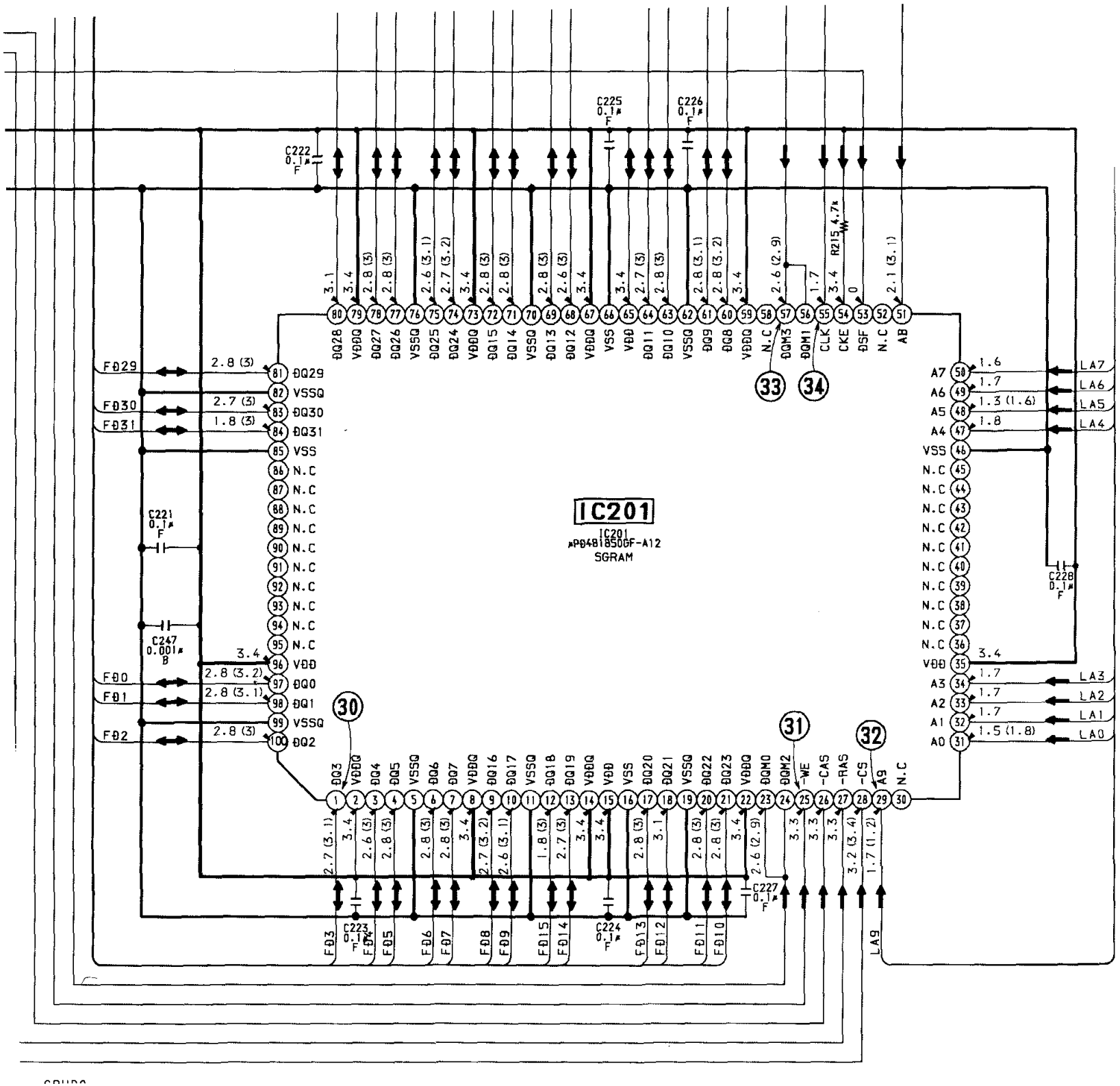
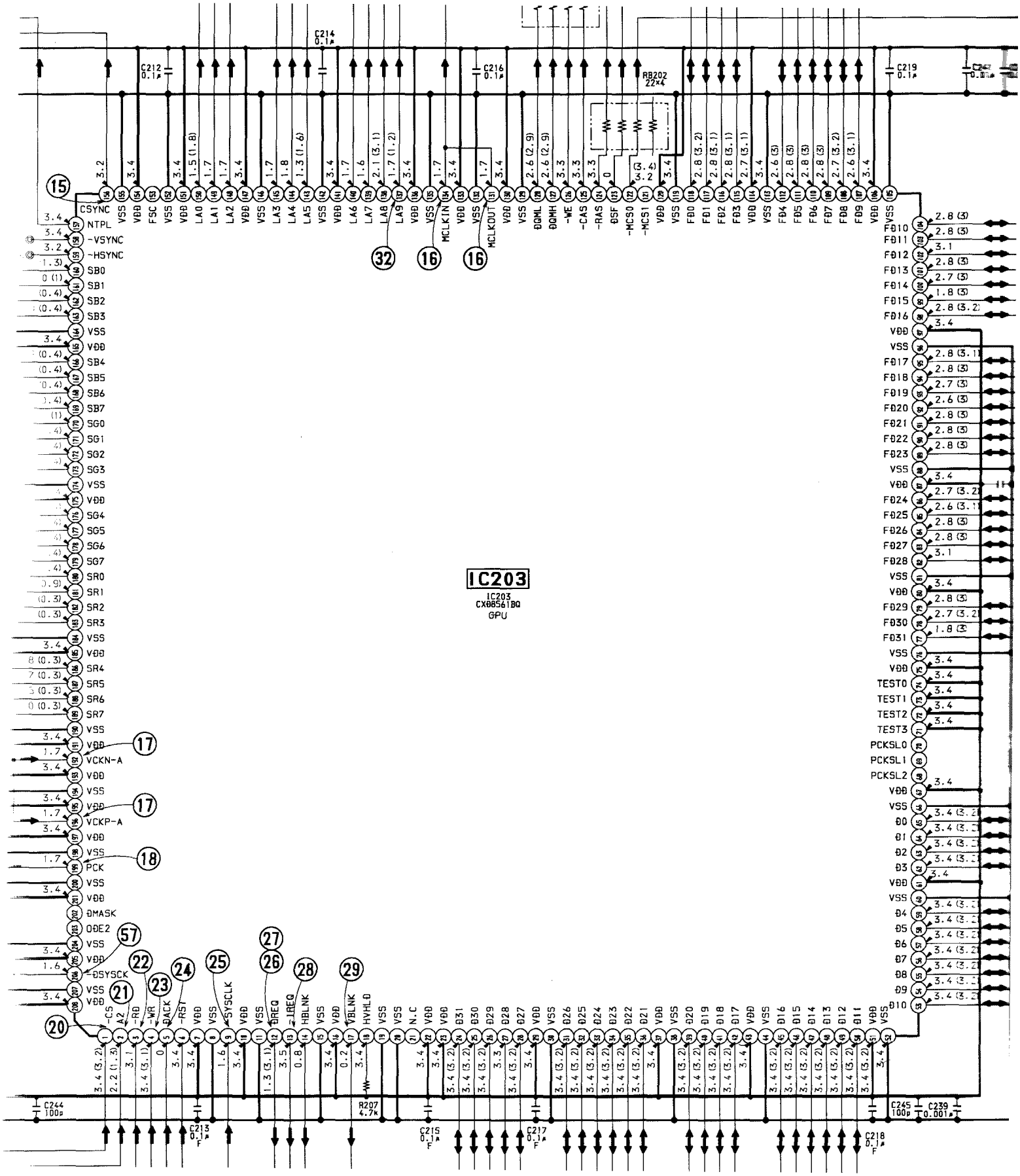
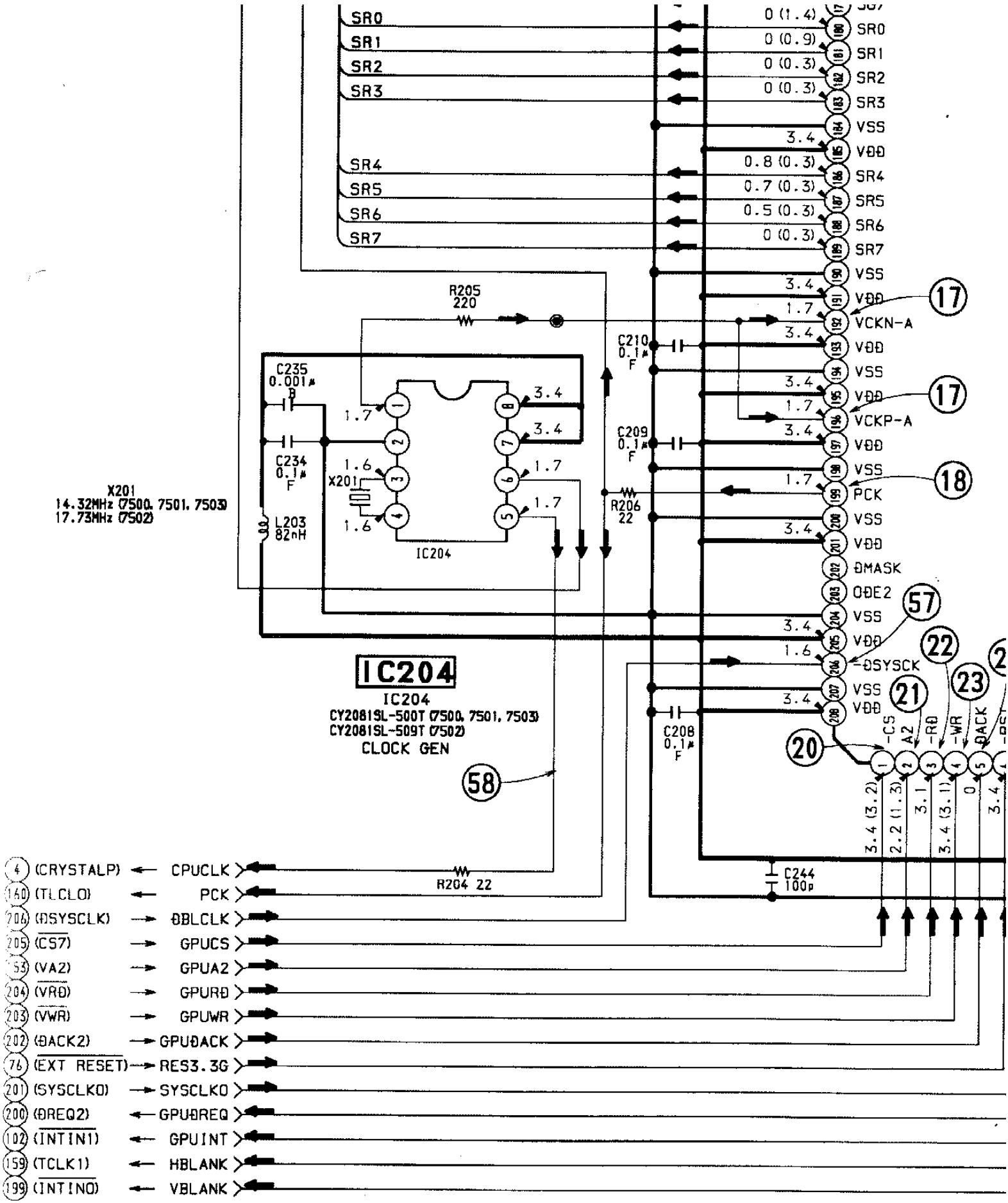

