GENERATOR & INSERTER CONTROL

CPU

ADDR.LATCH

PROGRAM EPROM

RAM

BACKUP MEMORY

DATABUS TO SHEET 2

V509 PXO
PXO
NOT MOUNTED
R504 10K
X501 24MHZ
C502 18P
C503 18P

V501 D580C320-MCG
XTAL1
XTAL2
AD0 AD7
A8 A15
ALE
PSEN
EA
RST
RXD
TXD
INT0
INT1
T0
T1
WR
RD
P1.0 P1.1 P1.2 P1.3 P1.4 P1.5 P1.6 P1.7

V502 74ACT573
V503 27C512
V505 MK48Z08
V506 AM29F010

XJ3 1 SOURCE_EN
XJ3 3 UNIT-SCL TO SH-3.5.7
XJ3 4 UNIT-SDA TO SH-3.5.7
R501 100
R502 100
V507 PCF8574P
IIC ADDR. 4EH

XJ3 5 MRES
XJ3 10 SYNCAV
XJ3 11 LOCK
XJ3 7 FIELD_U
XJ3 2 UNIT-ACK
XJ3 6 HINT_U
XJ3 13 FASTCLAMP
XJ3 14 H_TEXT TO SH-6
FIELD_U TO SH-2
HINT_U TO SH-2.5.7
XJ3 15
XJ3 16

TP509
XJ3 12 RESET TO SH-6.8
R505-A 10K
R505-B 10K
R505-C 10K
R505-I 10K

GENERATOR INPUT-PORT
R505-D 10K
R505-E 10K
R505-F 10K
R505-G 10K
R505-H 10K
R503 2K67
V508 74HC573
XJ3 9 FBINT
XJ3 8 FRAME
ST502
PP501 PP502 PP503 PP504
NOT MOUNTED

ADDRESS DECODER
V504 18CV8
RAM
BACKUP
LD_1 LD_2 LD_3 LD_4 LD_5
WRE
RDE

BATT.
RDE
WRE
RAM
BACKUP
PP505
NOT MOUNTED

+10V
SPGVIDEO
-10V
PROGVIDEO
+5V
-5V-A
J2 1 J2 2 J2 3 J2 4 J2 5 J2 6 J2 7 J2 8 J2 9 J2 10 J2 11 J2 12 J2 13 J2 14 J2 15 J2 16 J2 17 J2 18 J2 19 J2 20 J2 23 J2 24 J2 25 J2 26

XJ2 1 XJ2 2 XJ2 3 XJ2 4 XJ2 5 XJ2 6 XJ2 7 XJ2 8 XJ2 9 XJ2 10 XJ2 11 XJ2 12 XJ2 13 XJ2 14 XJ2 15 XJ2 16
NOT MOUNTED

+5V OH20 OH21 OH22

FIRST USED IN: PM 5655 /U2
PCB REF.: 4008 117 0578

		GENERATOR BOARD	4008 109 8091	1	95-08-24
		GENERATOR & INSERTER CONTROL PM5655G U.2 M.B.		1	~~94-02-25~~
				1	~~94-08-13~~
CHECK:		NAME: CH/SNJ/JML	8 SH SH 130 - 1		
ABCDEFGH80911 .SCM A05785.PCB	KU	PHILIPS TV TEST EQUIPMENT DK-2605 BRØNDBY	DAT. 93-10-11		A3L

V101 74HC574 — LD_1 → SOURCE_EN; DISCLP; SYPROG; BUPROG
L102 8.2UH, C103 100N, +5V
V102 74HC574 — LD_2
V106 74ACTQ821 — AGEN; R112–R120 392; NORMAL/BYPASS TO SH-8; EXTISOURCESEL, PROGSOURCESEL TO SH-7; TEXT_EN TO SH-6; SECAM; E1–E5 TO SH-5
V103 74HC574 — LD_3
V107 74HC574 — AGEN; FIRST; HALFLINE; INSRTTIM0; INSRTTIM1; IHPROG; IHEXT; 2HPROG; 2HEXT
V104 74HC574 — DATABUS FROM SHEET 1; LD_4
V105 74HC574 — LD_5
V115 22V10 — GENCLK, AGEN, HGEN6–HGEN10, MRES, NEWLINE → HGEN0–HGEN5, AGEN0, SEKCLK, CLK.CH, LOAD
V116 22V10 — AGEN, HGEN0–HGEN5, FIRST, HALFLINE, INSRTTIM0, INSRTTIM1 → HGEN6–HGEN10, TIMA, TIMB, TIMC, HGEN9, HGEN7
V117 22V10 — TIMA, TIMB, TIMC, SYPROG, BUPROG, IHPROG, IHEXT, 2HPROG, 2HEXT, SECAM
DISCLP, CLPKEY
TEXTBLANK FROM SH-6, R108 1K5, D101 BAT85
V121 74ACTQ821 — FIELD_U FROM SH-1, HINT_U FROM SH-1, FASTCLAMP, GENCLK
L101 8.2UH, C101 100N, +5V
R102–R107 392 / 1K5; FIELD, HINT, INS-SW1–3 TO SH-7; C104–C106 33P
R109–R111 392; CLAMP1 TO SH-7; CLAMP2, DACCLP TO SH-5
R121 392 SYNCGATE1
PP101–PP103, R104 1K5, C107 33P; SY-GATE TO SH-8
R101 100, C102 100P; TEXT-SW TO SH-6

