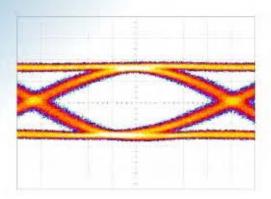


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# Datasheet SHF 50

**Bias Load** 



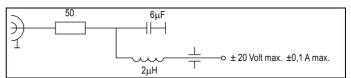


# **Specifications – SHF 50**

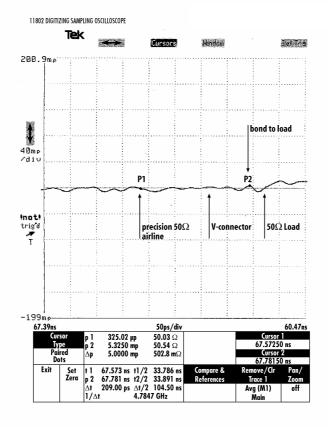
| Parameter                | Symbol            | Unit | Min | Max | Conditions   |
|--------------------------|-------------------|------|-----|-----|--|
| High frequency 3dB point | f <sub>HIGH</sub> | GHz  | 50  |     |  |
| Low frequency 3dB point  | $f_{LOW}$         | Hz   |     | 500 |  |
| Input return loss        | S <sub>11</sub>   | dB   |     | 30  | <5 GHz   |
|                          |                   |      |     | 20  | <20 GHz  |
|                          |                   |      |     | 10  | <40 GHz  |
| Pulse power              | $P_{\text{max}}$  | dBm  |     | 36  | <5% duty cycle   |
| Supply current           | I <sub>max</sub>  | А    |     | 0.1 | maximum with RF power<br>below 0dBm CW; DC + RF<br>power should not exceed<br>24dBm! |
| Supply voltage           | V <sub>max</sub>  | V    |     | 20  |  |
| RF connector             |                   |      |     |     | V male*  |
| Dimensions LxWxH         |                   | mm   |     |     | 20x30x12 plus connectors   |

 $<sup>^{\</sup>star}$  K male connector also available on request. Please note that this will reduce  $f_{HIGH}$  to  $\sim\!45GHz$ 

The SHF 50 bias load allows a voltage to be added to a  $50\Omega$  with a high line while the line itself is a terminated precision load. It is especially suited for biasing optical modulators.

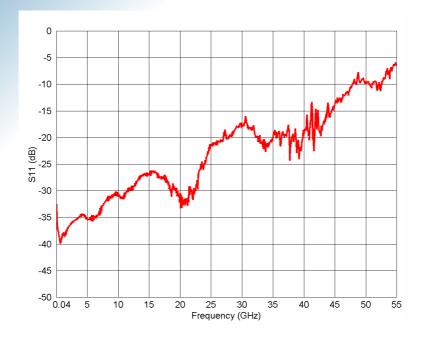


#### TDR measurement of SHF 50 Bias Load

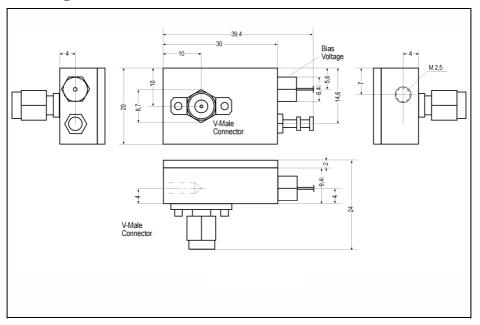




## **Input return loss**



# **Outline drawing**



#### **ATTENTION**

Check mating surface before connecting the bias load to a device under test.

Correct center conductor recess of the DUT is **essential** to avoid destroying the delicate mechanical layout inside the SHF 50.

For multiple connections, use a connector saver or an adaptor ahead of the SHF 50.

**NEVER USE A WORN OUT CONNECTOR!** 