IC201
IC201
μPD4818500GF-A12
SGRAM
C222 0.1μF
C225 0.1μF
C226 0.1μF
C221 0.1μF
C247 0.001μB
C228 0.1μF
C227 0.1μF
C223 0.1μF
C224 0.1μF
R215 4.7kW
33
34
30
31
32
FD29
FD30
FD31
FD0
FD1
FD2
FD3
FD4
FD5
FD6
FD7
FD8
FD9
FD15
FD14
FD13
FD12
FD11
FD10
LA7
LA6
LA5
LA4
LA3
LA2
LA1
LA0
LA9
DQ28
VDDQ
DQ27
DQ26
VSSQ
DQ25
DQ24
VDDQ
DQ15
DQ14
VSSQ
DQ13
DQ12
VDDQ
VSS
VDD
DQ11
DQ10
VSSQ
DQ9
DQ8
VDDQ
N.C
DQM3
DQM1
CLK
CKE
DSF
N.C
AB
A7
A6
A5
A4
VSS
N.C
VDD
A3
A2
A1
A0
DQ3
DQ4
DQ5
DQ6
DQ7
DQ16
DQ17
DQ18
DQ19
DQ20
DQ21
DQ22
DQ23
DQM0
DQM2
-WE
-CAS
-RAS
-CS
A9


IC203
IC203
CX88561BQ
GPU
C214 0.1μ
C212 0.1μ
C216 0.1μ
C219 0.1μ
RB202 22×4
CSYNC
NTPL
-VSYNC
-HSYNC
SB0
SB1
SB2
SB3
SB4
SB5
SB6
SB7
SG0
SG1
SG2
SG3
SG4
SG5
SG6
SG7
SR0
SR1
SR2
SR3
SR4
SR5
SR6
SR7
VCKN-A
VCKP-A
PCK
ØMASK
ØDE2
ØSYSCK
-CS
A2
-RD
-WR
ØACK
-RST
SYSCLK
ØREQ
-IREQ
HBLNK
VBLNK
HVHLD
N.C
MCLKIN
MCLKOUT
ØDMH
ØDML
-WE
-CAS
-RAS
ØSF
-MCS0
-MCS1
TEST0
TEST1
TEST2
TEST3
PCKSL0
PCKSL1
PCKSL2
R207 4.7k
C244 100p
C245 100p
C239 0.001μ
C213 0.1μF
C215 0.1μF
C217 0.1μF
C218 0.1μF

