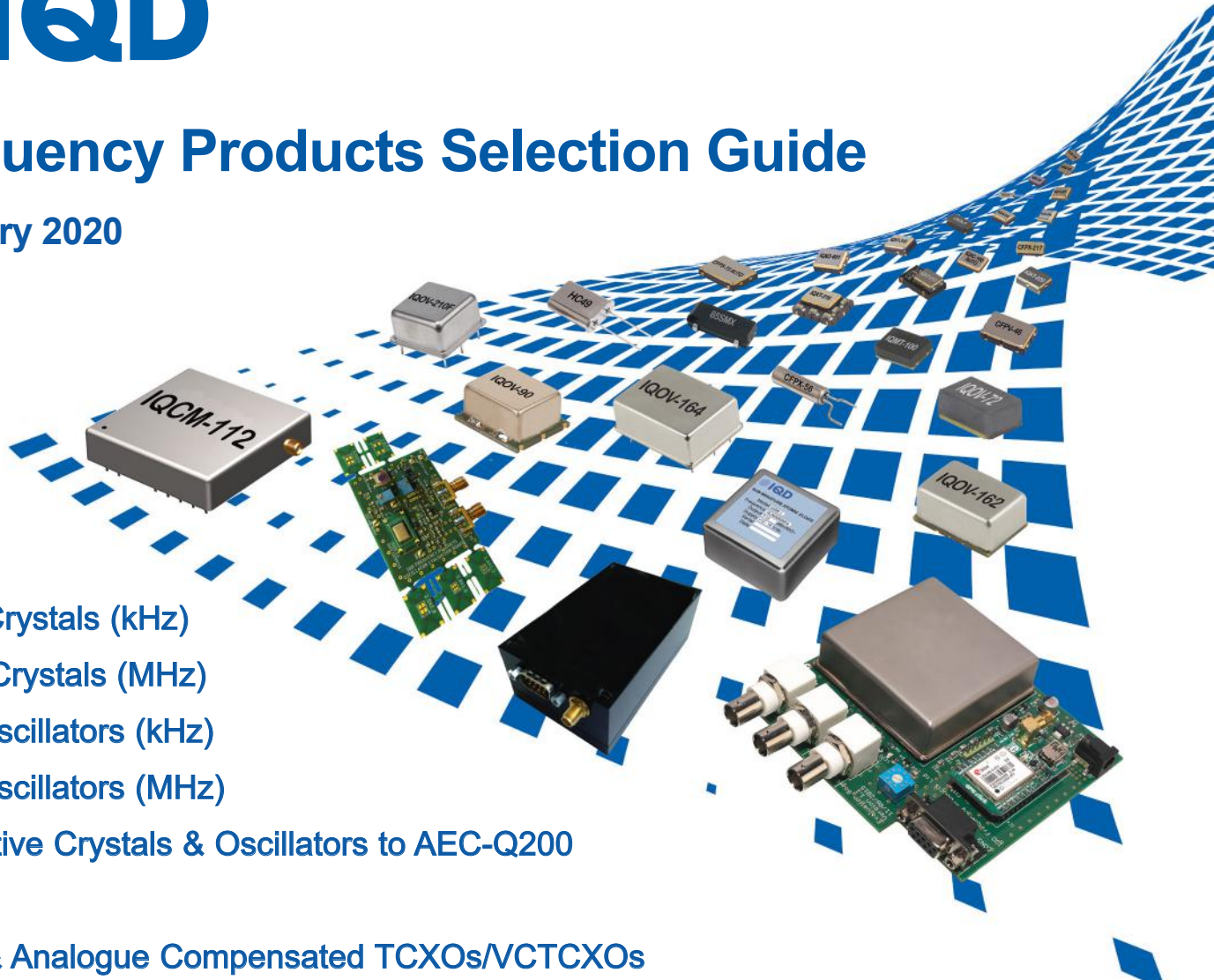




# Frequency Products Selection Guide

February 2020



Watch Crystals (kHz)

Quartz Crystals (MHz)

Clock Oscillators (kHz)

Clock Oscillators (MHz)

