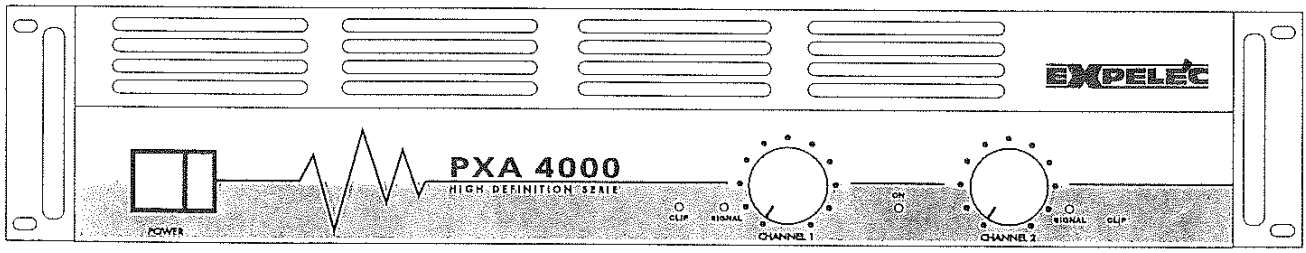
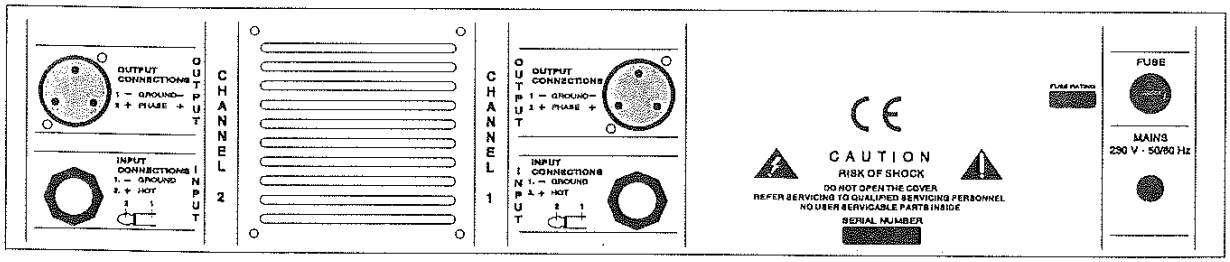
EXPELEC

