

ULTRA LOW NOISE VHF CRYSTAL OSCILLATORS

OCXO series & **NEW** OCXOF Series



Available with **-137dBc/Hz@100Hz offset** } guaranteed performance
-182dBc/Hz Noise floor } for a 100MHz unit

Pascall OCXO's are designed to meet the increasing demand for high performance reference oscillators. Oven controlled SC-cut crystals are used to give good temperature stability combined with the lowest possible phase noise.

The Pascall OCXO series has already established itself as the industry leader in phase noise performance.

The 'NEW OCXOF' Series offers the same very low close-in phase noise combined with even lower noise floor and higher output power.

Typical applications:

- Low noise Frequency Multipliers
- Phase noise test systems
- High performance synthesisers
- Radar & EW

OCXO SERIES - ULTRA LOW NOISE CRYSTAL OSCILLATORS

Frequency range 40 - 140MHz

Tuning range +/- 6 x 10⁻⁶

Tune voltage 0 to +10V, positive slope

Temperature stability -30 to 70°C: +/- 2 x 10⁻⁷

Aging/ year 0.5 x 10⁻⁶ after 30 days

Output power 13dBm ± 2dB, 50Ω

Harmonics -20dBc

Phase noise for 100MHz unit

Minimum guaranteed performance	10Hz	100Hz	1kHz	10kHz offsets
level E	-102	-137	-164	-178 dBc/Hz
level 1	-100	-135	-162	-176 dBc/Hz
level 2	-97	-132	-160	-176 dBc/Hz
level 3	-95	-130	-158	-176 dBc/Hz
level 4	-90	-125	-155	-175 dBc/Hz
level 5	-85	-120	-150	-174 dBc/Hz

For performance levels at other frequencies, please consult the sales office.

Supply voltage +12V +/-5%

Power consumption at 25°C steady state 2.5W, warm-up 5W (<5 mins)

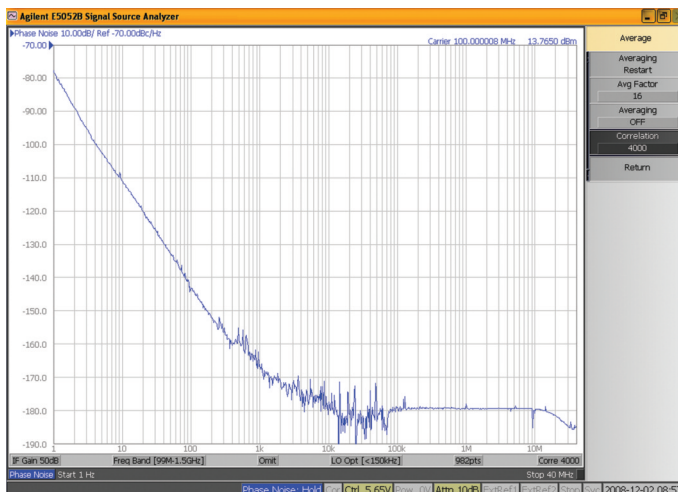
RF output connector SMA jack

Dimensions 51.0 x 51.0 x 19.0mm

Options Reference voltage output - 10.5V nominal (source impedance 10kΩ in parallel with 10μF)

Mechanical tuning +/-6 x 10⁻⁶

Supply voltage +15V ±5%



NEW OCXOF SERIES - EXTRA LOW NOISE FLOOR CRYSTAL OSCILLATORS

Frequency range 40 - 140MHz

Tuning range +/- 6 x 10⁻⁶

Tune voltage 0 to +10V, positive slope

Temperature stability -30 to 70°C: +/- 2 x 10⁻⁷

Aging/ year 0.5 x 10⁻⁶ after 30 days

Output power 18dBm ± 2dB, 50Ω

Harmonics -30dBc

Phase noise for 100MHz unit

Minimum guaranteed performance	10Hz	100Hz	1kHz	10kHz	100kHz offsets
level E	-102	-137	-164	-178	-182 dBc/Hz
level 1	-100	-135	-162	-176	-182 dBc/Hz

For performance levels at other frequencies, please consult the sales office.

