

## Receiver - PULSAR R 1220 R



The **R 1220 R** is the perfect symbiosis of two superb individual components: the **PA 1220 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 1220 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



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

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

*Damping factor* > 500

<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>	11 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*