


First ever quartz watch with internal IC thermo-compensation

Registration No.	Number 000306		
Registration Date	September 14, 2021	Registration Category	Category 1

Name (Model, etc.)	CITIZEN EXCEED Cal. 1930		
Location	Nishitokyo-shi, Tokyo		
	CITIZEN WATCH Co., LTD.		
Owner (Custodian)	CITIZEN WATCH Co., LTD.		
Manufacturer (Company)	CITIZEN WATCH Co., LTD.		
Year Manufactured	1981		
Year first appeared	1981		
Reason For Selection	<p>Mass production of quartz watches was initially hampered by the frequency-temperature characteristics of the quartz oscillator and the need for a fully adjusted condenser. The solution was a compact and thin CMOS-IC featuring a built-in temperature sensor that directly monitored the ambient temperature of the oscillator to provide data for frequency correction. 1981 saw the release of the first quartz watch with internal IC thermo-compensation, featuring a tuning fork oscillator that corrected for frequency-temperature characteristics. This watch represents an important milestone in the development of watch technology.</p>		
Registration Standard	1-A (Show an important aspect or stage of the development of science and technology.)		

Open/Closed to Public	Closed to Public		
Photo			
Other useful information			