ACOM 600S 1.8-54MHz Linear Amplifier

Remote Power Control

The ACOM 600S Linear Amplifier can be turned ON and OFF remotely in three different ways:

- by applying successive low-power voltage pulses on a dedicated CAT-interface connector pin – see details below;

- by applying and removing a continuous DC voltage on the same CAT connector pin;

- using the RS232 hardware hand-shaking signals.

*NOTE:*

*In order to remotely turn ON and OFF the ACOM 600S linear amplifier, put the mains switch on the amplifier rear panel in a turned-on position, pushing its rocker so that it sinks from the side of the “ON” inscription. This will activate only the low-energy power supply in the amplifier and only the LED above the button On/Off on the front panel will be glowing, while the main power supply will be inactive and the display - dark*.

1. Remote Power Control via CAT Interface Connector

Power supply of the amplifier can be managed through pin 11 (signal ON\_RMT) of the CAT connector (Fig.1). As mentioned above, the amplifier can be turned ON/OFF applying successive voltage pulses (one pulse for power on, and a second - for power off) or even simpler - by a continuously applied voltage level (then the amplifier works while a DC voltage level is available on pin 11).

* 1. Power control by voltage pulses

This power control method provides amplifier remote turn ON/OFF by an external button situated at any suitable place (requires an additional voltage source – see Fig.1 below).