TECHNICAL MANUEL

PXA 4000



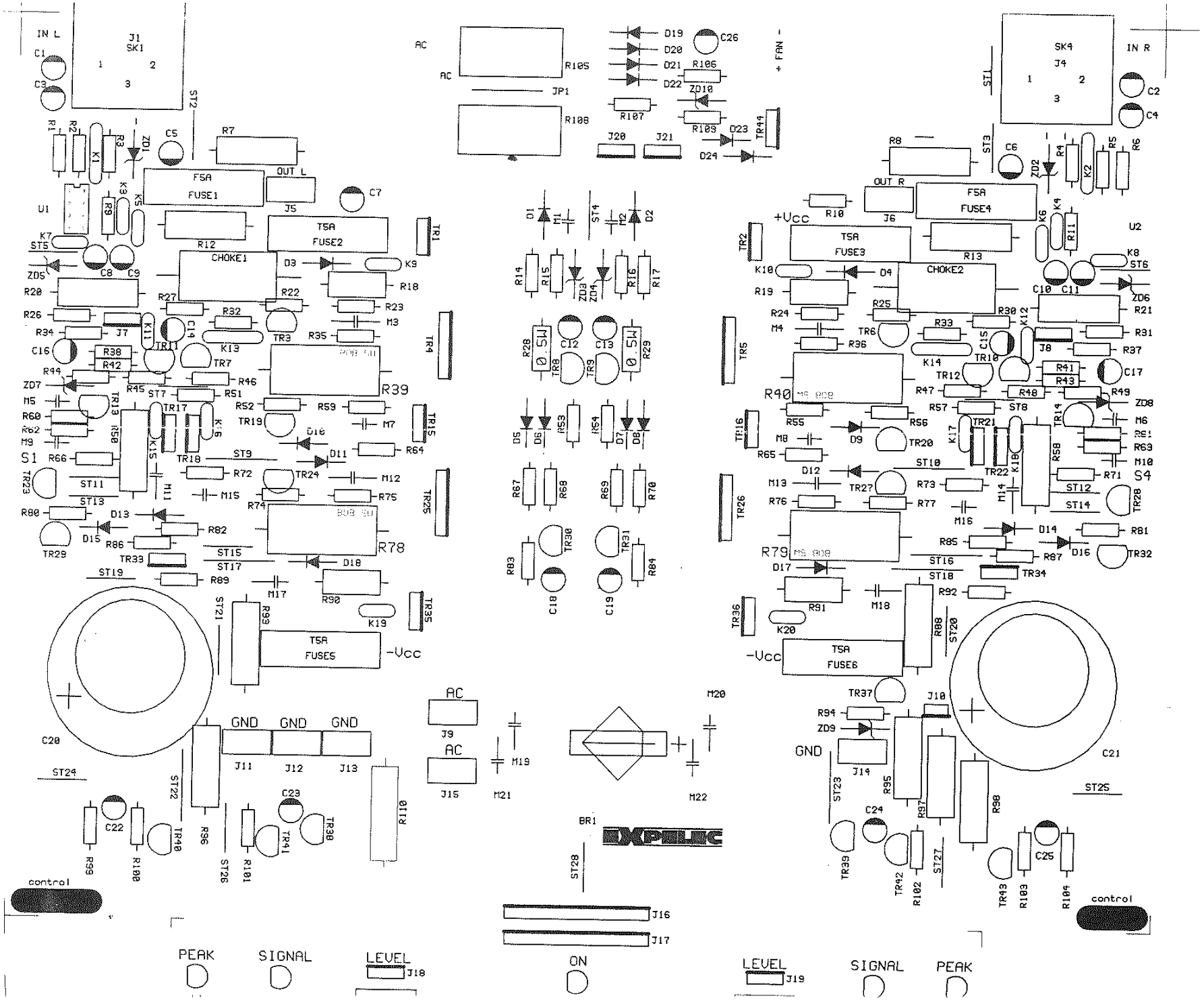


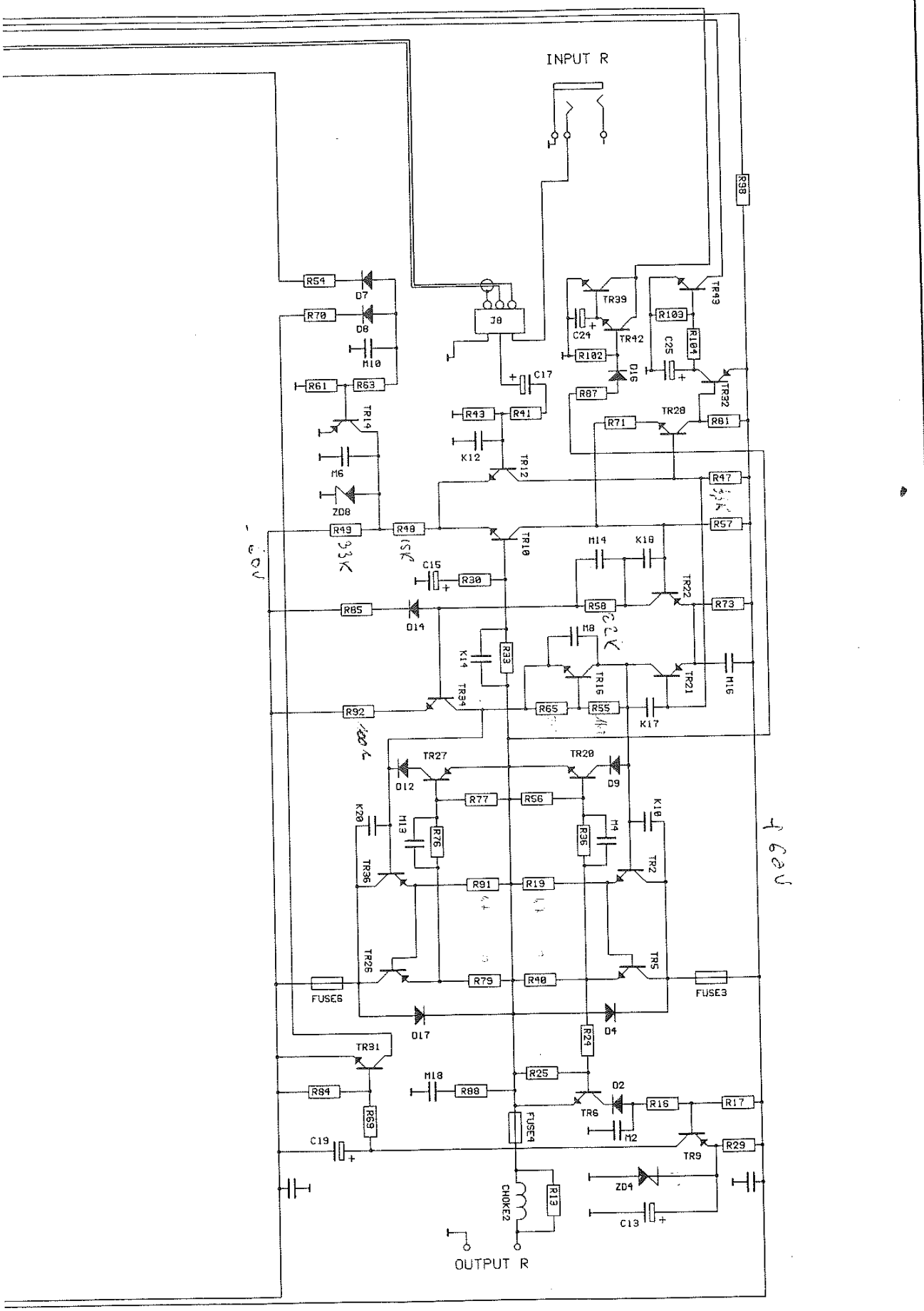
CE

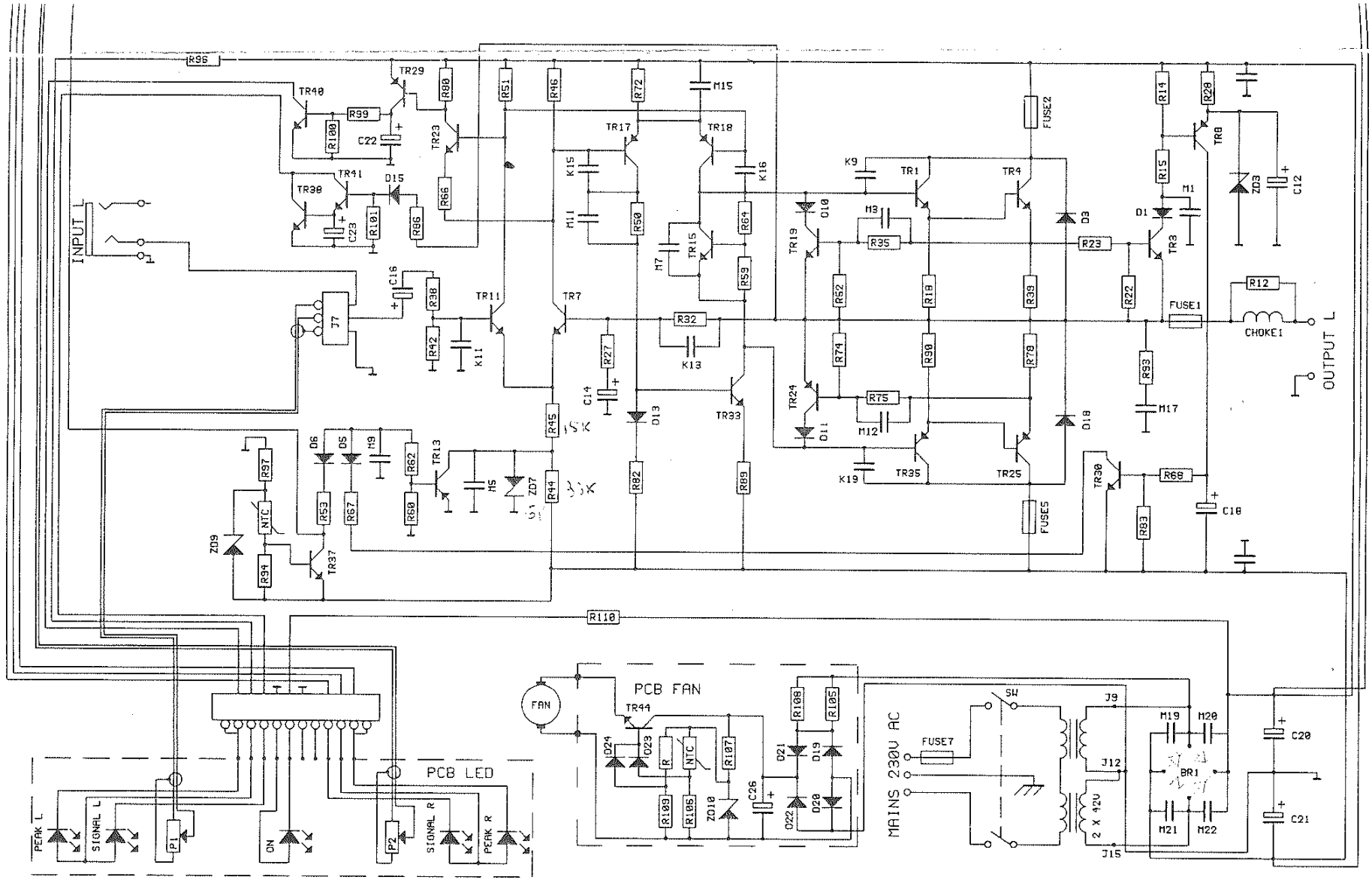
PXA 4000

TECHNICAL SPECIFICATION

Output power (1 kHz at 0,05 THD) - Per channel	135 Watt / 8 Ω 200 Watt / 4 Ω
- Both channels driven (peak)	170 Watt / 8 Ω 250 Watt / 4 Ω
THD 1 kHz THD 1 kHz (SMPTE)	‹ 0,06 % ‹ 0,05 %
Input impedance Input sensitivity	20 K Ohm balanced +2,9 dBu/4 Ω +3,8 dBu/8 Ω
Input impedance Damping factor Hum and Noise	20 K Ohm balanced 205/8Ω/20Hz-20kHz > 103 dB A/> 105 dB
Output slew rate - Stereo	30V/µs - 8 Ω FULL OUTPUT POWER
Input connectors per channel	Stereo Jack ø 6,3
Out connectors per channel	XLR male
Protection	- Electronic protection against - Short circuit and load mismatch conditions - Thermal protection against heatsink over <80°C
Load protection	- Output speakers in the event of excessive subsonic - Dc and provide surge free turn on
Cooling	One fan air
Power requirement	350 VA
Indicators	- ON / green LED - SIGNAL / green LED each channel - PEAK / red LED each channel
Controls	Front - 2 x input attenuators ON /OFF Power switch
Rack heigh	2U
Dimensions	482 x 88 x 320 mm
Weight	9,5 Kg


