679) ,  
 (682) (673) 가  
 (sprung) (682)

(604)가 (673) , (605) 가 ( )

7.2

RF (625), (750), - -  
 (756)), 2 ( (753), (754), RF (755),  
 (760b), (658), 64MB DRAM(657) (RIP) DSP (757), 2 (760a)

(19) LED (613 - 616) , (101) RIP DSP (757) , (617) (760) (750)

(659) (760)

RIP DSP (dither), (350) ( ,

30 ) 2

(760a) , QA (665) QA (761)

(658) (750) DSP (757)

(657)

(750), DSP (757), (753) (754))  
 ASIC(656) RF (RF (755) RF (756))

RF (762)

MB) DRAM(657) (625) (760) ASIC (658) 2 × 256Mbit(64

(625) (751) POTS

(752) (HFC; Hybrid Fiber - Coax) , ISDN , DSL , IEEE 1284(

(WLL) , USB USB 2.0, IEEE 1394( ; Firewire), 가 ,

), 10Base - T 100Base - T , USB

(753) 가 (cordless) 가 900MHz

가 2.4GHz , (ISM) ,

(hopping)

" (squirted)"

(IrDA; Infrared Data Association)

IrDA

7.2.1

(750)가 DSP

(757) RIP

DSP (757)

DSP - 가 DSP DSP

(busy) DSP (strategy)

(contone) - (bi) -

ID, ID, (IR) 6

(760) (750) 2 (760)

114MB - CMYK+IR

7.2.2

EG (763), (760) 4 (764), (custom) IEEE 1394 (659), JP  
 (765), (766), / (loader/formatter) (767), (halftoner/compositor) (350)  
 (768)

AM(769) (360) 2 가 (659) DR  
 가 DRAM(769) 가

RAM (766) 1 JPEG - CMYK (763 ), 4 - -  
 (764 ), 1.2 CMYK -  
 (765 ) CMYK (765 ), - CMYK  
 (350) CMYK+IR (767 ). - D  
 (768) (350) -

(760)가 2 (770)  
 / (771) (760)

(350) (760) , (773)  
 (675)(676) (772)

8½" , 2 , 8.8kHz 1600dpi ,  
 (11" ) 30 . 12" , 2  
 , 10.2kHz (8½" ) 45 30kHz

(57)

1.

가

;

(a)

(b)

(c)

(d)

2.

1

3.

1

4.

1

가

(zone)

5.

2

6.



5 ,

7.

4 ,

(strikeout);

(underlining);

(cutting);

(pasting) ;

(relocation)

8.

7 ,

9.

7 ,

(letters),

(words)

(paragraphs)

10.

1 9

가 가 ,

가

,

가

11.

10 ,

(locus)

12.

11 ,

가

13.

11 12 , 가

2

가

14.

1 9 , , ,

15.

14 , , ,

16.

14 , .

17.

1 9 , 가 가

가

18.

17 , (rollerballs) .

19.

18 , , .

20.

19 , (rollerball)

(roller);

21.

1 9 , ,

22.

21 , .

23.

22 ,

1 ;

2

24.

23 ,

25.

23 ,

26.

23 ,

27.

23 , 1

28.

27 , 1

2

29.

가

;

(a)

(b)

(c)

(d)

30.

29

31.

29

32.

30

가

33.

32

34.

32

(strikeout);

(underlining);

(cutting);

(pasting);

(relocation)

35.

34

36.

29  
(zone)

35

가

37.

29

35

가  
가

가

가

38.

37 , (locus)  
,

39.

38 , 가  
.

40.

38 39 , 가 2 가  
가 .

41.

29 35 , , ,

42.

30 , , ,  
.

43.

30 , .

44.

29 35 , 가 가  
가 .

45.

34 , (rollerballs)  
.

46.

25 , , ,  
.

47.

36 , (rollerball)

(roller);

48.

23 25 , ,

49.

48 , .

50.

49 ,

1 ;

2 .

51.

50 , .

52.

50 , .

53.

50 , .

54.

50 , 1 ,

55.

54 , 1 2

56.

가

(a)

(b)

(c)

(d)

57.

56

58.

56

59.

56

가

60.

59

61.

59

(strikeout);

(underlining);

(cutting);

(pasting) ;

(relocation)

62.

61 ,

63.

62 , (letters), (words) (paragraphs)

64.

29 35 ,

65.

29 35 , 가  
(zone)

66.

29 35 , 가 , 가  
가 가

67.

66 , (locus)  
,

68.

67 , 가

69.

67 68 , 가 2 가  
가

70.

29 35 , ,



71.

70 , , ,

72.

29 35 , 가 가

73.

29 35 , ,

74.

73 , .

75.

74 ,  
1 ;  
2 .

76.

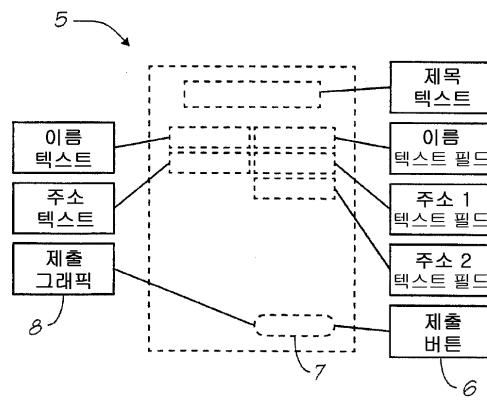
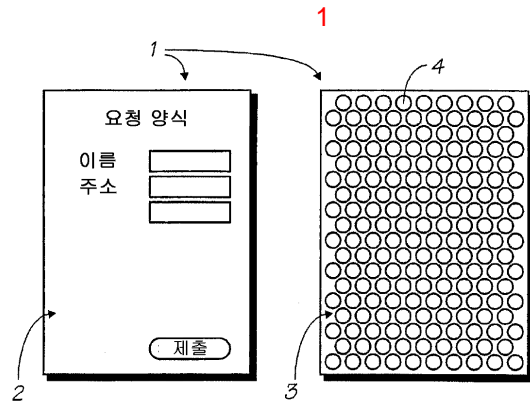
75 , .

77.

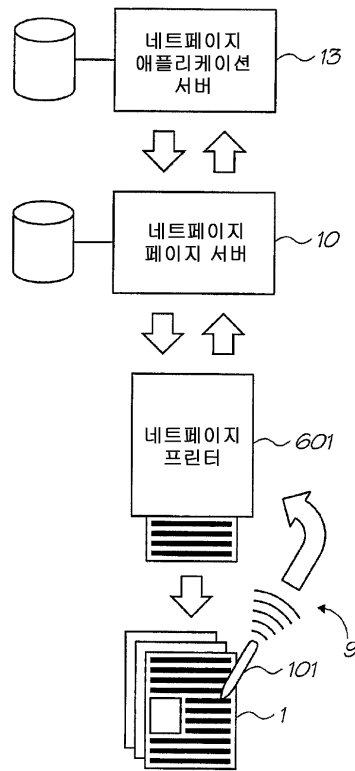
75 , .

