

# 4 kV, 18 GHz DUT Switch S-3000DK-TNC

Advanced TLP/HMM/HBM Solutions

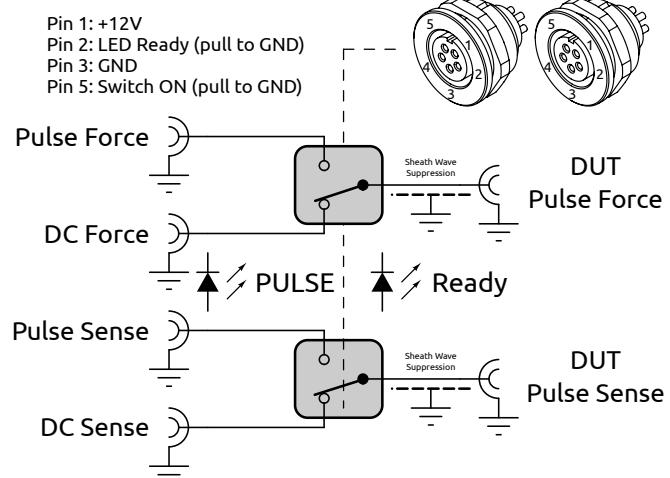


Figure 1: Schematic diagram. Pin 1 is static +12 V. Pin 3 is static GND. To turn on the switches, pin 5 must be pulled down to GND (pin 3) using a low-side switch.

## 1 Features

- DUT switch for 160 A TLP-16010A/C systems at 4 kV pulse voltage into 50 Ohm
- 2 synchronous switched single pole, double throw (SP2T) channels
- Integrated sheath wave (common mode) suppression
- DC - 5 GHz bandwidth
- 4 kV nominal pulse voltage
- Designed for high performance VF-TLP/TLP/HMM
- Suitable for “quasi”-Kelvin DC test
- 6 TNC ports
- 12 V, 0.6 A power consumption
- Size 260.1 mm x 146 mm x 56.1 mm
- 2 x Ø 4 mm dowel holes and 2 x M4 threads on bottom for system integration (Fig. 5)
- Extremely low triboelectricity generation
- Improved reliability for high system pulse counts

## 2 Description

The S-3000DK-TNC is used to connect the device under test (DUT) with the measurement system. The SP2T channels of the S-3000DK-TNC are used to connect pulse force, pulse sense and the DC test signals. Fig. 1 shows the schematic diagram of the S-3000DK-TNC. The “DC Force” and “DC Sense” can be used for “quasi”-Kelvin DC test. “quasi”-Kelvin means that the hot lines are meet at the DUT and the GND meet at the DUT switch. This increases the accuracy in contrast to 2-pin DC measurement. The ports “DC Force” and “DC Sense” can be used also for other purpose and have same performance as “Pulse Force” and “Pulse Sense” channels. Fig. 4 shows a typical application.

## 3 Electrical Characteristics

All SP2T channels have similar performance as shown in Fig. 2 and Fig. 3.

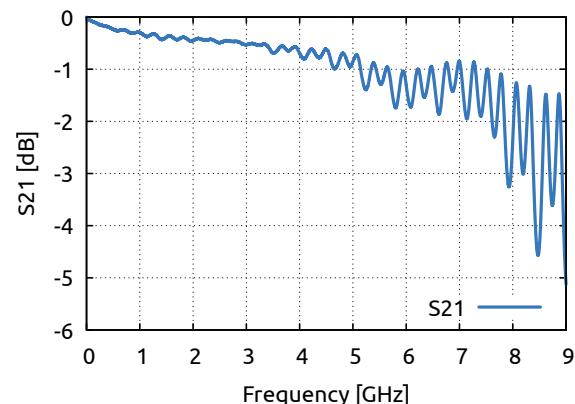


Figure 2: Typical frequency response (all SP2T channels)

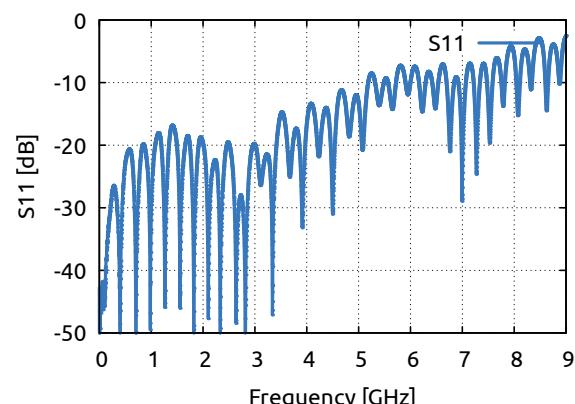


Figure 3: Typical reflection coefficient (all SP2T channels)

