Frequency Control Products

SAW Products

Jauch
THE PULSE OF PROGRESS

THE SPECIALIST FOR FREQUENCY CONTROL PRODUCTS

Jauch SAW Products

THE JAUCH PROGRAM:

- Quartz Crystals
- Oscillators
- SAW-Filters
- SAW-Resonators

At Jauch Quartz, customer satisfaction is not just an empty phrase, but a living reality. Delivery reliability is a proven fact at Jauch Quartz. Constant deliveries to renowned customers the world over prove that relying on Jauch Quartz means relying on production security. Because for us, overall product quality has always entailed a great deal more than just the product alone. With our Customer Support Center we offer active cooperation in any situation. Even in the concept phase of a development, it's worth discussing an optimal solution with us.

Jauch offers pre developed as well as custom-made SAW products. Please use the Inquiry-Form on Page 4 to specify your SAW Product.

Please send your inquiry to saw@jauch.de

HAVE A LOOK AT OUR COMPLETE PRODUCT RANGE AND ADDITIONAL INFORMATION:

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www.jauch.fr
www.jauchusa.com
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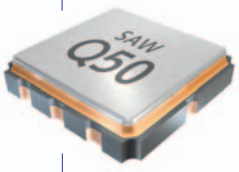
THE PULSE OF PROGRESS

- global presence in frequency control products
- company owned & operated production facilities
- specialized application design & integration services
- excellence in technical support
- high availability for standard frequencies
- more than 20 million components off the shelf



SAW Filters

	Type	Version	Frequency Range	LxWxH in mm	RoHS	Page
	R21	RF	900 ~ 2400 MHz	2.0 x 1.6 x 0.98	RoHS 2002/95/EC	6
	R22	RF	130 ~ 2400 MHz	2.5 x 2.0 x 1.0	RoHS 2002/95/EC	6
	Q30	RF / IF / Dual	130 ~ 2400 MHz	3.0 x 3.0 x 1.4	RoHS 2002/95/EC	7
	Q38	RF / IF / Dual	130 ~ 2400 MHz	3.8 x 3.8 x 1.6	RoHS 2002/95/EC	8
	Q50	RF / IF / Dual	130 ~ 2400 MHz	5.0 x 5.0 x 1.7	RoHS 2002/95/EC	9
	R75	RF / IF	130 ~ 2400 MHz	7.0 x 5.0 x 1.82	RoHS 2002/95/EC	10
	R94	IF	30 ~ 600 MHz	9.1 x 4.8 x 1.5	RoHS 2002/95/EC	11
	R13	IF	30 ~ 550 MHz	13.3 x 6.5 x 1.8	RoHS 2002/95/EC	11
	R97	RF / IF	30 ~ 2400 MHz	9.1 x 7.1 x 1.95	RoHS 2002/95/EC	12
	R19	IF	30 ~ 550 MHz	19.0 x 6.5 x 1.8	RoHS 2002/95/EC	13
	SIM	IF	30 ~ 550 MHz	16.3 x 6.3 x 4.0	RoHS 2002/95/EC	13
	T3P	RF / IF	30 ~ 2400 MHz	9.35 x 9.35 x 3.6	RoHS 2002/95/EC	14
	T4P	IF / Dual	30 ~ 1960 MHz	9.35 x 9.35 x 3.6	RoHS 2002/95/EC	15
	F11	RF / IF	30 ~ 2400 MHz	11.1 x 4.6 x 3.2	RoHS 2002/95/EC	16
	SIP	IF	30 ~ 550 MHz	13.7 x 4.8 x 2.1	RoHS 2002/95/EC	17
	DIM	IF	30 ~ 550 MHz	20.1 x 12.6 x 5.3	RoHS 2002/95/EC	17

SAW Resonators

	Q30	1-port	300 ~ 1400 MHz	3.0 x 3.0 x 1.4	RoHS 2002/95/EC	18
	R97	1-port	400 ~ 1100 MHz	9.1 x 7.1 x 1.95	RoHS 2002/95/EC	18
	Q38	1-port / 2-port	300 ~ 1400 MHz	3.8 x 3.8 x 1.6	RoHS 2002/95/EC	19
	Q50	1-port / 2-port	300 ~ 1400 MHz	5.0 x 5.0 x 1.7	RoHS 2002/95/EC	20
	T3P / T4P	1-port / 2-port	300 ~ 1400 MHz	9.35 x 9.35 x 3.6	RoHS 2002/95/EC	21
	F11	1-port	300 ~ 1400 MHz	11.1 x 4.6 x 3.2	RoHS 2002/95/EC	21

COPY FORM

☐ Inquiry Form

Please specify the following parameters when inquiring SAW units
and send this form to saw@jauch.de or to +49 (0) 77 20 9 45-100

Company		Address	
First Name		State	
Last Name		Zip Code/City	
E-mail		Country	
Telephone		Fax	
Project		Quantity EAU	

Specification	SAW Filter		SAW Resonator	
	min.	max.	min.	max.
	typical		typical	
Center Frequency f_0 (MHz)				
Pass Bandwidth B (MHz)				
Insertion Loss IL (dB)				
Stop Band Attenuation A (dB)				
Amplitude Ripple AR (dB)				
Frequency Tolerance (kHz)				
Port			☐ 1-port	☐ 2-port
Terminating Impedance	Ohm	pF		Ohm
Operating Temp. Range (°C)				
Package Type				
Notes, other requirements				

▨ = not applicable

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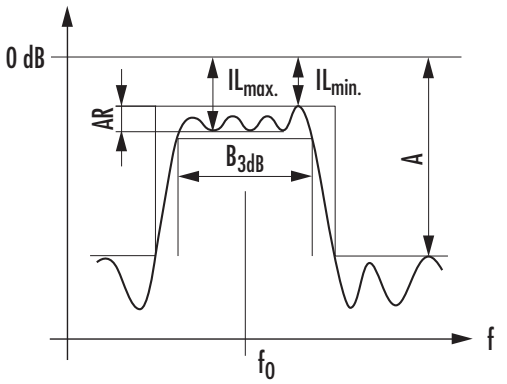
full data can be found under: www.jauch.de / www.jauch.fr / www.jauchusa.com / www.jauch.uk.co

Definitions

Electrical Specification

Center Frequency	(f_0 / MHz)
Insertion Loss IL	(IL / dB)
Pass Bandwidth B	(B / MHz or kHz)
Stop-Band Attenuation	(A / dB)
Amplitude Ripple	(AR / dB)



Center Frequency / Nominal Frequency f_0 (MHz)

It is the nominal value of the center frequency (f_0)
and is used as the reference frequency of related standards.

Insertion Loss (dB)

This is the difference of attenuation when a filter is and isn't inserted.
The constant loss is the insertion loss at the nominal frequency.
The minimum and maximum loss are the values of minimum and
maximum attenuation in the pass band.