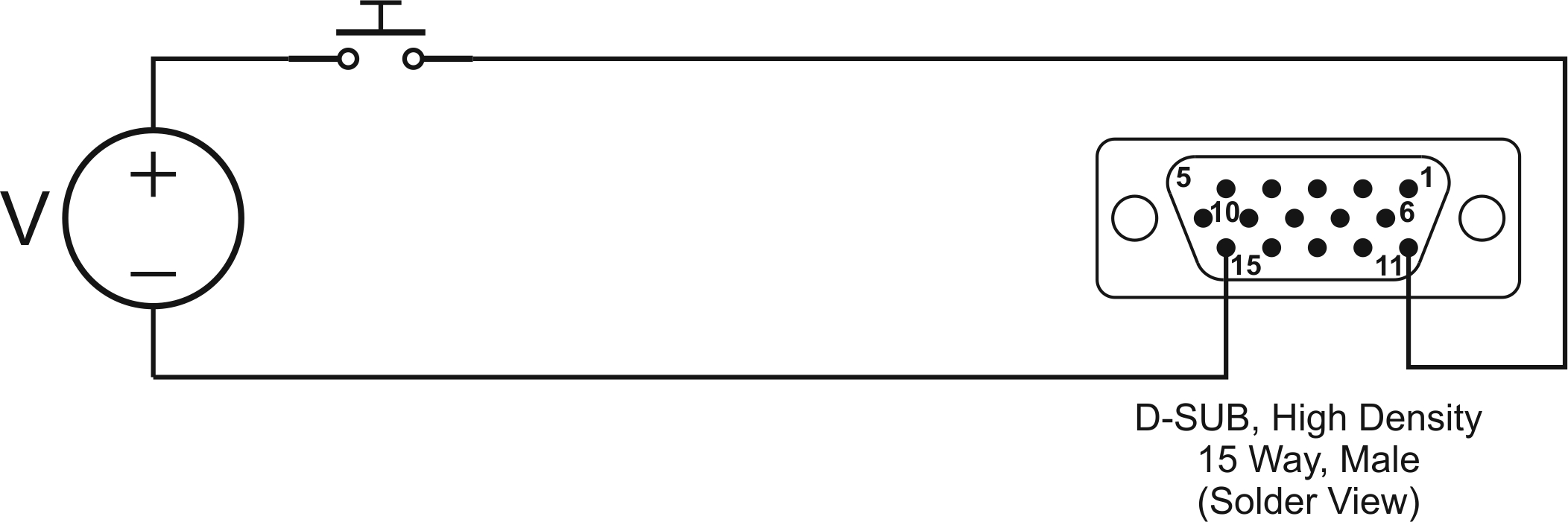


Fig. 1 - Remote power ON/OFF by voltage pulses

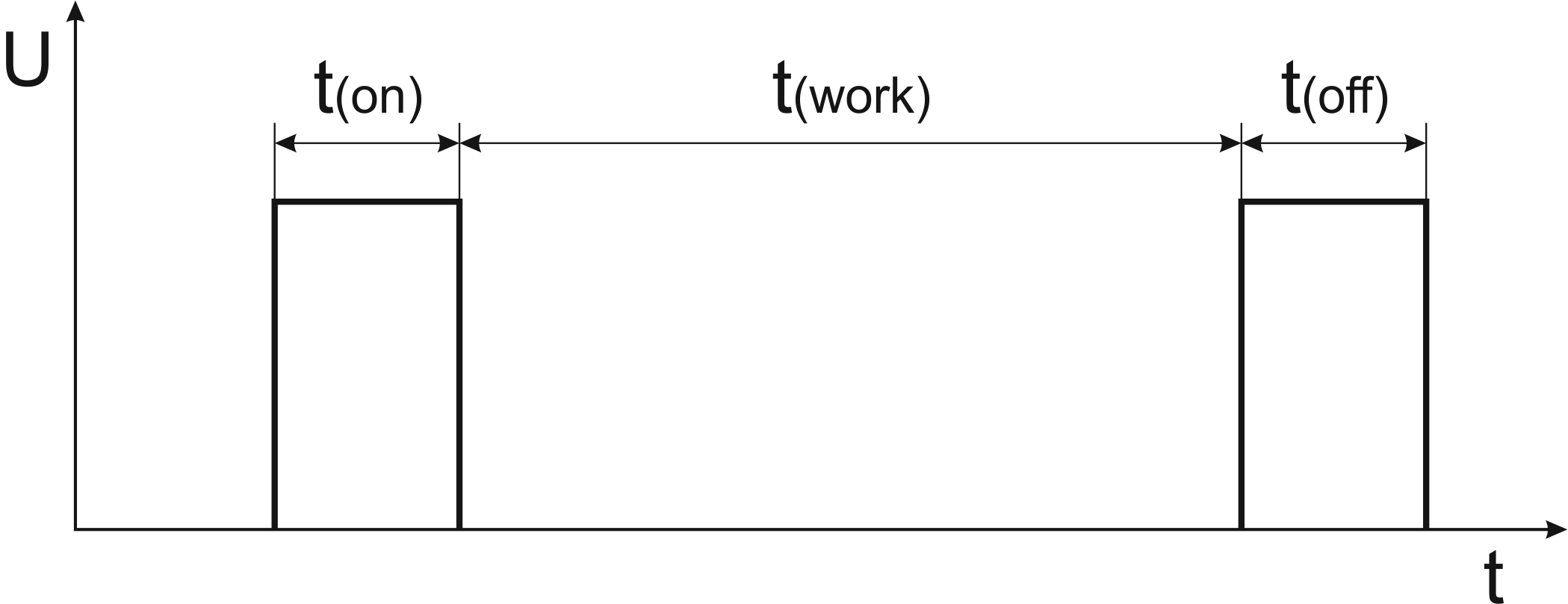


Fig. 2 – Remote power ON/OFF pulses timing diagram

Remote power ON/OFF pulses specifications (Fig.2):

Voltage: 4,5V to 15V DC

Current capability: 3mA minimum

Turn-On pulse duration - t(on): 300ms to 3s

Amplifier operating time - t(work): 1s minimum

Turn-Off pulse duration - t(off): 100ms to 3s

***NOTE:***

*If t(work) is below 1s, the Turn-Off pulse will be ignored for safety*

* 1. Remote power control applying a continuous DC voltage

This is a simpler remote-power control method using any suitable DC voltage continuously available from the transceiver while it is powered ON. In this case it is only required to turn ON/OFF the transceiver while the amplifier will automatically follow its status.

