

## 5.1 Digitaldecoder - PULSAR DD 1210 R



The T+A DD 1210 R and DD 1510 R digital decoders are the most complex pieces of equipment which the company has developed to date. In addition to a high-quality digital decoder these machines incorporate three additional high-end output stages and a complete studio-standard video signal processing section. T+A pursues the philosophy of integrating the surround components into a high-end Hi-Fi system without allowing any compromises in quality. Our pre-, integrated and power amplifiers are equipped with a special interface which only loops the decoder into the signal path when surround mode is selected; the circuit switching is carried out by relay. In other circumstances the surround and video sections have absolutely no influence on the system, and therefore are incapable of causing a deterioration in sound quality.

The decoding processes are entrusted to a modern 24-bit signal processor working at 96 kHz. The implementation gives the system an enormous advantage by making it future-proof to a high degree, since the software can be updated at any time. For example, an upgrade to a 6.1 process would certainly be possible.

At present the decoder can process Dolby Digital (AC-3) and DTS, plus Dolby ProLogic and supplementary spatial simulations. MPEG-2 can be implemented if required.

The output stages for the centre channel and the rear loudspeakers are identical to those used in the high-end R-series A 1220 and A 1520 power amplifiers, and this guarantees that the sound quality from all the channels is of uniformly high quality. These output stages offer enormous reserves of power, making them ideal for reproducing the full frequency spectrum.

Both decoders provide a huge range of connection facilities. We have concentrated on the RGB format in the interests of obtaining best-possible picture quality. This means that we have basically developed the unit for the SCART norm, which is widespread in Europe. The result is that our decoders achieve a uniquely high standard of picture quality even when connected to many components. Even when all the inputs and outputs are occupied, the system is easy and logical to operate once the initial programming process has been completed.

*\* Dolby-Digital und Pro-Logic sind eingetragene Warenzeichen der Dolby Laboratories Licensing Corporation*

### Connection elements



#### Digital Input

3 inputs for digital source devices with co-ax digital outputs can be assigned to any picture input, or used as independent sound inputs for source devices which do not supply a picture.

	2 inputs for digital source devices with optical digital outputs can be assigned to any picture input, or used as independent sound inputs for source devices which do not supply a picture.
<b>5.1 Input</b>	Input for a surround source with integral decoder.
<b>5.1 Output</b>	Output for external loudspeakers or external power amplifiers.
<b>TASI</b>	Interface for connecting the decoder to a <b>T+A</b> 'R'-series pre-amplifier, integrated amplifier or receiver. The interface automatically switches to surround mode. In this mode the volume and tone controls of the stereo pre-amplifier are disabled, as these functions are now assumed by the decoder.
<b>Subwoofer Input</b>	The stereo pre-amplifier output can be connected to this socket in order to pass its output signal through to the sub-woofer in stereo mode.
<b>Subwoofer Output</b>	Output for connecting an active sub-woofer.
<b>Rear</b>	The rear surround speakers are connected to these terminals.
<b>Center</b>	The centre loudspeaker, located at front centre between the main speakers, is connected to these terminals.
<b>AV-AUX (Chinch)</b>	Stereo sound input and video input for connecting an additional AV source device.
<b>VCR (Scart)</b>	Input / output socket for connecting a video recorder with SCART socket
<b>Settopbox (Scart)</b>	Input socket for connecting a set-top box with SCART socket
<b>DVD (Scart)</b>	Input socket for connecting a DVD player with SCART socket
<b>TV-Output (Scart)</b>	Input / output socket for connecting a TV set with SCART socket
<b>R-Link</b>	Control interface for connection to a <b>T+A</b> amplifier with <b>RLINK</b> control system.

## Specifications

3-Chanel amplifier with 5.1 digital-decoder

<i>Analogue inputs</i>	500 mV / 20 kOhm
<i>Digital inputs</i>	4 x SP/DIF 44.1 kHz and 48 kHz
<i>A/D converter</i>	2 Kanal, 20 Bit, 48 kHz
<i>D/A converter</i>	6 Kanal, 24 Bit, 96 kHz
<i>analogue filter</i>	3. Ordnung, 60 kHz bessel
<i>Decoder typ</i>	56 Bit signal processor
<i>Frequency response</i>	1 Hz ... 22 kHz
<i>Total harmonic distortion</i>	< 0.004 %
<i>Signal : noise ratio (A-weighted)</i>	> 106 dB
<i>Signal : noise ratio (un-weighted)</i>	> 103 dB
<i>eff system dynamic range</i>	> 94 dB
<i>Channel separation</i>	> 100 dB
<i>Volume control</i>	analogue, 1 dB increments
<i>Tone controls</i>	fully digital, channel-separatet
<i>Operating modes</i>	Dolby Prologic, Dolby Digital (AC 3), dts Digital Surround
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	"dts" is a trademark of Digital Theater Systems, Inc.
<i>Sound fields</i>	Stadion, Jazzclub, Oper, Bühne, Halle

## Output stage

Nominal power per chanel 4 ohm 100 W

8 ohm 80 W

Peak power per channel 4 ohm 200 W

8 ohm 160 W

Power bandwidth (+0 -3dB) 1 Hz ... 300 kHz

Slew rate 60 V /  $\mu$ s

Damping factor > 100

*Signal : noise ratio (A-weighted)* > 110 dB

*Total harmonic distortion* < 0.002 %

*Colors* Black (RAL 9005)

Alu silber

chrome (Non-standard version)

*Remote control* via R-System

*We reserve the right to alter technical specifications*