Automotive Crystals & Oscillators to AEC-Q200

VCXOs

Digital & Analogue Compensated TCXOs/VCTCXOs

OCVCSOs & OCXOs

Disciplined OCXOs

Rubidium Oscillators

Product News

# Contents Page

Watch Crystals (kHz) .....	3
Quartz Crystals (MHz) .....	3
Automotive Crystals to AEC-Q200 .....	4
Clock Oscillators (kHz) .....	5
Clock Oscillators (MHz) - Industry Standard .....	5
Clock Oscillators (MHz) - Low Voltage .....	6
Clock Oscillators (MHz) - Low Phase Noise/Low Jitter .....	6
Clock Oscillators (MHz) - Tight Stability .....	6
Clock Oscillators (GHz) - Ultra High Frequency .....	6
Automotive Oscillators to AEC-Q200 .....	7
VCXOs .....	8
Digital & Analogue Compensated TCXOs/VCTCXOs .....	9
OCVCSOs & OCXOs .....	10
Disciplined OCXOs .....	10
Rubidium Oscillators .....	11
Product News .....	12



### Watch Crystals (kHz)

Model	Package (mm)	Frequency Range	Frequency Tolerance (Tightest)	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	Key Feature	SMD
IQXC-146	1.2 x 1	32.768kHz	±20ppm	-0.035/°C2	-40 to 85°C	Low height 0.5mm	✓
IQXC-90	1.6 x 1	32.768kHz	±20ppm	-0.035/°C2	-40 to 85°C	Low height 0.5mm	✓
IQXC-25	2 x 1.2	32.768kHz	±20ppm	-0.03/°C2	-40 to 85°C	Low height 0.6mm	✓
CFPX-217	3.2 x 1.5	32.768kHz	±20ppm	-0.034/°C2	-40 to 85°C	Industry standard	✓
85SMX	8.7 x 3.8	32.768kHz	±20ppm	-0.035/°C2	-40 to 85°C	Industry standard	✓
CFPX-56	2 x 6 cyl	32.768kHz	±20ppm	-0.035/°C2	-40 to 85°C	Pre-Formed legs for SMD	✓
Cylinder Watch	2 x 6, 3 x 8 cyl	32.768kHz	±20ppm	-0.035/°C2	-10 to 60°C	Industry standard	

### Quartz Crystals (MHz)

Model	Package (mm)	Frequency Range	Frequency Tolerance (Tightest)	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	Key Feature	SMD
IQXC-240	1.2 x 1	36 to 80MHz	±7ppm	±10ppm	-40 to 85°C	Miniature package	✓
IQXC-26	1.6 x 1.2	24 to 80MHz	±10ppm	±10ppm	-40 to 85°C	Industry standard 4 Pad	✓
IQXC-42	2 x 1.6	16 to 50MHz	±10ppm	±10ppm	-40 to 85°C	Industry standard 4 Pad	✓
IQXC-153	2 x 1.6	20 to 200MHz	±10ppm	±10ppm	-40 to 85°C	High fundamental frequency	✓
CFPX-218	2.5 x 2	12 to 50MHz	±10ppm	±10ppm	-40 to 85°C	Industry standard 4 Pad	✓
IQXC-152	2.5 x 2	16 to 200MHz	±10ppm	±10ppm	-40 to 85°C	High fundamental frequency	✓
CFPX-180	3.2 x 2.5	10 to 200MHz	±10ppm	±10ppm	-40 to 85°C	Industry standard 4 Pad	✓
IQXC-49	5 x 3.2	8 to 125MHz	±10ppm	±10ppm	-40 to 85°C	Industry standard 2 Pad	✓
CFPX-104	5 x 3.2	8 to 133MHz	±10ppm	±10ppm	-40 to 85°C	Industry standard 4 Pad	✓
CFPX-228	6 x 3.5	8 to 133MHz	±10ppm	±15ppm	-40 to 85°C	Industry standard 2 & 4 Pad	✓
12SMX	7 x 5	6 to 84MHz	±20ppm	±20ppm	-40 to 85°C	Industry standard 2 & 4 Pad	✓
HC49	11.05 x 4.65	1.8432 to 270MHz	±5ppm	±5ppm	-55 to 125°C	Industry standard	
HC49/4H	11.05 x 4.7	3.2 to 100MHz	±10ppm	±15ppm	-55 to 105°C	Industry standard	
HC49/4HSMX	13.4 x 4.9	3.2 to 100MHz	±10ppm	±15ppm	-55 to 105°C	Industry standard	✓



