PRECISION TIMING

XHTF1021 Compact Rubidium Atomic Clock

The XHTF1021 Compact Rubidium Atomic Clock offers precise timing and synchronization with low power consumption, making it suitable for aerospace, aviation, navigation, and communication industries.

Overview

The **XHTF1021 Compact Rubidium Atomic Clock** is a highly efficient and reliable timekeeping device that combines low power consumption, compact structure, and excellent synchronization capabilities. For inquiries, please contact us.

Features

- Compact structure for space-constrained applications.
- Low power consumption at +12V DC.
- RS-232C serial port for reliable communication.
- Supports 1PPS input synchronization and outputs a standard second signal.

Applications

- Widely used in aviation, aerospace, navigation, communication, and power industries.

Main Specifications

Core Specifications

Specification		Typical	High performance
Short-term Stability	1s	<3E-11	<1.5E-11
	10s	<1E-11	<5E-12
	100s	<3E-11	<1.5E-12

Specification		Typical	High performance
Phase Noise (SSB)	@10Hz	<-100 dBc/Hz	
	@100Hz	<-130 dBc/Hz	
	@1kHz	<-140 dBc/Hz	

Specification		Typical	High performance
Adjustment Range	Internal mechanical adjustment	≥2E-9	
	External mechanical adjustment	≥2E-9	

Specification		Typical	High performance
1PPS Input Sync Function (Optional)	1PPS synchronization	≤±50 ns	
	Frequency accuracy	≤1E-12/day (after one day discipline)	

Pin Connection Details

Pin Number	Function	Pin Number	Function
1	Lock Status	6	NC or 1PPS Output
2	GND	7	+12V
3	NC or RXD	8	NC or 1PPS Output
4	NC or TXD	9	Lock Test
5	External Power Adjust	——	

External Dimension

An external dimension of **89 × 76 × 28 mm**, ensuring compact integration for various applications.