

## SAW Love mode cartridge

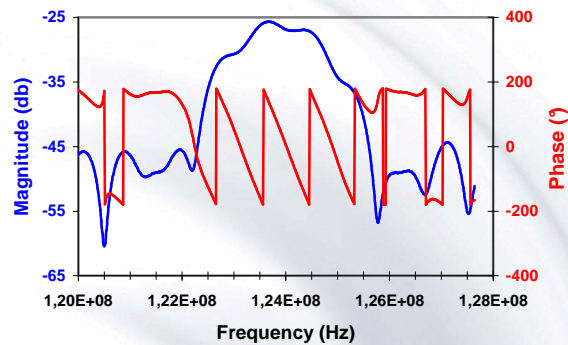
The SAW love mode cartridge can be connected to the electronic unit delivered by SENSeOR in the SAW-MDK2 demonstration kit or to a network analyzer through 4 SMA female connectors. The cartridges are composed of two delay lines allowing differential measurements.

### Specifications of the delay lines

Insertion loss	> -30 dB
Center frequency	123 MHz $\pm$ 3 MHz
Conversion factor <sup>(1)</sup>	$(5.76) \cdot 10^{-4} \text{ } ^\circ / \text{Hz}$
Mass sensitivity <sup>(2)</sup>	200 cm <sup>2</sup> / g
Value of the thermistor	6 k $\Omega$
Temperature drift	-3.9 ppm / $^\circ\text{C}$
Operating temperature	-20 to 80 $^\circ\text{C}$
Sensing area	3.2 x 3.8 mm <sup>2</sup> each
Height of the walls	100 $\mu\text{m}$

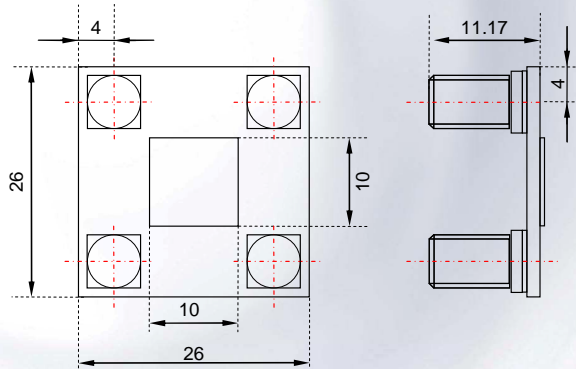
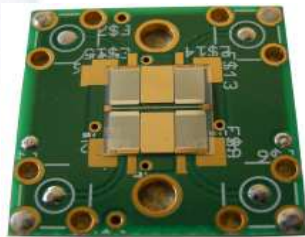
<sup>(1)</sup> Gives the frequency shift from the phase variation

<sup>(2)</sup> Sensitivity is obtained by electrodeposition of copper



Transmission scattering parameter (S21)

### Dimensions of the cartridge (in mm)



### Product references

The cartridge can be customised by adding specific layers on the sensing area. Standard layers proposed by SENSeOR are:

Sensing area:	Reference
Gold (Au)	SEW017
Silicon oxide (SiO <sub>2</sub> )	SEC037

For specific developments or more information about our products, please contact us.

SENSeOR

Parc du font de l'Orme – 694 Av. du Dr. Maurice Donat – F-06250 MOUGINS

Phone: +33(0) 497 231 320 – Telecopy: +33(0) 493 060 858

[contact@senseor.com](mailto:contact@senseor.com)