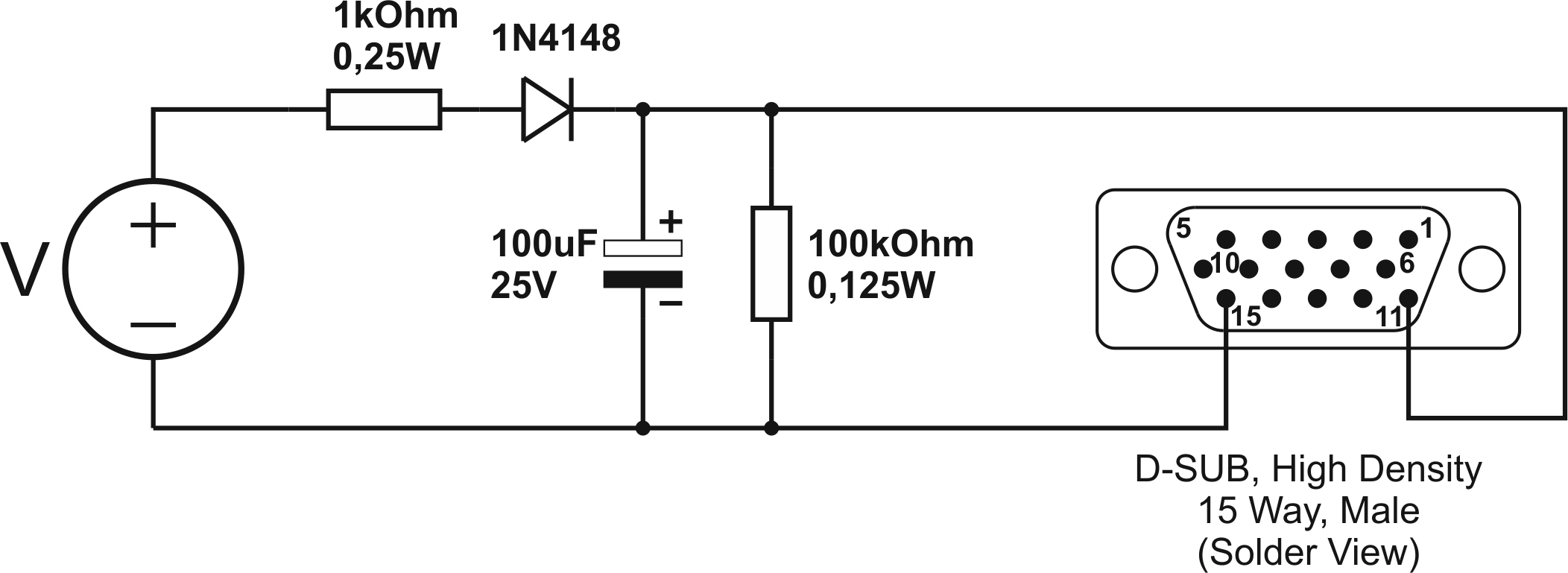


Fig. 3 - Remote power ON/OFF applying a continuous DC voltage

The additional components can be put in the D-SUB connector enclosure.

