For years, cesium beam frequency standards have been constantly improved so as to satisfy the increasingly stringent specification of time and frequency reference equipments. The availability of “easy to operate” instrument of reduced size and weight and of exceptional accuracy and stability provides the user with great flexibility in using cesium standards for meeting the stringent requirements of navigation, communication and timing systems.

The OSA 3235B Cesium Clock is an atomic frequency standard based on a hyperfine transition in the ground state of the cesium 133 atom. The OSA 3235B Cesium Clock is specifically designed and produced with the latest technology in a very compact and reduced size.

Taking into consideration its unique reduced volume, the OSA 3235B offers a set of operation features and performance without comparison on the market. Available with a long life cesium tube, OSA 3235B will meet the requirements where performances are needed over a long period of time.
Metrological Reference Clock Source using the Digital Cesium technology

**Cesium performances characteristics**
- Frequency accuracy: ±1x10^{-12}
- Reproducibility: ±1x10^{-12}
- Short Term Stability:
  - ADEV:
    - 1s: 1.2x10^{-11}
    - 10s: 8.5x10^{-12}
    - 100s: 2.7x10^{-12}
    - 1’000s: 8.5x10^{-13}
    - 10’000s: 2.7x10^{-13}
    - 100’000s: 8.5x10^{-14}
    - Floor: 5x10^{-14}
- Settability: Resolution <1x10^{-15}
- Warm-up time: 45 minutes @ 25°C

**Outsuts**
- Direct outputs:
  - 5MHz: 1V_{rms} ±0.2@50Ω
  - 10MHz: 1V_{rms} ±0.2@50Ω
- SSB Phase:
  - 1Hz: -95dBc/Hz
  - 10Hz: -125dBc/Hz
  - 100Hz: -140dBc/Hz
  - 1’000Hz: -150dBc/Hz
- Auxiliary outputs:
  - Number: 1
  - Frequency: 0.1-50MHz
  - Output level: Typ. 500mV_{rms} ≥3V @ 50Ω
  - Output shape: Sine, square or pulse
  - Connector: BNC

**Synchronization input**
- Number: 2 (1x front + 1x rear side)
- Input type and connector: 1PPS TTL (≥3V)-BNC

**Signal expansion (optional)**
- Programmable analog output:
  - Number: 1
  - Programmable Frequency: 0.1 - 50 MHz
  - Output level: Typ. 500mV_{rms} ≥3V @ 50Ω
  - Connector: BNC
- Programmable Telecom outputs:
  - Number: 4
  - Frequency: Configurable: 2.048 MHz / E1 / T1 / 1PPS / 10MHz
  - Output level: According to G703
  - Connector: BNC 75Ω (T1: DB-9 100Ω)

**Power Supply**
- Voltage:
  - 1x230VAC (88V-264VAC 50-60Hz)
  - 1x48VDC nominal floating (20V to 60V)
- Power feeds: Dual
- Power consumption: 60W @ 25°C (warm-up max. 70W)

**Optional battery backup**
- Optional internal battery for 45 minutes of operation without power source

**Management**
- Communication port:
  - Port: RS-232C on DB-9 (1x front + 1x rear side) for local management and / or remotely using SyncView Plus™
- Alarms:
  - Relay contacts: 3 x alarm indication
- Front panel LED indication:
  - Monitoring: 6x LED’s (3x front + 3x rear) for monitoring Power Supply Status, Operation, Alarms

**Synchronization input**
- Management Port: Ethernet TCP/IP port on RJ45
- TOD (Time Of Day):
  - 1x TOD input on DB-9 (m)
  - 1x TOD output on DB-9 (f) with programmable shift
- Display:
  - 5.7” tactile LCD display on front side

**Mechanical**
- 19”:
  - 3U 132 x 436 x 400 mm (HxWxD)
  - with rear and front access connectors.
  - Adapters for 23” rack standard
- Table-top case:
  - Optional table-top case
- Weight:
  - <15kg (excluding packing)

**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%
- Altitude (operating):
  - 0 - 15’000m
- DC magnetic field:
  - ±2 Gauss maximum
- Safety:
  - EN 61010-1
- EMC & ESD:
  - EN 50081-1, EN 50082-1
  - IEC 801 parts 2, 3, 4, 5 and 6
  - CE compliant

Subject to change without prior notice.

1 Consult factory for availability

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