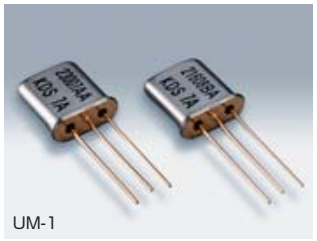
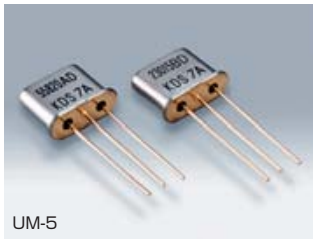
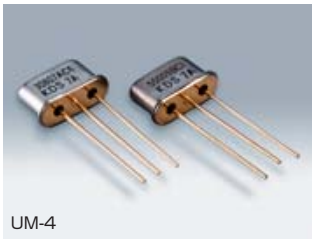
Monolithic Crystal Filters

UM SERIES 2POLE, 4POLE


UM-1


UM-5


UM-4

Pb-Free RoHS Compliant

■ Features

- Excellent frequency stability
- High precision and high reliability

■ Applications

- Radio communications

■ Standard Specification

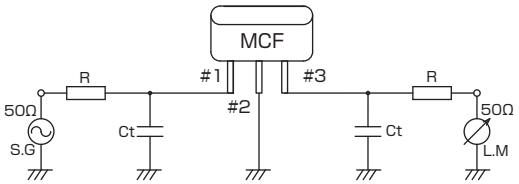
Type	UM-5 (UM-1)				
Model	D21407A	D21407B	D21409A	D21409B	D21412A
Pole(Number of elements)	2(1)	4(2)	2(1)	4(2)	2(1)
Overtone Order	Fundamental	Fundamental	Fundamental	Fundamental	Fundamental
Nominal Frequency	21.400 MHz	21.400 MHz	21.400 MHz	21.400 MHz	21.400 MHz
Pass Bandwidth	±3.75kHz min./3dB	±3.75kHz min./3dB	±4.5kHz min./3dB	±4.5kHz min./3dB	±6.0kHz min./3dB
Stop Bandwidth	±14kHz max./18dB	±14kHz max./40dB	±12.5kHz max./14dB	±15kHz max./40dB	±20kHz max./15dB
Ripple	1dB max.	1dB max.	1dB max.	1dB max.	1dB max.
Insertion Loss	2.5dB max.	2.5dB max.	2dB max.	2.5dB max.	2dB max.
Guaranteed Attenuation	40dB min.	80dB min.	40dB min.	80dB min.	40dB min.
Terminating Impedance	850Ω//5pF	850Ω//5pF Cc=16pF	1500Ω//4pF	1000Ω//4pF Cc=13.5pF	1200Ω//2.5pF
Operating Temperature Range	-20~+70℃				

Type	UM-5 (UM-1)				
Model	D21412B	D21415A	D21415B	D21430A	D21430B
Pole(Number of elements)	4(2)	2(1)	4(2)	2(1)	4(2)
Overtone Order	Fundamental	Fundamental	Fundamental	Fundamental	Fundamental
Nominal Frequency	21.400 MHz	21.400 MHz	21.400 MHz	21.400 MHz	21.400 MHz
Pass Bandwidth	±6.0kHz min./3dB	±7.5kHz min./3dB	±7.5kHz min./3dB	±15kHz min./3dB	±15kHz min./3dB
Stop Bandwidth	±20kHz max./40dB	±25kHz max./18dB	±25kHz max./40dB	±45kHz max./15dB	±50kHz max./40dB
Ripple	1dB max.	1dB max.	1dB max.	1dBmax.	1dB max.
Insertion Loss	2.5dB max.	2dB max.	2.5dB max.	2dB max.	2.5dB max.
Guaranteed Attenuation	80dB min.	40dB min.	80dB min.	40dB min.	80dB min.
Terminating Impedance	1200Ω//2.5pF Cc=10.5pF	1500Ω//3pF	1500Ω//2pF Cc=8pF	3000Ω//0.5pF	3300Ω//0.5pF Cc=3pF
Operating Temperature Range	-20~+70℃				

Type	UM-4				
Model	D45007A	D45007B	D45015A	D45015B	D45030B
Pole(Number of elements)	2(1)	4(2)	2(1)	4(2)	4(2)
Overtone Order	Fundamental	Fundamental	Fundamental	Fundamental	Fundamental
Nominal Frequency	45.000 MHz	45.000 MHz	45.000 MHz	45.000 MHz	45.000 MHz
Pass Bandwidth	±3.75kHz min./3dB	±3.75kHz min./3dB	±7.5kHz min./3dB	±7.5kHz min./3dB	±15kHz min./3dB
Stop Bandwidth	±12.5kHz max./10dB	±12.5kHz max./25dB	±25kHz max./14dB	±25kHz max./40dB	±40kHz max./30dB
Ripple	1dB max.	1dB max.	1dB max.	1dB max.	1dB max.
Insertion Loss	3dB max.	4dB max.	2.5dB max.	3dB max.	3dB max.
Guaranteed Attenuation	40dB min.	80dB min.	40dB min.	80dB min.	80dB min.
Terminating Impedance	510Ω//5.5pF	350Ω//5.5pF Cc=20pF	550Ω//3pF	650Ω//3pF Cc=10pF	800Ω//1.5pF Cc=7pF
Operating Temperature Range	-20~+70℃				

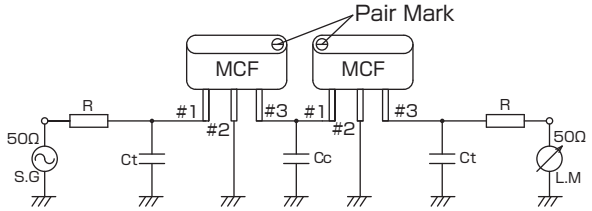
Consult our sales represntative for other specificeations

■Measurement circuit 2POLE



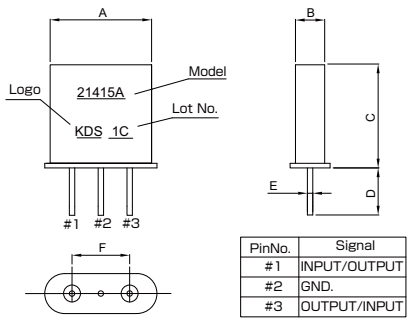
Rt//Ct : Terminating Impedance(Rt=R+50Ω)

■Measurement Circuit 4POLE



Rt//Ct : Terminating Impedance(Rt=R+50Ω) Cc : Coupling capacitance

■ Dimensions[mm]



PinNo.	Signal
#1	INPUT/OUTPUT
#2	GND.
#3	OUTPUT/INPUT

	UM-1	UM-4	UM-5
A	7.8±0.2	7.8±0.2	7.8±0.2
B	3.0±0.2	3.0±0.2	3.0±0.2
C	7.8±0.2	4.5±0.2	5.8±0.2
D	20±1	20±1	20±1
E	ϕ0.35±0.05	ϕ0.35±0.05	ϕ0.35±0.05
F	3.75±0.2	3.75±0.2	3.75±0.2