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## 4 Application

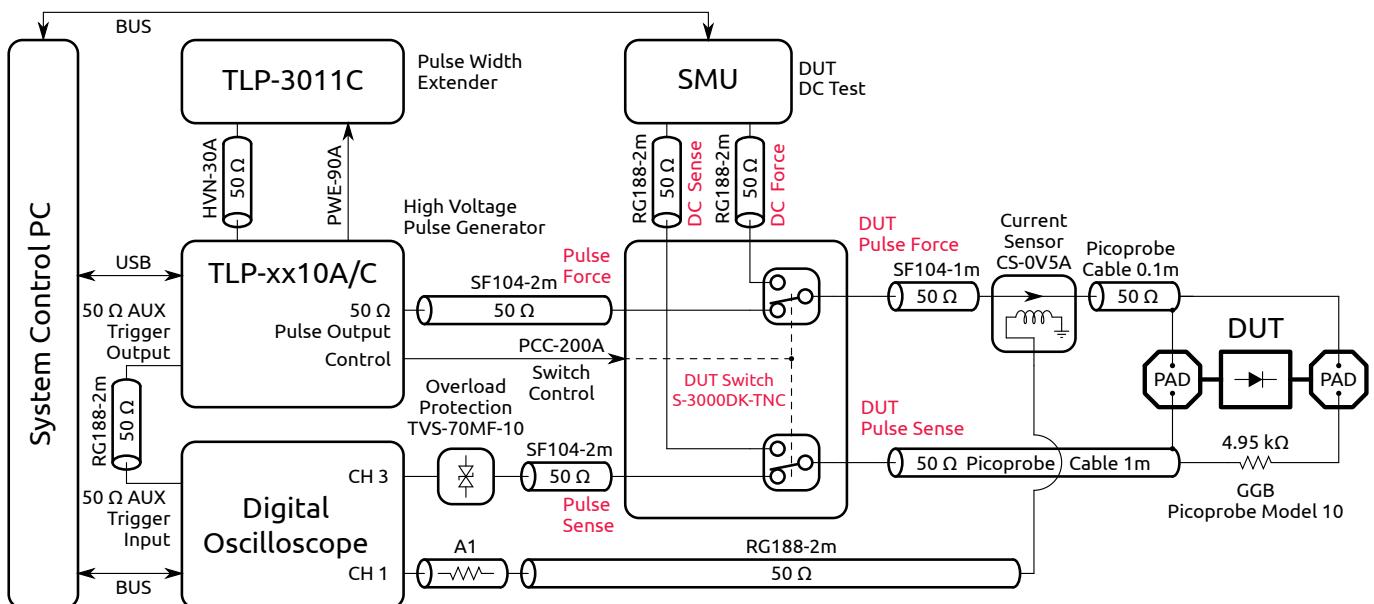


Figure 4: S-3000DK-TNC typical application

## 5 Dimensions

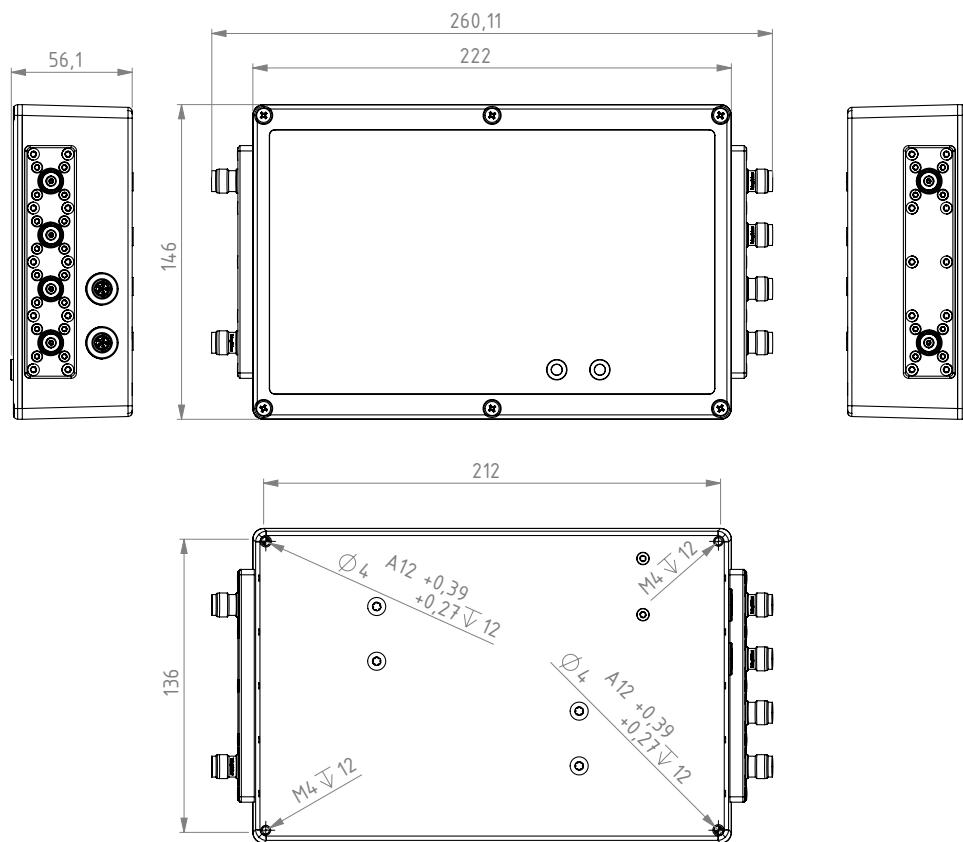


Figure 5: Mechanical dimensions of the S-3000DK-TNC in [mm]

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## 6 Ordering Information

Pos.	Description	Part No.
01	4 kV, 18 GHz DUT Switch	S-3000DK-TNC

### General

The product data contained in this data-sheet is exclusively intended for technically trained staff. You and your technical departments will have to evaluate the suitability of the product for the intended application and the completeness of the product data with respect to such application. Our products are solely intended to be commercially used internally and should not be sold to consumers. This data-sheet is describing the specifications of our products for which a warranty is being granted by HPPI GmbH. Any such warranty is granted exclusively pursuant the terms and conditions of the respective supply agreement. There will be no guarantee of any kind for the product and its specifications. For further information on technology, specific applications of our product, delivery terms, conditions and prices please contact HPPI:

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