V108 74LS161 — SEKCLK, LOAD; AS0–AS3
V109 74LS161 — AS4–AS7
V110 74LS161 — AS8–AS11
V111 74LS161 — AS12–AS15
V112 74LS161 — AS16–AS18
V113 27C4001 — AS0–AS18 → DS0–DS7
V114 27C4001 — AS0–AS18 → DS8–DS15

HGEN1–HGEN3
V119 74FCT377 — SEKCLK, GENCLK; DS0–DS7 → AP4–AP11
V128 74FCT377 — GENCLK; DS8–DS15 → AP12–AP19
PROM ADRESSBUS TO SHEET 3

XJ4 1 GENCLK
XJ4 2
XJ4 3 DACCLK (TO SH-4)
XJ4 4
XJ4 5 SOCCLK
XJ4 6
XJ4 7
XJ4 8 CLPKEY
XJ4 9 PALID
XJ4 10 F8RESET
XJ4 11
XJ4 12 AGEN
XJ4 13 NEWLINE
XJ4 14
XJ4 15
XJ4 16
TP512

FIRST USED IN: PM 5655 /U2
PCB REF.: 4008 117 0578

		GENERATOR BOARD	4008 109 8091	1	95-08-24
		GENERATOR CONTROL PM 5655 G U.2 M.B.		1	~~94-03-14~~
				1	~~94-08-25~~
CHECK:		NAME: SNJ/JML	8 SH SH 130 - 2	1	~~94-10-24~~
BCDEFGHA80911 .SCM A05785 .PCB	KU	PHILIPS TV TEST EQUIPMENT DK-2605 BRØNDBY	DAT. 93-10-11	A3L	

Y U V BUS

Y BUS
TO SH-4

DIGVIDEO BUS
TO SH-4

PROM ADRESS BUS
FROM SHEET 2

UNIT-SCL
FROM SH-1

UNIT-SDA
FROM SH-1

SOCCLK

F8RESET

PALID

FIRST USED IN: PM 5655 /U2
PCB REF.: 4008 117 0578

		GENERATOR BOARD	4008 109 8091	1	95-08-24
		FULL FIELD GENERATOR		1	~~94-03-14~~
		PM 5655 G U.2 M.B.		1	~~94-08-02~~
CHECK:		NAME: SNJ/JML	8 SH SH 130 - 3	1	~~94-08-25~~
CDEFGHAB80911 .SCM A85785 .PCB	KU	PHILIPS TV TEST EQUIPMENT DK-2605 BRØNDBY	DAT. 93-10-11		A3L

Y-DAC

+5V
L303 8.2UH
V301 TDC1012
C301 33U
DACCLK
Y BUS FROM SH-3
Y0 Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8 Y9 Y10 Y11
D12 LSB … D1 MSB
VCC CONV FT OUT+ OUT- AGND VREF+ VREF- COMP VEEA DGND VEED
R1 0R
* R303 0R
R301 24R3
R302 100R
R306 0R
C307 33U
R304 2K
C305 100N
R305 2K
V302 AD589
R307 10K
C337 100N
L301 8.2UH
L302 8.2UH
C302 33U
C303 33U
-5V-A

