

INPUT**Frequency**10 MHz, +/- 1x10⁻⁶**Level**

+6 to +13 dBm into 50 ohms

OUTPUTS**Frequency**

500 MHz, (3) (J2-4)

300 MHz, (1) (J1)

Level

+13 dBm ±2 dB into 50 ohms

STABILITY**Aging**1 x 10⁻⁶ per year

after 30 days operating, typical

Phase Noise L(f), each output

	500 MHz	300 MHz
10 Hz	-94 dBc/Hz	-
100 Hz	-124 dBc/Hz	-128 dBc/Hz
1 kHz	-148 dBc/Hz	-152 dBc/Hz
10 kHz	-166 dBc/Hz	-170 dBc/Hz
100 kHz	-168 dBc/Hz	-172 dBc/Hz
1 MHz	-181 dBc/Hz	-185 dBc/Hz

Harmonics

≤ -30 dBc

Sub-Harmonics

≤ -50 dBc

Spurious

≤ -80 dBc, excluding power supply line related spurs

MECHANICAL**Dimensions**

6.578 x 3.300 x 1.175"

Connectors

SMPM (4), SMP (1) and solder pins on side

Packaging

Nickel-plated machined aluminum case

POWER REQUIREMENTS**Warm-Up Power**

≤ 18 Watts for 5 minutes

Total Power

≤ 8 Watts at +25°C

Supply Voltage

+12 VDC ±5%

+6 VDC ±5%

CRYSTAL**Type**

100 MHz SC-Cut (low-g) (4)

ADJUSTMENT**Loop BW**

Target Bandwidth: ≤ 2 Hz

Type 2 Loop

Acceleration Sensitivity<3 x 10⁻¹⁰/g per axis, typical**ENVIRONMENTAL****Operating Temperature**

-40° to +70°C

Storage temperature

-40° to +85°C

OTHER**Label**

Use conventional label with the following information:

501-35688 (Current Rev.)

Quad Osc Assy - 300/500 MHz

+12 VDC/ +6 VDC

Serial # - Date Code

Test Data

Output Level

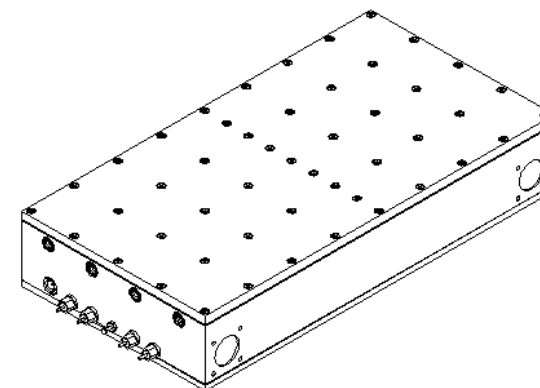
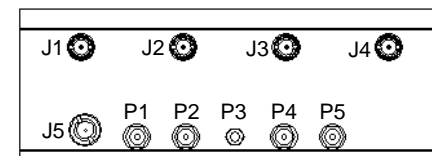
Phase Noise, Static

Harmonics, Spurious

Power – Warm-up and Total

REV	DATE	REVISION RECORD	DWN	AUTH
-	8/6/24	Initial Release	MJG	JS

P1	4.9 V Output
P2	6V IN (PLL)
P3	Ground, Case
P4	12V IN (OSC J1&2)
P5	12V IN (OSC J3&J4)
J1	300 MHz OUT
J2-J4	500 MHz OUT
J5	10 MHz Ref In

**Quantic Wenzel**

Title:

Quad-Multiplied Crystal Oscillator– 300/500 MHz

P/N:

501-35688

Rev:

-

Date:

08-6-24

Drawn:

Ref:

Tolerances:
(except as noted)
Dimensions are in inches

0.XX Dec:

±0.030"

0.XXX Dec:

±0.010"

FSCM:

62821

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