## Automotive Crystals to AEC-Q200

Model	Package (mm)	Frequency Range	Frequency Tolerance (Tightest)	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	Key Feature	SMD
IQXC-42 AUTO	2 x 1.6	20 to 50MHz	±10ppm	±20ppm	-40 to 125°C	Miniature package	✓
CFPX-218 AUTO	2.5 x 2	12 to 50MHz	±10ppm	±20ppm	-40 to 125°C	Miniature package	✓
CFPX-217 AUTO	3.2 x 1.5	32.768kHz	±20ppm	-0.03ppm/°C2	-55 to 125°C	Industry standard	✓
IQXC-180 AUTO	3.2 x 2.5	11 to 150MHz	±10ppm	±15ppm	-40 to 125°C	High Frequency	✓
IQXC-104 AUTO	5 x 3.2	8 to 125MHz	±10ppm	±50ppm	-40 to 125°C	High Frequency	✓
IQXC-228 AUTO	6 x 3.5	10 to 70MHz	±10ppm	±15ppm	-40 to 125°C	Tight stability	✓
12SMX AUTO	7 x 5	6 to 125MHz	±10ppm	±50ppm	-40 to 125°C	Industry standard 2 & 4 Pad	✓
HC49/4H AUTO	11.05 x 4.7	3.01 to 100MHz	±50ppm	±50ppm	-40 to 125°C	Industry standard	
HC49/4HSMX AUTO	11.3 x 4.7	3.01 to 100MHz	±10ppm	±15ppm	-40 to 125°C	Industry standard	✓

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4



## Clock Oscillators (kHz)

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	SMD
IQXO-610	1.3 to 5.5V	3.2 x 1.5	CMOS	32.768kHz	±20ppm	-40 to 85°C	✓
IQXO-98x	1.8, 2.5, 3.3V	1.6 x 1.2	CMOS	32.768kHz	±30ppm	-40 to 85°C	✓
IQXO-40x	1.8, 2.5, 3.3V	2 x 1.6	CMOS	32.768kHz	±25ppm	-40 to 125°C	✓
CFPS-10x	1.8, 2.5, 3.3V	2.5 x 2	CMOS	32.768kHz	±20ppm	-40 to 85°C	✓
CFPS-10y	1.8, 2.5, 3.3V	3.2 x 2.5	CMOS	32.768kHz	±20ppm	-40 to 85°C	✓

## Clock Oscillators (MHz) - Industry Standard

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	SMD
IQXO-642	1.8V	1.6 x 1.2	CMOS	1 to 80MHz	±30ppm	-40 to 85°C	✓
IQXO-542	1.8V	2 x 1.6	CMOS	1 to 80MHz	±30ppm	-40 to 85°C	✓
IQXO-794	1.8V	2.5 x 2	HCNOS	1 to 60MHz	±20ppm	-40 to 85°C	✓
CFPS-36	1.8V	5 x 3.2	CMOS	0.5 to 156MHz	±20ppm	-40 to 85°C	✓
CFPS-31	1.8V	7 x 5	CMOS	0.5 to 156.25MHz	±25ppm	-40 to 85°C	✓
CFPS-41	1.8, 2.5 & 3.3V	3.2 x 2.5	CMOS	2 to 125MHz	±25ppm	-40 to 85°C	✓
IQXO-641	2.5V	1.6 x 1.2	CMOS	1 to 80MHz	±30ppm	-40 to 85°C	✓
IQXO-541	2.5V	2 x 1.6	CMOS	1 to 80MHz	±30ppm	-40 to 85°C	✓
IQXO-793	2.5V	2.5 x 2	HCNOS	1 to 50MHz	±20ppm	-40 to 85°C	✓
CFPS-40	2.5V	3.2 x 2.5	CMOS	2 to 125MHz	±25ppm	-40 to 85°C	✓
CFPS-37	2.5V	5 x 3.2	CMOS	1.8 to 125MHz	±25ppm	-40 to 85°C	✓
IQXO-741	2.5V	5 x 3.2	LVDS	80 to 160MHz	±20ppm	-40 to 85°C	✓
CFPS-32	2.5V	7 x 5	CMOS	0.5 to 156.25MHz	±25ppm	-40 to 85°C	✓
IQXO-661	2.5V	7 x 5	LVDS	15 to 160MHz	±25ppm	-40 to 85°C	✓
IQXO-621	2.5V	7 x 5	LVPECL	15 to 160MHz	±25ppm	-40 to 85°C	✓
IQXO-640	3.3V	1.6 x 1.2	CMOS	1 to 80MHz	±30ppm	-40 to 85°C	✓
IQXO-540	3.3V	2 x 1.6	CMOS	1 to 80MHz	±30ppm	-40 to 85°C	✓
IQXO-791	3.3V	2.5 x 2	HCNOS	1 to 66MHz	±20ppm	-40 to 85°C	✓
CFPS-39	3.3V	3.2 x 2.5	CMOS	2 to 125MHz	±25ppm	-40 to 85°C	✓
CFPS-9	3.3V	5 x 3.2	HCNOS	0.5 to 160MHz	±25ppm	-40 to 85°C	✓
IQXO-740	3.3V	5 x 3.2	LVDS	80 to 160MHz	±20ppm	-40 to 85°C	✓
CFPS-73	3.3V	7 x 5	HCNOS/TTL	0.5 to 157MHz	±20ppm	-40 to 85°C	✓
IQXO-620	3.3V	7 x 5	LVPECL	15 to 160MHz	±25ppm	-40 to 85°C	✓
IQXO-660	3.3V	7 x 5	LVDS	15 to 160MHz	±25ppm	-40 to 85°C	✓
CFPS-12	5V	5 x 3.2	CMOS	0.5 to 100MHz	±25ppm	-40 to 85°C	✓
CFPS-72	5V	7 x 5	HCNOS/TTL	0.5 to 100MHz	±25ppm	-40 to 85°C	✓



