

Tel : Fax : email :

## 0044 (0)118 979 1238 0044 (0)118 979 1283 info@actcrystals.com



150

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	0.0 MHz	(UM1)	For Mode - See Table
			8.00 ~ 200.0 MI	Hz (UM	15)	
Frequency Tolerance		∆f/fo	±30ppm @25°C Std. (Others available)			Please specify
Tolerance over Temp. Range		Тс	±5 ~ ±50ppm			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	100μW Std., ( 0.001μW ~ 1000μW available)			Please specify
Drive Level Dependancy			6 steps 0.001~500μW minimum			-
Insulation Resistance		IR	500MΩ Min			100 VDC
Aging		Fa	±5ppm /year@25°C ( Others available )			Please specify
	Frequency	ESR	Frequency	ESR	Frequency	ESR
	(MHz)	(Ω)	(MHz)	(Ω)	(MHz)	(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

30

100

Standard Through Hole

14.00 ~ 15.99

16.00 ~ 24.99

25.00 ~ 29.99

35

30

25

90.00 ~ 120.99

**5th Overtone** 

 $60.00 \sim 74.99$ 

Gull wing SMD version

180.00 ~ 200.00



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 evolvement 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 :

- 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).
- 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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