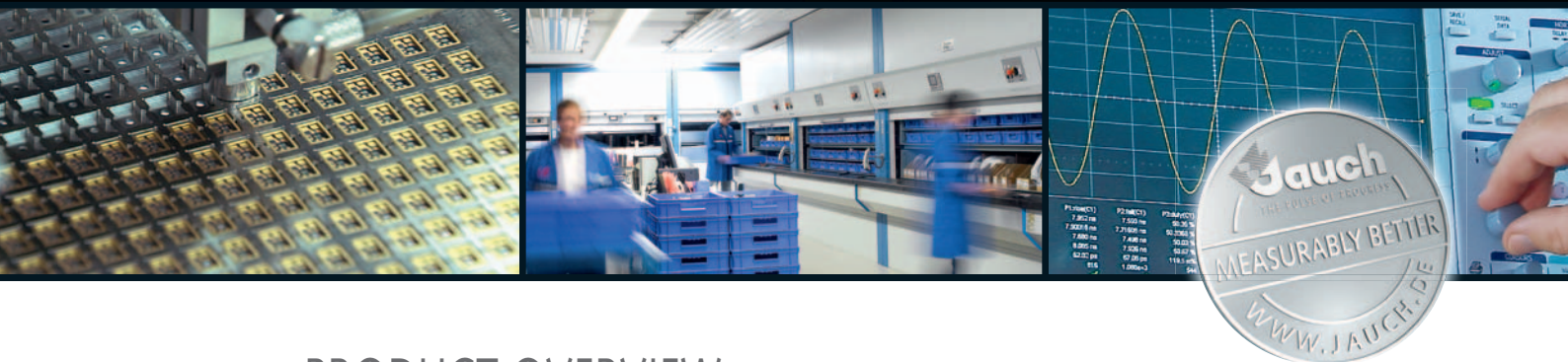


# THE SPECIALISTS

## FOR FREQUENCY CONTROL TECHNOLOGY









## PRODUCT OVERVIEW

QUARTZ CRYSTALS






CRYSTAL OSCILLATORS







## Quartz Crystal · SMD · Ceramic/Metal Package

	Type	Frequency Range	Temperature Range (max.)*	Frequency Tolerance	Frequency Stability*	L x W x H in mm
	JXS11	26.0 ~ 54.0 MHz	-40°C ~ +85°C	±10 ppm	±10 ppm	1.6 x 1.2 x 0.4
	JXS21	16.0 ~ 54.0 MHz	-40°C ~ +85°C	±10 ppm	±15 ppm	2.0 x 1.6 x 0.5
	JXS22	16.0 ~ 54.0 MHz	-40°C ~ +85°C	±10 ppm	±10 ppm	2.5 x 2.0 x 0.55
	JXS32	10.0 ~ 54.0 MHz	-40°C ~ +85°C	±10 ppm	±10 ppm	3.2 x 2.5 x 0.7
	JXS53	8.0 ~ 125.0 MHz	-40°C ~ +125°C	±10 ppm	±10 ppm	5.0 x 3.2 x 0.8
	JXS75	5.5 ~ 170.0 MHz	-40°C ~ +85°C	±10 ppm	±10 ppm	7.0 x 5.0 x 1.0


## Quartz Crystal · SMD · Ceramic Package

	Type	Frequency Range	Temperature Range (max.)*	Frequency Tolerance	Frequency Stability*	L x W x H in mm
	JXG32P4	12.0 ~ 50.0 MHz	-40°C ~ +125°C	±30 ppm	±30 ppm	3.2 x 2.5 x 1.0
	JXG53P4	8.0 ~ 60.0 MHz	-40°C ~ +125°C	±30 ppm	±30 ppm	5.0 x 3.2 x 1.5
	JXG53P2	8.0 ~ 60.0 MHz	-40°C ~ +125°C	±30 ppm	±30 ppm	5.0 x 3.2 x 1.5
	JXG75P4	5.0 ~ 70.0 MHz	-40°C ~ +125°C	±30 ppm	±30 ppm	7.0 x 5.0 x 1.8
	JXG75P2	5.0 ~ 70.0 MHz	-40°C ~ +125°C	±30 ppm	±30 ppm	7.0 x 5.0 x 1.8