78.

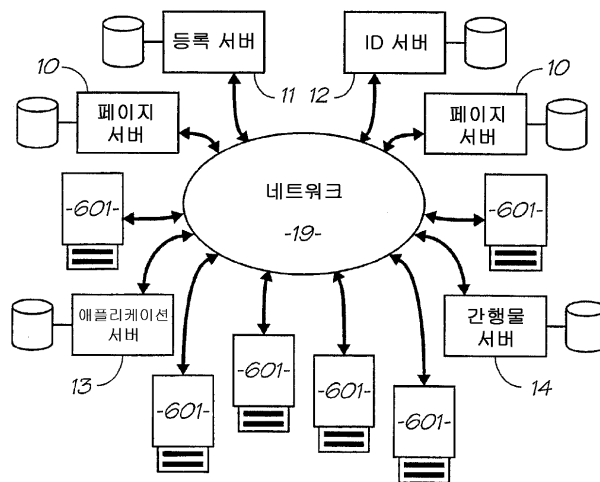
75 , .



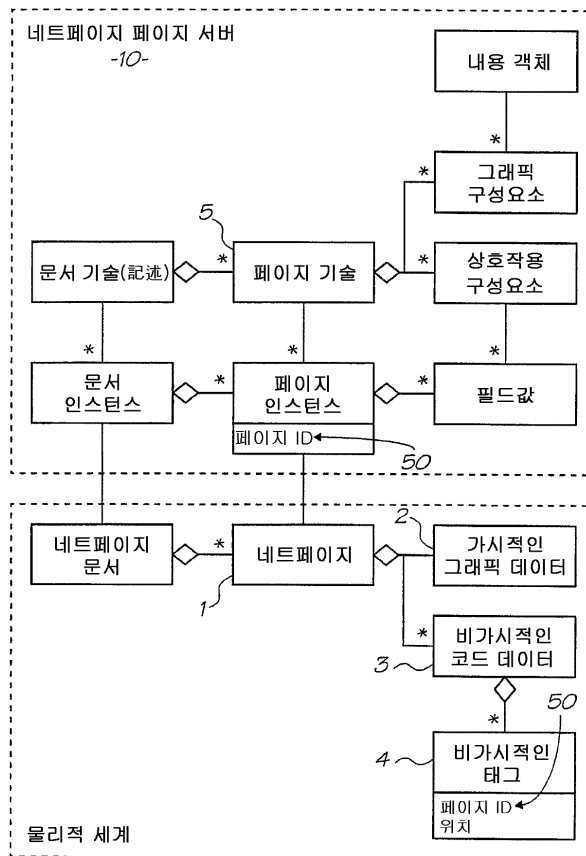
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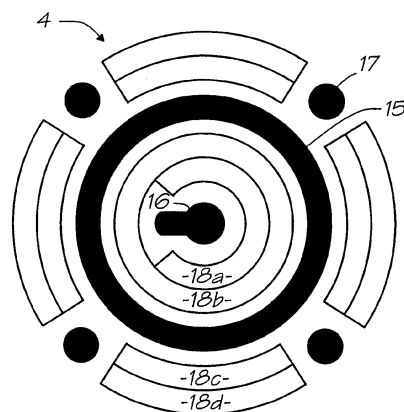
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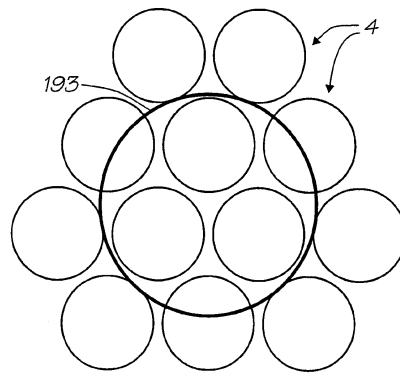
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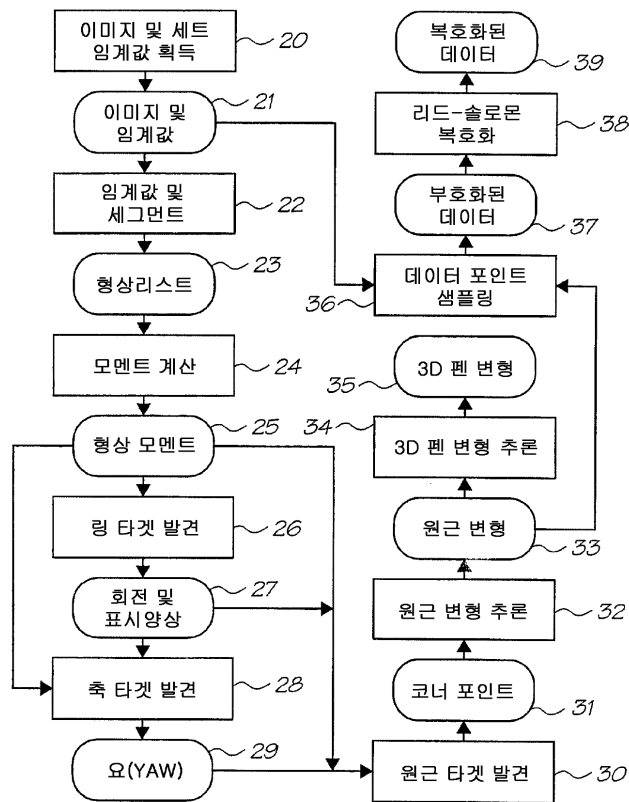
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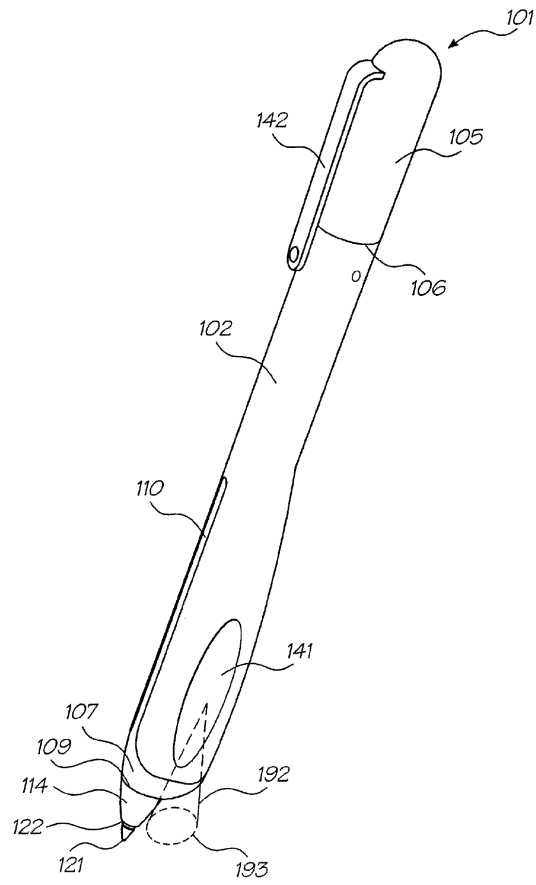
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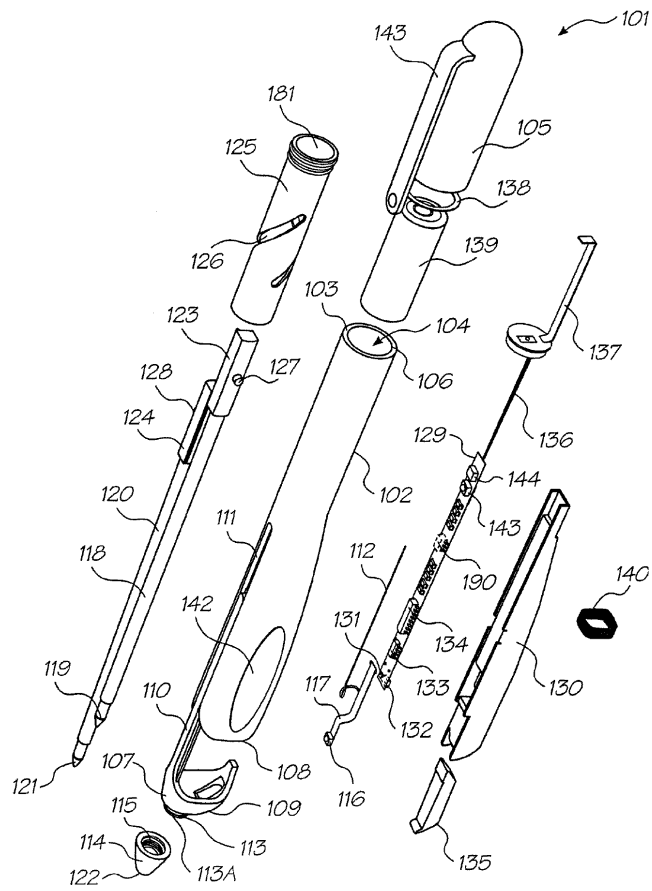
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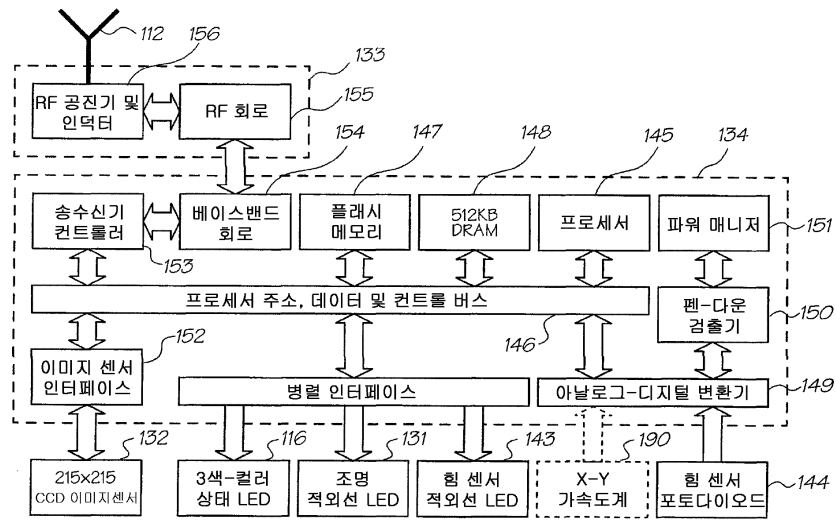