CHROMA-DAC

+5V
L315 8.2UH
V305 TDC1012
C340 33U
DACCLK
DIGVIDEO BUS FROM SH-3
DIGVIDEO0 … DIGVIDEO11
* R331 0R
PP302
R332 24R3
R333 100R
CHROMA GAIN ADJ.
R337 500
C341 33U
C342 100N
R334 2K21
R336 2K21
V306 AD589
R338 10K
C343 100N
L316 8.2UH
L317 8.2UH
C344 33U
C345 33U
-5V-A

LOW-PASS FILTER

PP301
C320 120P
C324 120P
C310 120P
C313 100P
C318 22P
C322 100P
C326 82P
L304 05448
L305 08658
L309 08868
L310 08868
L311 08868
L308 08908
L307 08908
C316 150P
C317 100P
C312 1N2
C311 47P
C314 390P
C315 2N7
C321 680P
C319 33P
C325 560P
C323 100P
C338 120P
C327 82P
R389 5IR1
R310 100

SIGNAL CLAMP

DACCLP
test switch
Q1 BC557B
+10V
R322 4K75
D301 BAW62
Q304 BF450
R329 1K82
Q302 BC264B
Q303 PH2369
C334 2P2
R323 10K
C320 100N
R325 1K5
R324 3K32
R319 4K75
-10V
V304 CA3080
R321 10K
R328 1K
R327 20K OFFSET ADJ.
R326 100
C333 220P
L313 68UH
C332 22P
R320 1K
R317 75
R316 75
R315 10
SYBU
REF_VIDEO
TESTSIGNAL
V303 AD811
R308 200
GAIN ADJUST
R312 825
R311 200
R313 1K
C335 2P-18P
C329 10P
C336 4P7
L312 06430
C330 120P
R314 357
C331 27P
SIN X/X ADJ.

C438 100N
C441 33U
C448 33U
-5V-A
C[350-378] 100N
C381 68U
C382 68U
C[150-167] 100N
C[414-415] 100N
C412 100N
C[388-397] 100N
C[398-408] 100N
C[416-419] 100N
C385 15U
C386 15U
C387 15U
C409 15U
C410 15U
C411 15U
TP1 TP2 TP3 TP7
TP4 TP5 TP6

FIRST USED IN: PM 5655
PCB REF.: 4008 117 0578

		GENERATOR BOARD DAC + FILTER	4008 109 8091	1	95-08-22
		PM 5655 G U.2 M.B.		1	~~94-03-14~~
				1	~~94-08-25~~
CHECK:		NAME: NH/JML	8 SH SH 130 - 4	1	~~94-09-26~~
DEFGHABC88911.SCM A85785.PCB	KU	PHILIPS TV TEST EQUIPMENT DK-2605 BRØNDBY	DAT. 93-10-11		A3L

EXT1A CX201 PP201 L205 07330 L206 07330 PP202 CX202 EXT1B KEY_IN R208 75 0.1% PP203 R201 75 0.1% C201 68U R202 110K R203 82K5 R204 511 Q201 BF450 Q202 BF199 C202 2P2 R206 1K82 D202 BAW62 R205 1K5 R218 24R3 EXT1-P TO SH-7 R207 75 * V203 AMP7 +5V* ASYNKRON DET VIDEO IN SYNC OUT REF_SYNC IN OK REF_DET PRE_IN DET PRE REF_DET PRE_OUT -10V GND REF_SYNC EXT1_OK OPTION_PRESENT EXT1_DET_PRESENT V201-A DG611DJ D1 S1 IN1 E1 FROM SH-2

EXT1B	EXT1A	
LOOPED	THROUGH	☐
KEY	FILL	☐

EXT 2 CX203 C211 68U R212 110K R213 82K5 R214 511 R211 75 0.1% Q211 BF450 Q212 BF199 C212 2P2 R216 1K82 D213 BAW62 R215 1K5 R217 75 * V205 AMP7 EXT2_OK EXT2_DET_PRESENT V201-B DG611DJ D2 S2 IN2 E2 FROM SH-2

EXT 3 CX204 C221 68U R222 110K R223 82K5 R224 511 R221 75 0.1% Q221 BF450 Q222 BF199 C223 2P2 R226 1K82 D222 BAW62 R225 1K5 R227 75 * V206 AMP7 EXT3_OK EXT3_DET_PRESENT V201-C DG611DJ D3 S3 IN3 E3 FROM SH-2

EXT 4 CX205 C231 68U R232 110K R233 82K5 R234 511 R231 75 0.1% Q231 BF450 Q232 BF199 C233 2P2 R236 1K82 D232 BAW62 R235 1K5 R238 24R3 EXT4-P R237 75 * V207 AMP7 EXT4_OK EXT4_DET_PRESENT V201-D DG611DJ D4 S4 IN4 E4 FROM SH-2