IN L
J1
SK1
C1
C3
ST12
R1
R2
K1
R3
ZD1
C5
R7
OUT L
J5
F5A
FUSE1
T5A
FUSE2
U1
K3
K5
R9
K7
ST5
ZD5
C8
C9
R12
CHOKE1
D3
K9
R18
R20
R27
R22
R23
R26
R32
M3
R34
J7
K11
C14
R35
C16
R38
R42
TR11
K13
TR3
TR7
TR4
R44
ZD7
R45
ST7
R46
R39
M5
R51
TR17
TR19
R52
R59
TR15
R60
R62
M9
K15
C16
M7
S1
R66
TR18
ST9
D11
R64
TR22
ST11
R72
TR24
M12
M11
ST13
M15
R74
R75
TR25
R80
D13
R82
D15
R86
R78
TR29
TR33
ST15
ST17
D18
ST19
R89
M17
R90
K19
TR35
ST21
R93
T5A
FUSE5
-Vcc
C20
GND
GND
GND
J11
J12
J13
ST24
ST22
R96
C23
C22
TR40
TR41
TR38
R99
R100
R101
ST26
R110
AC
R105
AC
JP1
R108
D19
D20
D21
D22
C26
R106
ZD10
R107
R109
D23
TR44
+ FAN -
J20
J21
D24
D1
C1
ST4
C2
D2
R14
R15
ZD3
ZD4
R16
R17
R28
0.5W
C12
C13
0.5W
R29
TR8
TR9
D5
D6
R53
R54
D7
D8
R67
R68
R69
R70
R83
TR30
TR31
R84
C18
C19
AC
J9
AC
J15
M19
M21
M20
M22
BR1
ST28
J16
J17
ON
control
PEAK
SIGNAL
LEVEL
J18
SK4
J4
IN R
ST1
C2
C4
R8
ST3
C6
ZD2
R4
K2
R5
R6
OUT R
J6
F5A
FUSE4
R10
+Vcc
T5A
FUSE3
R13
U2
K4
R11
K6
K8
ST6
TR2
K10
D4
CHOKE2
R19
C10
C11
ZD6
R24
R25
R30
K12
R21
M4
TR6
R33
R31
R36
C15
J8
R37
TR5
K14
TR10
R40
MS 808
R41
R43
C17
TR12
R47
R48
R49
ZD8
R55
R56
ST8
TR16
TR20
TR21
TR14
M6
M8
D9
K17
R65
R58
R63
D12
K18
M10
ST10
TR22
R71
S4
M13
TR27
R73
TR26
R76
R77
M14
ST12
TR28
M16
R79
MS 808
D14
R81
R85
R87
D16
TR32
D17
ST16
TR34
ST18
R91
M18
R92
TR36
K20
R88
ST20
-Vcc
T5A
FUSE6
TR37
J10
R94
ZD9
GND
J14
C21
ST23
R95
R97
R98
ST25
C24
TR39
TR42
R102
ST27
TR43
R103
C25
R104
control
LEVEL
J19
SIGNAL
PEAK


INPUT R
R54
D7
R70
D8
M10
R61
R63
TR14
M6
ZD8
R49
R48
93K
15K
C15
R30
R85
D14
K11
R33
TR34
R92
J8
C17
R43
R41
K12
TR12
TR39
C24
TR42
R102
D16
TR43
R103
C25
R104
TR32
R87
R71
TR28
R81
R47
R57
TR10
M14
K18
TR22
R58
R73
M8
TR16
TR21
M16
R65
R55
K17
TR27
TR20
D12
D9
R77
R56
K20
M13
R76
M4
R36
K19
TR36
TR2
R91
R19
TR26
TR5
R79
R40
FUSE6
FUSE3
D17
D4
R24
TR31
R84
R89
C19
M18
R88
R25
D2
TR6
R16
R17
M2
TR9
R29
FUSE4
CHOKE2
R13
ZD4
C13
OUTPUT R
R98



