# New OCXO Family: Smallest Size and Excellent Frequency Stability

**Raltron has just released its very small size OCXO Series OX1000, which provides ideal miniature dimensions of 9 x 14mm and excellent temperature stability, making it suitable for many applications such as wireless infrastructure, transmission, precision instrumentation, broadcasting, utility metering, etc.**

Accurate frequency stability is achieved with an SC cut crystal, making the OX1000 the OCXO of choice because of its flexibility to a host of design environments. The family also meets the wander requirements of GR-1244, making it suitable for IEEE-1588 applications.

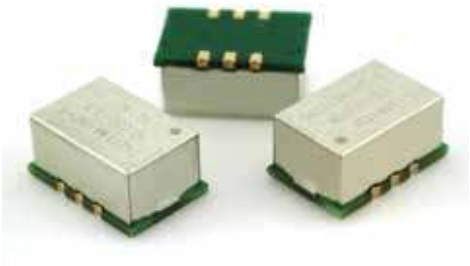
Some selected specifications include a frequency range from 10MHz to 40MHz, temperature stability as low as 10 ppb from -40°C to +85°C and excellent phase noise of down to -150dBc/Hz at 100KHz from carrier, outputs that are available in both clipped sine wave and HCMOS technologies.

In parallel with its outstanding small size and frequency precision, the OX1000 features a low current consumption of 600mA during warm-up and 300mA in steady state, while the power supply voltage is 3.3V DC.

## FEATURES

- Ultra miniature size 9 x 14mm
- Accurate frequency stability
- Excellent temperature stability
- Low phase noise
- Wide frequency range

| Part Number | Description |
|---|---|
| OX2114A-D3-5-20.000-3.3 | SC-cut, -40°C to +85°C, 50ppb, HCMOS, No Vc |
| OX2114A-D3-5-40.000-3.3 | SC-cut, -40°C to +85°C, 50ppb, HCMOS, No Vc |



Raltron's new series OX1000 of OCXOs

## APPLICATIONS

- Wireless infrastructure
- Precision instrumentation
- Broadcasting
- Utility metering
- Wide design environments
- Meets IEEE-1588 usages

To buy products or download data, go to **www.FutureElectronics.com/FTM**

# Patch and Chip Antennas for GPS/Glonass Applications

**Until recently the GPS was the only space-based satellite navigation system with global coverage for civil, commercial and military applications. However, as early as 2012, Glonass, the Russian satellite navigation system developed by the Russian government offers similar global coverage service, and further increases the accuracy, reliability and synchronization speed of the existing system. Other similar navigation systems under development are Galileo (Europe), Beidou/Compass (China) and IRNSS (India).**

The two fully operational navigation systems operate at 1575MHz/GPS and 1602MHz/Glonass providing full world coverage. All of today's satellite receivers are now able to receive a stronger and more reliable signal from the combined satellite constellation (48 satellites total). Yageo is offering a wide range of antennas, both patch and chip, supporting all existing satellite navigation systems.

Ceramic chip antennas are small, compact, and highly recommended for space-saving such as smart phones, tablet, watches or other portable applications. Ceramic patch antennas are larger but offer better performance and are most suitable for telematics, eCall (emergency call), asset/fleet management tracking systems in automobiles/transportation and other applications.

Featuring low profile, high gain, wide bandwidth, Yageo's GPS/Glonass antennas are easy to design and integrate into any small, portable applications. Yageo circular polarized patch antenna (Part number: ANT2525B00DT1516A) and linear polarized chip antenna (Part number: ANT5320LL14R1575A) are dual band antennas supporting GPS and Glonass applications.

## FEATURES

- GPS, dual band of GPS and Glonass
- SMD and pin types
- Omnidirectional
- Linear polarization
- High directivity, selectivity
- Right hand circular polarization (RHCP)

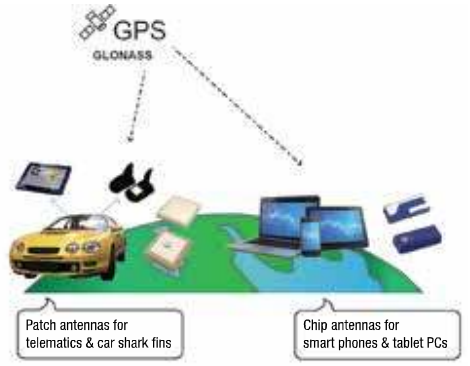



Figure 1. Typical GPS/Glonass application

## APPLICATIONS

- Telematics box
- Tracking asset
- Fleet management
- eCall
- Industrial computing

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