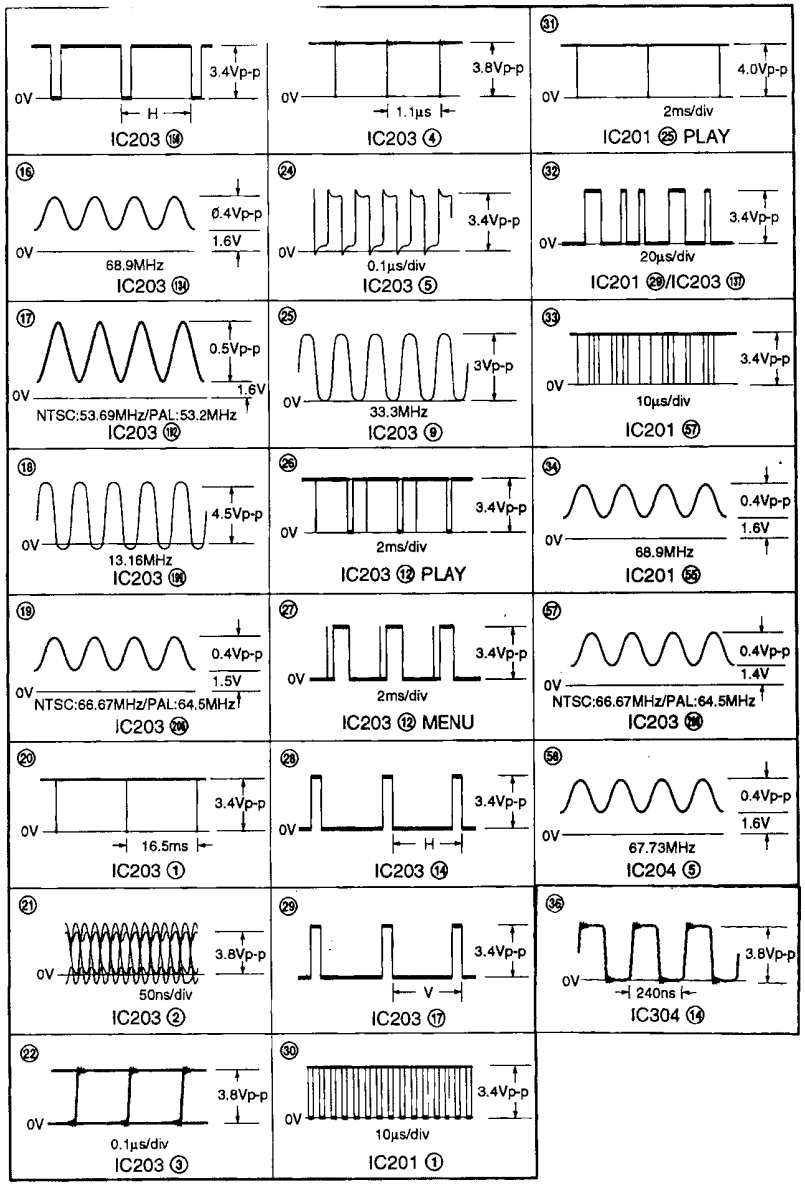

SR0
SR1
SR2
SR3
SR4
SR5
SR6
SR7
VSS
VDD
VCKN-A
VCKP-A
PCK
ΘMASK
ΘDE2
-ΘSYSCK
-CS
A2
-RD
-WR
ΘACK
R205 220
R206 22
R204 22
C210 0.1μF
C209 0.1μF
C208 0.1μF
C244 100p
C235 0.001μB
C234 0.1μF
L203 82nH
X201
14.32MHz (7500, 7501, 7503)
17.73MHz (7502)
IC204
IC204
CY2081SL-500T (7500, 7501, 7503)
CY2081SL-509T (7502)
CLOCK GEN
(CRYSTALP) ← CPUCLK
(TLCLO) ← PCK
(ΘSYSCLK) → ΘBLCLK
(CS7) → GPUCS
(VA2) → GPUA2
(VRΘ) → GPURΘ
(VWR) → GPUWR
(ΘACK2) → GPUΘACK
(EXT RESET) → RES3.3G
(SYSCLKO) → SYSCLKO
(ΘREQ2) ← GPUΘREQ
(INTIN1) ← GPUINT
(TCLK1) ← HBLANK
(INTINO) ← VBLANK

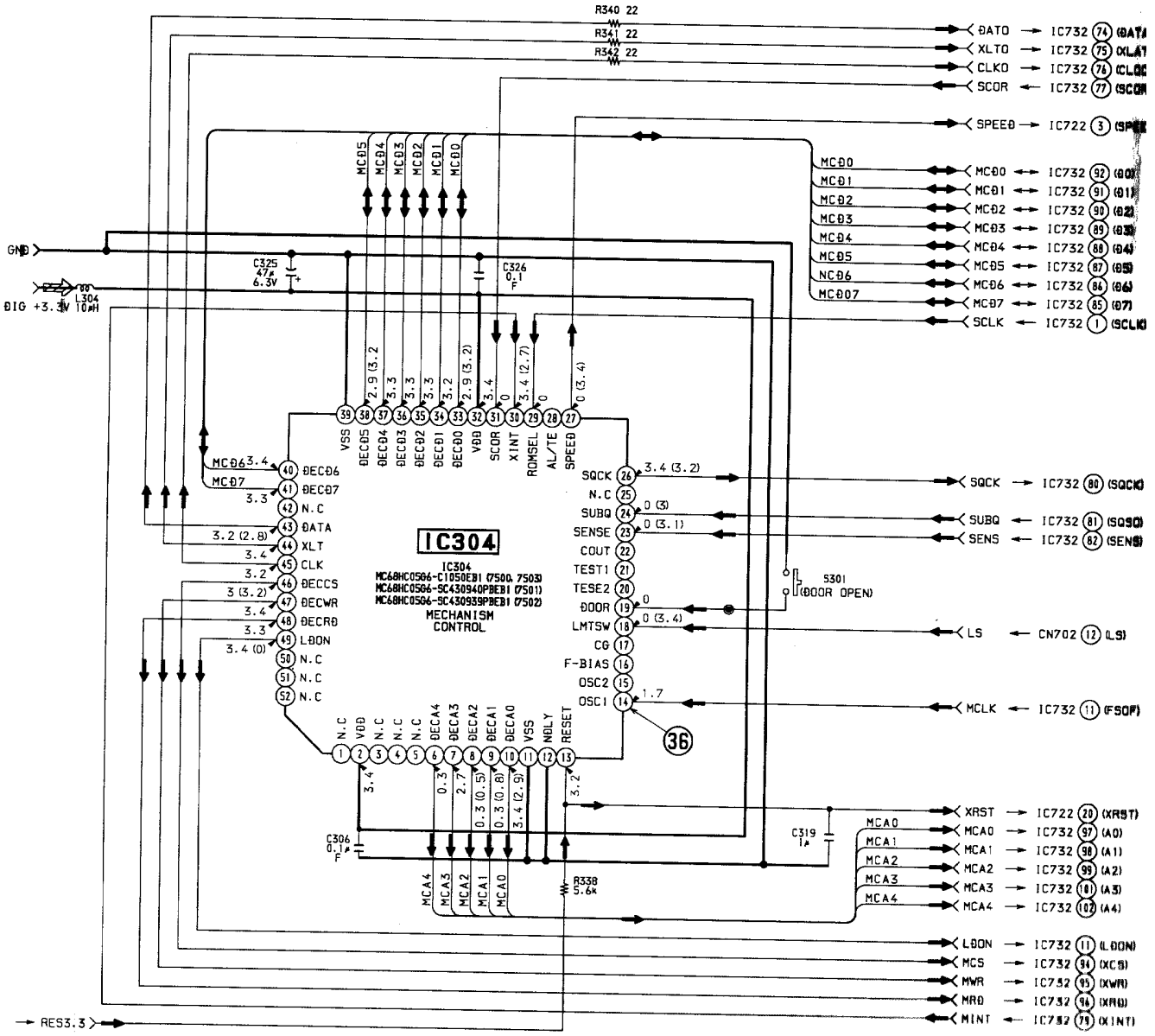
6-5. SCHEMATIC DIAGRAM (PU-22 (-11/-12/-21/-22/-32) BOARD (3/5))