## Clock Oscillators (MHz) - Low Voltage

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	SMD
IQXO-691 2520	0.9, 1.2, 1.5V	2.5 x 2	CMOS	10 to 50MHz	±20ppm	-40 to 85°C	✓
IQXO-691 3225	0.9, 1.2, 1.5V	3.2 x 2.5	CMOS	10 to 50MHz	±20ppm	-40 to 85°C	✓
IQXO-691 5032	0.9, 1.2, 1.5V	5 x 3.2	CMOS	10 to 50MHz	±20ppm	-40 to 85°C	✓
IQXO-691 7050	0.9, 1.2, 1.5V	7 x 5	CMOS	10 to 50MHz	±20ppm	-40 to 85°C	✓

## Clock Oscillators (MHz) - Low Phase Noise/Low Jitter

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	SMD
CFPS-112	1.8V	2.5 x 2	CMOS	26 to 44MHz	±30ppm	-40 to 85°C	✓
CFPS-113	2.5V	2.5 x 2	CMOS	26 to 44MHz	±30ppm	-40 to 85°C	✓
IQXO-623	2.5V	3.2 x 2.5	LVPECL	13.5 to 156.25MHz	±25ppm	-40 to 125°C	✓
IQXO-931	2.5, 3.3V	2.5 x 2	CMOS, LVPECL, LVDS	8 to 1500MHz	±10ppm	-40 to 85°C	✓
IQXO-593	2.5, 3.3V	3.2 x 2.5	LVPECL	40 to 250MHz	±25ppm	-40 to 85°C	✓
IQXO-935	2.5, 3.3V	5 x 3.2	CMOS, LVPECL, LVDS	1 to 200MHz	±10ppm	-10 to 70°C	✓
IQXO-940	2.5, 3.3V	5 x 3.2	CMOS, LVPECL, LVDS	8 to 1500MHz	±10ppm	-40 to 85°C	✓
IQXO-944	2.5, 3.3V	7 x 5	CMOS, LVPECL, LVDS	1 to 640MHz	±10ppm	-40 to 85°C	✓
IQXO-942	2.5, 3.3V	7 x 5	CMOS, LVPECL, LVDS	8 to 1500MHz	±10ppm	-40 to 85°C	✓
CFPS-114	3V	2.5 x 2	CMOS	26 to 44MHz	±30ppm	-40 to 85°C	✓
CFPS-115	3.3V	2.5 x 2	CMOS	26 to 44MHz	±30ppm	-40 to 85°C	✓
IQXO-624	3.3V	3.2 x 2.5	LVPECL	13.5 to 156.25MHz	±25ppm	-40 to 125°C	✓

## Clock Oscillators (MHz) - Tight Stability

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	SMD
IQXO-923	1.8, 3.3V	3.2 x 2.5	HCMOS	10 to 160MHz	±5ppm	-40 to 85°C	✓
IQXO-447	2.5V	2.5 x 2	CMOS	4 to 54MHz	±10ppm	-40 to 85°C	✓
IQXO-432	2.5V	3.2 x 2.5	CMOS	4 to 54MHz	±10ppm	-40 to 85°C	✓
IQXO-446	3V	2.5 x 2	CMOS	4 to 54MHz	±10ppm	-40 to 85°C	✓
IQXO-431	3V	3.2 x 2.5	CMOS	4 to 54MHz	±10ppm	-40 to 85°C	✓
IQXO-445	3.3V	2.5 x 2	CMOS	4 to 54MHz	±10ppm	-40 to 85°C	✓
IQXO-430	3.3V	3.2 x 2.5	CMOS	4 to 54MHz	±10ppm	-40 to 85°C	✓

## Clock Oscillators (GHz) - Ultra High Frequency

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	SMD
IQXO-597	3.3V	14 x 9	Diff-Sine, LVPECL, Sine	1.0 to 2.2GHz	±20ppm	-40 to 85°C	✓