Pass Bandwidth (MHz or kHz)

The pass bandwidth in which the attenuation is equal to or
less than the specified value insertion loss.

Attenuation (Stop-Band Attenuation in dB)

The attenuation of the unwanted signal. (Stop-Band)
This is the relative attenuation guaranteed in the specified range
within attenuation band scope.

Amplitude Ripple (dB)

This is the maximum value of the difference between the peak value
of attenuation in the pass band and the minimum insertion loss.

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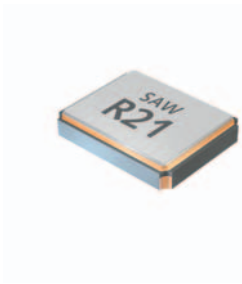
SAW Filters R21 R22

RoHS 2002/95/EC
RoHS compliant

Pb
Pb free

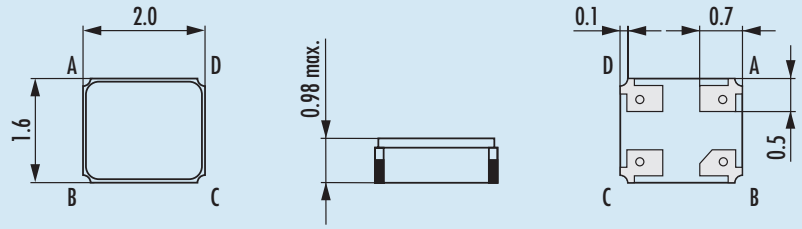


actual size 2.0 x 1.6 mm

actual size 2.5 x 2.0 mm

	R21 / RF		R22 / RF	
Type	SAW Filter		SAW Filter	
Frequency	900.0 ~ 2400.0 MHz		130.0 ~ 2400.0 MHz	
Input/Output	Single ended / Balanced	Balanced I/O	Single ended / Balanced	Balanced I/O
Bandwidth	40.0 MHz ~ 110.0 MHz		0.1 MHz ~ 85.0 MHz	
Operating Temp Range	-40 ~ +85 °C		-40 ~ +85 °C	
Typical Applications	Pager, Cordless Phone, GPS, FRS, Cable Modem, RKS, ISM, GSM, EGSM, CDMA, SONET, Wireless Microphone		Pager, Cordless Phone, GPS, FRS, Cable Modem, RKS, ISM, GSM, EGSM, CDMA, SONET, Wireless Microphone	
Features	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ ultra miniature package		■ ceramic seam weld package ■ excellent reliability and shock resistance ■ ultra miniature package	
Typical Frequencies	1575.42 MHz 1672.50 MHz		836.5 MHz 881.5 MHz 907.5 MHz 915.0 MHz 940.5 MHz	942.5 MHz 1542.5 MHz 1575.42 MHz 1642.5 MHz 1842.5 MHz 1950.0 MHz 1960.0 MHz 2140.0 MHz

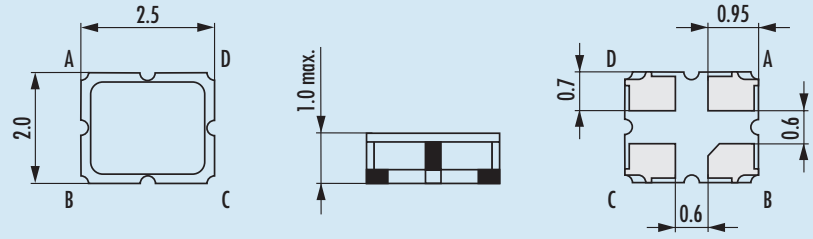
Dimensions R21



pin connection (example):
#A: Ground
#B: Input
#C: Ground
#D: Output

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

Dimensions R22



pin connection (example):
#A: Ground
#B: Input
#C: Ground
#D: Output

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

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SAW Filter Q30

RoHS 2002/95/EC
RoHS compliant

Pb free

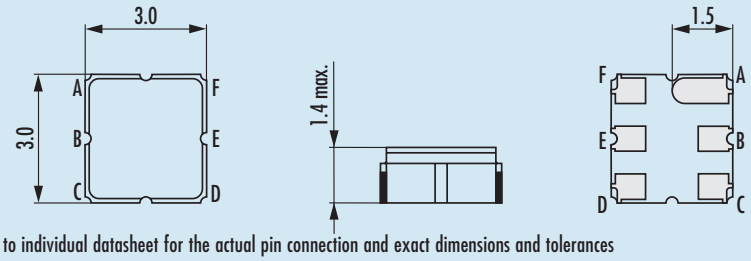
actual size 3.0 x 3.0 mm

actual size 3.0 x 3.0 mm

actual size 3.0 x 3.0 mm

	Q30 / RF	Q30 / IF	Q30 / Dual
Type	SAW Filter	SAW Filter	SAW Filter
Frequency	130.0 ~ 2400.0 MHz	400.0 ~ 600.0 MHz	479.5 ~ 1960.0 MHz
Input/Output	Single ended / Balanced; Balanced I/O	Single ended / Balanced; Balanced I/O	
Bandwidth	0.1 MHz ~ 85.0 MHz	16.0 MHz ~ 60.0 MHz	18.0 kHz ~ 75.0 kHz
Operating Temp Range	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C
Typical Applications	Pager, Cordless Phone, GPS, FRS, Cable Modem, RKS, ISM, GSM, EGSM, CDMA, SONET, Wireless Microphone	WLAN, Cable Modem, AV Sender, DECT, GSM, CDMA, IS-95, W-CDMA	Custom made
Features	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD miniature package		
Typical Frequencies	315.0 MHz, 433.92 MHz, 836.5 MHz, 881.5 MHz, 907.5 MHz, 915.0 MHz, 940.5 MHz, 942.5 MHz, 1216.0 MHz, 1260.0 MHz, 1542.5 MHz, 1575.42 MHz, 1842.5 MHz, 1950.0 MHz, 2442.0 MHz	243.95 MHz, 300.0 MHz, 350.0 MHz, 400.0 MHz, 600.0 MHz, 666.667 MHz	1842.5 MHz, 1960.0 MHz

Dimensions



pin connection (example):
#A: Ground
#B: Input
#C: Ground
#D: Ground
#E: Output
#F: Ground

