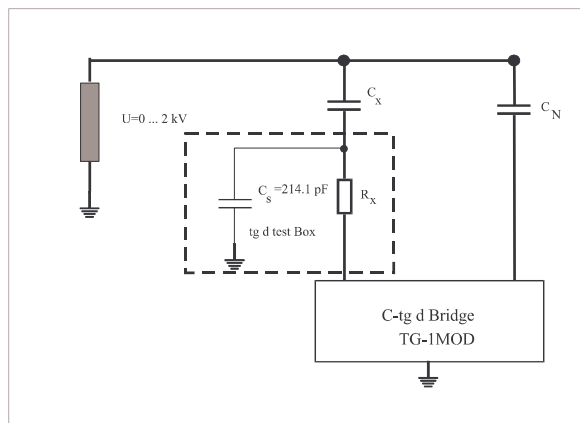


Simulation of $\tan\delta$

The principle we use to simulate a $\tan\delta$ is shown below :



The calculation formula is as follows :

$$\tan \delta_X = \omega * R_X * (C_X + C_{Box} + C_{cable} + C_{Xs})$$

Where

$\tan\delta_X$	=	expected $\tan\delta$
ω	=	omega = $2 * \text{Pi} * f_X$
f_X	=	50 Hz (Measurement frequency), could also be 60 Hz
R_X	=	resistor value in the TG-1REF
C_X	=	main capacitance of the capacitor used to simulate the $\tan\delta$
C_{Box}	=	earth capacitance of the TG-1REF
C_{cable}	=	capacitance of the matched cable
C_{Xs}	=	earth capacitance of C_X