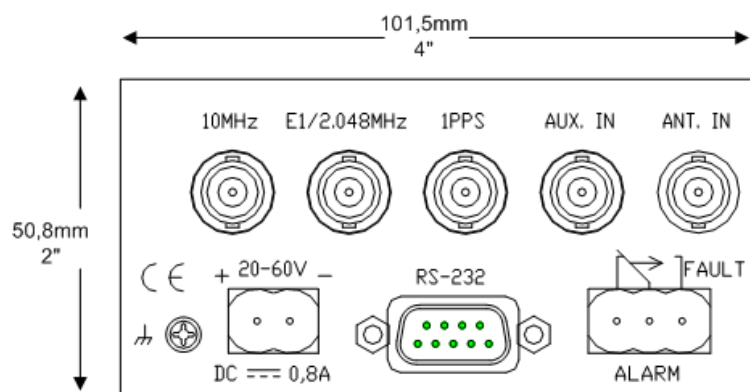




# OSA 453x Series

## Highly Compact GPS and GPS-less Synchronization Receivers and Re-Timers

|      | GPS Antenna | E1/Freq. | DS1/Freq. | 1 PPS | 10 MHz | E1 / 2MHz | DS1/ 2MHz | E1 Traffic | DS1 traffic | NMEA 0183 |
|------|-------------|----------|-----------|-------|--------|-----------|-----------|------------|-------------|-----------|
| 4530 | ✓           |          |           | ✓     | ✓      |           |           |            |             | ✓         |
| 4531 | ✓           | ✓        |           | ✓     | ✓      | ✓         |           |            |             | ✓         |
| 4532 | ✓           |          | ✓         | ✓     | ✓      |           | ✓         |            |             | ✓         |
| 4533 | ✓           |          |           | ✓     | ✓      |           |           | ✓          |             | ✓         |
| 4534 | ✓           |          |           | ✓     | ✓      |           |           |            | ✓           | ✓         |
| 4535 |             | ✓        |           | ✓     | ✓      |           |           | ✓          |             | ✓         |
| 4536 |             |          | ✓         | ✓     | ✓      |           |           |            | ✓           | ✓         |
|      | Input       |          | Output    |       |        | ReTime    |           | Tod        |             |           |



Example of connectors position (4531 GPS)

### Typical Characteristics

#### Performance when locked to GPS-signal:

- G.703-x outputs compliant to ITU-T G.811/ST1
- 1 PPS accuracy: < 100 ns pp (at constant temp.)  
< 150 ns pp (at variable temp., -5°C to +55°C)
- ADEV < 10<sup>-12</sup> (10'000 seconds)

#### Output signals specifications:

- 1 PPS: 200ms width, < 20ns rise time, 2.5 Vpp/50 Ω
- 10 MHz: 1 Vrms sine, 50 Ω
- 2.048 MHz: Compliant with ITU-T G.703-13
- E1: Compliant with ITU-T G.703-9
- DS1: Compliant with ITU-T G.703-5

#### Connectors:

- BNC for 4530/4531/4533/4535
- Sub-D 9 pins on 4532/4534/4536

#### Power Supply:

- 9-18 VDC or 20-60 VDC
- Optional 96-260 VAC external power supply

#### Management:

- RS -232C on DB9 connector
- 1 alarm relay contact
- TOD (Time-Of-Day) output compliant to NMEA0183
- GUI-based Configuration and Monitoring software
- Central Management from SyncView™ Plus with UMI (Universal Management Interface)

#### Hold-Over performances:

- Long term stability : 1x10<sup>-10</sup>/day, 2x10<sup>-8</sup>/year
- Frequency stability: 6x10<sup>-10</sup> pp (-5°C to +55°C)

#### Antenna Cables (connectors included):

- 20 meters (RG58)
- 60 meters (RG213)
- 120 meters (2x60 meters RG213, with line amplifier)

#### Environmental characteristics (OSA 453x GPS-SB) :

- Operational: -5°C to +55°C
- Storage: -40°C to +85°C
- Humidity: 95% non-condensing
- CE mark: EN50081/ EN50082 / EN60950
- Constructed for working under harsh conditions, as described in ETS 300-019-2-3.2

#### Physical Dimensions:

- Physical (HxWxD): 50,8mm(2")x101.5mm(4")x127.0mm(5")
- Optional : 19" / ETSI mounting kit

#### Antenna data (other active antennas possible):

- Frequency: L1 (1'575 MHz)
- Polarization: Right-Hand Circular Polarization
- VSWR: 2:1
- Gain: 35 dB (nominal)
- Noise: 2.75 dB (nominal)
- Pass-band width: 50 MHz
- Azimuth: 360° (omni-directional)
- Elevation: 0° to 90° (hemispherical)
- Power supply: +5V DC (±10%)
- Consumption: 22 mA (nominal)
- Operational: -40°C to +85°C
- Storage: -55°C to +100°C
- Vibration: 0.04 g<sup>2</sup>/Hz (10 Hz to 500 Hz)  
0.03 g<sup>2</sup>/Hz (501 Hz to 850 Hz)  
0.02 g<sup>2</sup>/Hz (851 Hz to 1'200 Hz)
- Shock: 40 gram
- Humidity: 95% non-condensing
- Salt Fog: Mil.Std. 202F, Method 101D Cond. B
- Waterproof: Submersion to 1 meter
- Dimensions : A:77.3mm(3.04"), H:74,6mm(2.94")
- Weight : 100 grams

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

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