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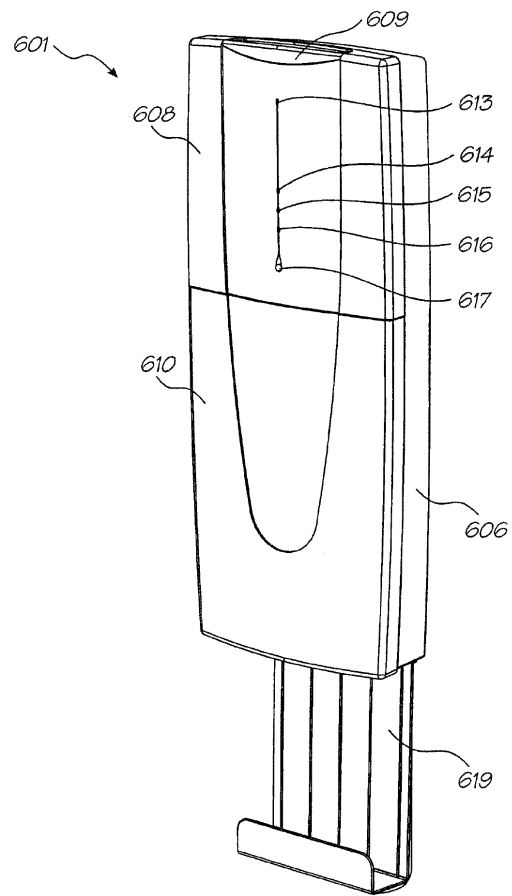
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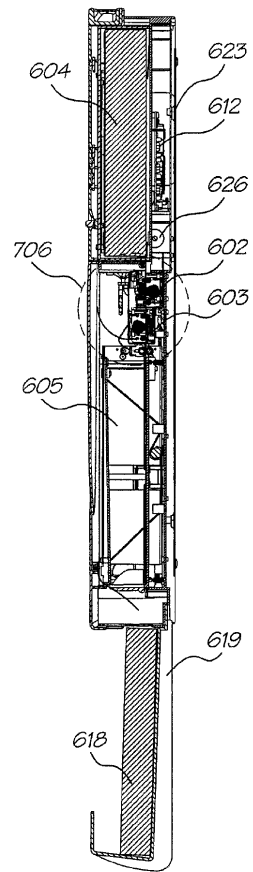




