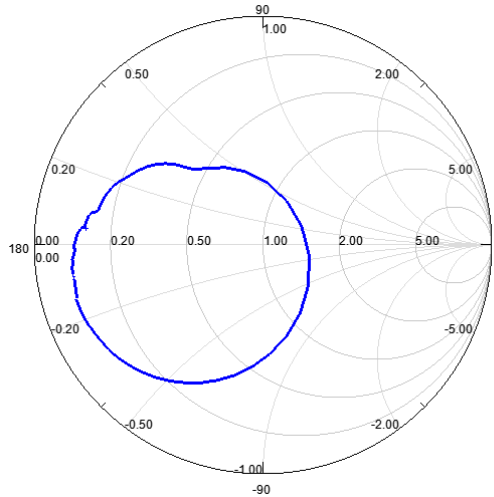


SS2478BO2 Temperature Sensor (1-port Resonator)

This product is in compliance with RoHS 2011/65/EU.

Typical performance: S11 @ 23°C



Test Conditions:

RF power	-10 dBm
Temperature	25 °C
DC Voltage	0 V
Terminating source impedance (Z _S):	50 Ω
Terminating load impedance (Z _L):	50 Ω

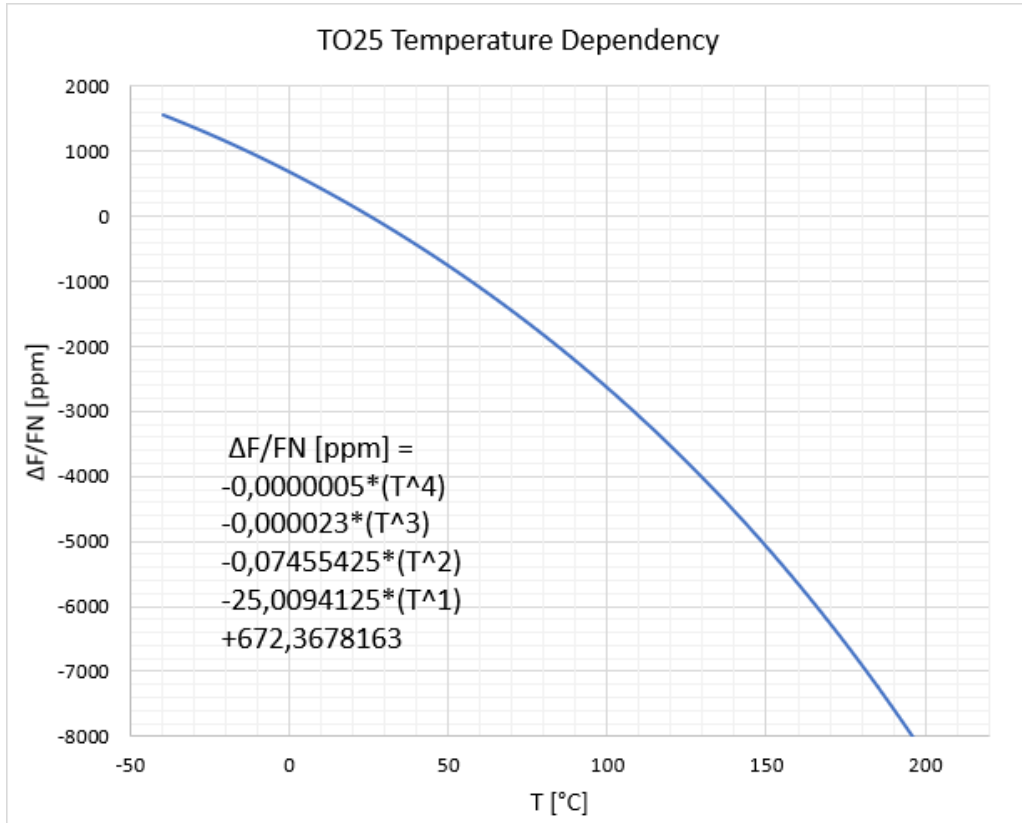
		minimum	typical	maximum	unit	
Nominal frequency *1	f _n	2477	2478	2479	MHz	
Insertion Loss	I _L		14,2	17,1	dB	
Unloaded quality factor	Q _U		4350			
Ageing @200°C		0,9	1,1	1,3	K/1000h	
Equivalent Circuit elements						
Motional capacitance	C ₁		68,5		fF	
Motional inductance	L ₁		60,6		nH	
Motional resistance	R ₁		0,4		Ω	
Parallel capacitance	C ₀		13		pF	
Serial resistance	R ₀		4,3		Ω	
Operating temperature range		0		200	°C	
Temperature coefficient of frequency	a	TC _F	-5E-7		ppm/K ⁴	
	b		-23E-6			ppm/K ³
	c		-74,55E-3			ppm/K ²
	d		-25,0			ppm/K
	e		672,37			ppm