EXPELEC

PXA 4000 POWER AMPLIFIER SHEMATIC DIAGRAM

Quantity	Package	Value	Components
4	R5W	0R1	R39,R40,R78,R79
2	R	33K	R44,R49
6	R	3K3	R46,R47,R51,R57,R66,R71
2	R2	22K	R50,R58
4	R	1K8	R52,R56,R74,R77
12	R	100K	R53,R54,R62,R63,R67,R68,R69, R70,R83,R84,R86,R87
2	R	510R	R59,R65
3	R	180R	R72,R73,R94
4	R	100R	R82,R85,R89,R92
2	BD140	2SC3298	TR1,TR2
4	TO92	2SC2240	TR10,TR11,TR12,TR7
4	TO92	BC556	TR13,TR14,TR24,TR27
2	BD140	BD135	TR15,TR16
4	BD140	BF470	TR17,TR18,TR21,TR22
10	TO92	BC546	TR19,TR20,TR23,TR28,TR38,TR39, TR40,TR41,TR42,TR43
2	TR21	2SA1302	TR25,TR26
4	TO92	BF423	TR29,TR32,TR8,TR9
5	TO92	BF422	TR3,TR30,TR31,TR37,TR6
2	BD140	BF469	TR33,TR34
2	BD140	2SA1306	TR35,TR36
2	TR21	2SC3281	TR4,TR5
1	TO220	BDX53	TR44
6	ZD1	BZX15V/400MW/	ZD1,ZD2,ZD5,ZD6,ZD7,ZD8
1	ZD 1.3	ZPY28V/	ZD10
2	ZD2	ZPY36V/1,3W/	ZD3,ZD4
1	ZD1	BZX3V3/400MW/	ZD9
1	JUMP15		JP1
21	STRAP 10		ST1,ST11,ST12,ST13,ST14,ST15, ST19,ST2,ST20,ST21,ST24,ST25, ST26,ST27,ST28,ST3,ST4,ST5, ST6,ST7,ST8
7	STRAP 15		ST10,ST16,ST17,ST18,ST22,ST23, ST9

Quantity	Package	Value	Components
1	BR4	6A 400V	BR1
11	C2	4M7/63V	C1,C10,C12,C13,C16,C17,C2,C3,C4,C7,C9
7	C2	47M/63V	C11,C14,C15,C26,C5,C6,C8
2	C2	4M7/160V	C18,C19
1	C-U35	4700MF/63V	C20
1	C-U35	4700MF/80V	C21
4	C2	1M0/100V	C22,C23,C24,C25
2	CHOKE	5UH/10A	CHOKE1,CHOKE2
6	1N4001	1N4007	D1,D17,D18,D2,D3,D4
14	1N4148	1N4148	D10,D11,D12,D13,D14,D15,D16,D23,D24,D5,D6,D7,D8,D9
4	1N4000	1N4007	D19,D20,D21,D22
2	FE	F10A	FUSE1,FUSE4
4	FE	T6,3A	FUSE2,FUSE3,FUSE5,FUSE6
2	JACK BREAK	JACK STEREO	J1,J4
1	CON 2P	2 PIN M	J10
8	FASTON-6.35	FASTON 6,3	J11,J12,J13,J14,J15,J5,J6,J9
2	CON 12P	12 PIN M/10P	J16,J17
6	CON 3P	3 PIN M	J18,J19,J20,J21,J7,J8
2	K10	100P/63V	K1,K2
4	K5	270P/250V	K10,K19,K20,K9
2	K5	470P/63V	K11,K12
2	K10	3P3/250V	K13,K14
2	K5	10P/250V	K15,K18
2	K5	22P/250V	K16,K17
2	K5	100P/63V	K3,K4
4	K5	100N/63V	K5,K6,K7,K8
3	LED	RED/3MM/	L1,L2,L6
2	LED	GREEN/3MM/	L4,L7
10	MKT	MKT100N/100V/5	M1,M10,M15,M16,M2,M5,M6,M7,M8,M9
2	MKTU7.62	MKT1N/250V/5/7	M11,M14
4	MKT1	MKT10N/100V/5/7	M12,M13,M3,M4
6	MKTU7.62	MKT100N/100V/5/7	M17,M18,M19,M20,M21,M22
2	POTM	POT 10K /22/	P1,P2
10	R	10K	R1,R11,R2,R3,R4,R5,R6,R60,R61,R9
11	R	47K	R10,R100,R103,R104,R32,R33,R42,R43,R80,R81,R99
4	R	15K	R101,R102,R45,R48
2	R 5	220R/5W	R105,R108
2	R 0.25	4K7	R106,R107
1	R 0.25	560R	R109
4	R2	4R7	R12,R13,R88,R93
2	R	1M0	R14,R17
2	R	150K	R15,R16
4	R1	47R	R18,R19,R90,R91
8	R2	6K8	R20,R21,R7,R8,R95,R96,R97,R98
4	R	1K2	R22,R25,R55,R64
6	R	560R	R23,R24,R35,R36,R75,R76
4	R	4K7	R26,R31,R34,R37
2	R	1K	R27,R30
2	R1-0.5W	4K7	R28,R29
2	R	2K2	R38,R41