

Series PAS und T-PAS

- DC to 2500 MHz
- Controlling via build in 5-V-TTL-driver or optionally RS232/RS485-interface
- Up to 63 dB total attenuation
- 0,5 dB, 1 dB or 2 dB steps (depends on type)
- 50 or 75 Ω impedance
- SMA-, BNC-, N-, or TNC connectors
- Also available in cassette enclosures

At RF-technology often it is necessary to attenuate a RF-signal defined with a digital control signal. For that applications we offer the types of the series PAS.

For the frequency range DC to 2500 MHz switchable attenuators are available with steps of 0,5, 1 or 2 dB.

A RS232- or a RS485-interface was integrated to control the units via PC.

The controlling is realized via ASCII-strings.

The attenuators are available in 50- Ω - and in 75- Ω -technology. Precision relays are used as switching elements in the PAS-series.

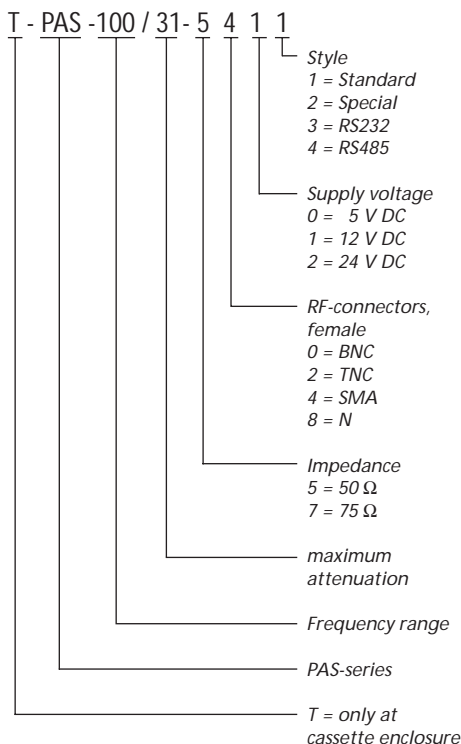
These relays enable to work up RF-signals with DC voltage parts.

RF-connectors are alternatively SMA-, BNC-, N-, or TNC-types (all female).

SMB, SMC or other connectors are possible on request.



Model designation



Technical data (guaranteed values at +25 °C)

| | |
|------------------------|--|
| Switching time | 15 ms |
| Life cycles | 10 ⁶ cycles |
| Operating temperature | 0 to +50 °C |
| Maximum RF-power* | 0,5 W CW (75 Ω); 1,0 W CW (50 Ω) |
| Impedance | 50 Ω or 75 Ω |
| Supply voltage | 5, 12, or 24 V (+ 5 V at RS232, RS485) |
| Controlling | 5 V TTL (connection via SUB-D connector), RS232, RS485 |
| RF-connectors | SMA, BNC, N, TNC female |
| Accessories (optional) | Mains adaptor, control software |

*cold switching

Other attenuations values /
gradation on request!