Electrostatic Sensitive Device

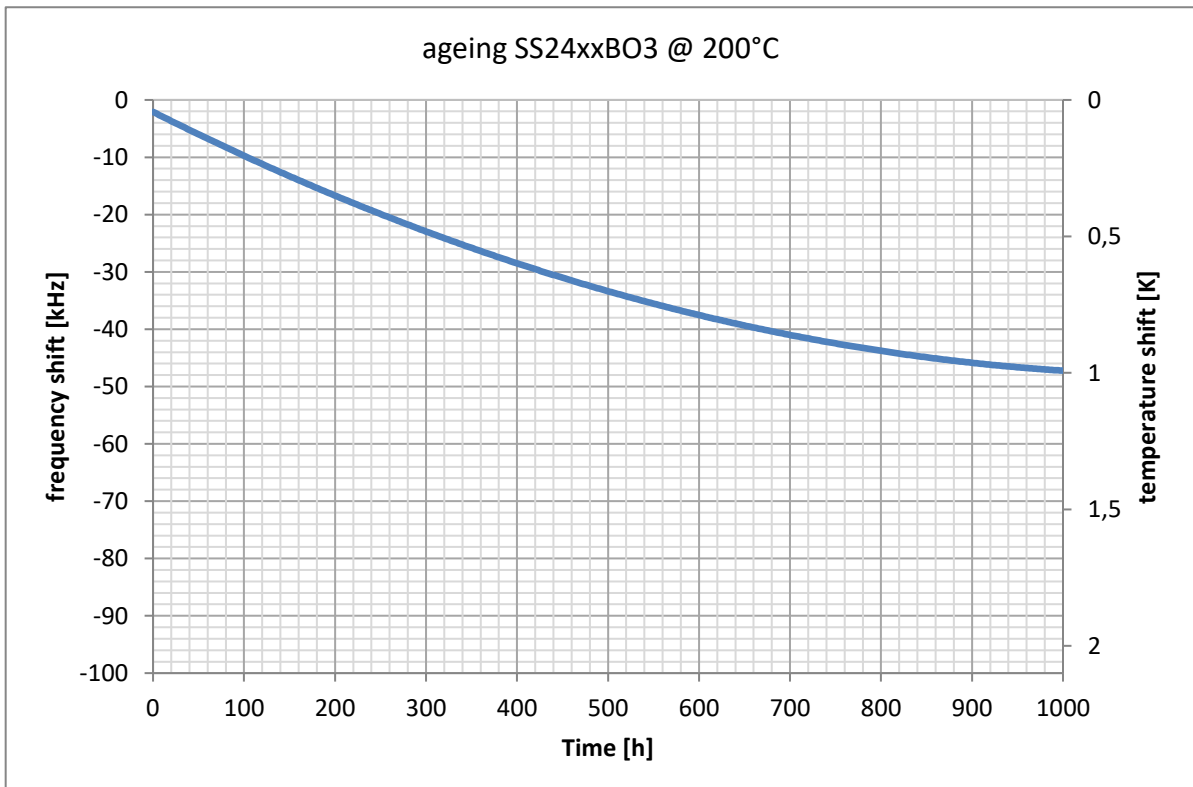
*1 Nominal frequency is defined as maximum impedance of s11.