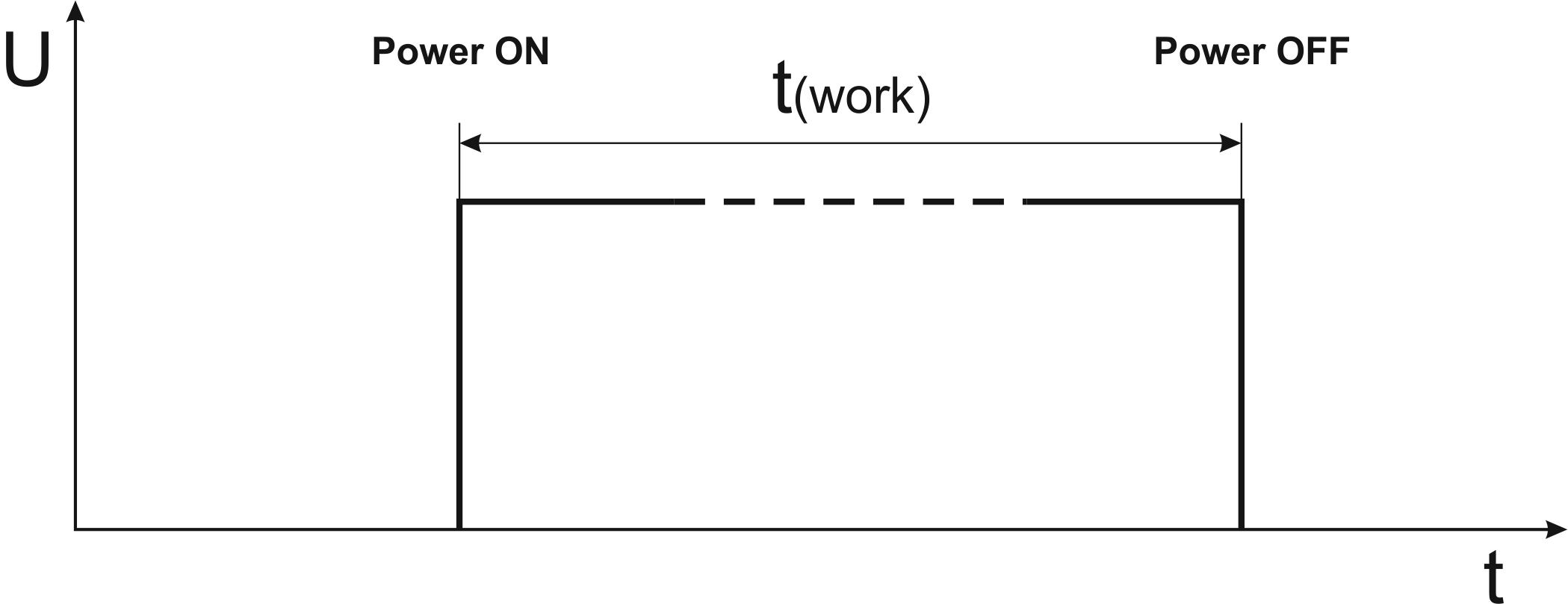


Fig. 4 - Voltage level timing diagram

Specifications for remote power ON/OFF applying a continuous DC voltage (Fig.4):

Voltage: 4,5V to 15V DC

Current capability: 3mA minimum

Amplifier operating time - t(work): 3s minimum.

***NOTE:***

*If t(work) is too short (bellow 3s), the amplifier might unsafely be left ON after you turn OFF the transceiver. The additional circuit in Fig. 4 holds t(work) to ensure reliable OFF operation.*

1. Remote Power Control via RS232 hardware hand-shaking signals

Power supply of the amplifier can be managed through RS232 interface. The amplifier can be turned ON/OFF by simultaneous activation of RS232 hardware hand-shaking signals (DTR and RTS) for 1 to 2s by computer software (Fig.5).