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

SAW Filter Q38

RoHS 2002/95/EC
RoHS compliant

Pb free

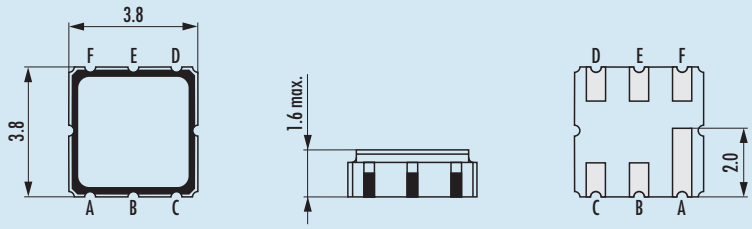
actual size 3.8 x 3.8 mm

actual size 3.8 x 3.8 mm

actual size 3.8 x 3.8 mm

	Q38 / RF	Q38 / IF	Q38 / Dual
Type	SAW Filter	SAW Filter	SAW Filter
Frequency	130.0 ~ 2400.0 MHz	370.0 ~ 600.0 MHz	479.5 ~ 1960.0 MHz
Input/Output	Single ended / Balanced | Balanced I/O	Single ended / Balanced | Balanced I/O	
Bandwidth	0.1 MHz ~ 85.0 MHz	14.8 MHz ~ 60.0 MHz	18.0 kHz ~ 75.0 kHz
Operating Temp Range	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C
Typical Applications	Pager, Cordless Phone, GPS, FRS, Cable Modem, RKE, ISM, GSM, EGSM, CDMA, SONET, Wireless Microphone	WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA, IS-95, W-CDMA	Custom made
Features	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD miniature package		
Typical Frequencies	315.0 MHz, 915.0 MHz, 1542.5 MHz 433.92 MHz, 940.5 MHz, 1575.42 MHz 836.5 MHz, 942.5 MHz, 1842.5 MHz 881.5 MHz, 1216.0 MHz, 1950.0 MHz 907.5 MHz, 1260.0 MHz, 2442.0 MHz	190.0 MHz, 453 MHz 243.95 MHz, 533.33 MHz 360.0 MHz 374 MHz 403.5 MHz	947.5 MHz 1842.5 MHz

Dimensions



pin connection (example):
#A: Ground
#B: Input
#C: Ground
#D: Ground
#E: Output
#F: Ground

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

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SAW Filter Q50

RoHS 2002/95/EC
RoHS compliant

Pb free

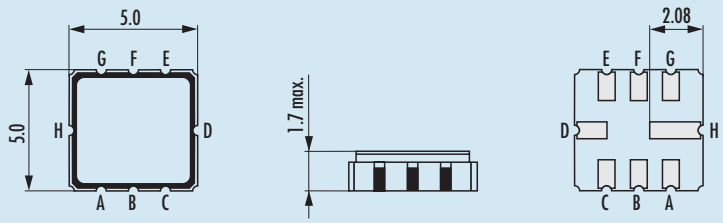
actual size 5.0 x 5.0 mm

actual size 5.0 x 5.0 mm

actual size 5.0 x 5.0 mm

	Q50 / RF	Q50 / IF	Q50 / Dual
Type	SAW Filter	SAW Filter	SAW Filter
Frequency	130.0 ~ 2400.0 MHz	200.0 ~ 600.0 MHz	479.5 ~ 1960.0 MHz
Input/Output	Single ended/Balanced; Balanced I/O	Single ended / Balanced; Balanced I/O	
Bandwidth	0.1 MHz ~ 85.0 MHz	8.0 MHz ~ 60.0 MHz	18.0 kHz ~ 75.0 kHz
Operating Temp Range	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C
Typical Applications	Pager, Cordless Phone, GPS, FRS, Cable Modem, RKS, ISM, GSM, EGSM, CDMA, SONET, Wireless Microphone	WLAN, Cable Modem, AV Sender, DECT, GSM, CDMA, IS-95, W-CDMA	Custom made
Features	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD miniature package		
Typical Frequencies	139.0 MHz, 147.0 MHz, 155.0 MHz, 171.0 MHz, 184.0 MHz, 284.0 MHz, 315.0 MHz, 420.0 MHz, 433.92 MHz, 465.0 MHz, 868.3 MHz, 869.6 MHz	168.5 MHz, 190.0 MHz, 210.38 MHz, 268.4 MHz, 280.0 MHz, 352.0 MHz, 360.0 MHz, 374.0 MHz, 402.7 MHz, 433.42 MHz, 433.92 MHz, 465.0 MHz	947.5 MHz, 1842.5 MHz

Dimensions



pin connection (example):

#A:	Ground	#F:	Output
#B:	Input	#G:	(Output) Ground
#C:	(Input) Ground	#H:	(Case) Ground
#D:	(Case) Ground		
#E:	Ground		

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

SAW Filter R75

RoHS 2002/95/EC

RoHS compliant

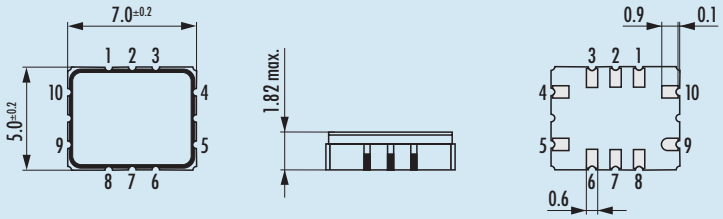
Pb free

actual size 7.0 x 5.0 mm

actual size 7.0 x 5.0 mm

	R75 / RF		R75 / IF	
Type	SAW Filter		SAW Filter	
Frequency	130.0 ~ 2400.0 MHz		150.0 ~ 600.0 MHz	
Input/Output	Single ended / Balanced	Balanced I/O	Single ended / Balanced	Balanced I/O
Bandwidth	0.1 MHz ~ 85.0 MHz		6.0 MHz ~ 60.0 MHz	
Operating Temp Range	-40 ~ +85 °C		-40 ~ +85 °C	
Typical Applications	WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA		WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA	
Features	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD miniature package			
Typical Frequencies	168.5 MHz 352.0 MHz 433.92 MHz		168.5 MHz 190.0 MHz 210.38 MHz 268.4 MHz	280.0 MHz 352.0 MHz 360.0 MHz 374.0 MHz
				402.7 MHz 433.42 MHz 433.92 MHz 464.0 MHz

Dimensions



pin connection (example):

#1: Ground	#6: Ground
#2: Output	#7 : Input
#3: Ground	#8: Ground
#4: Ground	#9: Ground
#5: Ground	#10: Ground

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

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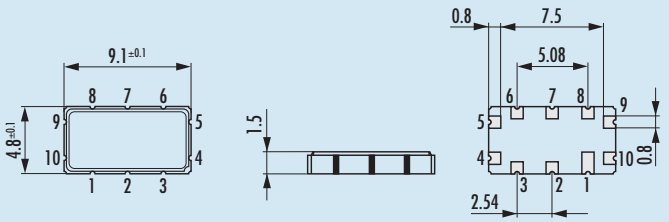
SAW Filters

	R94	R13
	RoHS 2002/95/EC RoHS compliant Pb free	 actual size 9.1 x 4.8 mm	 actual size 13.3 x 6.5 mm
	R94 / IF	**R13 / IF**
Type	SAW Filter	SAW Filter
Frequency	30.0 ~ 600.0 MHz	30.0 ~ 550.0 MHz
Input/Output	Single ended / Balanced; Balanced I/O	Single ended / Balanced; Balanced I/O
Bandwidth	0.015 MHz ~ 28.0 MHz	0.015 MHz ~ 28.0 MHz
Operating Temp Range	-40 ~ +85 °C	-40 ~ +85 °C
Typical Applications	WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA	WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA
Features	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD package	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD package
Typical Frequencies	Custom-made	70.0 MHz 140.0 MHz

