

# PTS PRECISION TEST SYSTEMS

## CFS10A: 10 MHz OXCO Frequency Reference

CFS10A Front View



CFS10A Rear View



### Key Features

- 10 MHz Output, +13 dBm
- Oven Controlled Crystal Oscillator
- Very Low Phase Noise
- Low Aging of  $2 \times 10^{-10}$  / day
- High Thermal Stability of  $5 \times 10^{-10}$  (0 to 50 °C)
- Low 1 second Allan Deviation of  $2 \times 10^{-12}$
- 19" Rack mount Case
- Many Options Available
- CE Marked

### General Description

The CFS10A is a 10 MHz frequency reference which offers excellent performance for virtually any frequency or timing application. It is ideal for instrumentation and communication systems which require a precise frequency reference. The CFS10A is supplied in a 19" rack mount case and is powered from a 115 / 230 VAC power supply.

A number of options allow the CFS10A to be customized to meet specific requirements. Aging, phase noise, thermal stability and operating temperature can all be separately specified, so you only need to pay for the performance you require.

Other options such as a DC power input, multiple isolated 10 MHz outputs and squarewave outputs are also available.

### Applications

The CFS10A is already used by a leading UK telecommunications company to synchronize their automatic satellite communication system.

### Miscellaneous Information

The CFS10A is a highly reliable unit. It is housed in a fully screened aluminum 19 inch case aluminum case and operates from a 115 VAC or 230 VAC supply. The CFS10A is CE marked for sale within the EEC.

# CFS10A SPECIFICATIONS

Specification Parameter	Specification
Frequency	10.000000 MHz
Output level	+13 dBm into 50 Ω
Output Waveform	Sinewave. 2 <sup>nd</sup> Harmonic < -45 dBc. Other harmonics < -60 dBc
Accuracy at shipment	< 1 x 10 <sup>-10</sup> (0.0001 ppm)
Frequency Stability (0 to 50 °C)	± 2 x 10 <sup>-9</sup> standard. ± 5 x 10 <sup>-10</sup> optionally available
Frequency Stability (-20 to 70 °C)	± 2 x 10 <sup>-9</sup> . This temperature range is an option.
Aging (per day)	< 1 x 10 <sup>-9</sup> standard. < 2 x 10 <sup>-10</sup> optionally available
Allan Deviation (1s)	< 1 x 10 <sup>-11</sup> standard. < 2 x 10 <sup>-12</sup> optionally available
Phase Noise 10 Hz	< -120 dBc/Hz standard. < -130 dBc optionally available
Phase Noise 100 Hz	< -150 dBc/Hz
Phase Noise 1 kHz	< -155 dBc/Hz
Power (AC)	115 VAC or 230 VAC ± 10%. Power 25 Watts max
Size	483 mm x 88 mm x 180 mm. Width x Depth x Height
Weight	4 kg
Ambient Operating Temperature	-10°C to +50 °C
Options Available	DC Power Input. Multiple Frequency Outputs. Different Frequency Outputs. Squarewave Outputs. Redundancy. IRIG timing outputs.

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Full specifications available from [www.ptsyst.com](http://www.ptsyst.com). Specifications and features subject to change without notice (200904)