

Receiver - PULSAR R 1230 R



The **R 1230 R** is the perfect symbiosis of two superb individual components: the **PA 1230 R** integrated amplifier and the **T 1210 R** tuner. The double-sided circuit board of the tuner section incorporates SMT technology to produce a miracle of miniaturisation, and its extremely short signal paths are responsible for the simply outstanding RF characteristics. The sound qualities and measured values of the amplifier section are identical to those of the **PA 1230 R**, and that amplifier's enormous output power is present in full. In all R-series devices T+A deliberately uses the same overall technology and design philosophy, with the result that all our products feature very similar sound qualities. A good example of this is the presence of our sophisticated ICA technology and push-pull class A mirror current stages in our receivers as well as our pure amplifiers.

Connection elements



GND	The ground lead from an analogue disc player is connected here in order to avoid hum.
FM-ANT	The R 1220 R is fitted with a 75 Ohm antenna input labelled FM ANT , which is designed to match a standard domestic antenna and cable input.
CD	Input for connection to the digital output of a CD mechanism.
AUX / Phono	General purpose pre-amplifier input with an input sensitivity of 250 mV / 20 k Ω . If an MM or MC phono module is fitted then AUX 2 is the phono input. With MM phono module: Input socket for disc players with moving magnet (MM) cartridge systems. Input capacitance (100 pF ... 500 pF) and input sensitivity (1 mV ... 5 mV) variable by means of switches. Simply set the values closest to those stated by the cartridge manufacturer. With MC phono module: Input socket for disc players with moving coil (MC) cartridge systems. Input impedance (5 Ω ... 650 Ω) and input sensitivity (50 μ V ... 1000 μ V) variable by means of switches. Simply set the values closest to those stated by the cartridge manufacturer.
TAPE 1	Input and output sockets for connecting devices which can record and play back (recorders).
TAPE 2	Input and output sockets for connecting devices which can record and play back (recorders). The input is equipped with an input buffer to be connected to source units with high output impedance (>1kOhm).
TV	Input sockets for connecting high-level signal sources such as TV or VCR. The input is equipped with an input buffer to be connected to source units with high output impedance (>1kOhm).

PRE	Variable asymmetrical pre-amplifier output fitted with cinch sockets. As this is a very low impedance output it is suitable for long leads (e.g. to connect active speakers).
SPEAKER A + B	Two pairs of loudspeakers can be connected to the amplifier (SPEAKER A and SPEAKER B). The impedance of each speaker must not be lower than 4 Ohm (DIN rating).
RC-IN	Input socket for the E 2000 remote control receiver.
RC-OUT	The remote control signals are transferred to the source devices via the remote control leads RZ 001 , which are plugged into the RC-OUT sockets.
RLink	Control output – preparation to control futur " R "-system components with extendend functions. A software update may be necessary.
TASI	Connection to T+A Surround decoder.

Specifications

Pre-amplifier

Frequency response + 0 – 3 dB 0,5 Hz – 400 kHz

Signal: noise ratios (A-weighted)

High level 5 x 104 / 109 dB

Phono MM 82 / 86 dB (Non-standard version)

MC 78 / 82 dB (Non-standard version)

Sub-sonic filter fixed (Non-standard version)

Total harmonic distortion < 0,001 %

Intermodulation < 0,001 %

Channel separation > 90 dB

Nominal input sensitivity

High level 250 mV / 20 kOhms

MM 1 – 5 mV

16 capacitances

MC 60 – 1000 uV

16 impedances

Outputs

Headphones 50 Ohms

2 x Tape 250 mV / 100 Ohms

PRE out Cinch nominal 1 V eff

max. 9,5 V eff

Impedance 22 Ohms

Dolby surround interface with fixed level (TASI) present

Output stage

Nominal output 8 Ohms 100 Watts

per channel 4 Ohms 150 Watts

Peak output 8 Ohms 150 Watts

4 Ohms 290 Watts

Power bandwidth 1 Hz – 300 kHz

Frequency response + 0 – 3 dB 1 Hz – 400 kHz

Slew rate 60 V/us

Sampling factor > 500

<i>Signal: noise ratio (A weighted)</i>	> 110 dB
<i>Total harmonic distortion</i>	< 0,002 %
<i>Reservoir capacity</i>	50000 uF
<i>Mains supply 110 V or 220 / 240 V, 50 Hz</i>	300 VA
<i>Dimensions</i>	7,5 x 44 x 39 cm
<i>Weight</i>	9 kg
<i>Colours</i>	Black (9005), silver aluminium, chrome (Non-standard version)
<i>Remote control</i>	(Non-standard version) Phono module replaces one high-level input

Tuner

<i>Tuning range <u>FM</u></i>	87,5 – 108 MHz
<i>Sensitivity</i>	
<i>mono, S/N = 26 dB</i>	0,9 uV
<i>stereo, S/N = 46 dB</i>	28 uV
<i>Overload margin</i>	> 110 dB
<i><u>Attenuator</u> (local, DX)</i>	dynamic switchable
<i>Tuned RF stages</i>	4 x quartz PLL, digital
<i>Selectivity, (df = 300 kHz) N/W</i>	80 dB/60 dB
<i>Stereo crosstalk attenuation (1 kHz)</i>	> 40 dB
<i>MPX filter</i>	19 kHz + 38 kHz
<i>Distortion 40 kHz deviation, stereo wide</i>	< 0,10%
<i>stereo narrow</i>	< 0,15 %
<i>mono narrow</i>	< 0,10 %
<i>Signal: noise (A-weighted) m/s</i>	> 79 dB / 72 dB
<i>Frequency response -/+ 1,5 dB</i>	5 Hz – 15 kHz
<i><u>RDS</u> display</i>	Station name
<i>Remote control</i>	Via R system

We reserve the right to alter technical specifications