Dimensions R94

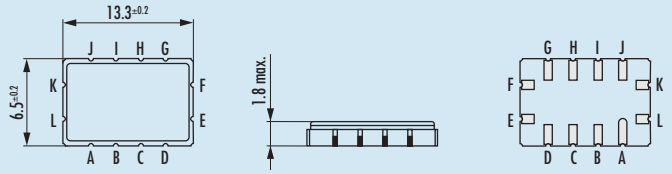


pin connection (example):

#1:	Ground	#6:	Ground
#2 :	Ground	#7 :	Ground
#3:	Ground	#8:	Ground
#4:	Output or Ground	#9:	Input
#5:	Output or Ground	#10:	Ground

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

Dimensions R13



pin connection (example):

#A:	Ground	#F:	Balanced Output or Output Ground	#J:	Ground
#B :	Ground	#G:	Output	#K:	Input
#C:	Ground	#H:	Ground	#L:	Balanced Input or Input Ground
#D:	Ground	#I:	Ground		
#E:	Output				

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

SAW Filter R97

RoHS 2002/95/EC
RoHS compliant

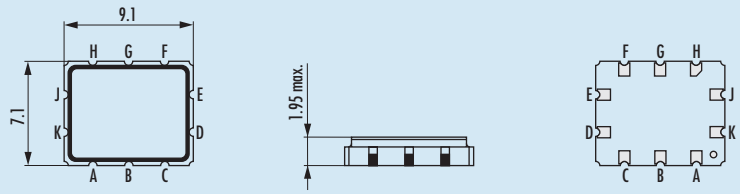
Pb
Pb free

actual size 9.1 x 7.1 mm

actual size 9.1 x 7.1 mm

	R97 / RF		R97 / IF	
Type	SAW Filter		SAW Filter	
Frequency	130.0 ~ 2400.0 MHz		30.0 ~ 600.0 MHz	
Input/Output	Single ended / Balanced	Balanced I/O	Single ended / Balanced	Balanced I/O
Bandwidth	0.1 MHz ~ 85.0 MHz		4.0 MHz ~ 60.0 MHz	
Operating Temp Range	-40 ~ +85 °C		-40 ~ +85 °C	
Typical Applications	Pager, Cordless Phone, GPS, FRS, Cable Modem, RKE, ISM, GSM, EGSM, CDMA, SONET, Wireless Microphone		WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA	
Features	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD package			
Typical Frequencies	custom-made		110.592 MHz 112.32 MHz 173.225 MHz	

Dimensions



pin connection (example):

#A:	Input Ground	#F:	Output Ground
#B :	Input or Output	#G:	Output or Input
#C:	Ground	#H:	Ground
#D:	Ground	#J:	Ground
#E:	Ground	#K:	Ground

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

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SAW Filters R19 SIM

RoHS 2002/95/EC

RoHS compliant

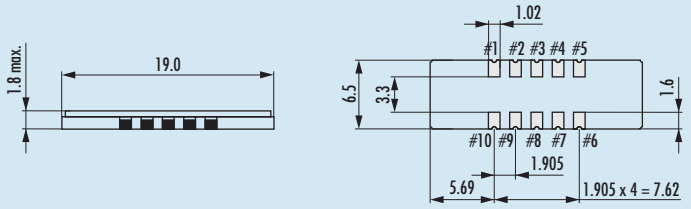
Pb free

actual size 19.0 x 6.5 mm

actual size 13.6 x 6.5 mm

	R19 / IF		SIM / IF	
Type	SAW Filter		SAW Filter	
Frequency	30.0 ~ 550.0 MHz		30.0 ~ 550.0 MHz	
Input/Output	Single ended / Balanced	Balanced I/O	Single ended / Balanced	Balanced I/O
Bandwidth	0.015 MHz ~ 28.0 MHz		0.015 MHz ~ 28.0 MHz	
Operating Temp Range	-40 ~ +85 °C		-40 ~ +85 °C	
Typical Applications	WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA		WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA	
Features	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD package		■ full metal package ■ excellent reliability and shock resistance ■ SIM (single inline metal) package	
Typical Frequencies	70.0 MHz 140.0 MHz		36.125 MHz 43.75 MHz	

Dimensions R19

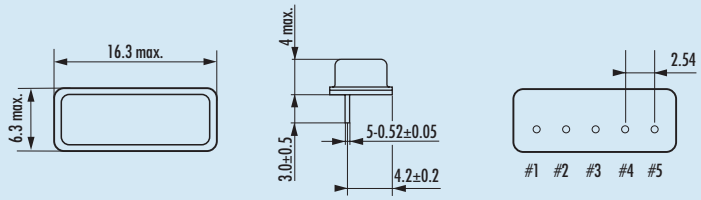


pin connection (example):

#1:	Input	#6:	Output
#2 :	Ground	#7 :	Ground
#3:	Ground	#8:	Ground
#4:	Ground	#9:	Ground
#5:	Ground	#10:	Ground

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

Dimensions SIM



pin connection (example):

#1: Output
#2 : Output Ground
#3: Ground
#4: Input Ground
#5: Input

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

SAW Filter T3P

RoHS 2002/95/EC
RoHS compliant

Pb
Pb free pins

actual size

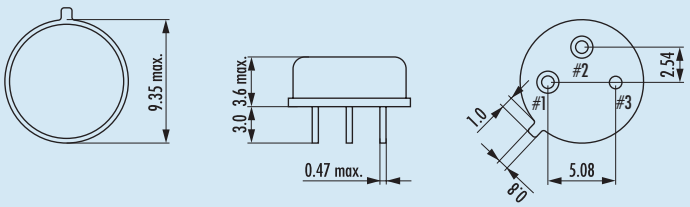
Ø 9.35 mm max.

actual size

Ø 9.35 mm max.