## Automotive Clock Oscillators to AEC-Q200

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	Key Feature	SMD
IQXO-542 AUTO	1.8V	2 x 1.6	CMOS	4 to 50MHz	±25ppm	-40 to 125°C	Miniature package	✓
CFPS-53 AUTO	1.8V	2.5 x 2	CMOS	2 to 50MHz	±25ppm	-40 to 125°C	Miniature package	✓
CFPS-41 AUTO	1.8V	3.2 x 2.5	CMOS	2 to 50MHz	±25ppm	-40 to 125°C	Industry standard	✓
IQXO-583 AUTO	1.8V	5 x 3.2	CMOS	1 to 50MHz	±25ppm	-40 to 125°C	Industry standard	✓
CFPS-31 AUTO	1.8V	7 x 5	CMOS	1 to 40MHz	±25ppm	-40 to 125°C	Industry standard	✓
IQXO-541 AUTO	2.5V	2 x 1.6	CMOS	4 to 50MHz	±25ppm	-40 to 125°C	Miniature package	✓
CFPS-54 AUTO	2.5V	2.5 x 2	CMOS	2 to 50MHz	±25ppm	-40 to 125°C	Miniature package	✓
CFPS-40 AUTO	2.5V	3.2 x 2.5	CMOS	2 to 50MHz	±25ppm	-40 to 125°C	Industry standard	✓
IQXO-582 AUTO	2.5V	5 x 3.2	CMOS	1 to 75MHz	±25ppm	-40 to 125°C	High Frequency	✓
CFPS-32 AUTO	2.5V	7 x 5	CMOS	1 to 75MHz	±25ppm	-40 to 125°C	High Frequency	✓
IQXO-540 AUTO	3.3V	2 x 1.6	CMOS	4 to 50MHz	±25ppm	-40 to 125°C	Miniature package	✓
CFPS-56 AUTO	3.3V	2.5 x 2	CMOS	2 to 50MHz	±25ppm	-40 to 125°C	Miniature package	✓
CFPS-39 AUTO	3.3V	3.2 x 2.5	CMOS	2 to 50MHz	±25ppm	-40 to 125°C	Industry standard	✓
IQXO-581 AUTO	3.3V	5 x 3.2	CMOS	1 to 135MHz	±25ppm	-40 to 125°C	High Frequency	✓
CFPS-73 AUTO	3.3V	7 x 5	CMOS	1 to 135MHz	±25ppm	-40 to 125°C	High Frequency	✓

### Contact us Today to find out more about IQD's engineering services, including:

- Application support
- Sample development
- Frequency/temperature testing
- Circuit characterisation
- Custom product design
- Electrical testing & screening
- Accelerated ageing
- MTIE/TDEV testing



## VCXOs

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Pulling	Operating Temperature Range (Widest)	Key Feature	SMD
IQXV-43	1.8V	3.2 x 2.5	HCMOS	4 to 54MHz	±50ppm min	-40 to 85°C	Industry standard	✓
IQXV-42	2.5V	3.2 x 2.5	HCMOS	4 to 54MHz	±50ppm min	-40 to 85°C	Industry standard	✓
IQXV-63	2.5V	5 x 3.2	HCMOS	1 to 77.76MHz	±50ppm min	-40 to 85°C	Industry standard	✓
IQXV-52	2.5V	7 x 5	HCMOS	1 to 60MHz	±100ppm min	-40 to 85°C	Industry standard	✓
IQXV-57	2.5V	7 x 5	HCMOS	1 to 79MHz	±150ppm min	-40 to 85°C	Wide pulling range	✓
IQXV-83	2.5, 3.3V	2.5 x 2	CMOS, LVPECL, LVDS	8 to 1500MHz	±35ppm min APR	-40 to 85°C	Low jitter (0.5ps)	✓
IQXV-85	2.5, 3.3V	5 x 3.2	CMOS, LVPECL, LVDS	8 to 1500MHz	±50ppm min APR	-40 to 85°C	Low jitter (0.5ps)	✓
IQXV-84	2.5, 3.3V	5 x 3.2	CMOS, LVPECL, LVDS	8 to 1500MHz	±50ppm min APR	-40 to 85°C	Low jitter (0.9ps)	✓
IQXV-89	2.5, 3.3V	7 x 5	CMOS, LVPECL, LVDS	1 to 800MHz	±50ppm min APR	-40 to 85°C	Ultra low jitter (0.05 to 0.3ps)	✓
IQXV-88	2.5, 3.3V	7 x 5	CMOS, LVPECL, LVDS	8 to 1500MHz	±50ppm min APR	-40 to 85°C	Low jitter (0.5ps)	✓
IQXV-87	2.5, 3.3V	7 x 5	CMOS, LVPECL, LVDS	8 to 1500MHz	±50ppm min APR	-40 to 85°C	Low jitter (0.9ps)	✓
IQXV-41	3.3V	3.2 x 2.5	HCMOS	1.25 to 54MHz	±50ppm min	-40 to 85°C	Industry standard	✓
IQXV-81	3.3V	3.2 x 2.5	LVDS	40 to 170MHz	±80ppm min	-40 to 85°C	Tight stability ±25ppm	✓
IQXV-80	3.3V	3.2 x 2.5	LVPECL	40 to 170MHz	±100ppm min	-40 to 85°C	Tight stability ±25ppm	✓
IQXV-61	3.3V	5 x 3.2	HCMOS	1 to 77.76MHz	±100ppm min	-40 to 85°C	Industry standard	✓
IQXV-86	3.3V	5 x 3.2	CMOS, LVPECL, LVDS	1 to 800MHz	±50ppm min APR	-40 to 85°C	Ultra low jitter (0.05 to 0.3ps)	✓
IQXV-51	3.3V	7 x 5	HCMOS	1 to 60MHz	±100ppm min	-40 to 85°C	Industry standard	✓
IQXV-56	3.3V	7 x 5	HCMOS	1 to 79MHz	±150ppm min	-40 to 85°C	Wide pulling range	✓
CFPV-45	3.3V	7 x 5	HCMOS	1.5 to 80MHz	±100ppm min APR	0 to 70°C	Industry standard	✓