## Quartz Crystal · SMD · Metal Package/Molded Base

	Type	Frequency Range	Temperature Range (max.)*	Frequency Tolerance	Frequency Stability*	L x W x H in mm
	SMU2	4.0 ~ 33.0 MHz	-40°C ~ +125°C	±20 ppm	±20 ppm	11.5 x 4.8 x 3.0
	SMU3	3.2768 ~ 33.0 MHz	-40°C ~ +125°C	±20 ppm	±20 ppm	11.5 x 4.8 x 4.0
	SMU4	3.2768 ~ 33.0 MHz	-40°C ~ +85°C	±20 ppm	±20 ppm	11.5 x 4.8 x 4.0
	SMU5	3.2768 ~ 33.0 MHz	-40°C ~ +85°C	±10 ppm	±30 ppm	13.1 x 5.0 x 5.0










## Quartz Crystal · SMD · Plastic Mold Package

	Type	Frequency Range	Temperature Range (max.)*	Frequency Tolerance	Frequency Stability*	L x W x H in mm
	MG3A	3.5 ~ 48.0 MHz	-40°C ~ +125°C	±20 ppm	±30 ppm	13.1 x 5.0 x 5.0








\* Please note: best frequency stability is not always available in max. temperature range.

# QUARTZ CRYSTALS – PIN TYPE AND SMD



## Quartz Crystal · Pin Type · Metal Package

	Type	Frequency Range	Temperature Range (max.)*	Frequency Tolerance	Frequency Stability*	L x W x H in mm
	SS2	4.0 ~ 33.0 MHz	-40°C ~ +125°C	±20 ppm	±20 ppm	11.3 x 4.7 x 2.5
	SS3	3.2768 ~ 33.0 MHz	-40°C ~ +125°C	±20 ppm	±20 ppm	11.3 x 4.7 x 3.6
	SS4	3.2768 ~ 33.0 MHz	-40°C ~ +85°C	±20 ppm	±20 ppm	11.3 x 4.7 x 3.6
	HC49/U	0.921 ~ 250.0 MHz	-40°C ~ +125°C	±3 ppm	±3 ppm	10.8 x 4.5 x 13.0
	HC49/U-SMC	0.921 ~ 250.0 MHz	-40°C ~ +125°C	±3 ppm	±3 ppm	17.5 x 10.8 x 5.3
	MQ1	0.921 ~ 250.0 MHz	-40°C ~ +125°C	±5 ppm	±3 ppm	7.9 x 3.3 x 8.0
	MQ1-SMC	0.921 ~ 250.0 MHz	-40°C ~ +125°C	±5 ppm	±3 ppm	11.7 x 7.8 x 3.4
	MQ5	10.0 ~ 250.0 MHz	-40°C ~ +125°C	±5 ppm	±3 ppm	7.7 x 3.1 x 5.8
	MQ5-SMC	10.0 ~ 250.0 MHz	-40°C ~ +125°C	±5 ppm	±3 ppm	9.7 x 7.7 x 3.4

## Tuning Fork Crystal · SMD


	Type	Frequency Range	Temperature Range (max.)*	Frequency Tolerance	Frequency Stability*	L x W x H in mm
	JTX210	32.7680 kHz	-40°C ~ +85°C	±20 ppm	-80 ppm	2.0 x 1.2 x 0.6
	JTX310	32.7680 kHz	-40°C ~ +125°C	±10 ppm	-80 ppm	3.2 x 1.5 x 0.9
	JTX410	32.7680 kHz	-40°C ~ +125°C	±10 ppm	-80 ppm	4.1 x 1.5 x 0.9
	JTX520	32.7680 kHz	-40°C ~ +125°C	±10 ppm	-80 ppm	4.8 x 1.9 x 0.8
	SMQ32SN	32.7680 kHz	-40°C ~ +85°C	±20 ppm	-80 ppm	7.0 x 1.5 x 0.9
	SMQ32SL	32.7680 kHz	-40°C ~ +125°C	±10 ppm	-80 ppm	8.0 x 3.8 x 2.4
	SM26F	32.7680 kHz (30.0 ~ 100.0 kHz on request)	-40°C ~ +85°C	±20 ppm	-80 ppm	6.0 x 2.0 x 2.0

