



# Specification for a Sinewave Output Thru-Hole OCXO MtronPTI P/N: XO5085-109R

## **Electrical Specifications:**

| Parameter                       | Symbol | Min.         | Тур.            | Max.      | Units    | Conditions                                                                |
|---------------------------------|--------|--------------|-----------------|-----------|----------|---------------------------------------------------------------------------|
| Nominal Frequency               | Fo     |              | 100.000000      |           | MHz      |                                                                           |
|                                 |        | F            | Frequency Stab  | ilities   |          |                                                                           |
| vs. Temperature                 | ∆F⊤/F  | -100         |                 | +100      | ppb      | Over the Operating<br>Temperature Range                                   |
| vs. Supply voltage<br>variation |        | -30          |                 | +30       | ppb      | +/-250mV change in supply voltage                                         |
| Daily Aging                     |        | -5           |                 | +5        | ppb      |                                                                           |
| 1 Year Aging                    |        | -0.5         |                 | +0.5      | ppm      | After 30-days Power On                                                    |
| 10-Years Aging                  |        | -2.0         |                 | +2.0      | ppm      |                                                                           |
|                                 |        |              | RF Output       |           |          |                                                                           |
| Output Type                     |        |              | Sinewave        |           |          |                                                                           |
| Output Level                    |        |              | +13             |           | dBm      |                                                                           |
| Output Load                     |        |              | 50              |           | Ω        | ±10%                                                                      |
|                                 |        | F            | requency Adjus  | stment    |          |                                                                           |
| Adjustment Method               |        |              | External V      | Voltage   |          |                                                                           |
| Adjustment Voltage              | VTUNE  | 0            |                 | +10       | VDC      |                                                                           |
| Adjustment Range                |        | ±0.5         |                 |           | ppm      | Over all conditions                                                       |
| Adjustment Slope                |        |              | Posit           |           |          |                                                                           |
|                                 |        | Α            | dditional Parar | neters    |          |                                                                           |
|                                 |        |              |                 | -97       | dBc/Hz   | 10Hz Offset                                                               |
|                                 |        |              |                 | -130      | dBc/Hz   | 100Hz Offset                                                              |
| Phase Noise                     |        |              |                 | -160      | dBc/Hz   | 1kHz Offset                                                               |
| (Under Static                   |        |              |                 | -172      | dBc/Hz   | 10kHz Offset                                                              |
| Conditions)                     |        |              |                 | -172      | dBc/Hz   | 100kHz Offset                                                             |
|                                 |        |              |                 | -172      | dBc/Hz   | 1MHz Offset                                                               |
|                                 |        |              |                 | -172      | dBc/Hz   | 10MHz Offset                                                              |
| G-sensitivity                   |        |              | 1.5             |           | ppb/g    |                                                                           |
| Harmonics                       |        |              |                 | -25       | dBc      |                                                                           |
| Spurious                        |        |              |                 | -80       | dBc      |                                                                           |
| Warm-up Time                    |        |              |                 | 5         | minutes  | To within ±0.1ppm of the<br>frequency after 1-hour of<br>operation @ 25°C |
| <b>`</b>                        |        | perature, Su | pply Voltage &  | Power Con | sumption |                                                                           |
| Operating Temperature           | OTR    | -25          |                 | +80       | 0°       | Full Specification<br>Compliance                                          |
| Storage Temperature             | STR    | -55          |                 | +85       | °C       |                                                                           |
| Operating Voltage               | Vcc    | +11.4        | +12.0           | +12.6     | VDC      |                                                                           |
| Power Consumption               |        |              |                 | 1.5       | Watts    | Steady state @ 25°C,<br>In Still Air                                      |
|                                 |        |              |                 | 3.6       | Watts    | @ Warm-up                                                                 |



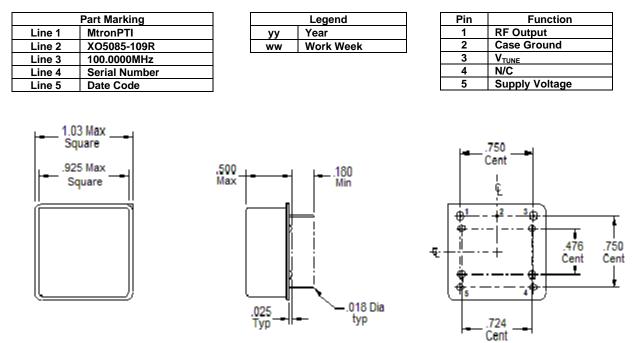


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#### **Environmental Conditions:**

| Seal | Hermetic             |
|------|----------------------|
| RoHS | Full RoHS Compliance |

### Mechanical, Marking and Layout Information:



### **Data Sheet Revision Table:**

| Date     | Rev. | Orig. | Details of Revision |
|----------|------|-------|---------------------|
| 05-08-19 | В    | DPD   | Revised datasheet   |
| 03-22-19 | A    | BRR   | Original release    |