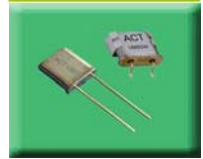


UM1 & 5

Compatible with Eu Directive
2002/EC - RoHS



The ACT UM1 & UM5 family are available in industry standard package & specifications. The series offers a broad range of frequencies and tolerances in both standard and industrial temperature ranges. Housed in resistance welded cases the UM1 & 5 now have improved aging characteristics. These devices are particularly popular in Pager, Wireless Telemetry, Wireless Lan and UHF / VHF Radio applications. There is a gull winged option (with mounting clip) available for lower profile ("SMD") mounting.

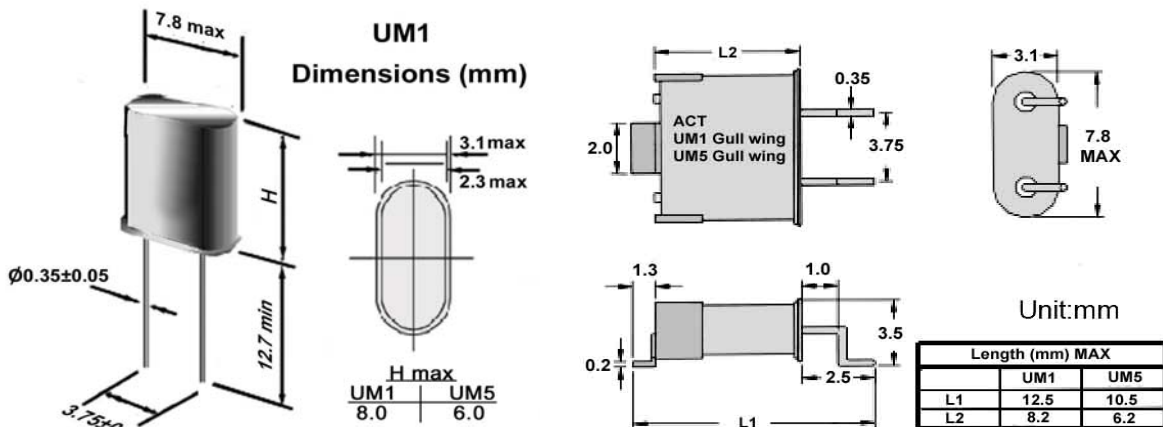
Specification

Parameter	Symbol	Specification	Condition
Frequency Range	fo	3.579545 ~ 200.0 MHz (UM1) 8.00 ~ 200.0 MHz (UM5)	For Mode - See Table
Frequency Tolerance	$\Delta f/fo$	± 30 ppm @25°C Std. (Others available)	Please specify
Tolerance over Temp. Range	Tc	$\pm 5 \sim \pm 50$ ppm	Please specify
Temp Operating Range	Topr	-10°C to +60°C Std. (Others available)	Please specify
Temp Storage Range	Tstg	-40°C to +85°C	
Equivalent Series Resistance	ESR	See table	
Shunt Capacitance	C0	7pF max	
Load Capacitance	CL	6pF ~ 100pF & SR	
Drive Level	DL	100 μ W Std., (0.001 μ W ~ 1000 μ W available)	Please specify
Drive Level Dependency		6 steps 0.001~500 μ W minimum	
Insulation Resistance	IR	500M Ω Min	100 VDC
Aging	Fa	± 5 ppm /year @25°C (Others available)	Please specify

Frequency (MHz)	ESR (Ω)	Frequency (MHz)	ESR (Ω)	Frequency (MHz)	ESR (Ω)
Fundamental		30.00 ~ 45.99	20	75.00 ~ 84.99	60
3.579545 ~ 4.99	120	46.00 ~ 75.00	20-70	95.00 ~ 124.99	70
5.00 ~ 5.99	75	3rd Overtone		125.00 ~ 150.00	90
6.00 ~ 7.99	60	24.00 ~ 39.99	45	7th Overtone	
8.00 ~ 9.99	50	40.00 ~ 59.99	40	100.00 ~ 149.00	150
10.00 ~ 13.00	40	60.00 ~ 89.99	35	150.00 ~ 180.00	120
14.00 ~ 15.99	35	90.00 ~ 120.99	30	180.00 ~ 200.00	150
16.00 ~ 24.99	30	5th Overtone			
25.00 ~ 29.99	25	60.00 ~ 74.99	100		

Standard Through Hole

Gull wing SMD version



Please note that all parameters can not necessarily be specified in the same device