## Tuning Fork Crystal · Pin Type



	Type	Frequency Range	Temperature Range (max.)*	Frequency Tolerance	Frequency Stability*	L x W x H in mm
	MMTF32	32.7680 kHz	-40°C ~ +85°C	±10 ppm	-80 ppm	2.0 x 2.0 x 6.0
	MTF32	32.7680 kHz	-40°C ~ +85°C	±10 ppm	-80 ppm	3.0 x 3.0 x 8.0

\* Please note: best frequency stability is not always available in max. temperature range.



## VX3 · Oscillator · HCMOS · SMD · Ceramic Package · 7.0 x 5.0 mm

	Type		Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm
	VX3 (5.0 V)	Tristate Function	0.5 ~ 107.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 50 pF HCMOS	7.0 x 5.0 x 1.6
	VX3 (3.3 V)	Tristate Function	0.5 ~ 70.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.6
	VX3 (3.3 V)	Stop Function	0.5 ~ 165.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.6
	VX3 (2.8 V)	Stop Function	0.5 ~ 165.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.6
	VX3 (2.5 V)	Stop Function	0.5 ~ 125.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.6
	VX3 (1.8 V)	Stop Function	0.5 ~ 125.0 MHz	-40°C ~ +85°C	±20 ppm	30 pF HCMOS	7.0 x 5.0 x 1.6

## J075 · Oscillator · HCMOS · SMD · Ceramic/Metal Package · 7.0 x 5.0 mm

	Type		Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm
	J075 (5.0 V)	Tristate Function	0.5 ~ 107.0 MHz	-40°C ~ +105°C	±20 ppm	15 pF / 30 pF / 50 pF HCMOS	7.0 x 5.0 x 1.8
	J075 (3.3 V)	Stop Function	1.0 ~ 170.0 MHz	-40°C ~ +105°C	±20 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.8
	J075 (3.3 V)	Low Frequency Type Stop Function	0.012 ~ 1.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.4
	J075 (2.8 V)	Stop Function	0.5 ~ 165.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.8
	J075 (2.5 V)	Stop Function	0.5 ~ 165.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.8
	J075 (1.8 V)	Stop Function	0.5 ~ 160.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.8
	J075H (5.0 V)	High Stability Type Stop Function	1.8 ~ 50.0 MHz	-40°C ~ +85°C	±10 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.4
	J075H (3.3 V)	High Stability Type Stop Function	1.8 ~ 50.0 MHz	-40°C ~ +85°C	±10 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.4

## J053 · Oscillator · HCMOS · SMD · Ceramic/Metal Package · 5.0 x 3.2 mm



	Type		Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm
	J053 (5.0 V)	Stop Function	0.5 ~ 110.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 30 pF HCMOS	5.0 x 3.2 x 1.4
	J053 (3.3 V)	Stop Function	0.5 ~ 125.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 30 pF HCMOS	5.0 x 3.2 x 1.4
	J053 (3.0 V)	Stop Function	0.5 ~ 125.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 30 pF HCMOS	5.0 x 3.2 x 1.4
	J053 (2.8 V)	Stop Function	0.5 ~ 80.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 30 pF HCMOS	5.0 x 3.2 x 1.4
	J053 (2.5 V)	Stop Function	0.5 ~ 80.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 30 pF HCMOS	5.0 x 3.2 x 1.4
	J053 (1.8 V)	Stop Function	0.5 ~ 125.0 MHz	-40°C ~ +85°C	±20 ppm	15 pF / 30 pF HCMOS	5.0 x 3.2 x 1.4
	J053H (3.3 V)	High Stability Type Stop Function	4.0 ~ 54.0 MHz	-40°C ~ +85°C	±8 ppm	15 pF HCMOS	5.0 x 3.2 x 1.1
	J053H (2.5 V)	High Stability Type Stop Function	4.0 ~ 54.0 MHz	-40°C ~ +85°C	±8 ppm	15 pF HCMOS	5.0 x 3.2 x 1.1

\* Please note: best frequency stability is not always available in max. temperature range.