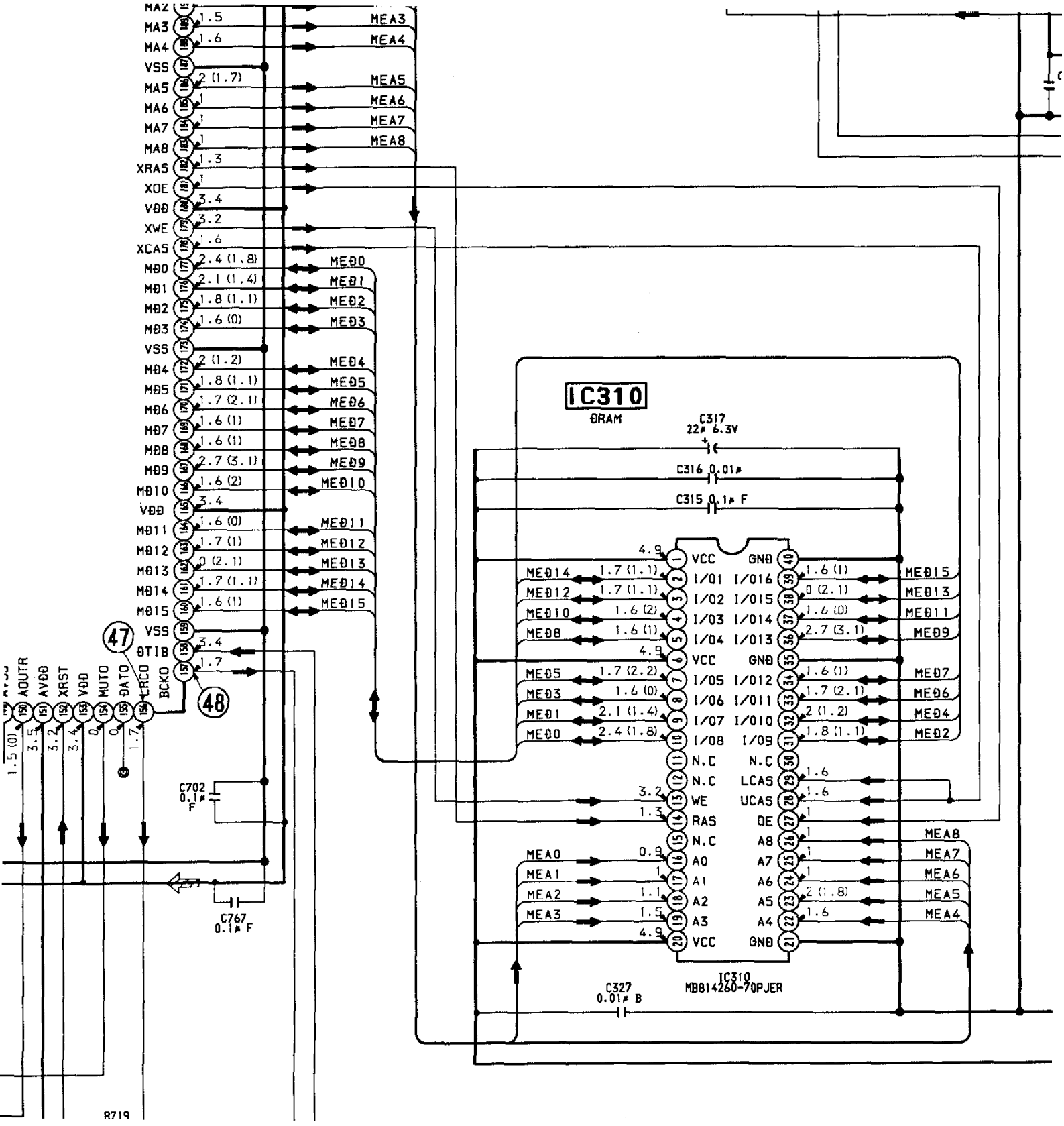
1 2 3 4 5 6 7 8 9

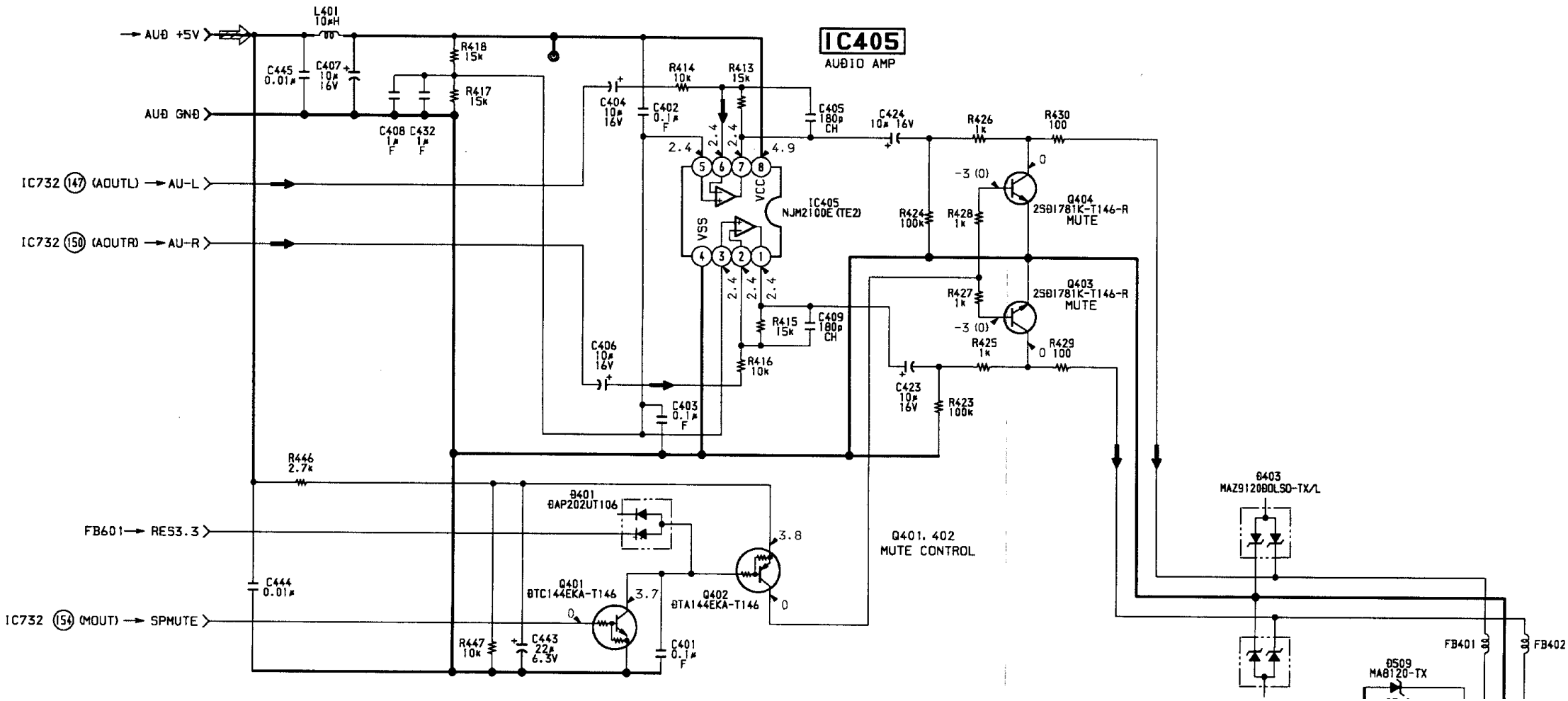
PU-22 BOARD (3/5)