Customer to specify : Package, Frequency, Frequency Tolerance, Temperature Stability, Operating temperature range, Load Capacitance
 In line with our ongoing policy of product evolution and improvement, the above specification may be subject to change without notice

ISO9001:2000 Registered

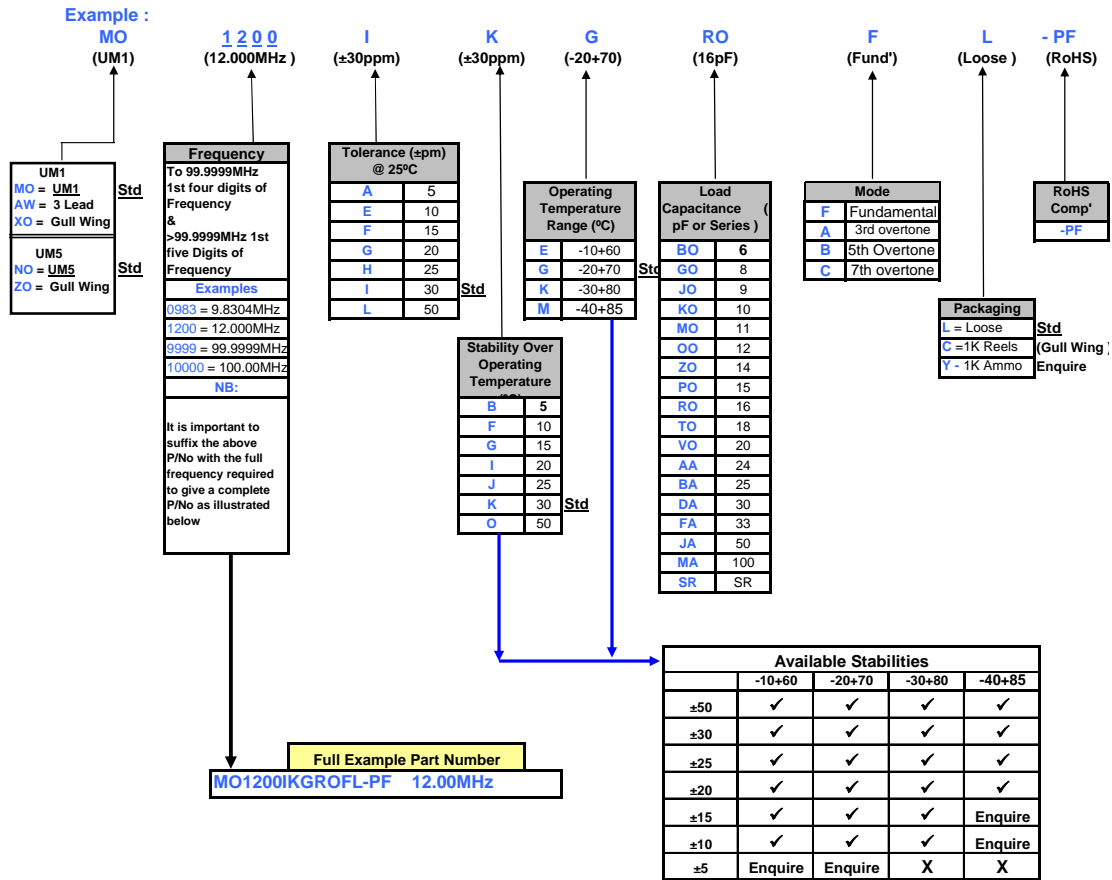
For quotations or further information please contact us at:

3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

<http://www.actcrystals.com>

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SERIES : ACT UM1 & UM5 Part numbering code MO / AW / XO / NO / ZO



NOTES :

- 1) Tighter Tolerances and Stabilities, other Operating Temperature Ranges and CL's may be available as semi custom devices. As each of these specification parameters impact on each other, it is not always possible to combine all options in one device. Therefore, if a specification not catered for above is required, please contact us directly for the relevant part number code(s).
- 2) ACT are always happy to consider truly custom specification parts which may require non-standard specification parameters, specific testing, customer requested AQL requirements, non standard packaging or taping and reeling and custom marking. Such devices would normally be allocated a custom specification part number which is wholly customer specific.
(EG : A 12.00MHz custom ACTUM1 device may have a part number such as MO1200C- C1246-PF)
- 3) A guide to availability of tighter stabilities appears on page one of the data sheet in Table 2
- 4) Frequencies below 10.000MHz are prefixed with a "0" (eg: 0800MHz = 8MHz. Whereas 10.000MHz is 1000 and 100MHz is 10000)

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