

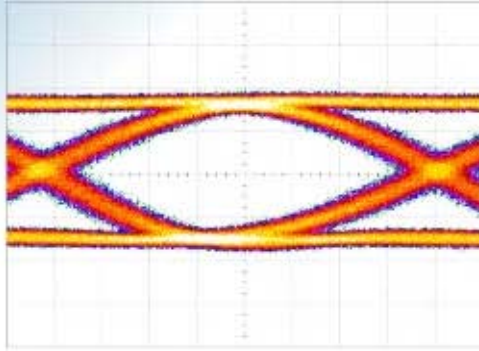


## SHF Communication Technologies AG

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# Preliminary Datasheet

## SHF DCR45

### 50Ω DC Return



Resonance free transmission performance  
Innovative construction – Patent pending

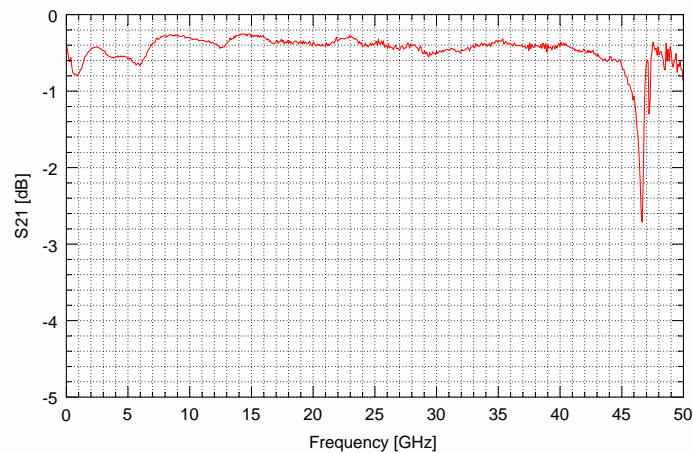




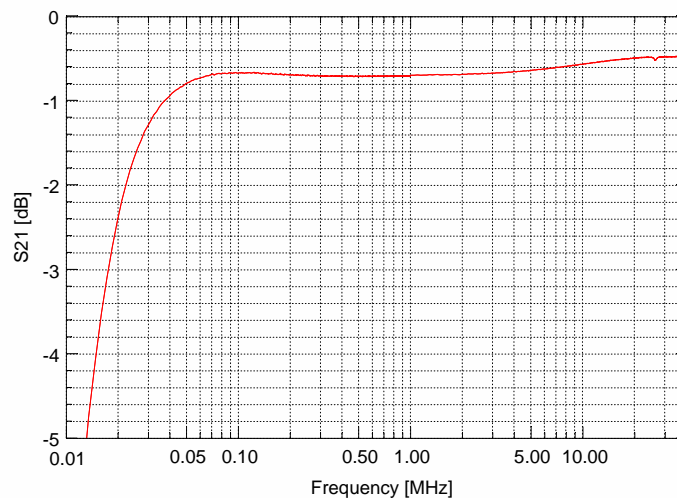
## Specifications – SHF DCR45

Parameter	Symbol	Unit	Min	Typ	Max	Conditions
High frequency 3 dB point	$f_{\text{HIGH}}$	GHz	45			
Low frequency 3 dB point	$f_{\text{LOW}}$	kHz			20	at 100mA
Insertion loss	$S_{21}$	dB			1.5	<45 GHz
Input return loss	$S_{11}$	dB		-10	-17 -15 -9	>40 MHz <15 GHz <25 GHz <45 GHz
Group delay		ps		20		<45 GHz, aperture 100 MHz
Maximum input power	$P_{\text{max}}$	dBm			30	
Rise time/Fall time	$t_r/t_f$	ps			5	10...90%
Bias voltage	$V_{\text{bias}}$	V			16	100mA
Input connector						K (2.9 mm)
Output connector						K (2.9 mm)
Dimensions (LxWxH)		mm				31x13x12.6