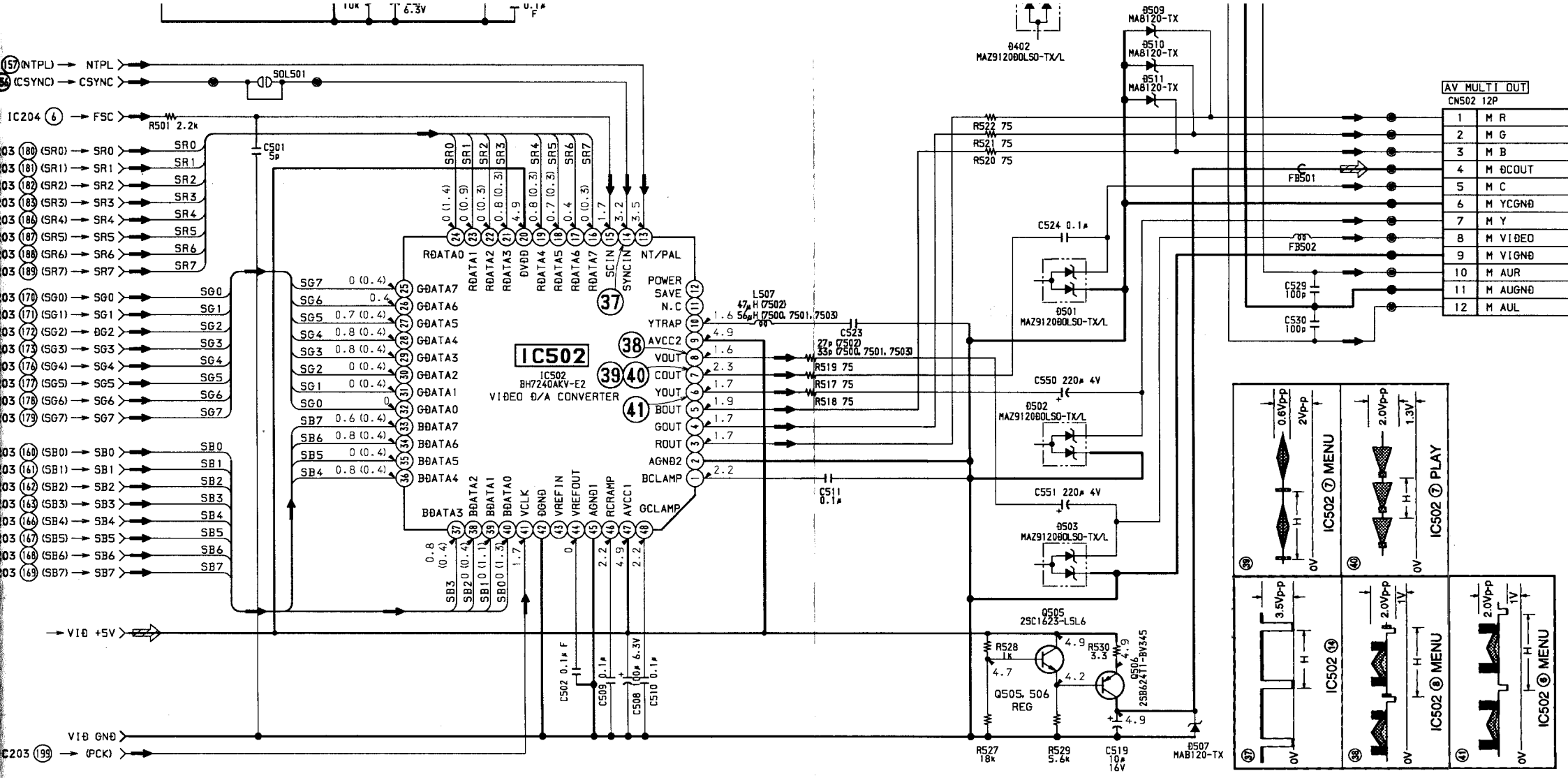
PU-22 B(

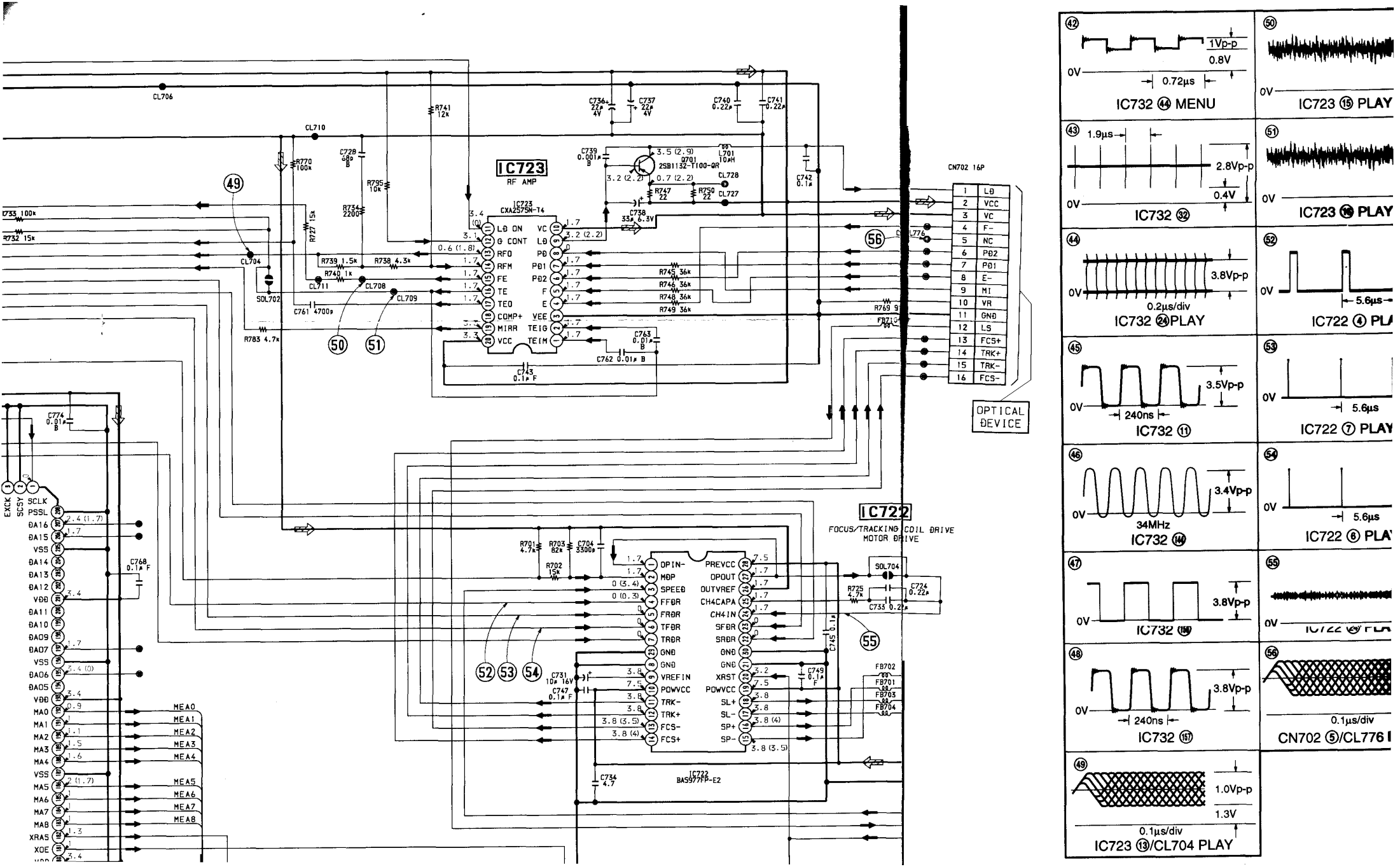




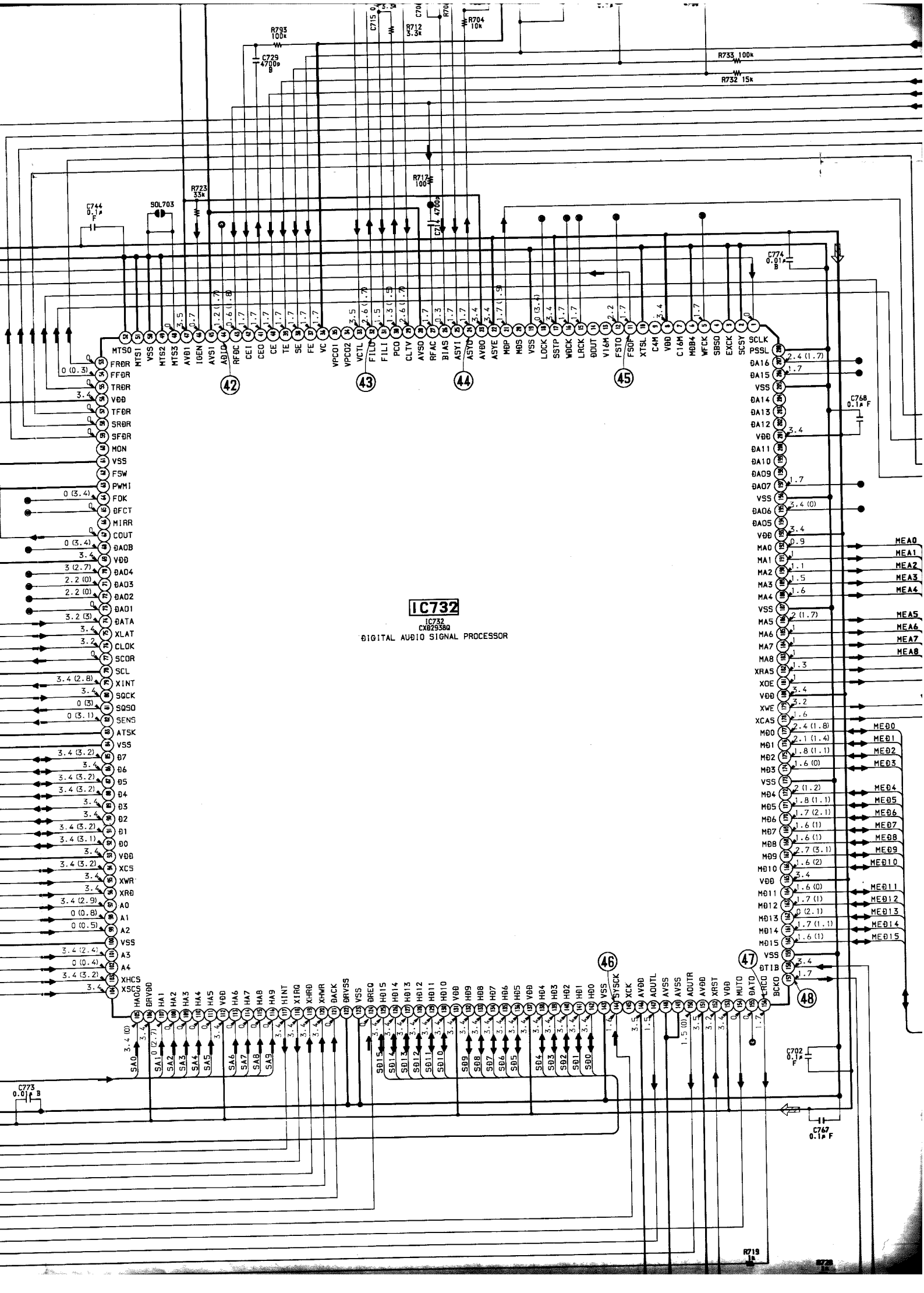

IC310
ØRAM
C317
22μ 6.3V
C316 0.01μ
C315 0.1μ F
MA3
MA4
VSS
MA5
MA6
MA7
MA8
XRAS
XOE
VØØ
XWE
XCAS
MØ0
MØ1
MØ2
MØ3
VSS
MØ4
MØ5
MØ6
MØ7
MØB
MØ9
MØ10
VØØ
MØ11
MØ12
MØ13
MØ14
MØ15
VSS
ØTIB
MEA3
MEA4
MEA5
MEA6
MEA7
MEA8
MEØ0
MEØ1
MEØ2
MEØ3
MEØ4
MEØ5
MEØ6
MEØ7
MEØ8
MEØ9
MEØ10
MEØ11
MEØ12
MEØ13
MEØ14
MEØ15
VCC
I/01
I/02
I/03
I/04
VCC
I/05
I/06
I/07
I/08
N.C
N.C
WE
RAS
N.C
A0
A1
A2
A3
VCC
GNØ
I/016
I/015
I/014
I/013
GNØ
I/012
I/011
I/010
I/09
N.C
LCAS
UCAS
ØE
A8
A7
A6
A5
A4
GNØ
MEA0
MEA1
MEA2
MEA3
MEA8
MEA7
MEA6
MEA5
MEA4
C327
0.01μ B
IC310
MB814260-70PJER
47
48
ØTIB
BCKO
LRCO
DATO
MUTO
VØØ
XRST
AVØØ
AOUTR
C702
0.1μ F
C767
0.1μ F
R719