Types and technical data

| Basic model | Frequency-range (MHz) | Attenuation max. (dB) | Gradation (dB) | Steps of attenuation (dB) | Insertion loss (dB) | VSWR typ. | Controlling | Accuracy per step (dB) |
|---------------------------------------|-----------------------|-----------------------|----------------|---------------------------|---------------------|-----------|-------------|------------------------|
| DC to 100 MHz in 50 Ω and 75 Ω | | | | | | | | |
| PAS-100/15,5 | DC to 100 | 15,5 | 0,5-1-2-4-8 | 0,5 | 1,5 | 1,3 : 1 | 5 bit TTL | ±0,3 |
| PAS-100/15 | DC to 100 | 15 | 1-2-4-8 | 1 | 1 | 1,3 : 1 | 4 bit TTL | ±0,3 |
| PAS-100/31 | DC to 100 | 31 | 1-2-4-8-16 | 1 | 1,5 | 1,3 : 1 | 5 bit TTL | ±0,3 |
| PAS-100/62 | DC to 100 | 62 | 2-4-8-16-32 | 2 | 1,5 | 1,3 : 1 | 5 bit TTL | ±0,3 |
| PAS-100/63 | DC to 100 | 63 | 1-2-4-8-16-32 | 1 | 2 | 1,3 : 1 | 6 bit TTL | ±0,3 |
| DC to 1000 MHz in 50 Ω | | | | | | | | |
| PAS-1000/15,5-5 | DC to 1000 | 15,5 | 0,5-1-2-4-8 | 0,5 | 2,5 | 1,35 : 1 | 5 bit TTL | ±0,3 |
| PAS-1000/15-5 | DC to 1000 | 15 | 1-2-4-8 | 1 | 2,0 | 1,35 : 1 | 4 bit TTL | ±0,3 |
| PAS-1000/31-5 | DC to 1000 | 31 | 1-2-4-8-16 | 1 | 2,5 | 1,35 : 1 | 5 bit TTL | ±0,3 |
| PAS-1000/62-5 | DC to 1000 | 62 | 2-4-8-16-32 | 2 | 3,0 | 1,35 : 1 | 5 bit TTL | ±0,3 |
| PAS-1000/63-5 | DC to 1000 | 63 | 1-2-4-8-16-32 | 1 | 3,5 | 1,35 : 1 | 6 bit TTL | ±0,3 |
| DC to 1000 MHz in 75 Ω | | | | | | | | |
| PAS-1000/15,5-7 | DC to 1000 | 15,5 | 0,5-1-2-4-8 | 0,5 | 2,5 | 1,7 : 1 | 5 bit TTL | ±0,3 |
| PAS-1000/15-7 | DC to 1000 | 15 | 1-2-4-8 | 1 | 2,0 | 1,7 : 1 | 4 bit TTL | ±0,3 |
| PAS-1000/31-7 | DC to 1000 | 31 | 1-2-4-8-16 | 1 | 2,5 | 1,7 : 1 | 5 bit TTL | ±0,3 |
| PAS-1000/62-7 | DC to 1000 | 62 | 2-4-8-16-32 | 2 | 3,0 | 1,7 : 1 | 5 bit TTL | ±0,3 |
| PAS-1000/63-7 | DC to 1000 | 63 | 1-2-4-8-16-32 | 1 | 3,5 | 1,7 : 1 | 6 bit TTL | ±0,3 |
| DC to 2000 MHz in 50 Ω | | | | | | | | |
| PAS-2000/15-5 | DC to 2000 | 15 | 1-2-4-8 | 1 | 2,5 | 1,35 : 1 | 4 bit TTL | ±0,3 |
| PAS-2000/31-5 | DC to 2000 | 31 | 1-2-4-8-16 | 1 | 3,0 | 1,35 : 1 | 5 bit TTL | ±0,3 |
| PAS-2000/62-5 | DC to 2000 | 62 | 2-4-8-16-32 | 2 | 3,5 | 1,35 : 1 | 5 bit TTL | ±0,3 |
| PAS-2000/63-5 | DC to 2000 | 63 | 1-2-4-8-16-32 | 1 | 4,0 | 1,35 : 1 | 6 bit TTL | ±0,3 |
| DC to 2000 MHz in 75 Ω | | | | | | | | |
| PAS-2000/15-7 | DC to 2000 | 15 | 1-2-4-8 | 1 | 2,5 | 2,0 : 1 | 4 bit TTL | ±0,7 |
| PAS-2000/31-7 | DC to 2000 | 31 | 1-2-4-8-16 | 1 | 3,0 | 2,0 : 1 | 5 bit TTL | ±0,7 |
| PAS-2000/62-7 | DC to 2000 | 62 | 2-4-8-16-32 | 2 | 3,5 | 2,0 : 1 | 5 bit TTL | ±0,7 |
| PAS-2000/63-7 | DC to 2000 | 63 | 1-2-4-8-16-32 | 1 | 4,0 | 2,0 : 1 | 6 bit TTL | ±0,7 |
| DC to 2500 MHz in 50 Ω | | | | | | | | |
| PAS-2500/15-5 | DC to 2500 | 15 | 1-2-4-8 | 1 | 3,0 | 1,6 : 1 | 4 bit TTL | ±0,5 |
| PAS-2500/31-5 | DC to 2500 | 31 | 1-2-4-8-16 | 1 | 3,5 | 1,6 : 1 | 5 bit TTL | ±0,5 |
| PAS-2500/62-5 | DC to 2500 | 62 | 2-4-8-16-32 | 2 | 4,0 | 1,6 : 1 | 5 bit TTL | ±0,5 |
| PAS-2500/63-5 | DC to 2500 | 63 | 1-2-4-8-16-32 | 1 | 4,5 | 1,6 : 1 | 6 bit TTL | ±0,5 |

Enclosure dimensions for 4-, 5- and 6-step attenuators