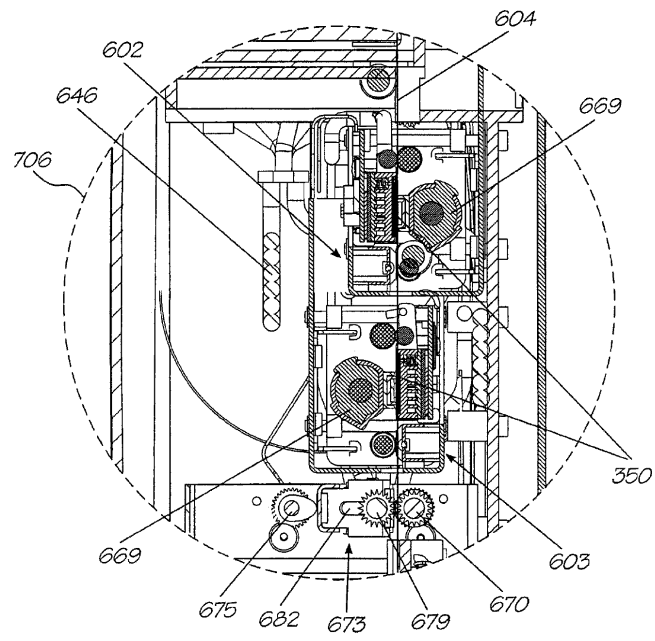
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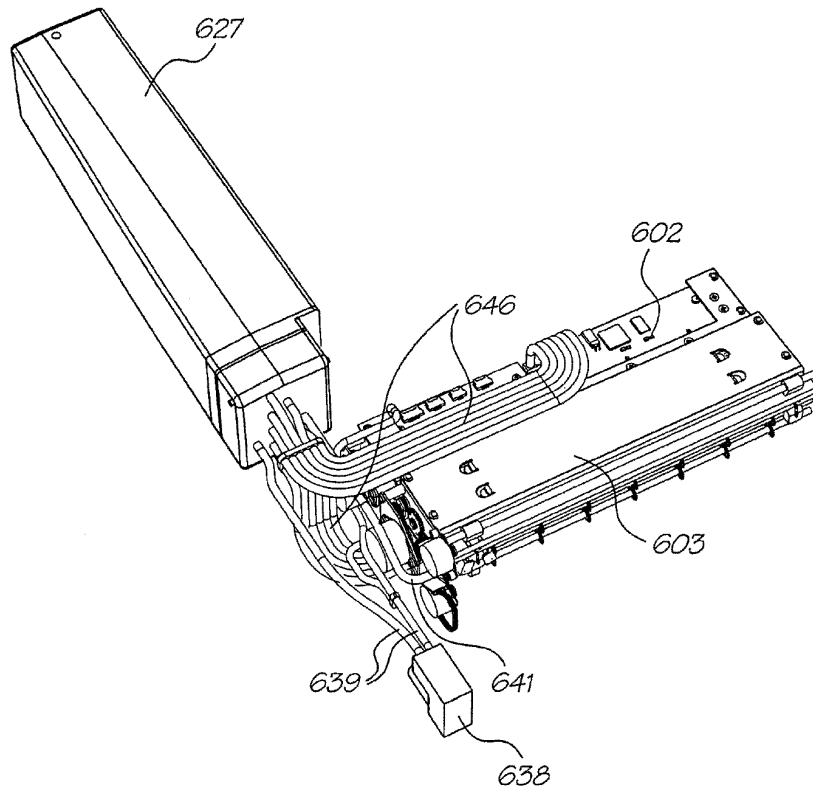
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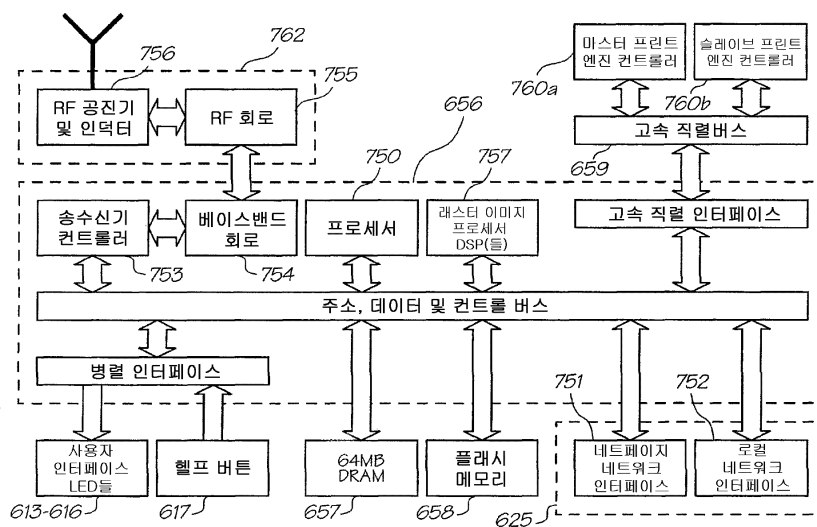
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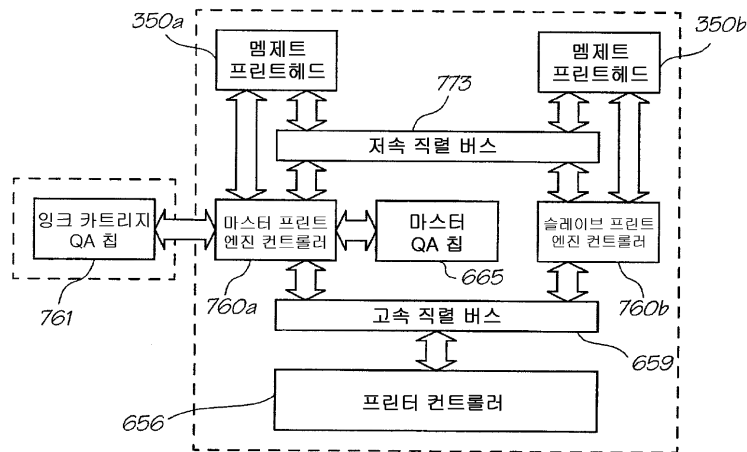
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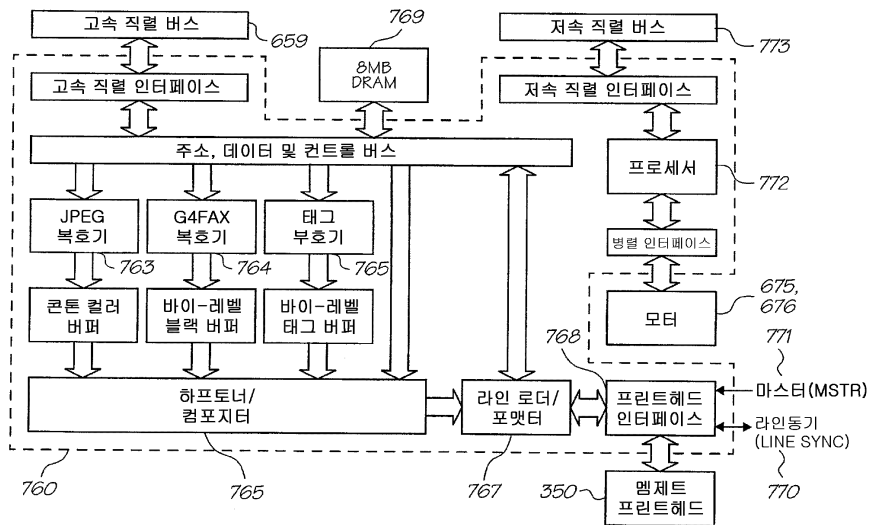
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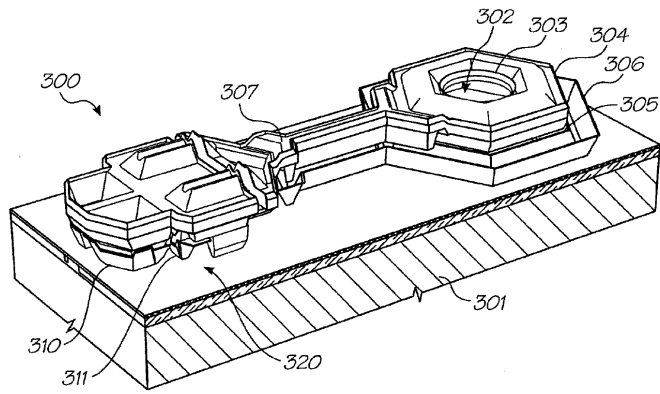
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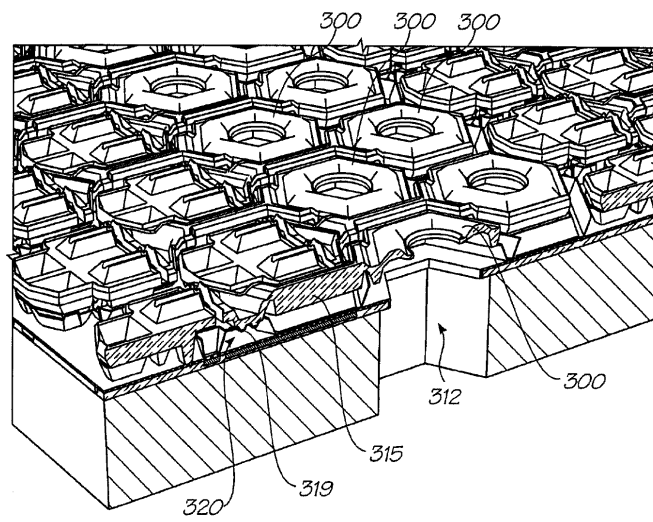
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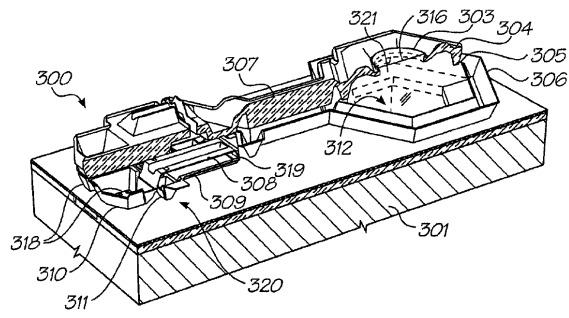
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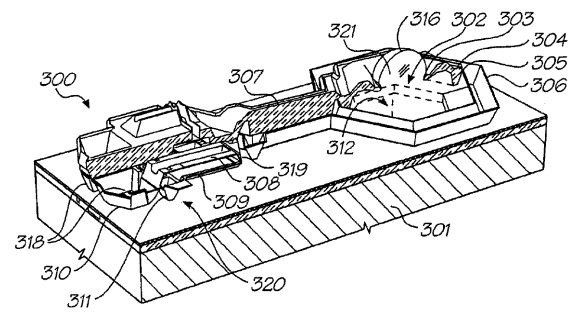
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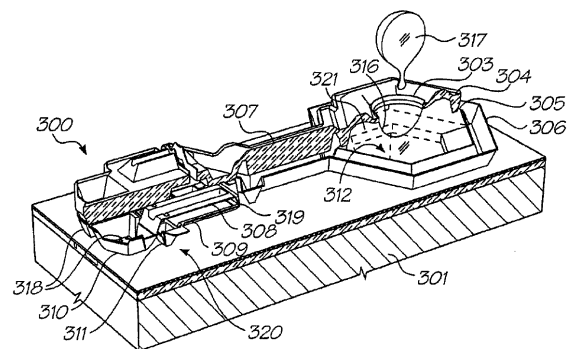
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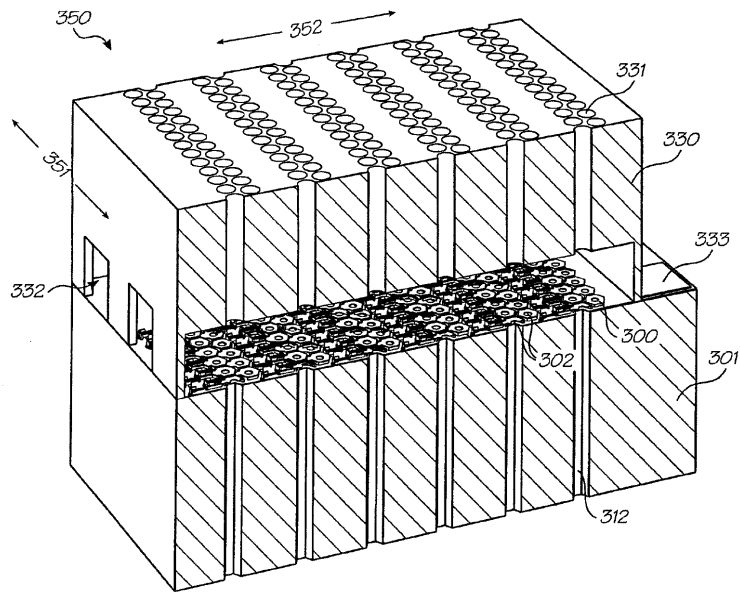
19b



