



CsIII-EP

Enhanced Performance Cesium Frequency Standard

STANDARD FEATURES

- High Performance Tube
- Multiple RF Outputs
- Remote Monitoring & Control
- 30 Minute Warm-up to Full Specification

OPTIONAL FEATURES

- T1/E1 Outputs
- Portability Kit

The Symmetricom CsIII-EP™ is a new enhanced performance version of our popular CsIII cesium instrument. The EP version provides outstanding short and long-term stability, improved performance over varying temperatures and AC/DC input voltages.

The CsIII-EP is configured with 5 and 10MHz outputs, a 1 PPS sync input and a 1 PPS timing output. All monitoring and control of the unit is done via the serial interface and Symmetricom's proprietary Monitor2™ software.

An optional portability kit and T1/E1 synthesizer are available for the CsIII-EP for added functionality and versatility.

The CsIII-EP is ideal for SATCOM, Calibration, Metrology and many other Test & Measurement applications that require cesium stability and accuracy.



CsIII-EP Enhanced Performance Cesium Frequency Standard

CsIII-EP Specifications

ELECTRICAL SPECIFICATIONS

- Frequency outputs

Frequency:	5MHz & 10MHz
Amplitude:	1Vrms
Harmonic:	<-40dBc
Non harmonic:	<-80dBc
Connector:	BNC
Load impedance:	50Ω
Location:	rear panel
- Timing outputs

Format:	1 PPS
Amplitude:	>3.0V into 50Ω (TTL Compatible)
Pulse width:	20μs
Rise time:	<5ns
Jitter:	<1ns rms
Connector:	BNC
Location:	rear panel
- Timing inputs

Sync input:	1PPS
Amplitude:	>3.0V into 50Ω (TTL Compatible)
Pulse width:	20μs
Rise time:	<5ns
Jitter:	<1ns rms
Connector:	BNC
Location:	rear panel
- Remote system interface and control
RS-232-C (DTE Configuration)

Complete remote control and interrogation of all instrument functions and parameters

Connector

RS-232-C:	9-pin male rectangular D subminiature type
Location:	rear panel (1)
Alarm (TTL):	9-pin female rectangular D subminiature type
Location:	rear panel
- Performance parameters

Accuracy:	±5.0E-13
Warm-up time: (typical)	30 Min
Reproducibility:	±2.0E-13
Stability	
Range:	±1.0E-9
Resolution:	1.0E-15
Control:	via RS-232 port

• Stability	Averaging Time(s)	Allan Deviation	
	1	<5.0E-12	
	10	<2.7E-12	
	100	<8.5E-13	
	1,000	<2.7E-13	
	10,000	<8.5E-14	
	100,000	<2.7E-14	
	Floor	<1.0E-14	
• SSB phase noise	Offset (Hz)	5MHz Output	10MHz Output
	1	<-102dBc	≤-96dBc
	10	<-130dBc	≤-125dBc
	100	<-145dBc	≤-135dBc
	1,000	<-155dBc	≤-145dBc
	10,000	<-155dBc	≤-145dBc
	100,000	<-160dBc	≤-150dBc

ENVIRONMENTAL & PHYSICAL SPECIFICATIONS

- General environment

Temperature	
Operating:	0° C to 55° C
Non-operating:	-40 to 70° C
Magnetic field:	0 to 2 gauss
Altitude (operating):	0 to 50,000'
- AC power requirements

Operating voltage:	85 to 264 VAC
Frequency:	47 to 63 Hz
Power	
Operating:	65W
Warm-up:	90W
- DC power requirements

22 to 36 VDC *	
30W 1.3A @24V (Operating)	
65W 2.7A @24V (Warm Up)	

* 48VDC(36-75VDC) power supply option available
- Dimensions

Height:	3.50" (88.9 mm)
Width	
Front panel:	19.00" (483 mm)
Instrument:	17.31" (440 mm)
Depth:	15.0" (381 mm)
Weight:	<30 lbs. (13.5 Kg)

OPTIONS

- | | |
|-------------------|-----|
| • Dual T1 outputs | DS1 |
| • Dual E1 outputs | E1 |
| • Portability kit | PCK |

Part No.



CsIII-EP connections



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