## Digitally Compensated TCXOs/VCTCXOs

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	Key Feature	Voltage Control Option	SMD
IQXT-225	1.2V	2 x 1.6	Clipped Sine	16.368 to 38.4MHz	±0.5ppm	-30 to 85°C	Low voltage		✓
IQXT-350	1.8V	1.6 x 1.2	Clipped Sine	26 & 52MHz	±0.5ppm	-40 to 85°C	Miniature package		✓
IQXT-351	1.8V	1.6 x 1.2	Clipped Sine	26 & 52MHz	±0.5ppm	-40 to 85°C	Miniature package	✓	✓
IQXT-205-1	1.8, 2.5, 2.8, 3, 3.3V	2 x 1.6	Clipped Sine	13 to 52MHz	±0.5ppm	-30 to 85°C	Industry standard		✓
IQXT-205-2	1.8, 2.5, 2.8, 3, 3.3V	2 x 1.6	Clipped Sine	13 to 52MHz	±0.5ppm	-30 to 85°C	Industry standard	✓	✓
IQXT-205-3	1.8, 2.5, 2.8, 3, 3.3V	2 x 1.6	Clipped Sine	13 to 52MHz	±0.5ppm	-40 to 105°C	Industry standard		✓
IQXT-192	1.8, 2.5, 2.8, 3, 3.3V	3.2 x 2.5	Clipped Sine	8.192 to 52MHz	±1ppm	-30 to 85°C	Low Power 2mA	✓	✓
CFPT-9302	3V	5 x 3.2	Clipped Sine	12 to 52MHz	±0.2ppm	-40 to 85°C	MTIE/TDEV	✓	✓
IQXT-220	3.3V	3.2 x 2.5	Clipped Sine	10 to 40MHz	±0.28ppm	-40 to 85°C	Tight stability	✓	✓
CFPT-9301	3.3V	5 x 3.2	HCMOS	1.5 to 52MHz	±0.2ppm	-40 to 85°C	MTIE/TDEV	✓	✓
IQXT-210	3.3V	5 x 3.2	HCMOS, Clipped Sine	10 to 50MHz	±0.05ppm	-40 to 85°C	Ultra tight stability	✓	✓
IQXT-318	3.3V	5 x 3.2	HCMOS, Clipped Sine	19.2 to 40MHz	-	-40 to 85°C	-157dBc/Hz	✓	✓
IQXT-200	3.3V	7 x 5	HCMOS, Clipped Sine	10 to 50MHz	±0.28ppm	-40 to 85°C	MTIE/TDEV	✓	✓
IQXT-316	3.3V	7 x 5	HCMOS, Clipped Sine	19.2 to 40MHz	-	-40 to 85°C	-157dBc/Hz	✓	✓