	T3P / RF		T3P / IF	
Type	SAW Filter		SAW Filter	
Frequency	130.0 ~ 2400.0 MHz		30.0 ~ 550.0 MHz	
Input/Output	Single ended / Balanced	Balanced I/O	Single ended / Balanced	Balanced I/O
Bandwidth	0.1 MHz ~ 85.0 MHz		0.015 MHz ~ 28.0 MHz	
Operating Temp Range	-40 ~ +85 °C		-40 ~ +85 °C	
Typical Applications	Pager, Cordless Phone, GPS, FRS, Cable Modem, RKE, ISM, GSM, EGSM, CDMA, SONET, Wireless Microphone		WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA	
Features	■ metal package ■ excellent reliability and shock resistance ■ TO-39 package			
Typical Frequencies	315.0 MHz 315.5 MHz		433.92 MHz 479.5 MHz 480.0 MHz	

Dimensions



pin connection (example):
#1: Input
#2: Output
#3: Ground

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

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SAW Filter T4P

RoHS 2002/95/EC

RoHS compliant

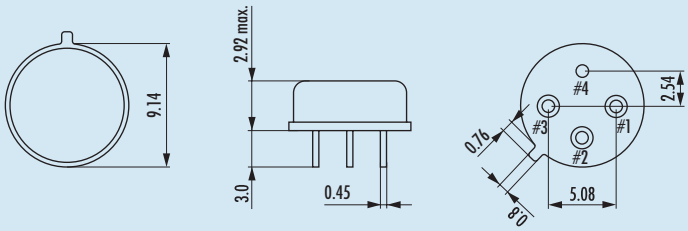
Pb free pins

actual size Ø 9.14 mm

actual size Ø 9.14 mm

	T4P / IF		T4P / Dual	
Type	SAW Filter		SAW Filter	
Frequency	30.0 ~ 550.0 MHz		479.5 ~ 1960.0 MHz	
Input/Output	Single ended / Balanced	Balanced I/O	Single ended / Balanced	Balanced I/O
Bandwidth	0.015 MHz ~ 28.0 MHz		18.0 MHz ~ 75.0 MHz	
Operating Temp Range	-40 ~ +85 °C		-40 ~ +85 °C	
Typical Applications	WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA		Custom made	
Features	■ metal package ■ excellent reliability and shock resistance ■ TO-39 package			
Typical Frequencies	433.92 MHz 479.5 MHz 480.0 MHz		479.5 MHz	

Dimensions



pin connection (example):
#1: Input
#2: Output
#3: Output
#4: Ground

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

SAW Filter F11

RoHS 2002/95/EC
RoHS compliant

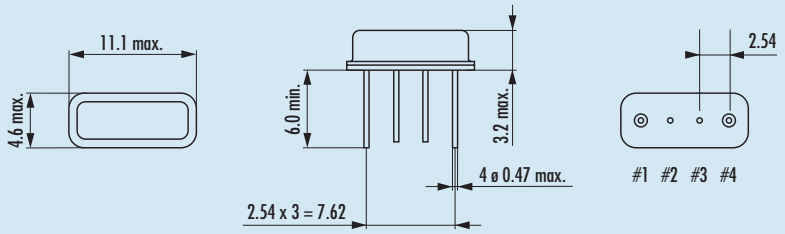
Pb
Pb free pins

actual size 11.1 x 4.6 mm

actual size 11.1 x 4.6 mm

	F11 / RF		F11 / IF	
Type	SAW Filter		SAW Filter	
Frequency	130.0 ~ 2400.0 MHz		30.0 ~ 550.0 MHz	
Input/Output	Single ended / Balanced	Balanced I/O	Single ended / Balanced	Balanced I/O
Bandwidth	0.1 MHz ~ 85.0 MHz		0.015 MHz ~ 28.0 MHz	
Operating Temp Range	-40 ~ +85 °C		-40 ~ +85 °C	
Typical Applications	Paging, Cordless Phone, GPS, FRS, Cable Modem, RKE, ISM, GSM, SONET, Wireless Microphone, Remote Control		WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA	
Features	■ metal package ■ excellent reliability and shock resistance ■ F11 package			
Typical Frequencies	139.0 MHz 147.0 MHz 155.0 MHz 171.0 MHz 184.0 MHz	284.0 MHz 315.0 MHz 420.0 MHz 433.92 MHz 465.0 MHz	868.3 MHz 869.6 MHz	426.5 MHz

Dimensions



pin connection (example):
#1: Input
#2: Ground
#3: Ground
#4: Output

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

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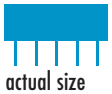
SAW Filters SIP DIM

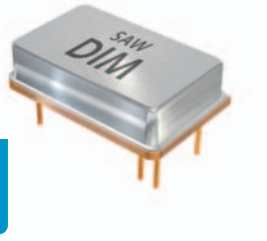
RoHS 2002/95/EC

RoHS compliant

Pb free



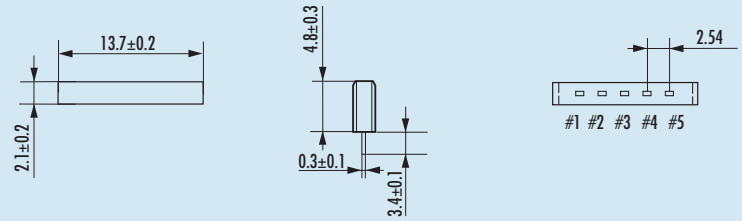
actual size 13.7 x 4.8 mm



actual size 20.1 x 12.6 mm

	SIP / IF		DIM / IF	
Type	SAW Filter		SAW Filter	
Frequency	30.0 ~ 550.0 MHz		30.0 ~ 550.0 MHz	
Input/Output	Single ended / Balanced	Balanced I/O	Single ended / Balanced	Balanced I/O
Bandwidth	0.015 MHz ~ 28.0 MHz		0.015 MHz ~ 28.0 MHz	
Operating Temp Range	-40 ~ +85 °C		-40 ~ +85 °C	
Typical Applications	Digital Cable TV, WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA		WLAN, Cable Modem, AV-Sender, DECT, GSM, CDMA	
Features	■ plastic package ■ excellent reliability and shock resistance ■ SIP (single inline plastic) package		■ metal package ■ excellent reliability and shock resistance ■ DIM (dual inline metal) package	
Typical Frequencies	36.124 MHz 44.0 MHz		70.0 MHz 140.0 MHz	

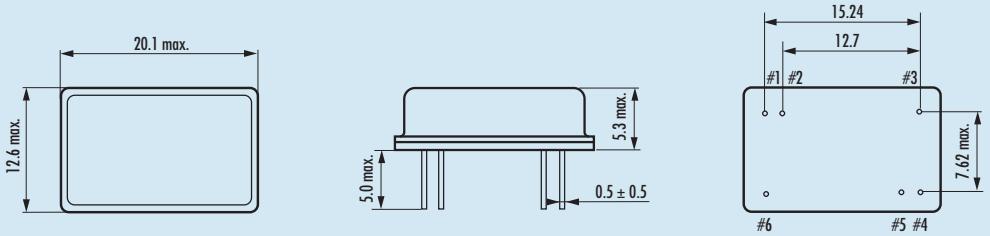
Dimensions SIP



pin connection (example):
#1: Input
#2 : Input Ground
#3: Chip carrier-ground
#4: Output
#5: Output

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

Dimensions DIM



pin connection (example):
#1: Output
#2 : Ground
#3: Input
#4: Ground
#5: Ground
#6: Ground

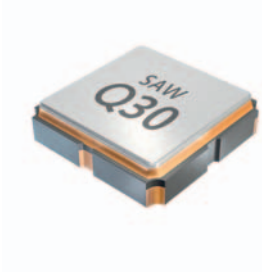
Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