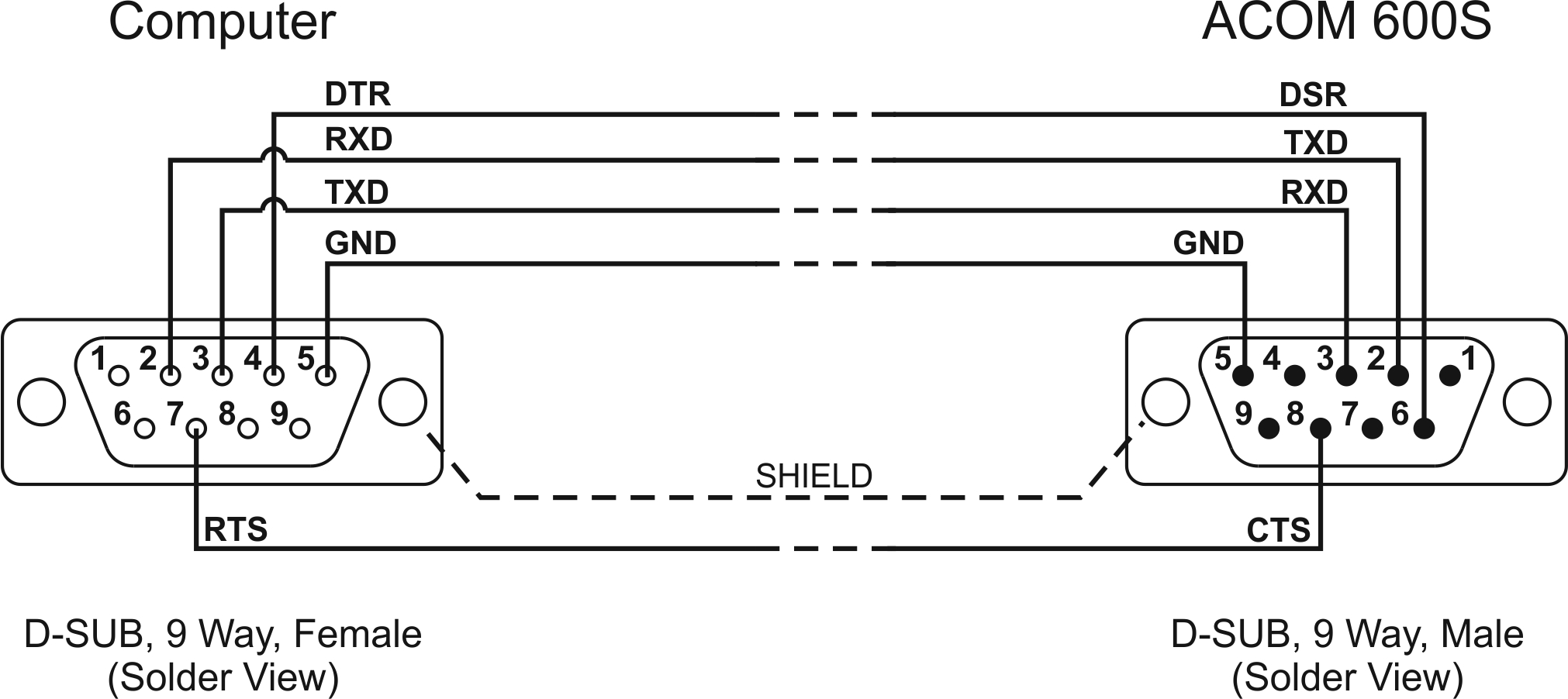


Fig. 5 - Remote power ON/OFF through RS232 hardware hand-shaking signals DTR and RTS