Temperature coefficient of frequency

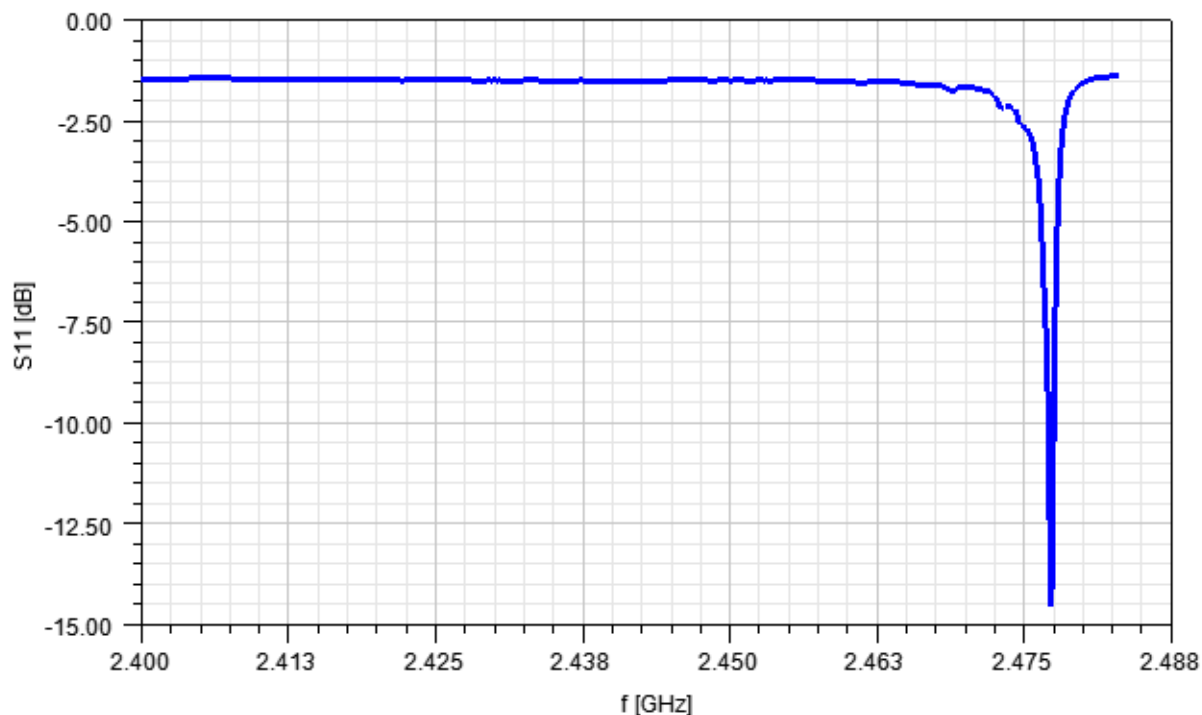
$$\Delta F/F_n = a \cdot T^4 + b \cdot T^3 + c \cdot T^2 + d \cdot T + e \quad \text{with } T \text{ in } ^\circ\text{C}$$



