



# OSA 3230 Cesium Clock

The OSA 3230 is a Primary Reference Clock Source using the Digital Cesium technology

## Typical Characteristics

### Cesium performances characteristics

	<u>Std version</u>	<u>High perf.</u>
Frequency accuracy	$\pm 1 \times 10^{-12}$	$\pm 5 \times 10^{-13}$
Frequency deviation over full operating conditions -5°C to +55°C	$\pm 2 \times 10^{-12}$	$\pm 1 \times 10^{-12}$
Reproducibility	$\pm 1 \times 10^{-12}$	$\pm 5 \times 10^{-13}$
Short Term Stability (ADEV):		
	<u>Std version</u>	<u>High perf.</u>
1s	$2 \times 10^{-11}$	$5 \times 10^{-12}$
10s	$2 \times 10^{-11}$	$2.7 \times 10^{-12}$
100s	$5 \times 10^{-12}$	$8.5 \times 10^{-13}$
1'000s	$1.5 \times 10^{-12}$	$2.7 \times 10^{-13}$
10'000s	$5 \times 10^{-13}$	$8.5 \times 10^{-14}$
100'000s	$3 \times 10^{-13}$	$2.7 \times 10^{-14}$
Floor	$3 \times 10^{-13}$	$2 \times 10^{-14}$
Settability:		
Resolution	$< 1 \times 10^{-14}$	
Range	$\pm 1 \times 10^{-9}$	
Warm-up time	45 minutes	

### Outputs

#### Direct frequency output

Frequency	10MHz
Output level	7dBm @ 50Ω
Connector	BNC

#### Output phase noise:

1 Hz	-90 dBc
10 Hz	-120 dBc
100 Hz	-135 dBc
1 kHz	-145 dBc
10 kHz	-145 dBc
100 kHz	-145 dBc

#### Harmonic distortion:

Harmonics	>30 dBc
Spurious	>70 dBc

#### Programmable auxiliary output

Frequency	1 / 5 / 10MHz
Output level	0 / 5V HCMOS (square)
Connector	BNC

### Power Supply

#### DC Power input:

Voltage	48V DC nominal floating (24V to 60V)
Power feeds	Dual
Power consumption	35W @25°C (warm-up max. 50W)

#### AC Power input:

	Via external module
Voltage	90 to 260 V AC
Frequency	50 to 60 Hz

### Management

#### Communication port

Port	RS-232C on SUBD-9 for local management or remotely using SyncView Plus™ Management System
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#### Alarms

Relay contacts	3 x alarm indication
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#### Front panel LED indication

Normal operation	Green
Warm-up	Green-blinking
Standby mode	Yellow
Initialization	Red-blinking
Alarm	Red

### Mechanical

Size (H x W x D)	133 x 535 x 270 mm (5.24" x 19" x 10.63")
Mounting	3U 19" mounting and ETSI

### Environmental Conditions

Operating conditions	EN 300 019-1-3, class 3.2 (temperature range extended from -5°C to +55°C)
Transportation	EN 300 019-1-2, class 2.2
Storage	EN 300 019-1-1, class 1.1
Humidity	Up to 95%
Atmospheric pressure	70 kPa to 106 kPa
DC magnetic field	$\pm 1$ Gauss maximum

Oscilloquartz SA reserves the right to change all specifications contained herein at any time without prior notice.