

5214x4

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

PRODUCT FEATURES

- High accuracy OCXO 20x13x10 with 4 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.

APPLICATIONS

• Base station

• Telecom equipment

- Satellite equipment
- Test equipment

PRODUCT PHOTO (NOT IN SCALE)

PRODUCT SPECIFICATIONS

| PARAMETER | 5214H4 /5214S4 / 5214T4 | CONDITIONS / REMARKS | |
|-----------------------------|-----------------------------|--------------------------|--|
| Nominal frequency range | 5 ~ 100MHz | See Note | |
| Supply voltage | 3.3Vpc / 5.0Vpc / 12.0Vpc | - | |
| Power consumption (warm up) | <3.0w | May vary depending on | |
| (steady state) | <1.5W | supply voltage used. | |
| Operating temperature range | -40 to +70°C or -40 to 85°C | Other options available. | |
| Output waveform HCMOS | Vон ≥90%Vcc / VoL ≤10%Vcc | Model 5214H4 | |
| Output waveform SINEWAVE | ≥6dBm / ≤10dBm | Model 52 14S4 | |
| Output waveform TTL | VoH ≥2.4V / VoL ≤0.4V | Model 52 14T4 | |

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.



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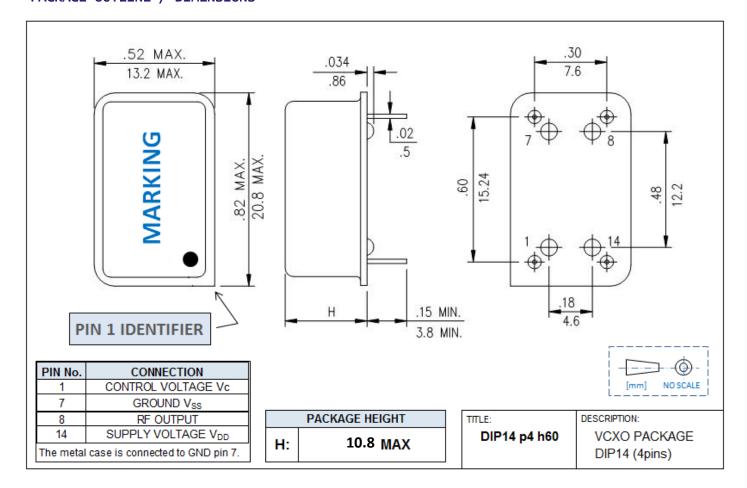
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AVAILABLE OPTIONS

| PARAMETER | for 3.3V | | for 5.0V | | for 12.0V |
|--------------------------------|----------|---------------------|----------|--------------------|--------------------|
| Control voltage range (Note 1) | 0~2.8Vpc | 0~3.3VDC | 0~4.0VDC | 0~5.0VDC | 0~5.0VDC |
| Frequency stability (Note 1) | 1.4Vpc | 1.65V _{DC} | 2.0Vpc | 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 sol der alloy can be used as well.