

Low Phase Noise Oscillators

IQXO-408

IQXO-455



Key Features

Phase noise as low as -105 dBc/Hz @ 10 Hz &

-174 dBc/Hz @ 100 kHz

Supply Voltages 1.8 V, 2.5 V & 3.3 V

Industry standard packages of 2.5 x 2.0 mm & 3.2 x 2.5 mm

Low Phase Noise Oscillators

As application requirements drive the need for greater data rates, more oscillator devices with ultra-low phase noise are required. This type of application is especially prevalent in today's connected world.

IQD is pleased to launch its newest low phase noise oscillators, the IQXO-408 & IQXO-455, available in industry standard packages of 2.5 x 2.0 mm and 3.2 x 2.5 mm.

The new CMOS clock oscillators can perform with a close in phase noise as low as -105 dBc/Hz @ 10 Hz and far out phase noise as low as -174 dBc/Hz @ 100 kHz (3.3 V, 20 MHz, IQXO-408). The low phase noise oscillators are available at either 1.8 V, 2.5 V or 3.3 V with a phase jitter down to 40 fs RMS (over 12 kHz to 5 MHz).

Specification

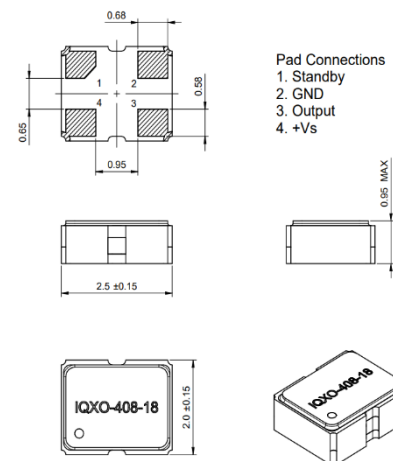
- Package sizes (SMD):
 - 2.5 x 2.0 mm
 - 3.2 x 2.5 mm
- Frequency range: 20 to 50 MHz
- ± 25 ppm over -40 to 85 °C
- 1.8 V, 2.5 V & 3.3 V supply voltage
- CMOS output

Applications

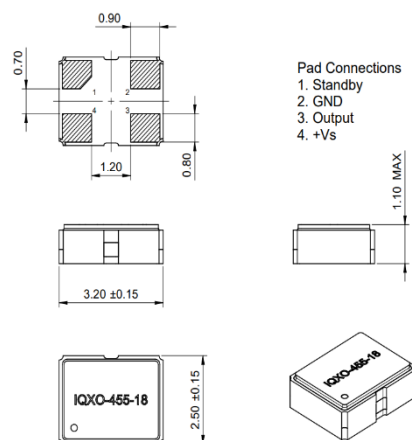
- High data rate applications
- IoT
- 5G Base Stations
- PLL
- Frequency multiplier
- Clock recovery
- Gigabit Ethernet
- Fiber Transceivers
- Studio grade and high-end consumer audio equipment

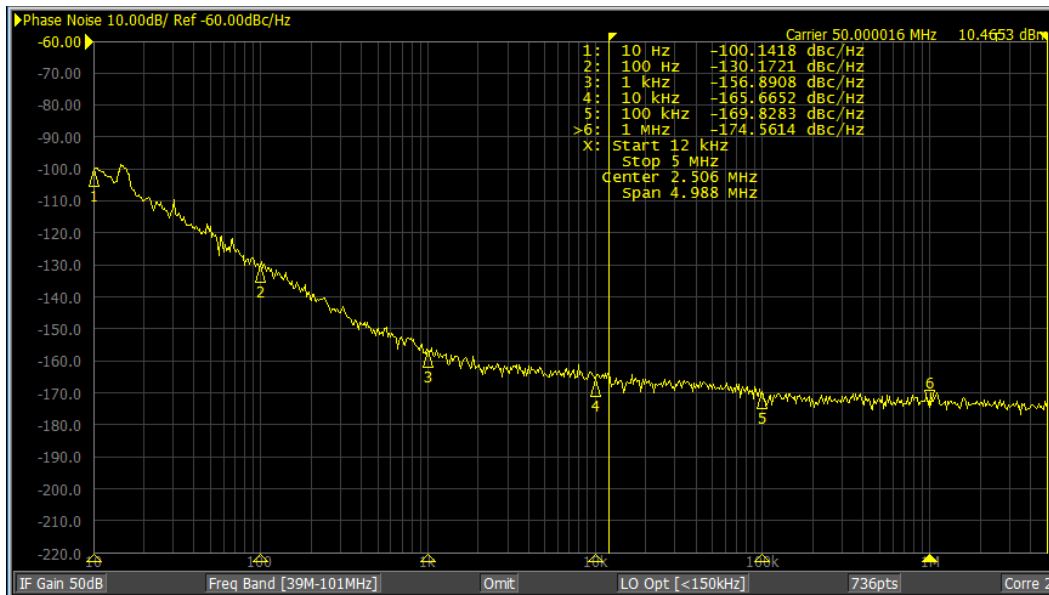
Outline (mm)

IQXO-408



IQXO-455





Phase Noise @ 50 MHz

Parts available:

Model	Part Number	Package Size	Output	Frequency	Stability	Operating Temp. Range	Voltage
IQXO-455	LFSPX0084652	3.2 x 2.5 x 0.95 mm	CMOS	24 MHz	±25 ppm	-40 to 85°C	1.8 V
IQXO-455	LFSPX0084654	3.2 x 2.5 x 0.95 mm	CMOS	25 MHz	±25 ppm	-40 to 85°C	1.8 V
IQXO-455	LFSPX0084655	3.2 x 2.5 x 0.95 mm	CMOS	38.4 MHz	±25 ppm	-40 to 85°C	1.8 V
IQXO-455	LFSPX0084656	3.2 x 2.5 x 0.95 mm	CMOS	50 MHz	±25 ppm	-40 to 85°C	1.8 V
IQXO-455	LFSPX0084657	3.2 x 2.5 x 0.95 mm	CMOS	24 MHz	±25 ppm	-40 to 85°C	3.3 V
IQXO-455	LFSPX0084658	3.2 x 2.5 x 0.95 mm	CMOS	25 MHz	±25 ppm	-40 to 85°C	3.3 V
IQXO-455	LFSPX0084659	3.2 x 2.5 x 0.95 mm	CMOS	38.4 MHz	±25 ppm	-40 to 85°C	3.3 V
IQXO-455	LFSPX0084660	3.2 x 2.5 x 0.95 mm	CMOS	50 MHz	±25 ppm	-40 to 85°C	3.3 V

For other specifications, please contact IQD.