

# LOW PHASE NOISE OSCILLATORS

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## For optimum signal quality and accuracy

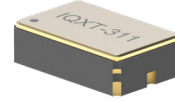
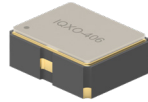
Phase noise can be defined as the short term, random fluctuations in the oscillator's frequency domain. For some applications maximum clarity and low phase noise is critical. Such applications include: Wireless communications, radar systems, test & measurement, high-speed data communications such as DAB, fibre-optic networks, and GNSS receivers, including GPS, GLONASS, Galileo and BeiDou systems. In fact, any application that demands precise frequency control, high signal quality, and low interference can benefit from the use of low phase noise oscillators.



To find out more visit: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)  
T: +44 (0) 1460 270200 E: [info@IQDfrequencyproducts.com](mailto:info@IQDfrequencyproducts.com)

## Contact our experts

Call our technical support team for advice on the right part for your design



	IQXO-406 & IQXO-439	IQXO-408 & IQXO-455	IQXT-311	IQOV-210F	IQOV-220	IQRB-2
<b>Key Features</b>	<b>Best high frequency SPXO</b>	<b>Best performing SPXOs</b>	<b>Best performing TCXO</b>	<b>Best noise floor</b>	<b>Best close in phase noise</b>	<b>Best rubidium oscillator</b>
<b>Package ppm Size(mm)</b>	2.0 x 1.6 x 0.8	2.5 x 2.0 x 0.95 (408) 3.2 x 2.5 x 1.1 (455)	5.0 x 3.2 x 2.4	25.4 x 25.4 x 13.5	36.0 x 27.0 x 15.0	101.2 x 60.7 x 37.7
<b>Frequency Range</b>	50 – 250 MHz	20 – 50 MHz	1.25 – 52 MHz	100 MHz	10 MHz	10 MHz
<b>Stability</b>	50 ppm	25 ppm	50 ppb	10 ppb	0.5 ppb	0.3 ppb
<b>Supply Voltage</b>	2.5 V & 3.3 V	1.8 V, 2.5 V & 3.3 V	3 V, 3.3 V & 5V	5 V & 12 V	12 V	12 V
<b>Power Draw</b>	40 mA	10 mA	2 mA (C-Sine) 4 mA (CMOS)	2 W	1.2 W	6 W
<b>Output Compatibility</b>	LVDS/LVPECL	CMOS	CMOS, Clipped Sine	Sinewave	Sinewave	Sinewave
<b>Phase Noise (typical)</b>	125 MHz 3.3 V	20 MHz 3.3 V	19.2 MHz	100 MHz 12 V	10 MHz 12 V	10 MHz 12 V
<b>1 Hz</b>			-70		-118	-113
<b>10 Hz</b>	-64	-113	-96	-110	-140	-138
<b>100 Hz</b>	-94	-140	-130	-140	-152	-152
<b>1 kHz</b>	-124	-158	-147	-165	-155	-155
<b>10 kHz</b>	-145	-166	-154	-176	-160	-158
<b>100 kHz</b>	-153	-175	-156	-180	-160	-158
<b>1 MHz</b>	-154	-175	-157			-153

# IQD Technical Support Services

We have a dedicated engineering and application test facility in the UK exclusively to support our customers, including:

- Crystal parameters including FR, FL, CO, C1, Trim, R1
- Oscillator parameters including F, current draw, output characteristics
- Frequency behaviours over temperature (stability)
- Phase noise and phase jitter
- Short term stability
- Accelerated ageing
- Circuit characterisation
- MTIE/TDEV testing



## About IQD

IQD offers one of the most comprehensive frequency product ranges available; from low cost commercial grade timing devices to those used in high reliability industrial and automotive applications including: Quartz Crystals, Clock Oscillators, AEC-Q200 Crystals & Oscillators, VCXOs, TCXOs, OCVCXOs & OCXOs, GPS Disciplined OCXOs, and Rubidium Oscillators.

IQD has been a recognised market leader in the frequency products market since 1973 and we continually invest in design and technical measurement capabilities at our head office in the UK, which also acts as the centre of excellence for frequency products within the Würth Elektronik eiSos Group. This service, combined with excellent product quality and reliability, makes IQD the best choice for your frequency product and timing requirements.



Head Office UK: +44 (0) 1460 270200  
USA: +1 760 668 8935  
info@IQDfrequencyproducts.com  
www.IQDfrequencyproducts.com

LINKEDIN /iqd-frequency-products-ltd  
TWITTER @iqdfrequency

IQD Frequency Products Ltd, Station Road, Crewkerne, Somerset TA18 8AR, UK

SCAN FOR DATA SHEETS