19c

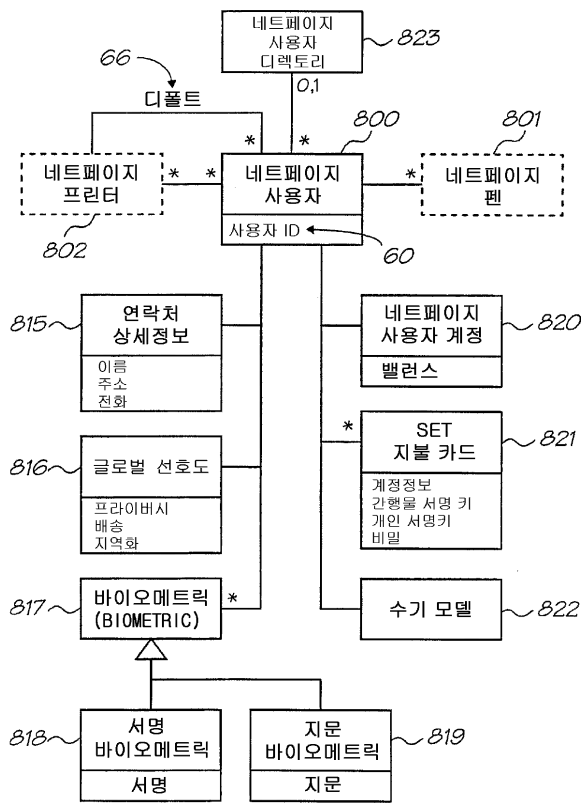


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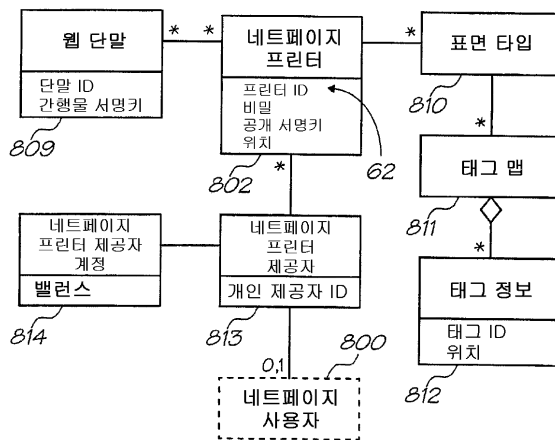