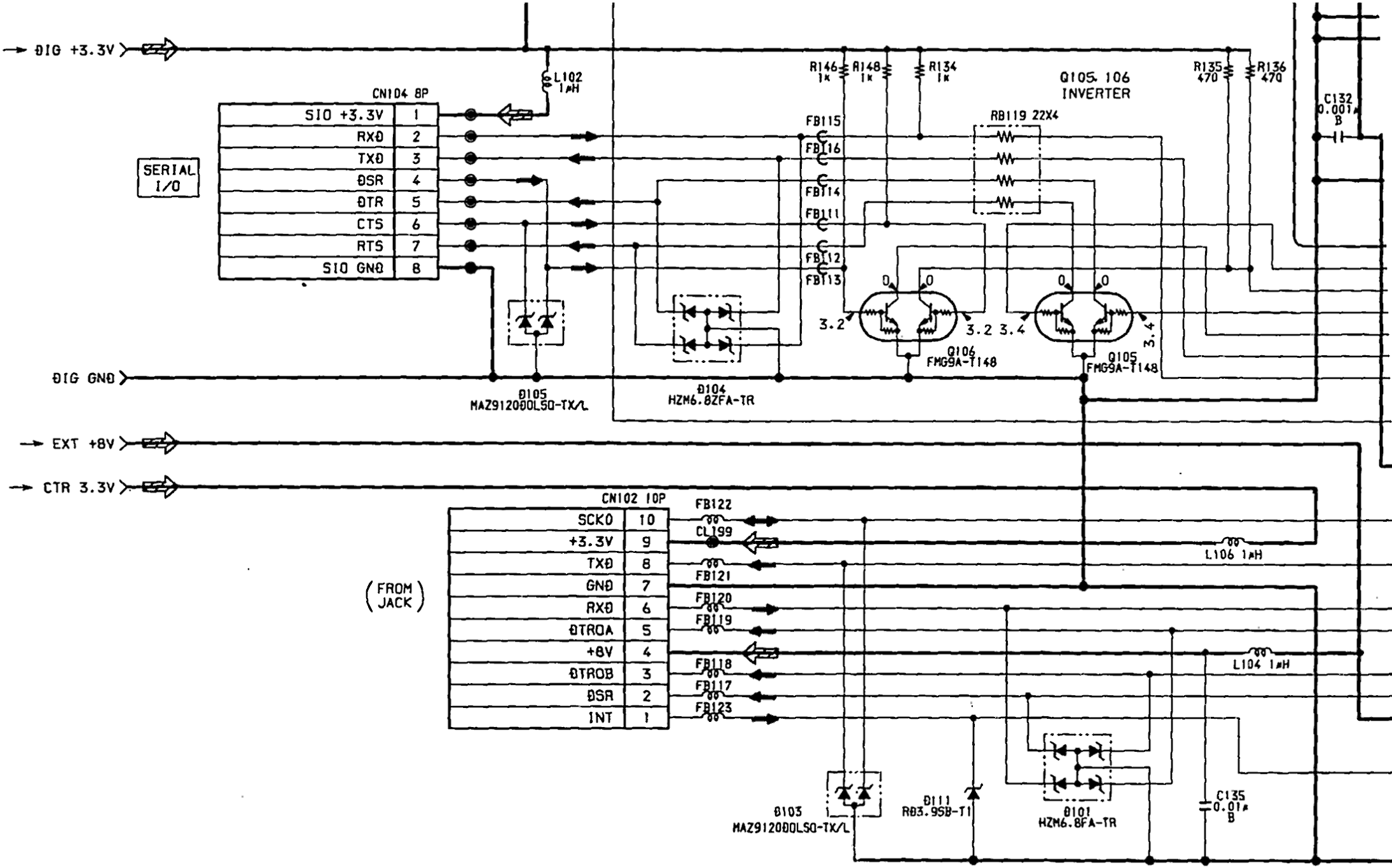

IC405
AUDIO AMP
AUD +5V
AUD GND
L401
10μH
C445
0.01μ
C407
10μ
16V
C408
1μ
F
C432
1μ
F
R418
15k
R417
15k
C404
10μ
16V
C402
0.1μ
F
R414
10k
R413
15k
C405
180p
CH
C424
10μ 16V
R426
1k
R430
100
IC732 (147) (AOUTL) → AU-L
IC732 (150) (AOUTR) → AU-R
2.4
2.4
2.4
4.9
VCC
VSS
IC405
NJM2100E (TE2)
Q404
2SD1781K-T146-R
MUTE
R424
100k
R428
1k
-3 (0)
0
Q403
2SD1781K-T146-R
MUTE
R427
1k
-3 (0)
R425
1k
R429
0 100
R415
15k
C409
180p
CH
R416
10k
C406
10μ
16V
C403
0.1μ
F
C423
10μ
16V
R423
100k
R446
2.7k
FB601 → RES3.3
D401
DAP202UT106
3.8
Q401, 402
MUTE CONTROL
D403
MAZ9120BOLSO-TX/L
C444
0.01μ
Q401
DTC144EKA-T146
3.7
0
Q402
DTA144EKA-T146
0
IC732 (154) (MOUT) → SPMUTE
R447
10k
C443
22μ
6.3V
C401
0.1μ
F
FB401
FB402
D509
MA8120-TX


IC502
IC502
BH7240AKV-E2
VIDEO D/A CONVERTER
NTPL
CSYNC
FSC
SR0
SR1
SR2
SR3
SR4
SR5
SR6
SR7
SG0
SG1
SG2
SG3
SG4
SG5
SG6
SG7
SB0
SB1
SB2
SB3
SB4
SB5
SB6
SB7
PCK
VID +5V
VID GND
NT/PAL
POWER SAVE
N.C
YTRAP
AVCC2
VOUT
COUT
YOUT
BOUT
GOUT
ROUT
AGND2
BCLAMP
GCLAMP
AVCC1
RCRAMP
AGND1
VREFOUT
VREFIN
DGND
VCLK
SYNCIN
SCIN
DVDD
L507
47μH (7502)
56μH (7500, 7501, 7503)
C523
27p (7502)
33p (7500, 7501, 7503)
R519 75
R517 75
R518 75
C511 0.1μ
C524 0.1μ
C550 220μ 4V
C551 220μ 4V
D501 MAZ91200LS0-TX/L
D502 MAZ91200LS0-TX/L
D503 MAZ91200LS0-TX/L
D402 MAZ91200LS0-TX/L
D509 MA8120-TX
D510 MA8120-TX
D511 MA8120-TX
D507 MA8120-TX
R522 75
R521 75
R520 75
FB501
FB502
C529 100p
C530 100p
AV MULTI OUT
CN502 12P
1 M R
2 M G
3 M B
4 M DCOUT
5 M C
6 M YCGND
7 M Y
8 M VIDEO
9 M VIGND
10 M AUR
11 M AUGND
12 M AUL
Q505 2SC1623-L5L6
Q505, 506 REG
Q506 2SB624T1-BV345
R528 1K
R530 3.3
R527 18k
R529 5.6k
C519 10μ 16V
C502 0.1μ F
C509 0.1μ
C508 10μ 6.3V
C510 0.1μ
SOL501
R501 2.2k
C501 5p
IC502 ⑦ MENU
IC502 ⑦ PLAY
IC502 ⑭
IC502 ⑧ MENU
IC502 ⑥ MENU
0.6Vp-p
2Vp-p
2.0Vp-p
1.3V
3.5Vp-p
1V


IC723
RF AMP
IC723 CXA2575N-T4
LØ ON
G CONT
RFO
RFM
FE
TE
TEO
COMP+
MIRR
VCC
VC
LØ
PØ
PØ1
PØ2
F
E
VEE
TEIM
CN702 16P
LØ
VCC
VC
F-
NC
PØ2
PØ1
E-
MI
VR
GNØ
LS
FCS+
TRK+
TRK-
FCS-
OPTICAL ØEVICE
IC722
FOCUS/TRACKING COIL ØRIVE
MOTOR ØRIVE
OPIN-
MØP
SPEEØ
FFØR
FRØR
TFØR
TRØR
GNØ
VREFIN
POWVCC
TRK-
TRK+
FCS-
FCS+
PREVCC
OPOUT
OUTVREF
CH4CAPA
CH4IN
SFØR
SRØR
XRST
SL+
SL-
SP+
SP-
IC722
BA5977FP-E2
SCLK
PSSL
ØA16
ØA15
VSS
ØA14
ØA13
ØA12
VØØ
ØA11
ØA10
ØAØ9
ØAØ7
VSS
ØAØ6
ØAØ5
VØØ
MA0
MA1
MA2
MA3
MA4
VSS
MA5
MA6
MA7
MA8
XRA5
XOE
MEA0
MEA1
MEA2
MEA3
MEA4
MEA5
MEA6
MEA7
MEA8