SAW Resonators Q30 R97

RoHS 2002/95/EC

RoHS compliant

Pb free

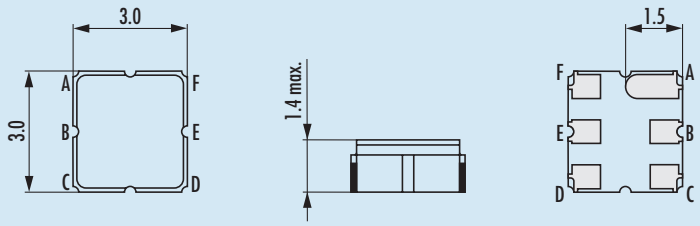


actual size 3.0 x 3.0 mm

actual size 9.1 x 7.1 mm

	Q30 /1-port	R97 / 1-port
Type	SAW Resonator	SAW Resonator
Frequency	300.0 ~ 1400.0 MHz	400.0 ~ 1100.0 MHz
Operating Temp Range	-40 ~ +85 °C	-40 ~ +85 °C
Insertion Loss	< 1.5 dB typical	< 1.5 dB typical
Tolerance	±15 kHz ~ ±200 kHz	±75 kHz ~ ±200 kHz
Typical Applications	RKS remote keyless entry systems, wireless remote control units, TV receiver, telecom products, mobile phones, remote sensors, security systems, wireless telemetry	RKS remote keyless entry systems, wireless remote control units, TV receiver, telecom products, mobile phones, remote sensors, security systems, wireless telemetry
Features	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD miniature package	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD package
Typical Frequencies	314.95 MHz 315.0 MHz 315.5 MHz 390.0 MHz 433.92 MHz 435.7 MHz	1090.0 MHz

Dimensions Q30

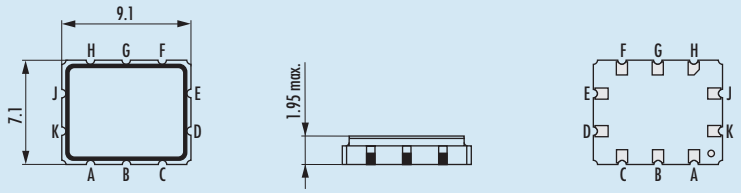


pin connection (example):

#A:	Ground	#E:	Output or Input
#B:	Input or Output	#F:	Ground
#C:	Ground		
#D:	Ground		

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

Dimensions R97



pin connection (example):

#A:	Ground	#F:	Ground
#B :	Input or Output	#G:	Output or Input
#C:	Ground	#H:	Ground
#D:	Ground	#J:	Ground
#E:	Ground	#K:	Ground

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

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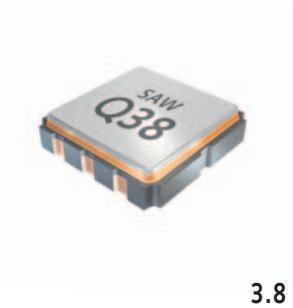
SAW Resonator Q38

RoHS 2002/95/EC

RoHS compliant

Pb free

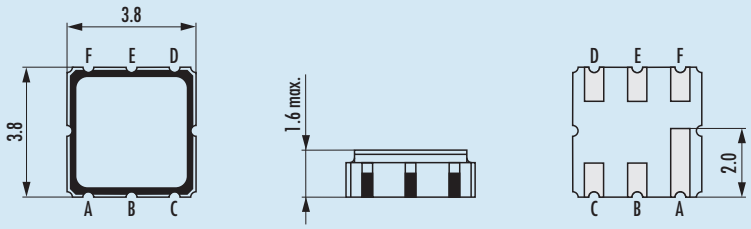
actual size 3.8 x 3.8 mm



actual size 3.8 x 3.8 mm

	Q38 / 1-port	Q38 / 2-port
Type	SAW Resonator	SAW Resonator
Frequency	300.0 ~ 1400.0 MHz	400.0 ~ 1400.0 MHz
Operating Temp Range	-40 ~ +85 °C	-40 ~ +85 °C
Insertion Loss	< 1.5 dB typical	< 1.5 dB typical
Tolerance	±15 kHz ~ ±200 kHz	±15 kHz ~ ±200 kHz
Typical Applications	RKS remote keyless entry systems, wireless remote control units, TV receiver, telecom products, mobile phones, remote sensors, security systems, wireless telemetry	RKS remote keyless entry systems, wireless remote control units, TV receiver, telecom products, mobile phones, remote sensors, security systems, wireless telemetry
Features	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD miniature package	
Typical Frequencies	314.95 MHz 315.0 MHz 315.5 MHz 390.0 MHz 433.92 MHz 435.7 MHz	1090.0 MHz

Dimensions



pin connection (example):

#A: Ground	#E: Input or Output
#B : Output or Input	#F: Ground
#C: Ground	
#D: Ground	

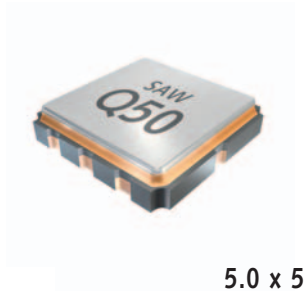
Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

SAW Resonator Q50

RoHS 2002/95/EC

RoHS compliant

Pb free

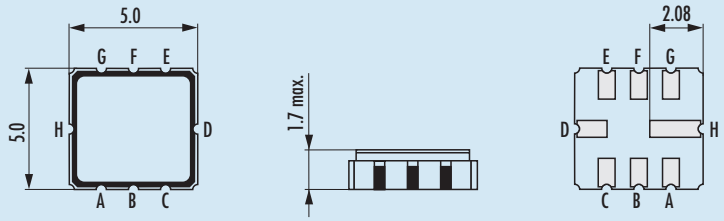


actual size 5.0 x 5.0 mm

actual size 5.0 x 5.0 mm

	Q50 / 1-port	Q50 / 2-port
Type	SAW Resonator	SAW Resonator
Frequency	300.0 ~ 1400.0 MHz	400.0 ~ 1400.0 MHz
Operating Temp Range	-40 ~ +85 °C	-40 ~ +85 °C
Insertion Loss	< 1.5 dB typical	< 1.5 dB typical
Tolerance	±15 kHz ~ ±200 kHz	±15 kHz ~ ±200 kHz
Typical Applications	RKS remote keyless entry systems, wireless remote control units, TV receiver, telecom products, mobile phones, remote sensors, security systems, wireless telemetry	RKS remote keyless entry systems, wireless remote control units, TV receiver, telecom products, mobile phones, remote sensors, security systems, wireless telemetry
Features	■ ceramic seam weld package ■ excellent reliability and shock resistance ■ SMD miniature package	
Typical Frequencies	314.95 MHz 315.0 MHz 315.5 MHz 390.0 MHz 433.92 MHz 435.7 MHz	433.92 MHz 434.42 MHz 868.35 MHz 915.0 MHz 1030.0 MHz

Dimensions



pin connection (example):