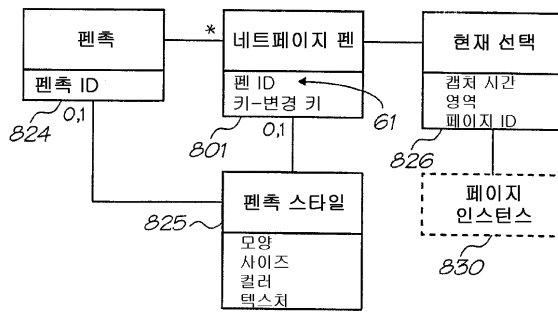
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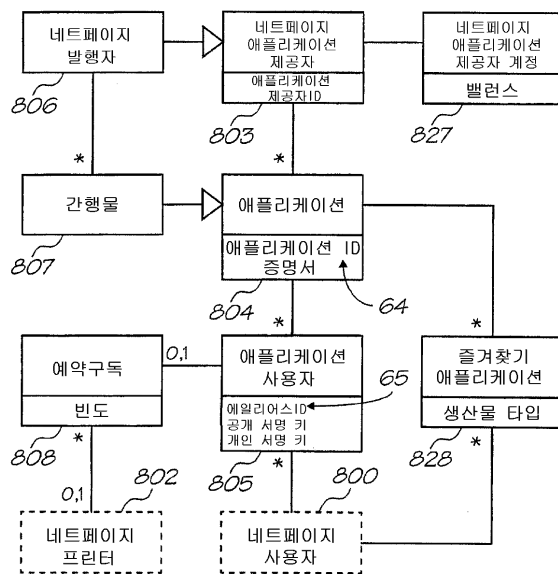
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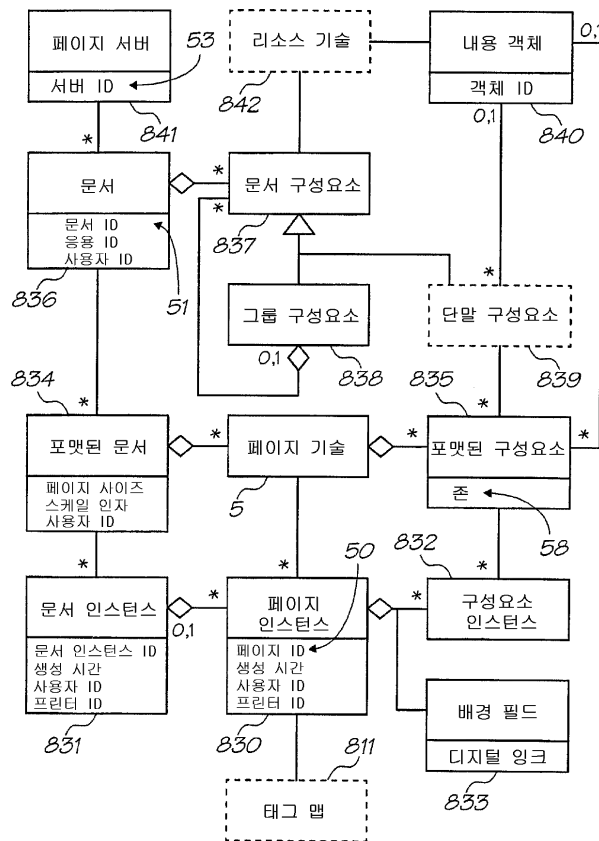
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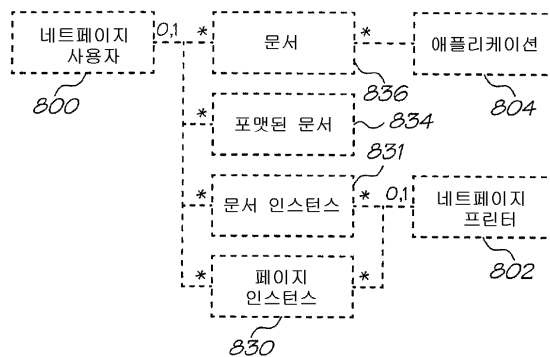
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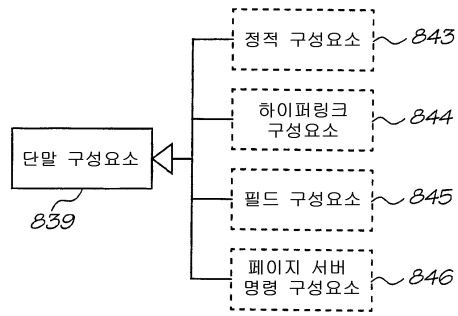
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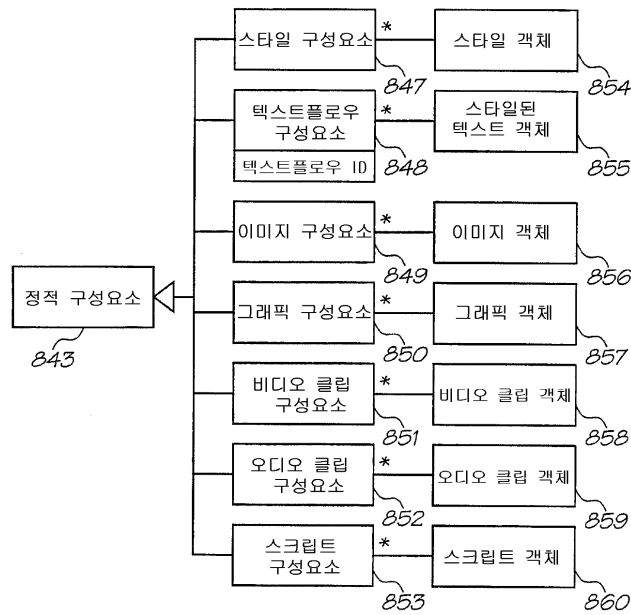
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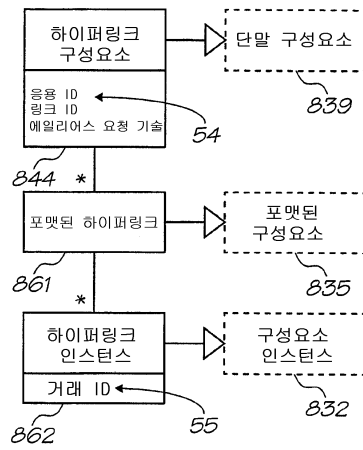
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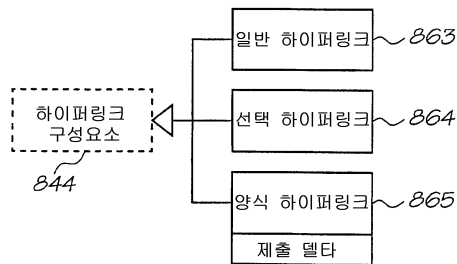
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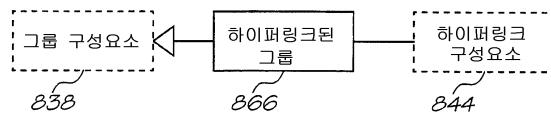