TEXT TO SH-6 V202-A DG611DJ D1 S1 IN1 E5 FROM SH-2 +5V L202 2.7UH C203 100N * V208 AMP7 REF_VIDEO FROM SH-4 REF_SYNC OPTION_PRESENT

V209 PCF8574P IIC ADDR. 4A UNIT-SCL FROM SH-1 UNIT-SDA FROM SH-1 R209 100 R210 100 SCL SDA A0 A1 A2 P0 P1 P2 P3 P4 P5 P6 P7 EXT1_OK EXT2_OK EXT3_OK EXT4_OK EXT1_DET_PRESENT EXT2_DET_PRESENT EXT3_DET_PRESENT EXT4_DET_PRESENT

V202-C DG611DJ V202-B DG611DJ V202-D DG611DJ

KEY BUFFER

KEY_IN C201 68U R282 110K R284 1K R283 82K5 Q281 BF450 C283 2P2 C282 2P2 R286 1K82 D282 BAW62 R285 1K5 VIDEO-KEY TO SH-7

DACCLP FROM SH-2 R273 4K75 TEST SWITCH PP204 Q264 BC547B OFFSET ERR

FEEDBACK CLAMP

D241 BAW62 R272 1K82 Q263 BF450 Q262 PH2369 Q261 BC264B R264 10K C263 2N2 V242 CA3080 R269 1K R270 100 OFFSET ADJ. R268 20K R274 10K C262 220P

GAIN ADJ. R267 500 R265 1K5 R277 20K R266 681 R276 24R3 R271 3K92 C260 27P R262 750R V241 AD811 L261 68UH C261 22P R263 1K

FORWARD LEVEL ADJ. R281 20K R275 357 D281 BB809

EXT TO SH-6

FORWARD CLAMP

FORWARD GAIN ADJ. R248 100 R247 182 R249 267 V204-A LF353N V204-B LF353N R246 1K C241 27P L201 68UH C242 220P Q243 BC547B C244 100N BULK Q241 BSD214 R250 750 OFFSET ERR R245 1K

CLAMP2 FROM SH-2 R257 4K75 C243 330P R256 10K Q242 BC557B R255 5K11

MA1 MA2 MA3 MA4 C204 100N

* = OPTIONAL

FIRST USED IN: PM5655
PCB REF.: 4008 117 0578

		EXT/VIDEO KEY INPUT	4008 109 8091	1	95-08-24
		PM 5655 G U.2 M.B.		1	~~94-08-26~~
				1	~~94-08-25~~
CHECK:		NAME: NH/JML/SB	8 SH SH 130 - 5	1	~~94-03-14~~
EFGHABCD80911.SCM A05785.PCB	KU	PHILIPS TV TEST EQUIPMENT DK-2605 BRØNDBY	DAT. 93-10-11		A3L

SOURCE CODE
CX601

TEXT GENERATOR

L601 05430
C601 27P
C602 27P
C603 27P
C604 27P
X601 5.000MHZ
V601 PCA8510
VCC 24
XTAL1 10
XTAL2 11
LCOSC1 14
LCOSC2 13
RESETN 5
TEST1 3
TEST2 4
VSYNC 6
HSYNC 7
P00/R1 17
P01/G1 19
P02/B1 21
P03/FB1 23
SDA 8
SCK 9
GND 12
(IVOW3) 1
ACM/P04 2
CKOUT/P05 15
R(IVOW0) 16
G(IVOW1) 18
B(IVOW2) 20
FB(IVOC) 22

RESET FROM SH-1
FIELD FROM SH-2
H_TEXT FROM SH-1
UNIT-SDA FROM SH-1
UNIT-SCL FROM SH-1
TEXT_EN FROM SH-2

+5V
Q601 2N3208
R601 100
TEXTBLANK TO SH-2
R602 4K75
D603 BAT85
Q602 BC557B
R604 1K
R630 357
C605 4N7
C606 6U8
C609 18P
L602 07070
L603 05430
R603 825
C607 22P
C608 180P
C610 12P
R605 825
R606 1K
R607 1K
R608 825
R609 825
SOURCE CODE SELECT
OFF ON
PP601
V602 AD811
+10V
-10V
TEXT TO SH-5