#A:	Ground	#F:	Output or Input
#B :	Input or Output	#G:	Ground
#C:	Ground	#H:	(Case) Ground
#D:	(Case) Ground		
#E:	Ground		

Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

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SAW Resonators T3P / T4P F11

RoHS 2002/95/EC

RoHS compliant

Pb free pins

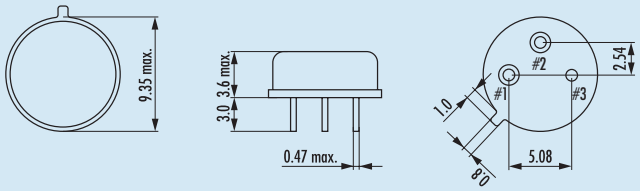
actual size

T3P Ø 9.35 mm max. / T4P Ø 9.14 mm

actual size 11.1 x 4.6 mm

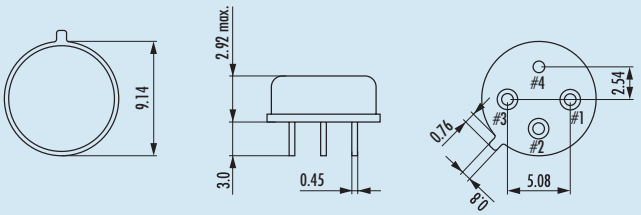
	T3P / T4P 1-port	T3P / T4P 2-port	F11 / 1-port
Type	SAW Resonator	SAW Resonator	SAW Resonator
Frequency	300.0 ~ 1400.0 MHz	400.0 ~ 1100.0 MHz	300.0 ~ 1400.0 MHz
Operating Temp Range	-40 ~ +85 °C	-40 ~ +85 °C	-40 ~ +85 °C
Insertion Loss	< 1.5 dB typical	< 1.5 dB typical	< 1.5 dB typical
Tolerance	±15 kHz ~ ±200 kHz	±15 kHz ~ ±200 kHz	±15 kHz ~ ±200 kHz
Typical Applications	RKS remote keyless entry systems, wireless remote control units, TV receiver, telecom products, mobile phones, remote sensors, security systems, wireless telemetry		RKS remote keyless entry systems, wireless remote control units, TV receiver, telecom products, mobile phones, remote sensors, security systems, wireless telemetry
Features	■ TO-39 full metal package ■ excellent reliability and shock resistance		■ F11 full metal package ■ excellent reliability and shock resistance
Typical Frequencies	314.95 MHz 435.7 MHz 315.0 MHz 433.92 MHz 315.5 MHz 390.0 MHz	403.55 MHz 414.25 MHz 433.92 MHz	314.95 MHz 315.0 MHz 315.15 MHz 390.0 MHz 433.92 MHz

Dimensions T3P



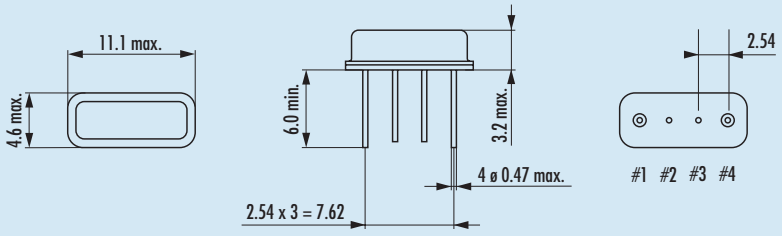
Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

Dimensions T4P



Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

Dimensions F11

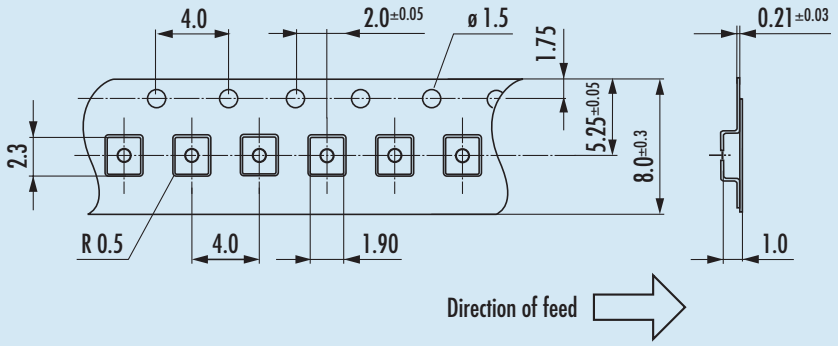


pin connection (example):
#1: Input or Output
#2 : Ground
#3: Ground
#4: Output or Input

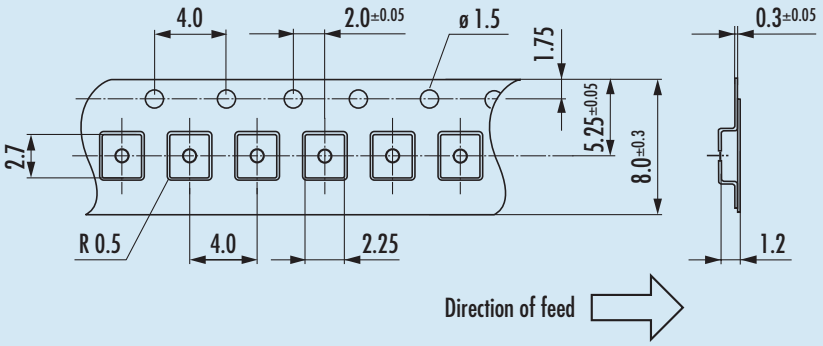
Note: please refer to individual datasheet for the actual pin connection and exact dimensions and tolerances