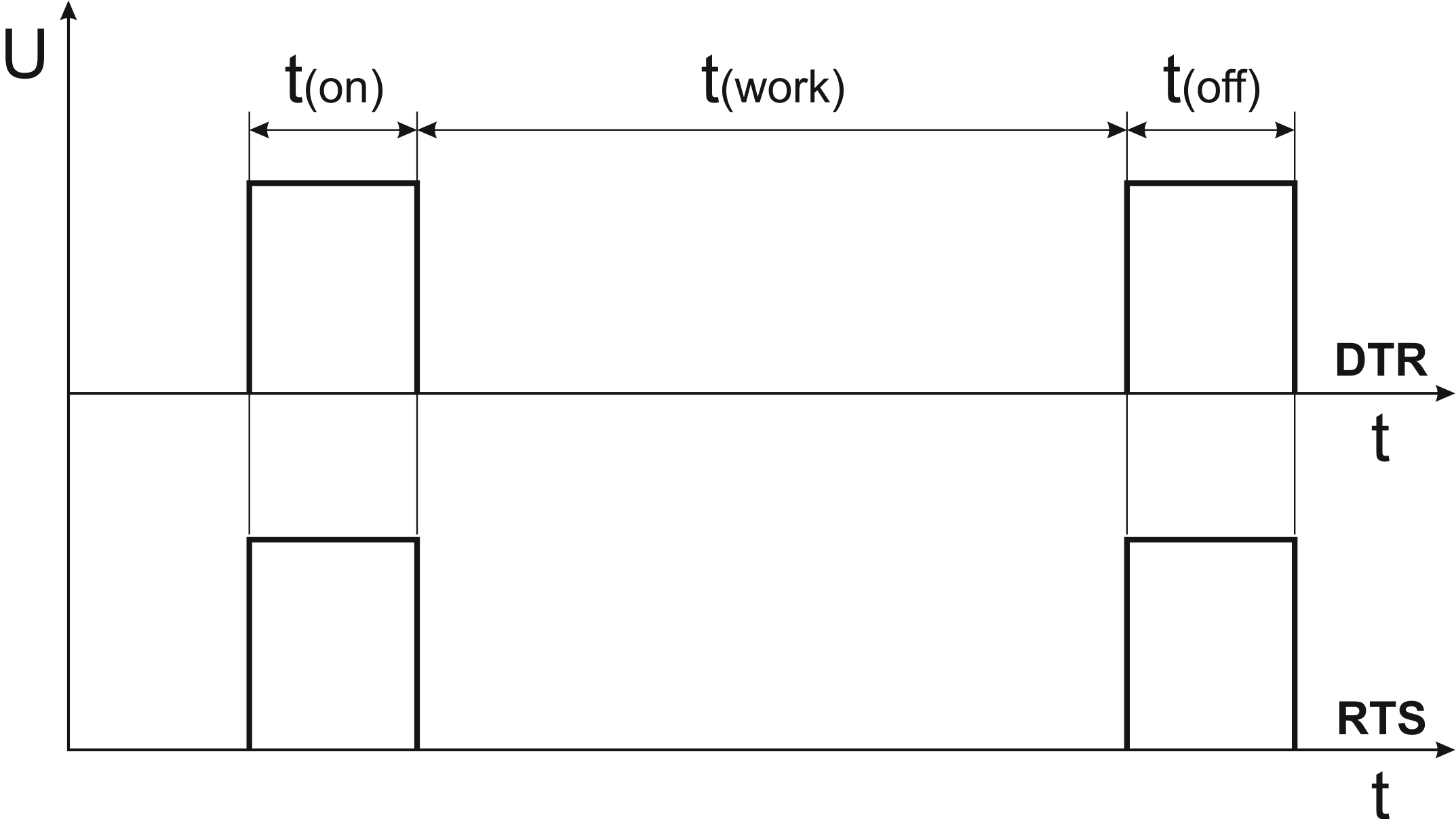


Fig. 6 - Remote power ON/OFF through RS232 hardware hand-shaking signals DTR and RTS: timing diagram

Remote power ON/OFF through RS232 DTR and RTS signals - pulses specifications (Fig.6):

Voltages and currents: per RS232 standard requirements

Turn-On pulses duration - t(on): 1s minimum

Amplifier operating time - t(work): 3s minimum

Turn-Off pulse duration - t(off): 1s minimum.

A serial “Turn OFF” command is also provided, however *turning ON by serial commands is impossible as the control module will be inoperative.*

The serial “Turn OFF” command is: 55h 81h 08h 02h 00h 0Ah 00h 16h – 8 bytes.

*NOTE 1:*

*The RS232 COM port settings of the computer must be the same as the amplifier’s settings:*

*baud rate: 9600*

*start bit: 1*

*data bits: 8*

*parity bits: no*

*stop bits: 1*

*hand shaking: no.*

*NOTE 2:*

*None of the power ON/OFF control methods is interrelated. The amplifier can be turned ON using any one of the methods, and it can be turned OFF using the same or another method, including the power ON/OFF button on its front panel or a serial “Turn OFF” command.*

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