EXT / BLACK LEVEL INSERTION SWITCH (text blanking)

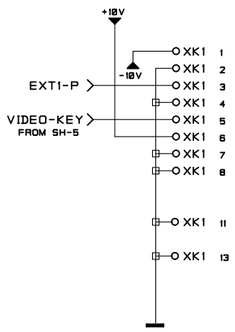
TESTSIGNAL FROM SH-4
BULK
C611 100N
R610 20K
R611 20K
Q604 BSD214
EXT FROM SH-5
Q603 BSD214
R619 100K
R621 100
D602 BB809
R620 1K3
V603 AD811
C615 100N
C616 100N
C612 4N7
R617 3K01
R618 3K01
C613 4N7
C614 4N7
C618 4P7
C617 4P7
Q605 PH2369
Q606 PH2369
R612 20K
R613 6K81
R614 562
R615 6K81
R616 20K
V604-D 74LS86
V604-C 74LS86
V604-A 74LS86
V604-B 74LS86
TEXT-SW FROM SH-2

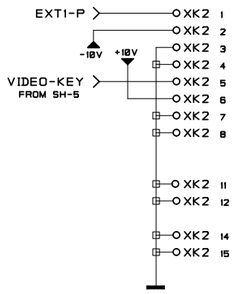
OPTION:
VIDEO KEYER.
XK1 9
XK1 10
XK2 9
XK2 10
FF-VIDEO TO SH-7.8

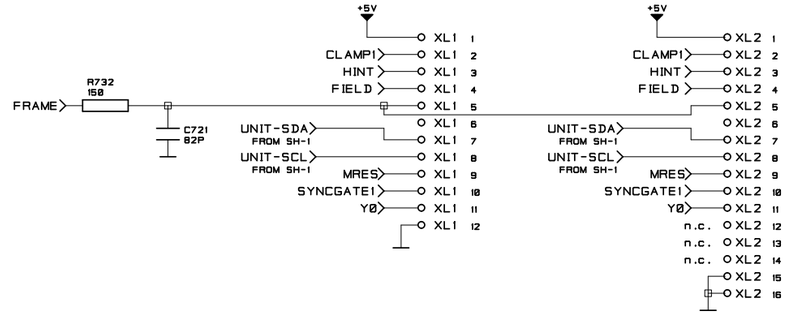
FIRST USED IN: PM5655
PCB REF.: 4008 109 0578

	EXT/INT/TEXT INSERTION	4008 109 8091	1	95-08-24
	PM 5655 G U.2 M.B.		1	~~94-03-14~~
			1	~~94-06-22~~
CHECK:	NAME: SB/PC/NHA/JML/SB/JML	8 SH SH 130 - 6	1	~~94-08-25~~
FGHABCDE88911.SCM A85785.PCB	KU PHILIPS TV TEST EQUIPMENT DK-2605 BRØNDBY	DAT. 93-10-11		A3L