Taping Specifications

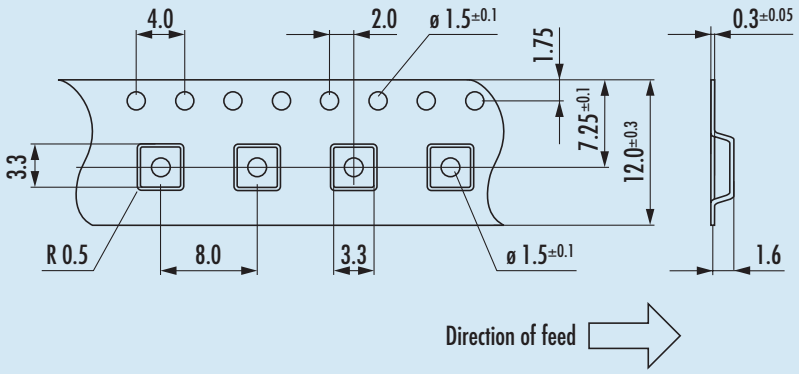
R21
2.0 x 1.6



R22
2.5 x 2.0



Q30
3.0 x 3.0



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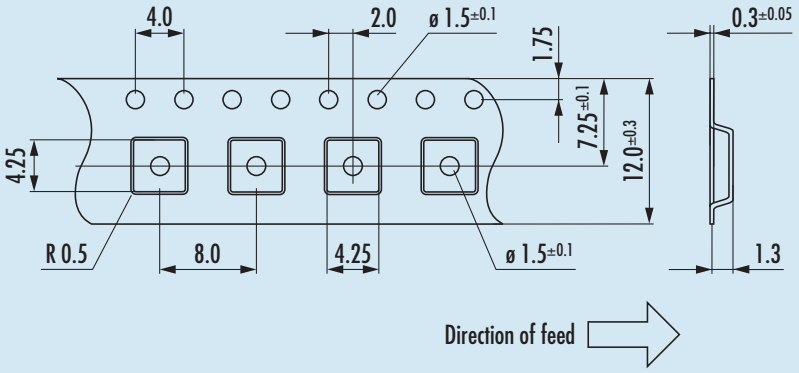
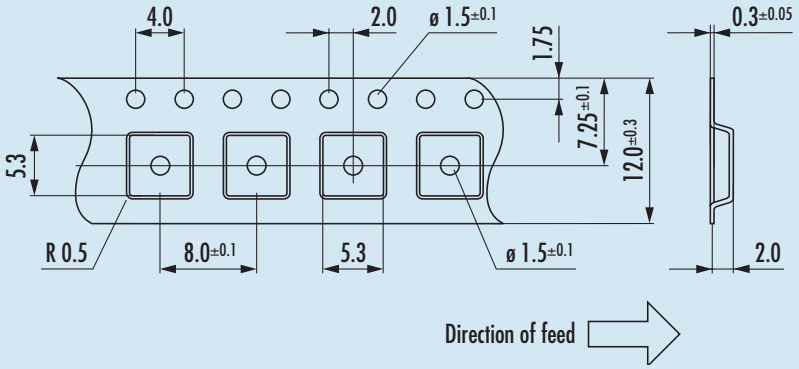
Taping Specifications

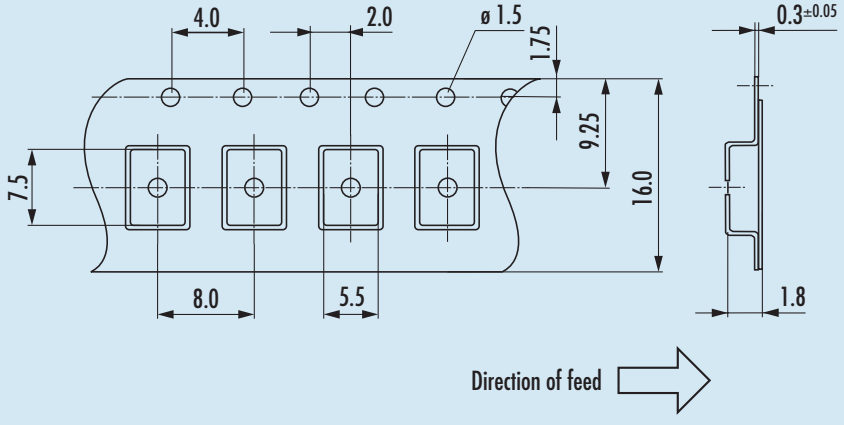
Q38
3.8 x 3.8



Q50
5.0 x 5.0



R75
7.0 x 5.0



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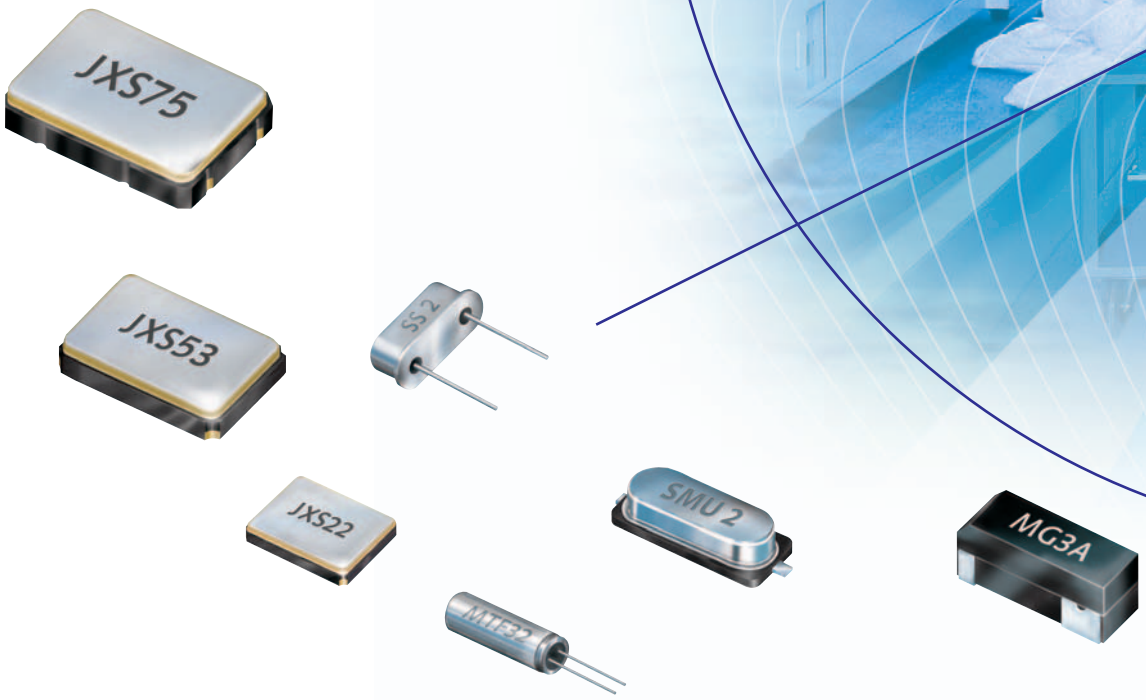
SMD Quartz Crystals



Quartz Crystal Oscillators

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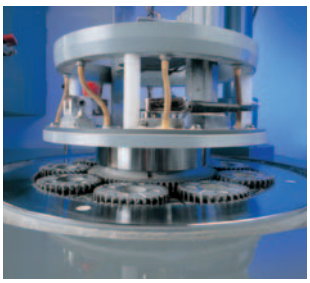
International production, guaranteed by universal quality standards

From raw quartz crystal production to special short runs to mass production in the millions in ever-constant quality, Jauch Quartz has a lot of performance to offer – and that applies just as much to large groups of companies as to smaller specialists. High flexibility in product design and production amounts enables us to cover a broad customer and business spectrum and thus maintain our independence.

Technology that makes quality possible: Ultrasonic cleaning of quartz blanks for perfect surfaces.



Grinding of quartz blanks: The right surface for the right frequency.

Jauch has production facilities at many locations around the world – from Europe to Asia. However different the people at these sites are, they all have one thing in common: they all work according to the same system of values. They all belong to the same corporate culture. That is the only way to produce on different continents and retain a uniform standard. Because wherever Jauch products are on the pulse of progress, the rhythm has to be just right.

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Version A

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