

OSA 4501 OEM Clock

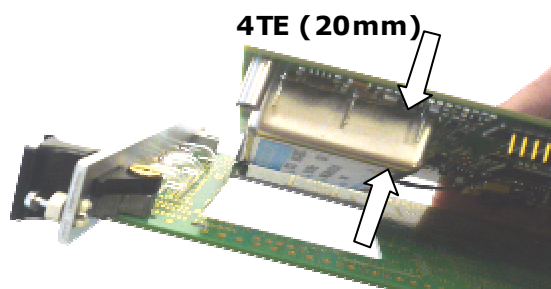
High Performance 4TE high (20mm) OEM Synchronization Clock Board
Enhanced with Superior Holdover Clock

Introduction

The OSA 4501 is a very compact 4TE high (20mm) OEM Synchronization Clock Board providing superior time and frequency synchronization at minimal cost and minimal space.

Based on the new state-of-the art 19mm high Double Oven Quartz Oscillator OCXO 8863, time and frequency are delivered at the highest level of accuracy and stability for such a minimal size.

Numerous configurations are available thanks to the OSA 4501 versatility, to easily adapting any requirements for base stations and broadcast station systems or sub-systems as a discrete and inexpensive synchronization solution.



Typical Applications

Rack integration for Wireless Base stations

- WiMAX, WiBRO, 3G, 4G, DAB, DVB-T/H/S

Highlights

- High frequency stability and long term accuracy, on both GPS- or PPS- locked and Holdover mode
- Economic, reliable and compact 4TE high (20mm) Sync Clock
- 1PPS, 10MHz sine and TTL
- Phase alignment of all outputs within $\pm 10\text{ns}$ with "0 crossing" 1PPS / 10MHz
- Enables integration in micro TCA and ATCA type of blades
- UTC-derived 1PPS and NMEA0183 timing information

Functions

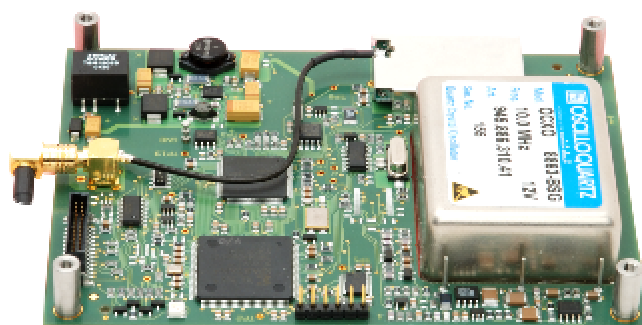
The OSA 4501 time and frequency is derived either from a GPS receiver or from a PPS input as an alternative solution.

When no valid input is available, the OSA 4501 enters in holdover mode and holds its output frequencies to supply long hours of frequency and phase accuracies.

Enhanced with its Aging and Temperature Drift Compensation (ATDC) system, the OSA 4501 is the most stable GPS quartz clock ever in holdover mode, in a so thin form factor, especially in large temperature variations environment and harsh conditions.

The OSA 4501 is also fully manageable thanks to its user-friendly Configuration Manager software.

Furthermore, the OSA 4501 is highly reliable and totally maintenance-free.



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Typical Characteristics

Outputs

1x 10 MHz sine:

- Level: 0.5 VRMS \pm 20%, 50 Ω
- Connector: Board-to-Board 26p.
- Stability in Tracked and fixed position mode:
ADEV \leq 1x10⁻¹² @ 20.000s
- Phase synchronized to 1PPS: \pm 10ns

1x 10 MHz square:

- Level:
 - 1.6Vpp (ACMOS) at 50 Ω
 - 3.3Vpp (ACMOS) at high impedance
- Connector: Board-to-Board 26p.
- Stability in Tracked and fixed position mode:
ADEV \leq 1x10⁻¹² @ 20.000s
- Phase synchronized to 1PPS: \pm 3ns

1x 1PPS:

- Level:
 - 1.6Vpp (ACMOS) at 50 Ω
 - 3.3Vpp (ACMOS) at high impedance
- Connector: Board-to-Board 26p.
- Pulse Width: 200ms
- Rise Time: < 20ns (10%-90%)
- Stability (peak-to-peak) in tracked and fixed position mode:
< 100ns

OCXO	8863 ATDC	8863
Long term stability (Freq.Variation per day)	3x10E-11	1x10E-10
Thermal stability (Freq. var. peak-peak over full temp.)	2xE10-10	6x10E-10

Hold-Over performances

Power supply

- 12 VDC \pm 5%
- 12 Watts at warm-up, 6 Watts steady state

Management

- RS-232C local manager on Board-to-Board 26p. connector
- TOD (Time-Of-Day) output compliant to NMEA0183
- GUI-based Configuration and Monitoring software
- Field upgradeable

Environmental Characteristics

- Operating temperature: -5° to +55°C
- Storage temperature: -40° to +85°C
- Humidity: 5 to 95% non condensing

Antenna cable

Choice of antenna cable:

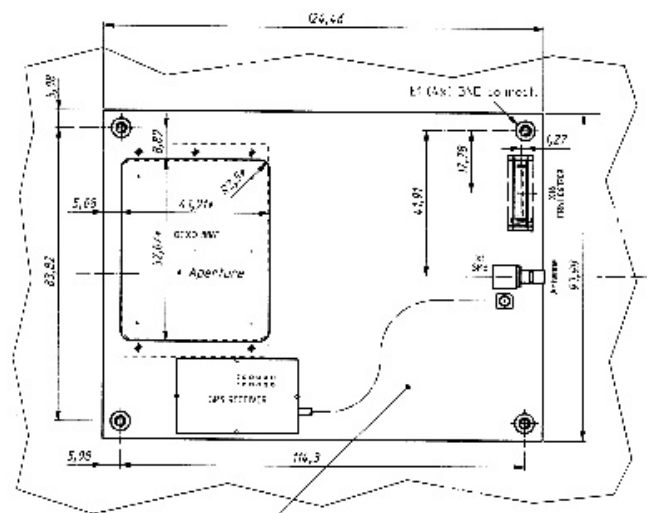
- 10m
- 20m
- 60m
- 120m (w/amplifier)
- Longer length on demand

Mechanical

- Size (HxWxD): 20.3 x 124.5 x 94mm

Note

Actual features and performance depends on chosen / offered factory options: oscillators, connectivity, firmware options.



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Bespoke configurations with attractive price for volume order:

Type of connectors, lower grade oscillator when Holdover capability is relaxed.

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

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