Supply voltage +12V +/-5%

Power consumption at 25°C steady state 3.5W, warm-up 6W (<5 mins)

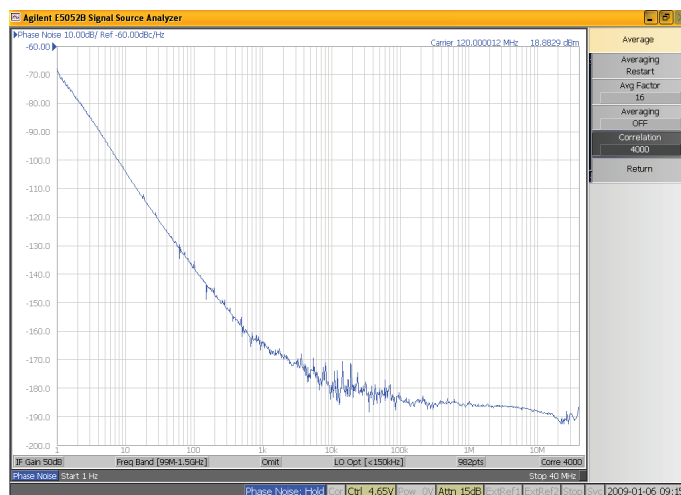
RF output connector SMA jack

Dimensions 51.0 x 51.0 x 19.0mm

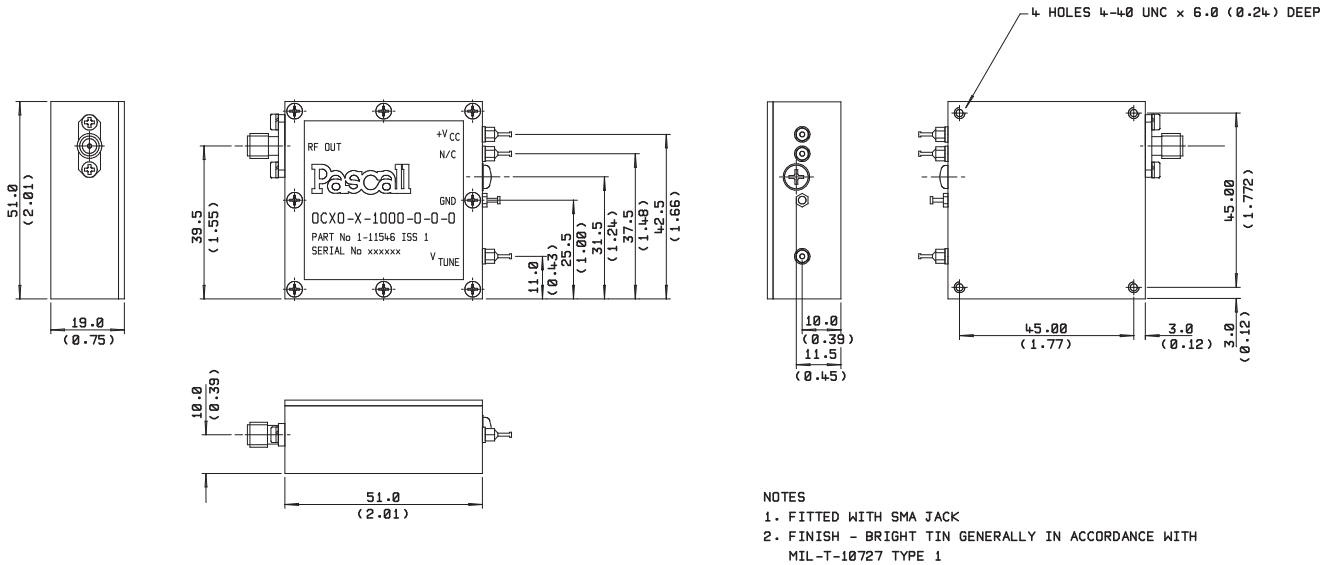
Options Reference voltage output - 10.5V nominal (source impedance 10kΩ in parallel with 10μF)

Mechanical tuning +/-6 x 10⁻⁶

Supply voltage +15V ±5%



Outline Drawing



Dimensions and connections are the same for OCXO & OCXOF series

Ordering Information

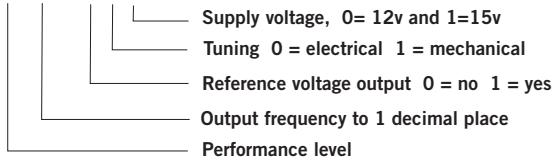
OCXO

OCXO-A-XXX.X-B-C-D

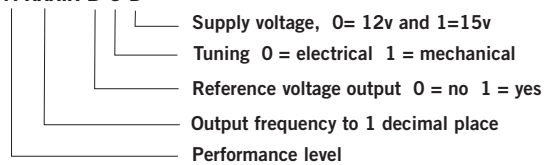
OCXOF

OCXOF-A-XXX.X-B-C-D

OCXO-A-XXX.X-B-C-D



OCXOF-A-XXX.X-B-C-D



To summarise:
a part number depicted as follows: OCXO-1-0975-1-0-0
This shows an OCXO with level 1 performance, 97.5MHz frequency,
with reference voltage output, electrical tuning and 12v operation.