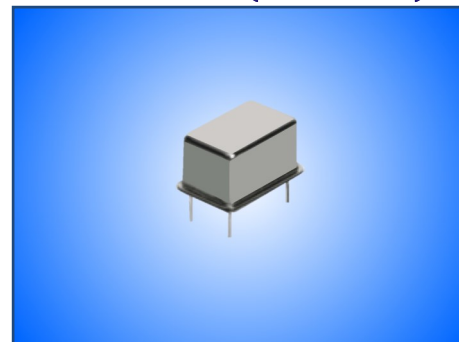


OVEN CONTROLLED CRYSTAL OSCILLATOR UNIT IN DIP-14 METAL CAN PACKAGE.
PRODUCT FEATURES

- High accuracy OCXO 20x13x10 with 5 leads.
- Various frequency stabilities being available.
- Excellent low aging and short term stability.
- Output signal with very low phase noise.
- Optional control voltage and reference voltage.

PRODUCT PHOTO (NOT IN SCALE)

APPLICATIONS

- Base station
- Telecom equipment
- Satellite equipment
- Test equipment

PRODUCT SPECIFICATIONS

| PARAMETER | OD14H4 / OD14S4 / OD14T4 | CONDITIONS / REMARKS |
|-----------------------------|---|--|
| Nominal frequency range | 5 ~ 100MHz | See Note |
| Supply voltage | 3.3V _{DC} / 5.0V _{DC} / 12.0V _{DC} | – |
| Power consumption (warm up) | <3.0W | May vary depending on supply voltage used. |
| (steady state) | <1.5W | |
| Operating temperature range | -40 to +70°C or -40 to 85°C | Other options available. |
| Output waveform HCMOS | V _{OH} ≥90%V _{CC} / V _{OL} ≤10%V _{CC} | Model OD14H4 |
| Output waveform SINEWAVE | ≥6dBm / ≤10dBm | Model OD14S4 |
| Output waveform TTL | V _{OH} ≥2.4V / V _{OL} ≤0.4V | Model OD14T4 |

Note: Typical frequencies 10MHz, 16.384MHz, 19.44MHz, 20MHz, 25MHz, 26MHz, 38.88MHz, 50MHz, 100MHz

FREQUENCY SPECIFICATIONS (dependent on crystal type)

| PARAMETER | for SC-cut crystal | for AT-cut crystal |
|-------------------------------|---------------------------|---------------------------|
| Frequency tolerance (@+25°C) | ±100ppb ~ ±500ppb | EOL |
| Frequency stability (Note 1) | ±1ppb / ±5ppb / ±10ppb | |
| Short term stability | ±0.05ppb/s | |
| Stability versus voltage | ±3ppb | |
| Aging rate DAILY | ±1ppb / ±3ppb / ±10ppb | |
| ANNUALLY | ±30ppb / ±50ppb / ±300ppb | |
| Frequency adjustment (Note 2) | 0.5 ~ 2.0ppm | |
| Phase noise @10Hz | -92dBc/Hz | |
| Example for sinewave @100Hz | -123dBc/Hz | |
| Output 100MHz unit @1kHz | -152dBc/Hz | |
| @10kHz | -165dBc/Hz | |
| @100kHz | -165dBc/Hz | |

Note 1: Frequency stability is the frequency deviation over operating temperature range.