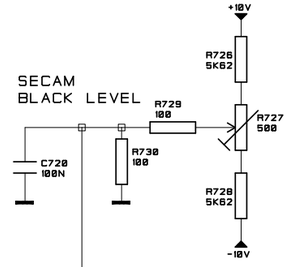
OPTION: VIDEO PROCESSOR / KEYER

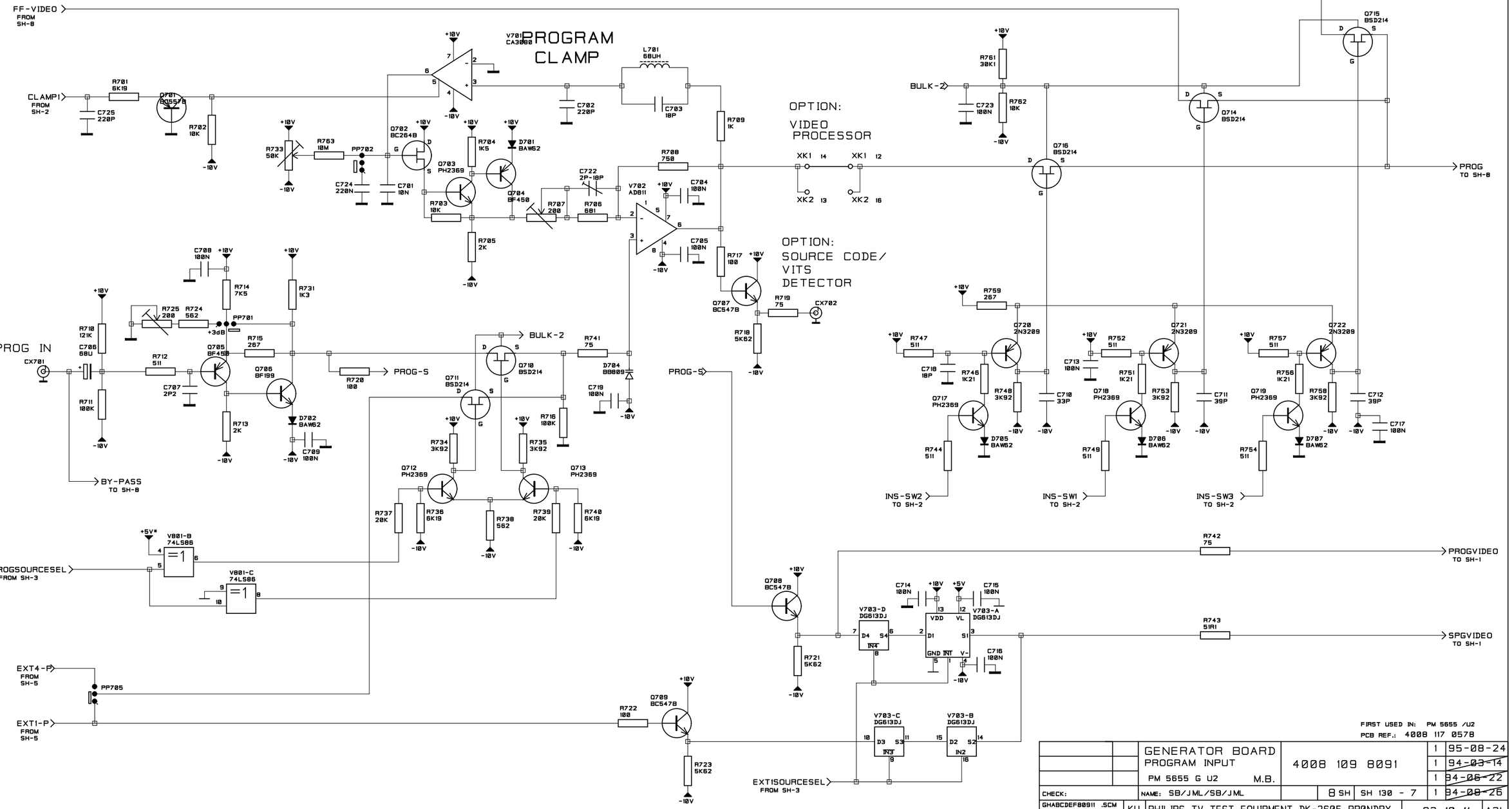






PROGRAM INSERTION SWITCH





FIRST USED IN: PM 5655 /U2
PCB REF.: 4008 117 0578

	GENERATOR BOARD PROGRAM INPUT	4008 109 8091	1	95-08-24
	PM 5655 G U2 M.B.		1	~~94-03-14~~
			1	~~94-06-22~~
CHECK:	NAME: SB/JML/SB/JML	8 SH SH 130 - 7	1	~~94-08-26~~
GHABCDEF80911 .SCM A05785 .PCB	KU PHILIPS TV TEST EQUIPMENT DK-2605 BRØNDBY	DAT. 93-10-11		A3L

SYNC/
BLACK BURST
AMPLIFIER

SYNC OUT

TEST SIGNAL
AMPLIFIER

TESTSIGNAL

BY-PASS RELAY
DRIVE

MONITOR
AMPLIFIER

MONITOR OUT
(FRONTPLATE)

MONITOR OUT

PROGRAM OUTPUT
AMPLIFIER

TEST OUT

PROG OUT

DELAY COMP.

BY-PASS RELAY

		GENERATOR BOARD	4008 109 8091		1	95-08-24
		PROGRAM OUTPUT			1	~~94-03-14~~
		PM 5655 G U.2 M.B.			1	~~94-06-22~~
CHECK:		NAME: SB/JML	8 SH	SH 130 - 8	1	~~94-08-25~~
HABCDEFG80911 .SCM A05785 .PCB	KU	PHILIPS TV TEST EQUIPMENT DK-2605 BRØNDBY		DAT. 93-10-11		A3L

FIRST USED IN: PM5655 U2
PCB REF.: 4008 117 0578