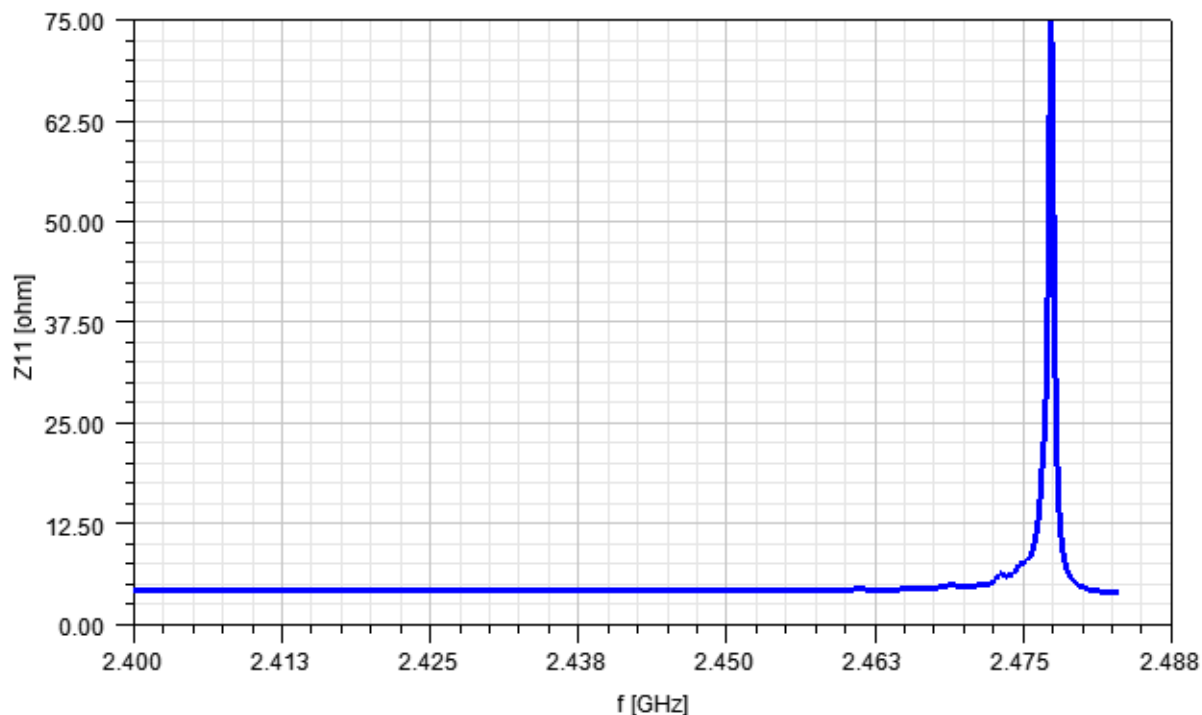
Ageing



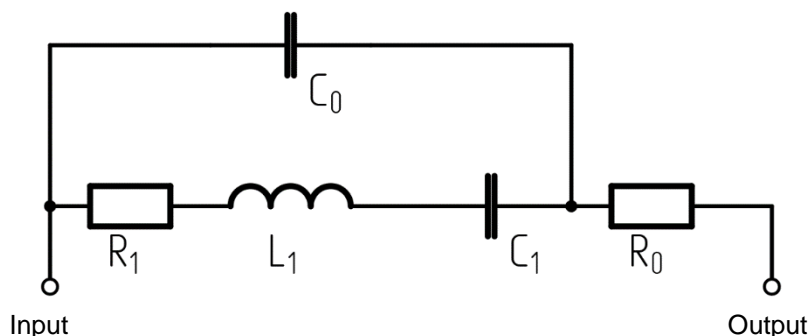
Magnitude



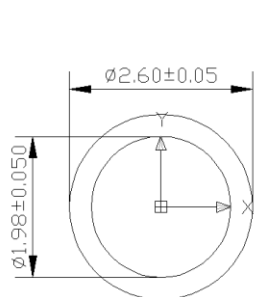
Impedance



Equivalent Circuit

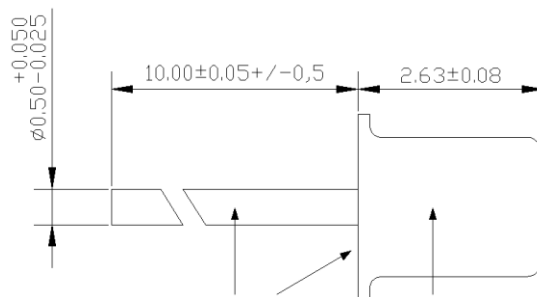


Package: TO25



dimensions in mm

Pin 1: Input
CAP: Output

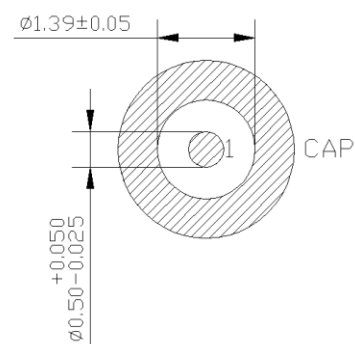


Pin and Socket:
NiCo2918

Surface:
0.76 μm Au
over 2 μm Ni

Cap:
NiCo2918

Surface:
5~8 μm Ni



Marking

The marking is located on the cap of the package: figures indicate last digits of the nominal resonance frequency in MHz, e.g. "44" in case of 2444 MHz.

Product ID, Lot Number, delivery date and other information is submitted on a label on transfer package.