## Analogue Compensated TCXOs/VCTCXOs

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	Key Feature	Voltage Control Option	SMD
IQXT-270	1.8 to 3V	2 x 1.6	Clipped Sine	13 to 52MHz	±0.5ppm	-40 to 85°C	Low power	✓	✓
IQXT-260	1.8 to 3.3V	2.5 x 2	Clipped Sine	10 to 52MHz	±0.5ppm	-40 to 85°C	0.01µA standby current	✓	✓
IQXT-274	2.5, 2.8, 3, 3.3V	3.2 x 2.5	Clipped Sine	10 to 40MHz	±0.5ppm	-40 to 85°C	Low Power 2mA	✓	✓
IQXT-313	2.7 to 5.5V	5 x 3.2	HCMOS, Clipped Sine	5 to 52MHz	-	-40 to 85°C	-157dBc/Hz	✓	✓
CFPT-9006	3.3V	7 x 5	HCMOS	1.25 to 40MHz	±0.3ppm	-40 to 85°C	Tri-State <1mA	✓	✓
CFPT-9007	3.3V	7 x 5	Sine	10 to 40MHz	±0.3ppm	-40 to 85°C	Tri-State <1mA	✓	✓
CFPT-9008	3.3V	7 x 5	Clipped Sinewave	10 to 40MHz	±0.3ppm	-40 to 85°C	Tri-State <1mA	✓	✓
IQXT-311	3.3, 5V	5 x 3.2	HCMOS, Clipped Sine, Sine	1.25 to 52MHz	-	-55 to 105°C	-160dBc/Hz @1MHz		✓
CFPT-9001	5V	7 x 5	HCMOS	1.25 to 40MHz	±0.3ppm	-40 to 85°C	Tri-State <1mA	✓	✓
CFPT-9005	5V	7 x 5	Clipped Sine	10 to 40MHz	±0.3ppm	-40 to 85°C	Tri-State <1mA	✓	✓
CFPT-9003	5V	7 x 5	Sine	10 to 40MHz	±0.3ppm	-40 to 85°C	Tri-State <1mA	✓	✓



## OCVCSOs & OCXOs

IQD offers a range of custom designed OCVCSOs & OCXOs and the following specifications are examples of the type of products we can design and manufacture.

Please contact our sales team with details of your requirements so we can consider a new custom design where necessary.

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Phase Noise @ 10kHz	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	Key Feature	SMD
OCVCSO-1	5V	25.4 x 22	Sine	800MHz	-160dBc/Hz typ	±4ppm	-25 to 60°C	High frequency, low phase noise	✓
OCVCSO-2	5V	25.4 x 22	Sine	400MHz	-167dBc/Hz typ	±2ppm	-0 to 50°C	High frequency, low phase noise	✓
OCVCSO-3	5V	25.4 x 22	Sine	1200MHz	-152dBc/Hz typ	±2ppm	-0 to 50°C	High frequency, low phase noise	✓

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency Range	Phase Noise @ 100kHz	Frequency Stability (Tightest)	Operating Temperature Range (Widest)	Key Feature	SMD
IQMT-100	3.3V	7 x 5	HCMOS, Clipped Sine	10 to 50MHz	-148dBc/Hz typ	±50ppb	-40 to 85°C	OCXO performance in TCXO sized package	✓
IQOV-71	3.3, 5V	9.7 x 7.5	HCMOS, Clipped Sine	5 to 50MHz	-153dBc/Hz typ	±10ppb	-40 to 85°C	Ultra miniature OCXO	✓
IQOV-162	3.3V	14 x 9	HCMOS, Sinewave	10 to 100MHz	-150dBc/Hz typ	±10ppb	-40 to 85°C	Short term stability 0.1ppb	✓
IQOV-72	3.3, 5V	14 x 9	HCMOS, Clipped Sine	5 to 50MHz	-163dBc/Hz typ	±10ppb	-40 to 85°C	Low power (0.4W)	✓
IQOV-114	3.3V	20.32 x 12.7	HCMOS	8.192 to 30.72MHz	-155dBc/Hz typ	±1ppb	-40 to 85°C	Tight stability	✓
IQOV-90	3.3, 5, 12V	25.4 x 22	HCMOS, Sinewave	10 to 40MHz	-155dBc/Hz typ	±3ppb	-40 to 75°C	MTIE/TDEV	✓
IQOV-210F	3.3, 5, 12V	25.4 x 25.4	Sinewave	100MHz	-180dBc/Hz typ	±10ppb	-40 to 85°C	Ultra low phase noise	
IQOV-60	3.3, 5V	25.4 x 25.4	HCMOS, Sinewave	4 to 20MHz	-150dBc/Hz typ	±3ppb	-40 to 75°C	Low ageing ±0.5ppb/day	
IQOV-164	3.3V	36 x 27	HCMOS, Sinewave	5 to 100MHz	-155dBc/Hz typ	±0.2ppb	-40 to 80°C	Ultra tight stability	
IQOV-200F	12V	36 x 27	Sinewave	80 to 130MHz	-180dBc/Hz typ	±50ppb	-20 to 70°C	Ultra low phase noise	
IQOV-220	12V	36 x 27	Sinewave	10MHz	-160dBc/Hz typ	±0.5ppb	-40 to 85°C	Short term stability 0.5ppt	
IQOV-160	3.3V	14-pin DIL	HCMOS	5 to 100MHz	-160dBc/Hz typ	±5ppb	-40 to 85°C	Tight stability	
IQOV-74	2.7 to 5.5V	14-pin DIL	HCMOS, Clipped Sine	10 to 26MHz	-155dBc/Hz typ	±10ppb	-40 to 85°C	Low ageing	

