

1. Measurement condition

Ambient temperature:	23 °C
Input power level:	0 dBm
Source impedance:	340 Ω - 18,8 pF
Load impedance:	2075 Ω - 15,9 pF

2. Characteristics

Remark:

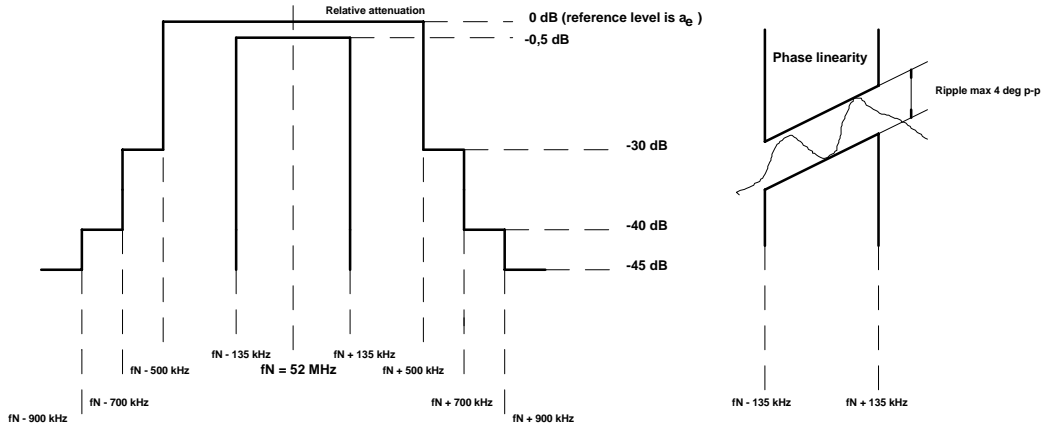
Reference level for the relative attenuation a_{rel} of the TFS 52 is the minimum of the pass band attenuation a_{min} . The minimum of the pass band attenuation a_{min} is defined as the insertion loss a_e . The centre frequency f_0 is the arithmetic mean value of the upper and lower frequencies at the 0,5 dB filter attenuation level relative to the insertion loss a_e . The nominal frequency f_N is fixed on

52 MHz without tolerance or limit. The given values for the relative attenuation and for the phase linearity have to be reached at the frequencies given below also if the centre frequency f_0 is shifted due to the temperature coefficient of frequency TC_f in the operating temperature range and due to a production tolerance of ± 10 kHz for the centre frequency f_0 . This frequency shift is excluded both for the frequencies and limit lines given below.

D a t a		typ. value	Variation / Limitation	
Nominal frequency	f_N	-	52,0 MHz	
Centre frequency	f_0	52,0 MHz	max ± 10 kHz	
Insertion loss (Reference level)	a_e	-	max 15 dB	
Change of insertion loss in the operating temperature range		-	max ± 1 dB	
Pass band		-	min $f_N \pm 135$ kHz	
Pass band ripple	a_{p-p}	-	max 0,5 dB	
Relativ attenuation	a_{rel}			
$f_N \pm 500$ kHz		-	min 30 dB	
$f_N \pm 700$ kHz		-	min 40 dB	
$f_N \pm 900$ kHz ... $f_N \pm 5$ MHz		-	min 45 dB	
Phase linearity	ϕ			
Ripple of phase linearity in the pass band ϕ_{p-p}		-	max 4 deg	
Operating temperature range		0 °C ... + 75 °C		
Storage temperature range		- 40 °C ... + 75 °C		
Temperature coefficient of frequency TC_f *)		- 0.05 ppm/K ²	-	

*) $\Delta f(\text{Hz}) = TC_f(\text{ppm/K}^2) \times (\Delta T)^2 \times f_{T0}(\text{MHz})$

3. Limit lines for magnitude and phase linearity



4. Construction and pin connection

