HIGH VOLTAGE MEASUREMENT BRIDGE CIRCUIT

THT10KV V2.0

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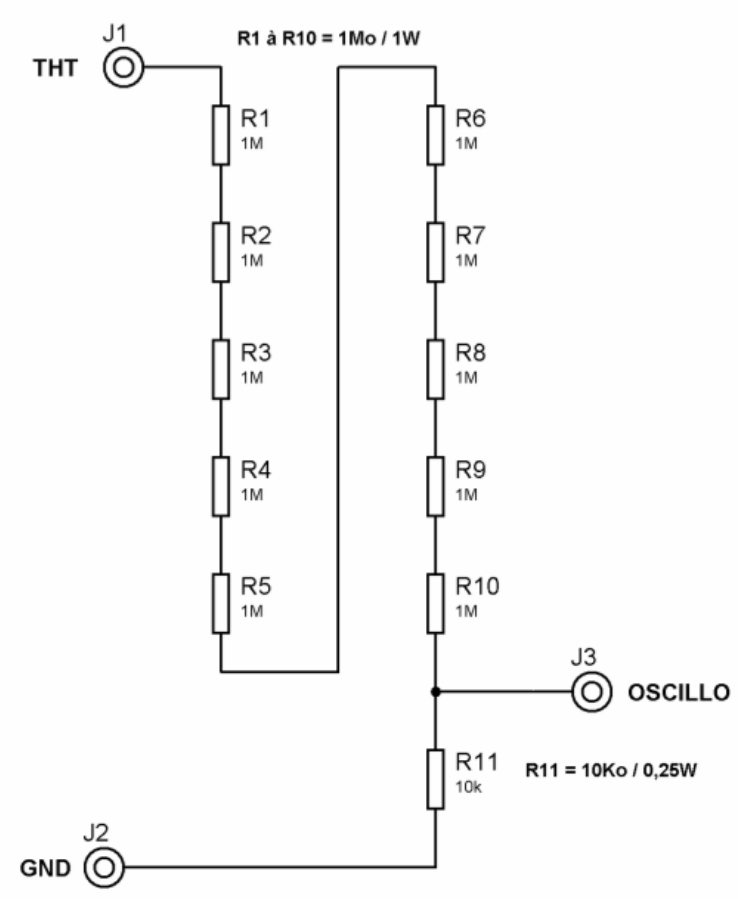
Working with High Voltage electrical values leads us against the difficulty of measurement.

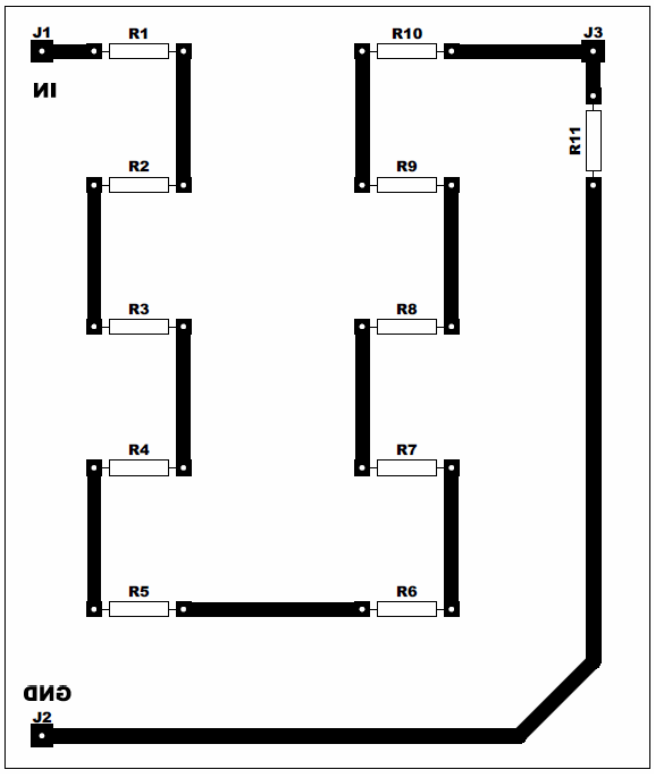
Unless using a specific measuring device, the only way to realize this measure requires a divisor bridge circuit :



Simple, easy to realize and cheap, it doesn't bring commercial divisor bridge accuracy.
Maximum Input Voltage : 10 kV
Amperage (10 kV input) : 1mA (strong enough !)
Scale : **1V/kV**
Accurately, according to the error generated by the resistance values and their tolerances (that's why we advice you to choose resistors 1%), with 10kV input voltage, you will measure an output voltage of 9.99v (instead of 10v).

Making

Simple sided PCB 5,11" x 3,94" :



Once realized, fill both side (except input/output pins) with glu.

WARNING : Use only 10 pieces of 1MΩ / 1W resistors even if you got a 10MΩ resistor (unless it's a 10W power)

Subject to mistakes or omissions…
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Asl