## Disciplined OCXOs

Model	Package (mm)	Supply Voltage	Holdover Stability (Tightest)	Key Feature	SMD
IQCM-160	25 x 30	3.3V	<1.5µs / 8Hrs	1PPS & 10MHz Output, Frequency Stability ±0.02ppb	
IQCM-310	40 x 35	3.3V	<1.5µs / 8Hrs	IEEE 1588-2008 (1588V2) with advanced PTP IC	✓
IQCM-200	51 x 51	5V	<1.5µs / 24Hrs	1PPS & 10MHz Output, Frequency Stability <±0.01ppb	
IQCM-112	60 x 60	5V	<1.5µs / 24Hrs	1PPS & 10MHz Output, Internal GNSS receiver	
IQCM-100	65 x 65	5V	<1.5µs / 24Hrs	1PPS & 10MHz Output, Frequency Stability <±0.01ppb	
IQCM-EVboard	Evaluation board for the IQCM-100, IQCM-112, IQCM-160 and IQCM-200				



10



## Rubidium Oscillators

Model	Supply Voltage	Package (mm)	Output Compatibility	Frequency	Short Term Stability @ 100s	Operating Temperature Range (Widest)	Key Feature	SMD
IQRB-1	12V	50.8 x 50.8	Sinewave	10MHz	±0.008ppb	-30 to 60°C	Frequency tolerance ±0.05ppb	
IQRB-2	12V	96 x 60	Sinewave	10MHz	±0.002ppb	-20 to 60°C	-158dBc/Hz @10kHz	
IQRB-3	12V	96 x 60	Sinewave	10MHz	±0.002ppb	-20 to 60°C	-158dBc/Hz @10kHz, 1PPS Input/Output	

### World Class Frequency Products

Backed by a pedigree that has been developed over 40 years, IQD Frequency Products is a recognised market leader in the frequency control market and part of the Würth Elektronik eiSos group, one of the leading European manufacturers of passive components. With active customers in over 80 countries, IQD offers one of the most comprehensive frequency product ranges available, from low cost commercial grade product to that used in high reliability industrial and automotive applications.

### Firmenprofil & Bestellinformation

Gestützt auf eine über 40-jährige Erfahrung in der Fertigung von Frequenzprodukten, ist IQD ein anerkannter Marktführer im Bereich Frequenzsteuerung und ein Teil der Würth Elektronik eiSos Group, einem der führenden europäischen Hersteller von passiven Bauelementen. Mit Kunden in über 80 Ländern bietet IQD eine der marktweit umfassendsten Frequenzproduktsortimente an. Das Angebot reicht von preisgünstigen, handelsüblichen Produkten bis hin zu hochzuverlässigen industriellen und automotiven Anwendungen.

### Des Produits Fréquentiels De Première Classe

Forte de plus de 40 ans d'expérience dans la fabrication des produits de fréquence, la société IQD est un leader de marché réputé dans le secteur du contrôle des fréquences et fait partie du groupe Würth Elektronik eiSos, un des fabricants européens leaders de composants passifs. Avec des clients dans plus de 80 pays, notre gamme complète va du produit commercial à bas coût au produit extrêmement fiable utilisé dans les applications industrielles et automobiles.

### Products de Frecuencia de Clase Mundial

Respalado por un pedigrí que se ha desarrollado durante 40 años, IQD Frequency Products es un líder reconocido en el mercado de control de frecuencia y parte del grupo Würth Electronik eiSos, uno de los principales fabricantes europeos de componentes pasivos. Con clientes activos en más de 80 países, IQD ofrece uno de los ange de productos de frecuencia más completos disponibles, desde productos de grado comercial de bajo costo hasta los utilizados en aplicaciones industriales y automotrices de alta confiabilidad.