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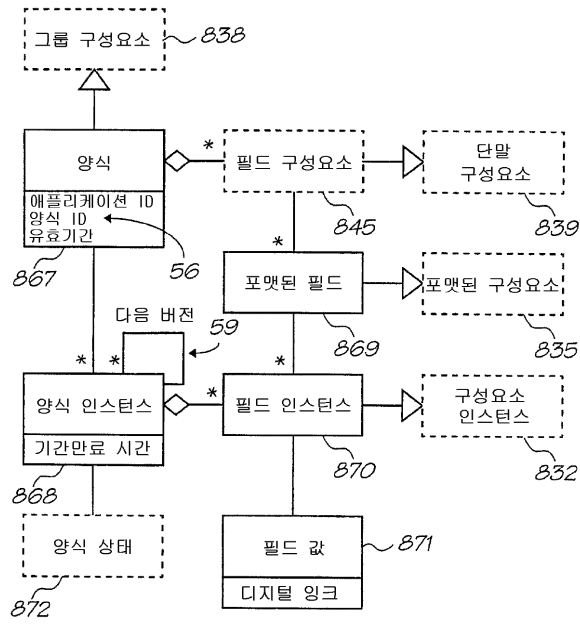
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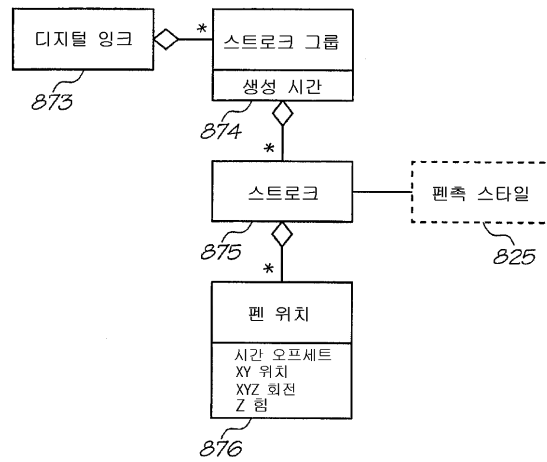
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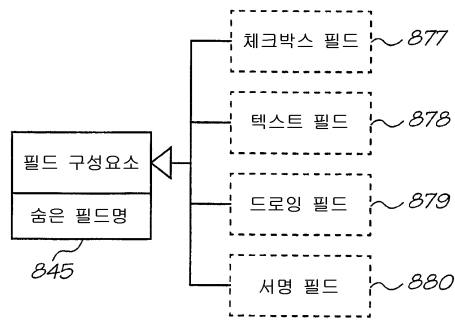
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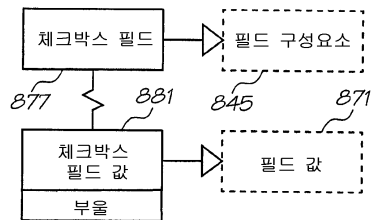
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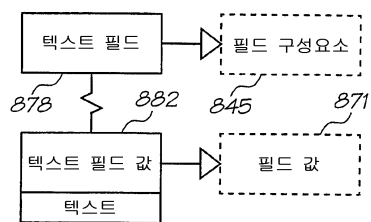
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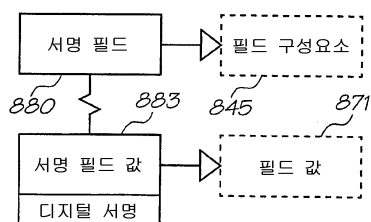
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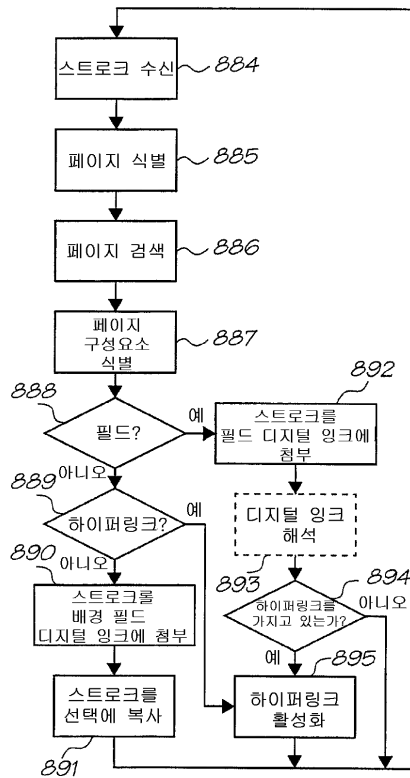
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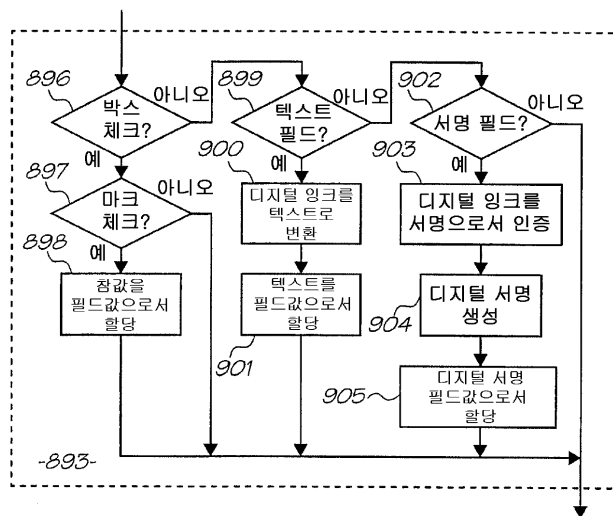
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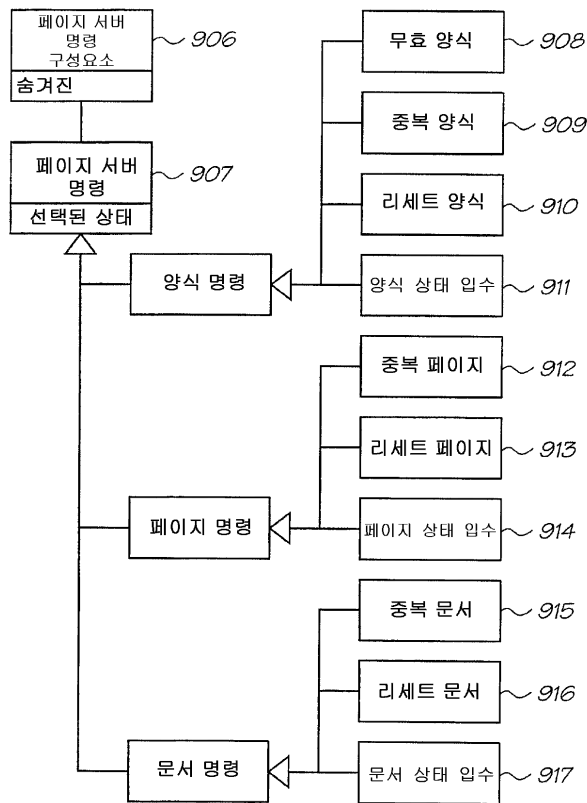


