



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F _{nom}			26		MHz	
Output			CMOS				
Output Level			V _{OH} ≥ 0.9 * V _{CC} V _{OL} ≤ 0.1 * V _{CC}				
Output Load				10		pF	
Symmetry (Duty)		@ ½ Vdc	45		55	%	
Power Supply							
Voltage	V _{CC}	±5%		3.3		V	
Supply Current		output disable		200	3.2	mA	
Start up Time					2	ms	
Tri-state Function		pin #6 > 2.1 V or open pin #6 < 0.9 V or GND	pin #5 → oscillation pin #5 → high impedance				
Frequency Stability							
Versus Temperature		-40°C to +55°C, ref to (Fmax+Fmin)/2			±0.2	ppm	Class 1 beacon
Tolerance at 25°C					±0.5	ppm	
Versus Supply Voltage		±5% change			±0.01	ppm	
Versus Load		±10% change			±0.05	ppm	
First Year Aging					±1.0	ppm	
10 Years Aging					±3.0	ppm	
Medium-term stability		According the IAW C/S T.007 and C/S IP TCXO					
Mean slope ΔF/dt after 15 min power-up:							
steady state		T = const.			±0.7	ppb/min	
during temperature ramp		ΔT/dt = ± 5 °C/hour			±1.7	ppb/min	
Residual ΔF (r.m.s.) from slope		over 18 points			2.0	ppb	
Phase noise		10 Hz			-90	dBc/Hz	
		100 Hz			-115		
		1000 Hz			-135		
		10 KHz			-150		
		100 KHz			-155		
Short-Term Stability	ADEV	Tau = 1 second			1x10 ⁻¹⁰		
Environmental Conditions							
Operating temperature range	-40°C to +55°C						
Storage temperature range	-55°C to +105°C						
Reflow conditions per JEDEC J-STD-020	260 °C maximum during 10 sec. Max.						

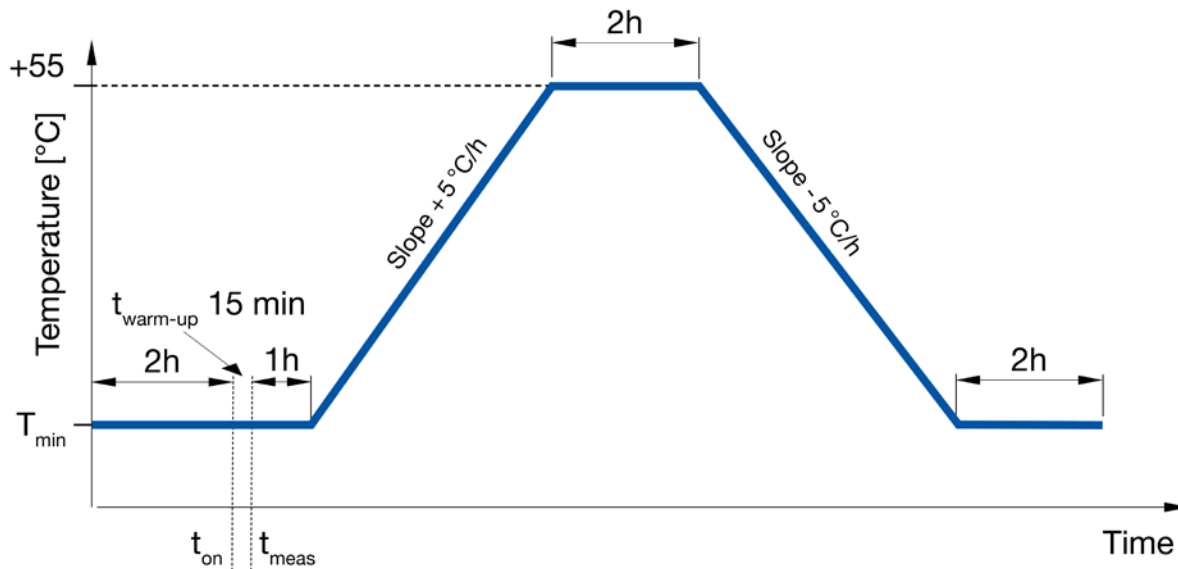
Environmental Conditions

Test	Reference STD.	Test conditions (IEC)
Vibration sinusoidal	IEC 60028-2-6 IEC 60679-1-5.6.7	Test Fc, 30 min per axis 10 Hz – 55 Hz at 0.75 mm, 55 Hz – 2 kHz at 10 g
Shock	IEC 60028-2-27 IEC 60679-1-5.6.8	Test Ea, 3 x per axis at 100 g, 6 ms, half-sine pulse
Soldering	IEC 60028-2-20 IEC 60028-2-58 IEC 60679-5.6.3	Test Ta 260 °C Method 1 Test Tb Method 1A, 5s



Medium Term Stability

Frequency stability measurement procedure according the COSPAS/SARSAT T.001



Note #1: T_{min} = -40°C (Class 1 beacon)
 T_{min} = -20°C (Class 2 beacon)
 T_{ON} = beacon turn-ON time after 2 hours "cold soak"
 T_{meas} = start time of frequency stability measurement ($T_{ON} + 15 \text{ min}$)

Note: #2 The 2h and 1h warm-up and stabilisation times are for type approval test of complete beacon. For testing of TCXO these times may be shortened accordingly.