Full data can be found online: [www.jauch.de](http://www.jauch.de). All specifications are subject to change without notice.

# QUARTZ CRYSTAL OSCILLATORS – SMD


## J032 · Oscillator · HCMOS · SMD · Ceramic/Metal Package · 3.2 x 2.5 mm

	Type		Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm
	J032 (3.3 V)	Stop Function	0.75 ~ 80.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	3.2 x 2.5 x 1.1
	J032 (3.0 V)	Stop Function	0.75 ~ 80.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	3.2 x 2.5 x 1.1
	J032 (2.8 V)	Stop Function	0.75 ~ 80.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	3.2 x 2.5 x 1.1
	J032 (2.5 V)	Stop Function	0.75 ~ 80.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	3.2 x 2.5 x 1.1
	J032 (1.8 V)	Stop Function	0.75 ~ 80.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	3.2 x 2.5 x 1.1
	J032H (3.3 V)	High Stability Type Stop Function	2.50 ~ 60.0 MHz	-40°C ~ +105°C	±8 ppm	15 pF HCMOS	3.2 x 2.5 x 0.9
	J032H (2.5 V)	High Stability Type Stop Function	2.50 ~ 60.0 MHz	-40°C ~ +105°C	±8 ppm	15 pF HCMOS	3.2 x 2.5 x 0.9
	J032H (1.8 V)	High Stability Type Stop Function	2.50 ~ 60.0 MHz	-40°C ~ +85°C	±8 ppm	15 pF HCMOS	3.2 x 2.5 x 0.9

## J022 · Oscillator · HCMOS · SMD · Ceramic/Metal Package · 2.5 x 2.0 mm





	Type		Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm
	J022 (3.3 V)	Stop Function	0.75 ~ 50.0 MHz	-40°C ~ +105°C	±25 ppm	15 pF HCMOS	2.5 x 2.0 x 0.8
	J022 (3.0 V)	Stop Function	0.75 ~ 50.0 MHz	-40°C ~ +105°C	±25 ppm	15 pF HCMOS	2.5 x 2.0 x 0.8
	J022 (2.8 V)	Stop Function	0.75 ~ 50.0 MHz	-40°C ~ +105°C	±25 ppm	15 pF HCMOS	2.5 x 2.0 x 0.8
	J022 (2.5 V)	Stop Function	0.75 ~ 50.0 MHz	-40°C ~ +105°C	±25 ppm	15 pF HCMOS	2.5 x 2.0 x 0.8
	J022 (1.8 V)	Stop Function	0.75 ~ 50.0 MHz	-40°C ~ +105°C	±25 ppm	15 pF HCMOS	2.5 x 2.0 x 0.8
	J022H (3.3 V)	High Stability Type Stop Function	4.0 ~ 54.0 MHz	-40°C ~ +85°C	±10 ppm	15 pF HCMOS	2.5 x 2.0 x 0.9
	J022H (2.5 V)	High Stability Type Stop Function	4.0 ~ 54.0 MHz	-40°C ~ +85°C	±10 ppm	15 pF HCMOS	2.5 x 2.0 x 0.9
	J022H (1.8 V)	High Stability Type Stop Function	4.0 ~ 54.0 MHz	-40°C ~ +85°C	±10 ppm	15 pF HCMOS	2.5 x 2.0 x 0.9

## J021 · Oscillator · HCMOS · SMD · Ceramic/Metal Package · 2.0 x 1.6 mm



	Type		Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm
	J021 (3.3 V)	Stop Function	1.625 ~ 54.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF HCMOS	2.0 x 1.6 x 0.8
	J021 (2.5 V)	Stop Function	1.625 ~ 54.0 MHz	-40°C ~ +85°C	±8 ppm	15 pF HCMOS	2.0 x 1.6 x 0.8
	J021 (1.8 V)	Stop Function	1.625 ~ 54.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF HCMOS	2.0 x 1.6 x 0.8

\* Please note: best frequency stability is not always available in max. temperature range.