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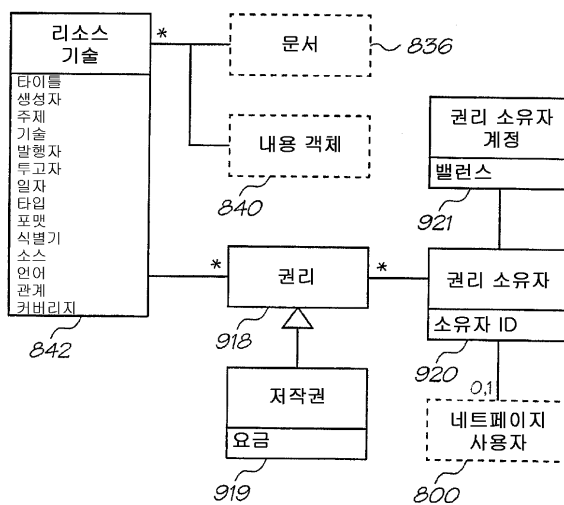




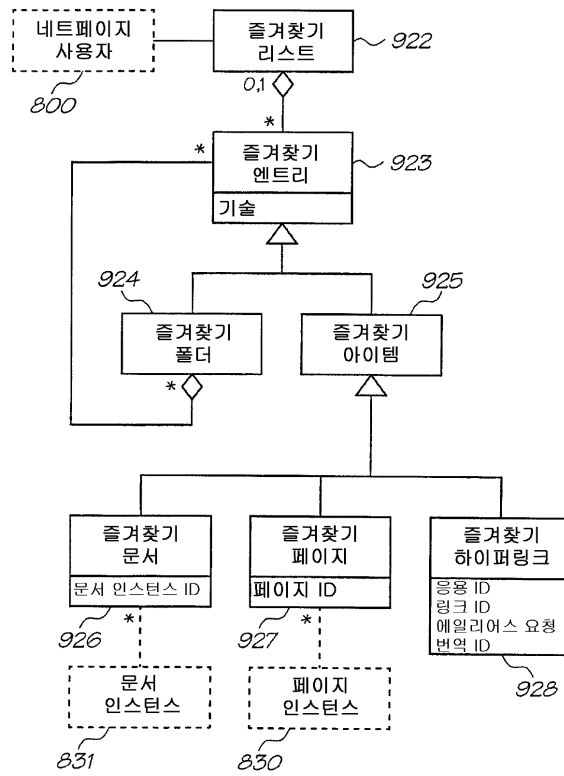
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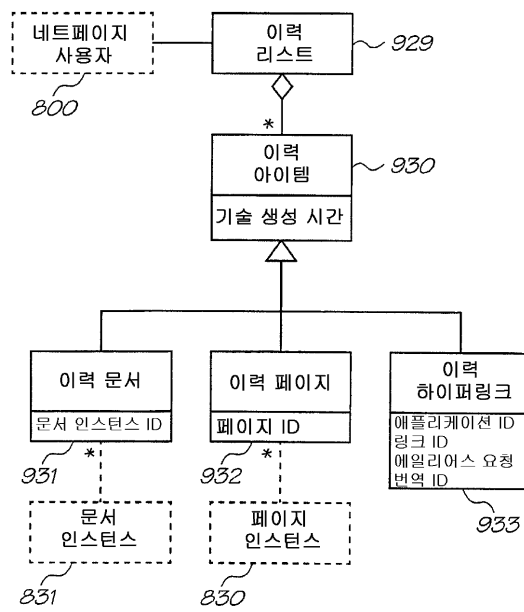
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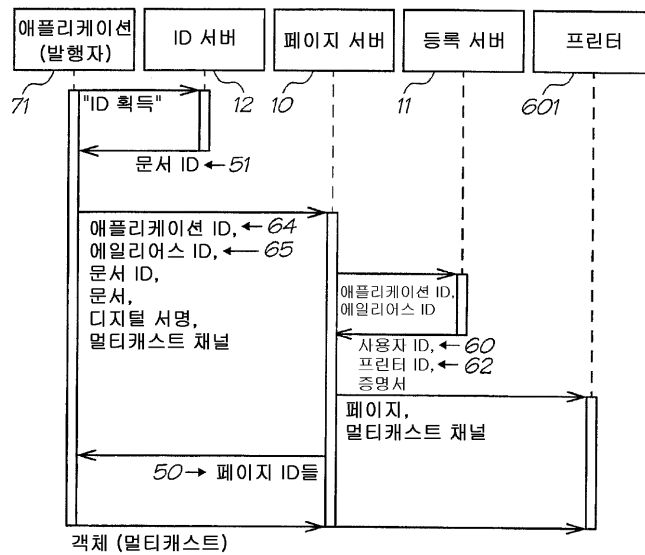
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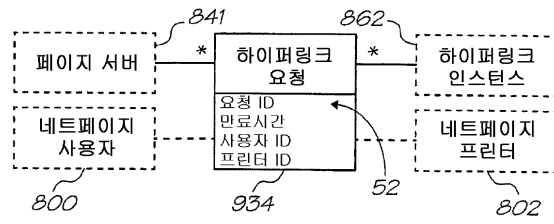
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