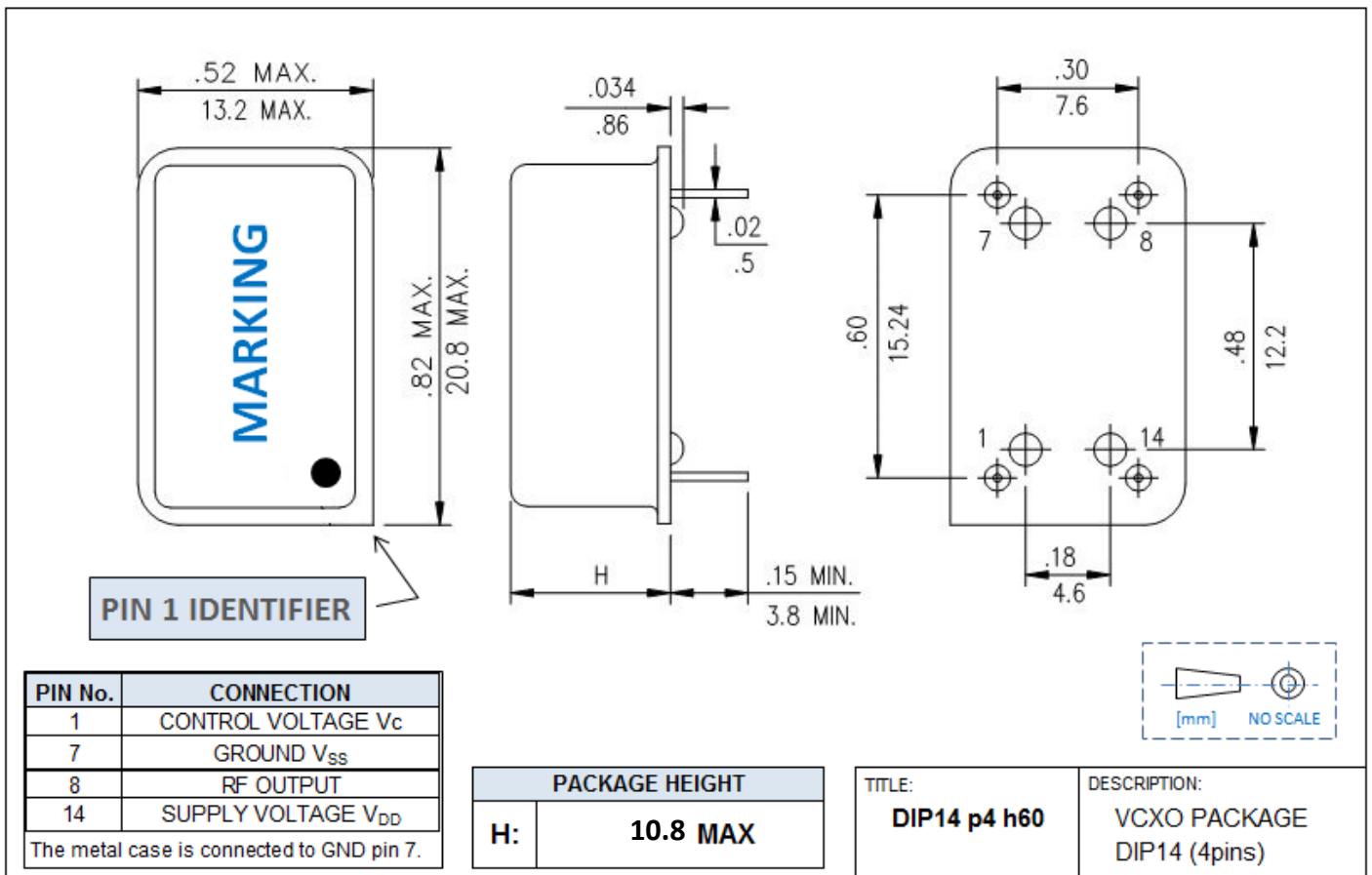
Note 2: Frequency adjustment applies for the option with control voltage function, refer to page 2.

OVEN CONTROLLED CRYSTAL OSCILLATOR UNIT IN THRU-HOLE 25x25MM METAL CAN PACKAGE.
AVAILABLE OPTIONS

| PARAMETER | for 3.3V | | for 5.0V | | for 12.0V |
|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Control voltage range (Note 1) | 0~2.8V _{DC} | 0~3.3V _{DC} | 0~4.0V _{DC} | 0~5.0V _{DC} | 0~5.0V _{DC} |
| Frequency stability (Note 1) | 1.4V _{DC} | 1.65V _{DC} | 2.0V _{DC} | 2.5V _{DC} | 2.5V _{DC} |
| Reference voltage (Note 2) | N/A | N/A | N/A | N/A | N/A |

Note 1: Applies for option with a Control Voltage Input.

Note 2: Applies for option with a Reference Voltage output.

PACKAGE OUTLINE / DIMENSIONS

PACKAGING INFORMATION

- Packaging in antistatic foam tray.
- QTY per tray: 50~100pcs

ENVIRONMENTAL COMPLIANCE INFORMATION

- Product is RoHS and RoHS 2 compliant.
- Product is built using a LEAD-FREE solder alloy, if required a high melting point solder alloy can be used as well.