## Programmable Oscillator · CMOS · SMD · Ceramic/Metal Package

	Type	Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm	
	JP075 (3.3 V)	Tristate Function or Stop Function	3.0 ~ 200.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.9
	JP075 (2.5 V)	Tristate Function or Stop Function	3.0 ~ 130.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.9
	JP075 (1.8 V)	Tristate Function or Stop Function	3.0 ~ 100.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	7.0 x 5.0 x 1.9
	JP053 (3.3 V)	Tristate Function or Stop Function	3.0 ~ 200.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	5.0 x 3.2 x 1.3
	JP053 (2.5 V)	Tristate Function or Stop Function	3.0 ~ 130.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	5.0 x 3.2 x 1.3
	JP053 (1.8 V)	Tristate Function or Stop Function	3.0 ~ 100.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	5.0 x 3.2 x 1.3
	JP032 (3.3 V)	Tristate Function or Stop Function	3.0 ~ 200.0 MHz	-40°C ~ +85°C	±25 ppm	15pF / 30pF HCMOS	3.2 x 2.5 x 1.2
	JP032 (2.5 V)	Tristate Function or Stop Function	3.0 ~ 130.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	3.2 x 2.5 x 1.2
	JP032 (1.8 V)	Tristate Function or Stop Function	3.0 ~ 100.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	3.2 x 2.5 x 1.2
	JP022 (3.3 V)	Tristate Function or Stop Function	3.0 ~ 200.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	2.5 x 2.0 x 0.9
	JP022 (2.5 V)	Tristate Function or Stop Function	3.0 ~ 130.0 MHz	-40°C ~ +85°C	±25 ppm	15pF / 30pF HCMOS	2.5 x 2.0 x 0.9
	JP022 (1.8 V)	Tristate Function or Stop Function	3.0 ~ 100.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF / 30 pF HCMOS	2.5 x 2.0 x 0.9

## VCXO · HCMOS · SMD · Ceramic/Metal Package · 7.5 x 5.0 mm and 5.0 x 3.2 mm





	Type	Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm	
	JV75 (5.0 V)	with Standby-Function	1.0 ~ 80.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF HCMOS	7.5 x 5.0 x 1.8
	JV75 (3.3 V)	with Standby-Function	1.0 ~ 125.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF HCMOS	7.5 x 5.0 x 1.8
	JV53 (3.3 V)	without Standby-Function	2.0 ~ 54.0 MHz	-40°C ~ +85°C	±25 ppm	15 pF HCMOS	5.0 x 3.2 x 1.0

## (VC)TCXO · Clipped Sine · SMD · Ceramic/Metal Package


	Type	Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm	
	JT75(V)	VCTCXO or TCXO	10.0 ~ 26.0 MHz	-30°C ~ +85°C	±1 ppm	10 K $\Omega$ // 10 pF > 0.8 V <sub>pp</sub> / clipped sine	7.0 x 5.0 x 1.65
	JT53L(V)	VCTCXO or TCXO	6.0 ~ 45.0 MHz	-30°C ~ +85°C	±1 ppm	10 K $\Omega$ // 10 pF > 0.8 V <sub>pp</sub> / clipped sine	5.0 x 3.2 x 1.05
	JT32(V)	VCTCXO or TCXO	8.0 ~ 45.0 MHz	-40°C ~ +85°C	±1 ppm	10 K $\Omega$ // 10 pF > 0.8 V <sub>pp</sub> / clipped sine	3.2 x 2.5 x 1.0

\* Please note: best frequency stability is not always available in max. temperature range.



## TCXO · HCMOS · SMD · Ceramic/Metal Package

	Type	Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm	
	JT75C 2.5 V / 2.8 V / 3.3 V	Stop Function	4.0 ~ 54.0 MHz	-40°C ~ +85°C	±2.5 ppm	15 pF HCMOS	7.0 x 5.0 x 1.5
	JT53C 2.5 V / 2.8 V / 3.3 V	Stop Function	4.0 ~ 54.0 MHz	-40°C ~ +85°C	±2.5 ppm	15 pF HCMOS	5.0 x 3.2 x 1.1
	JT32C 2.5 V / 2.8 V / 3.3 V	Stop Function	4.0 ~ 54.0 MHz	-40°C ~ +85°C	±2.5 ppm	15 pF HCMOS	3.2 x 2.5 x 1.0
	JT22C 2.5 V / 2.8 V / 3.3 V	Stop Function	4.0 ~ 54.0 MHz	-40°C ~ +85°C	±2.5 ppm	15 pF HCMOS	2.5 x 2.0 x 0.9