### Insertion loss

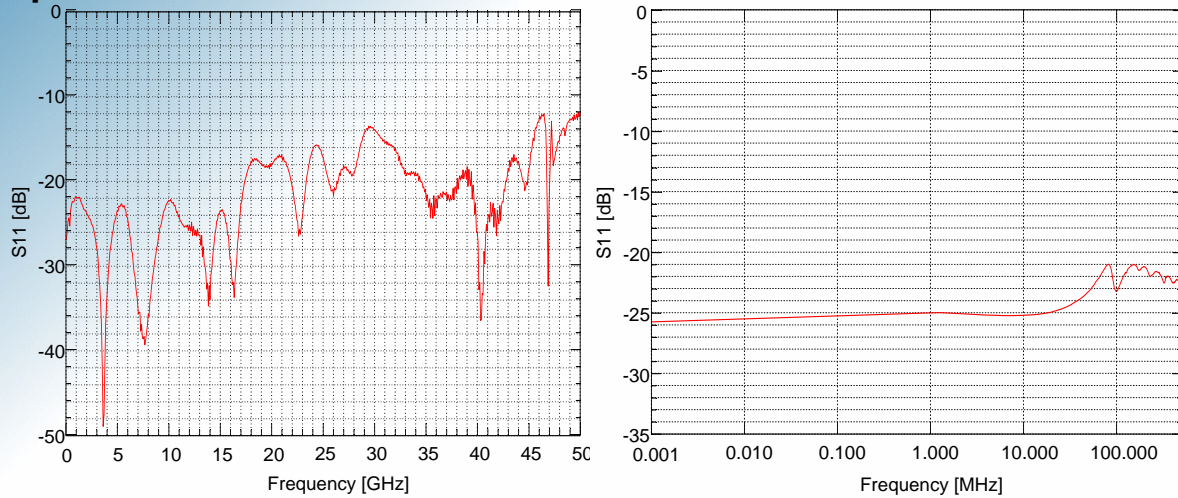


The structure at ~47GHz is due to moding of the K connectors

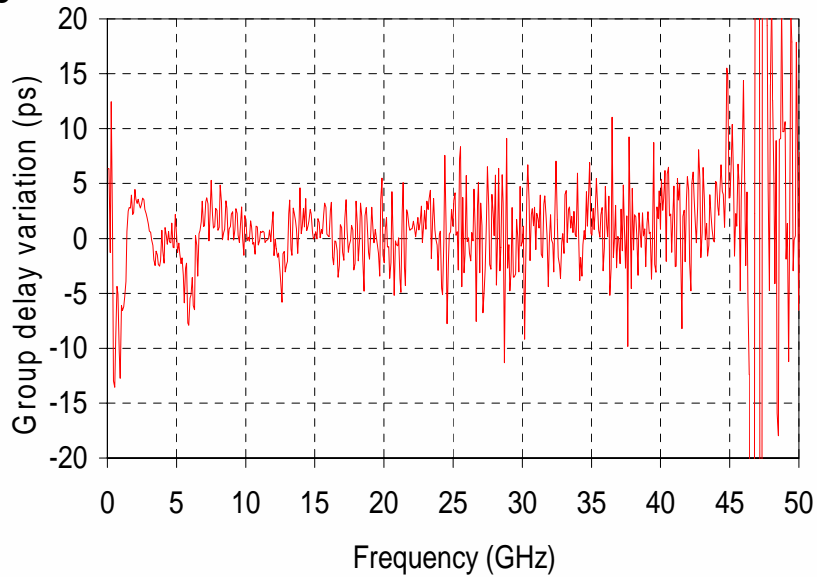




## Input return loss

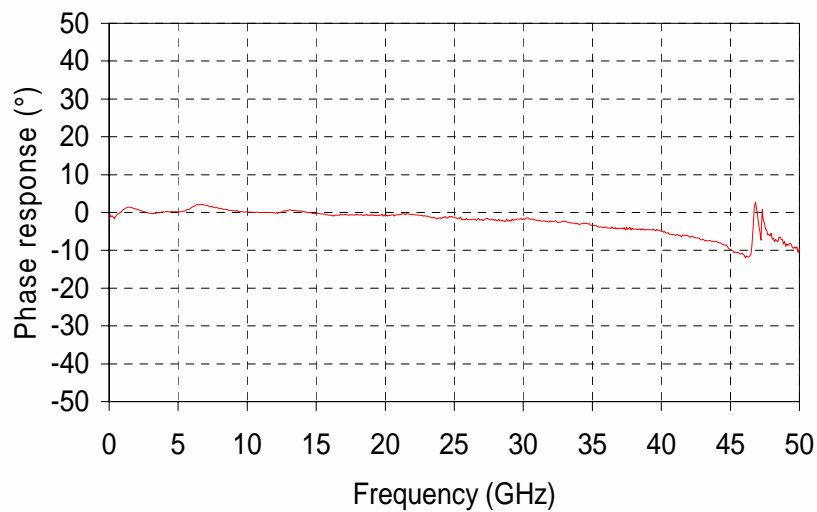


## Group delay



Aperture of group delay measurement: 100MHz

## Phase response





## Outline diagram

### ■ Applications

Optical Communications  
Research and Development  
High-Speed Pulse Experiments  
Data Transmission

**The following combinations of connectors are available.**

Please specify with your order.