42
1Vp-p
0.8V
0V
0.72µs
IC732 44 MENU
50
0V
IC723 15 PLAY
43
1.9µs
2.8Vp-p
0.4V
0V
IC732 32
51
0V
IC723 16 PLAY
44
3.8Vp-p
0V
0.2µs/div
IC732 24 PLAY
52
0V
5.6µs
IC722 4 PLA
45
3.5Vp-p
0V
240ns
IC732 11
53
0V
5.6µs
IC722 7 PLAY
46
3.4Vp-p
0V
34MHz
IC732 14
54
0V
5.6µs
IC722 6 PLA
47
3.8Vp-p
0V
IC732 15
55
0V
48
3.8Vp-p
0V
240ns
IC732 17
56
0.1µs/div
CN702 5/CL776
49
1.0Vp-p
1.3V
0.1µs/div
IC723 13/CL704 PLAY


IC732
IC732
CXØ2938Q
ØIGITAL AUØIO SIGNAL PROCESSOR
R793 100k
C729 4700p B
R712 3.3k
R704 10k
R733 100k
R732 15k
R723 33k
R717 100
C744 0.1µ F
SOL703
C774 0.01µ B
C768 0.1µ F
C773 0.01µ B
C702 0.1µ F
C767 0.1µ F
R719 1k
MTSO
MTSI
VSS
MTS2
MTS3
AVØI
IGEN
AVSI
ADIO
RFØC
CEI
CEO
CE
TE
SE
FE
VC
VPCOI
VPCO2
VCTL
FILØ
FILI
PCO
CLTV
AVSO
RFAC
BIAS
ASYI
ASYO
AVØO
ASYE
MØP
MØS
VSS
LOCK
SSTP
WØCK
LRCK
ØOUT
VI6M
FSTO
FSOP
XTSL
C4M
VDØ
C16M
MØB4
WFCK
SBSO
EXCK
SCSY
SCLK
PSSL
ØA16
ØA15
VSS
ØA14
ØA13
ØA12
VDØ
ØA11
ØA10
ØA09
ØA07
VSS
ØA06
ØA05
VDØ
MA0
MA1
MA2
MA3
MA4
VSS
MA5
MA6
MA7
MA8
XRAS
XOE
VDØ
XWE
XCAS
MØØ
MØ1
MØ2
MØ3
VSS
MØ4
MØ5
MØ6
MØ7
MØ8
MØ9
MØ10
VDØ
MØ11
MØ12
MØ13
MØ14
MØ15
VSS
ØTIB
BCKO
FRØR
FFØR
TRØR
VDØ
TFØR
SRØR
SFØR
MON
VSS
FSW
PWMI
FOK
ØFCT
MIRR
COUT
ØAOB
VDØ
ØAO4
ØAO3
ØAO2
ØAO1
ØATA
XLAT
CLOK
SCOR
SCL
XINT
SQCK
SQSO
SENS
ATSK
VSS
Ø7
Ø6
Ø5
Ø4
Ø3
Ø2
Ø1
Ø0
VDØ
XCS
XWR
XRØ
A0
A1
A2
VSS
A3
A4
XHCS
XSCL
HACØ
ØRVDØ
HA1
HA2
HA3
HA4
HA5
VDØ
HA6
HA7
HA8
HA9
HINT
XIRQ
XHRD
XHWR
ØACK
ØRVSS
VSS
ØREQ
HØ15
HØ14
HØ13
HØ12
HØ11
HØ10
VDØ
HØ9
HØ8
HØ7
HØ6
HØ5
VDØ
HØ4
HØ3
HØ2
HØ1
HØØ
VSS
SYSCK
XCK
AVDØ
AOUTL
AVSS
AVSS
AOUTR
AVDØ
XRST
VDØ
MUTO
ØATO
ØCKO
MEAØ
MEA1
MEA2
MEA3
MEA4
MEA5
MEA6
MEA7
MEA8
MEØØ
MEØ1
MEØ2
MEØ3
MEØ4
MEØ5
MEØ6
MEØ7
MEØ8
MEØ9
MEØ10
MEØ11
MEØ12
MEØ13
MEØ14
MEØ15
SAØ
SA1
SA2
SA3
SA4
SA5
SA6
SA7
SA8
SA9
SDØØ
SDØ1
SDØ2
SDØ3
SDØ4
SDØ5
SDØ6
SDØ7
SDØ8
SDØ9
SDØ10
SDØ11
SDØ12
SDØ13
SDØ14
SDØ15
42
43
44
45
46
47
48

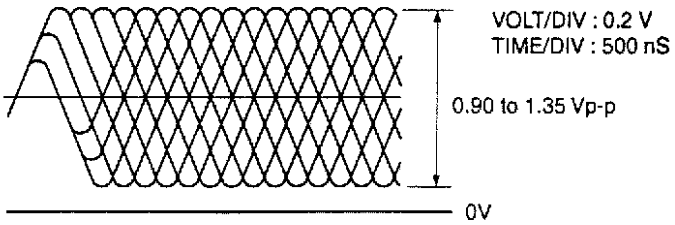

DIG +3.3V
DIG GND
EXT +8V
CTR 3.3V
CN104 8P
SIO +3.3V 1
RXD 2
TXD 3
DSR 4
DTR 5
CTS 6
RTS 7
SIO GND 8
SERIAL I/O
L102 1uH
D105 MAZ9120D0LSD-TX/L
D104 HZM6.8ZFA-TR
R146 1K
R148 1K
R134 1K
Q105, 106 INVERTER
R135 470
R136 470
C132 0.001u B
RB119 22X4
FB115
FB116
FB114
FB111
FB112
FB113
Q106 FMG9A-T148
Q105 FMG9A-T148
CN102 10P
SCKO 10
+3.3V 9
TXD 8
GND 7
RXD 6
DTROA 5
+8V 4
DTROB 3
DSR 2
INT 1
(FROM JACK)
FB122
CL199
FB121
FB120
FB119
FB118
FB117
FB123
L106 1uH
L104 1uH
D103 MAZ9120D0LSD-TX/L
D111 RD3.9SB-T1
D101 HZM6.8FA-TR
C135 0.01u B

SECTION 3
ADJUSTMENTS

3-1. CHECK SPECIFICATION

RF level 0.90 to 1.35 Vp-p (Check point : Between CL704 (HOT) and CL710 (VC).)

• RF signal waveform (eye pattern)



Use SCD-2700 DISC when measured RF level.
Use the oscilloscope with input impedance more than 10 MΩ.

RF Jitter Below 9.0 nS (Measuring by KJM-6135S JITTER METER.)

Below 27.0 nS (Measuring by KJM-6235S JITTER METER.)

PP level 1.1 ± 0.6 Vp-p (Check point : Between CL776 (HOT) and CL710 (VC).)

Use LPF (fc = 10 kHz)

Tracking level 1.25 ± 0.65 Vp-p (Check point : Between CL709 (HOT) and CL710 (VC).)

Caution.	Vc Line (CL710) do not make common use with GND line.

Check Point for PU-22 Board.