## Oscillator · PECL · SMD · Ceramic/Metal Package · 7.5 x 5.2 mm

	Type	Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm	
	JOE75 (3.3 V)	PECL Stop Function	40.0 ~ 270.0 MHz	-40°C ~ +85°C	±25 ppm	50 Ω at 1.3 V	7.5 x 5.2 x 1.65
	JOE75 (2.5 V)	PECL Stop Function	40.0 ~ 270.0 MHz	-40°C ~ +85°C	±25 ppm	50 Ω at 1.3 V	7.5 x 5.2 x 1.65



## VCXO · PECL · SMD · Ceramic/Metal Package · 7.5 x 5.0 mm

	Type	Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm	
	JVE75A (3.3 V)	PECL VCXO MESA technology	50.0 ~ 700.0 MHz	-40°C ~ +85°C	±25 ppm	50 Ω at 1.3 V	7.5 x 5.0 x 1.6
	JVE75B (3.3 V)	PECL VCXO	12.0 ~ 800.0 MHz	-40°C ~ +85°C	±25 ppm	50 Ω at 1.3 V	7.5 x 5.0 x 1.6


## Oscillator · LVDS · SMD · Ceramic/Metal Package · 7.5 x 5.2 mm

	Type	Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm	
	JOD75 2.5 V / 3.3 V	LVDS	75.0 ~ 270.0 MHz	-40°C ~ +85°C	±25 ppm	100 Ω differential 0.25 V <sub>p-p</sub> min.	7.5 x 5.2 x 1.65

## VCXO · LVDS · SMD · Ceramic/Metal Package · 7.5 x 5.0 mm

	Type	Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm	
	JVD75A (3.3 V)	LVDS VCXO MESA technology	50.0 ~ 700.0 MHz	-40°C ~ +85°C	±25 ppm	100 Ω differential 0.35 V <sub>p-p</sub> min.	7.5 x 5.0 x 1.6
	JVD75B (3.3 V)	LVDS VCXO	12.0 ~ 800.0 MHz	-40°C ~ +85°C	±25 ppm	100 Ω differential 0.35 V <sub>p-p</sub> min.	7.5 x 5.0 x 1.6











## Tuning Fork Oscillator · 32.768 kHz · SMD · Ceramic/Metal Package · 3.2 x 2.5 mm

	Type	Frequency Range	Temperature Range (max.)*	Frequency Stability*	Load	L x W x H in mm	
	JRO32	uses Tuning Fork Crystal	32.768 kHz	-40°C ~ +85°C	-80 ppm -160 ppm	15pF HCMOS	3.2 x 2.5 x 1.1

\* Please note: best frequency stability is not always available in max. temperature range.

# QUARTZ CRYSTALS ACCORDING TO AEC-Q200

## Quartz Crystals for Automotive Applications









	Type	Frequency Range	Temperature Range (max.)*	Frequency Tolerance	Frequency Stability*	L x W x H in mm
	JXS32P4	10.0 ~ 54.0 MHz	-40°C ~ +125°C	±10 ppm	±15 ppm	3.2 x 2.5 x 0.7
	JXS53P4	8.0 ~ 56.0 MHz	-40°C ~ +125°C	±10 ppm	±15 ppm	5.0 x 3.2 x 0.8
	JXG32P4	12.0 ~ 50.0 MHz	-40°C ~ +125°C	±30 ppm	±30 ppm	3.2 x 2.5 x 1.0
	JXG53P2	8.0 ~ 60.0 MHz	-40°C ~ +125°C	±30 ppm	±30 ppm	5.0 x 3.2 x 1.5
	JXG53P4	8.0 ~ 60.0 MHz	-40°C ~ +125°C	±30 ppm	±30 ppm	5.0 x 3.2 x 1.5
	JXG75P2	5.0 ~ 70.0 MHz	-40°C ~ +125°C	±30 ppm	±30 ppm	7.0 x 5.0 x 1.8
	JXG75P4	5.0 ~ 70.0 MHz	-40°C ~ +125°C	±30 ppm	±30 ppm	7.0 x 5.0 x 1.8
	SMU2	4.0 ~ 60.0 MHz	-40°C ~ +125°C	±20 ppm	±30 ppm	11.5 x 4.8 x 3.0
	SMU3	3.276 ~ 60.0 MHz	-40°C ~ +125°C	±20 ppm	±20 ppm	11.5 x 4.8 x 4.0
	JTX310	32.7680 kHz	-40°C ~ +125°C	±20 ppm	-80 ppm	3.2 x 1.5 x 0.9

\* Please note: best frequency stability is not always available in max. temperature range.

## CUSTOMIZED QUARTZ CRYSTALS

- Extremely tight frequency stabilities
- Special pulling sensitivities
- Lowest ESR values

### Customized Quartz Crystals

	Type	Frequency Range	Temperature Range (max.)*	Frequency Tolerance	Frequency Stability*	L x W x H in mm
	HC49/U	2.4579 ~ 40.0 MHz (fund. AT) 20.0 ~ 105.0 MHz (3rd OT) 50.0 ~ 175.0 MHz (5th OT) 70.0 ~ 250.0 MHz (7th OT)	-40°C ~ +125°C	±3 ppm	±3 ppm	10.8 x 4.5 x 13.0
	HC49/U Middle Pin		-40°C ~ +125°C	±3 ppm	±3 ppm	10.8 x 4.5 x 13.0
	HC49/U SMC		-40°C ~ +125°C	±3 ppm	±3 ppm	17.5 x 10.8 x 5.3
	MQ1	4.0 ~ 40.0 MHz (fund. AT) 20.0 ~ 105.0 MHz (3rd OT) 50.0 ~ 175.0 MHz (5th OT) 70.0 ~ 250.0 MHz (7th OT)	-40°C ~ +125°C	±5 ppm	±3 ppm	7.9 x 3.3 x 8.0
	MQ1 Middle Pin		-40°C ~ +125°C	±5 ppm	±3 ppm	7.9 x 3.3 x 8.0
	MQ1-SMC		-40°C ~ +125°C	±5 ppm	±3 ppm	11.7 x 7.8 x 3.4
	MQ5	8.0 ~ 40.0 MHz (fund. AT) 20.0 ~ 105.0 MHz (3rd OT) 50.0 ~ 175.0 MHz (5th OT) 70.0 ~ 250.0 MHz (7th OT)	-40°C ~ +125°C	±5 ppm	±3 ppm	7.7 x 3.1 x 5.8
	MQ5-SMC		-40°C ~ +125°C	±5 ppm	±3 ppm	9.7 x 7.7 x 3.4

\* Please note: best frequency stability is not always available in max. temperature range.

# MEASURABLY BETTER

## TECHNICAL SUPPORT

- Professional engineering advice
- Fully equipped test laboratory
- Oscillator circuit analysis
- Oscillator circuit safety measurement
- Quartz crystal power measurement
- Fault analysis at component level
- Training courses for developers

## IN-HOUSE PRODUCTION

- Production facilities in Germany and Asia
- Well-trained employees with wide experience
- State-of-the-art production lines
- Complete process control
- ISO certification
- Highest quality standards



## INTERNATIONAL SCENE

- Expert sales advice
- Local offices worldwide
- Multilingual sales teams
- Competitive pricing
- Local shipping solutions

## LOGISTICS

- Known consignor status, certified by LBA
- Excellent product availability
- Fully automated warehouse system
- Extensive stock worldwide
- Worldwide logistics
- Customized logistics solutions

## QUALITY PRODUCTS

- In-house R & D centers
- Flexible & reliable customer support
- Highest quality standards
- AEC-Q200 automotive qualification
- Top quality products for branches such as:  
Industry, Medical, Telecommunication,  
Solar, Metering (Electricity, Water, Gas),  
Avionics, Military

# RELIABLE SOLUTIONS FOR ELECTRONIC APPLICATIONS

- In-house R & D centers
- Flexible & reliable customer support
- Top quality products
- Excellent product availability
- Consumer electronics
- Industrial applications
- Avionics, space & military applications
- Medical applications
- Telecommunication
- Solar technology applications
- Energy saving applications



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