

## ACT1100HS / ACT1700HS HCMOS/TTL Clock Oscillators

The ACT1100HS/ACT1700HS series are popular full/half size DIL oscillators that allow for stabilities of  $\pm 10\text{ppm}$ , frequencies  $< 500\text{kHz}$  &  $> 125\text{MHz}$ . These devices offer a good cost ratio performance for many consumer applications.

For stabilities  $> \pm 10\text{ppm}$  and frequencies  $500\text{kHz} - 125\text{MHz}$  please refer to the standard ACT1100 & ACT1700 series.

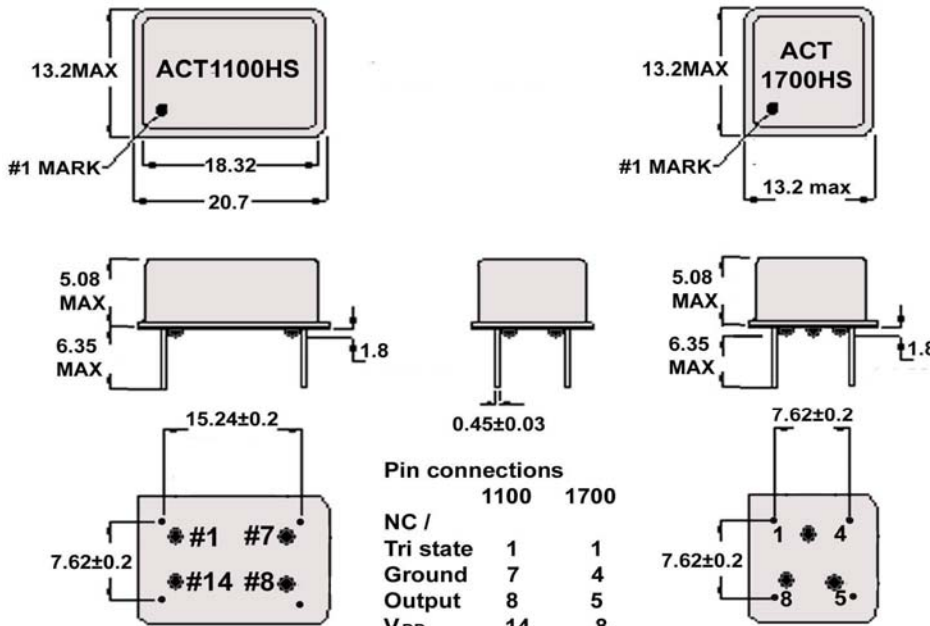
Compatible with Eu Directive  
2002/EC - RoHS



### Specification

Parameter	Symbol	Specification	Condition
Frequency Range	fo	20kHz-80kHz & 250kHz-160MHz	Please specify
Frequency Stability	$\Delta f/fo$	$\pm 10\text{ppm}$ , $\pm 25\text{ppm}$ , $\pm 50\text{ppm}$ and $\pm 100\text{ppm}$	Please specify
Temp Operating Range	Topr	-0 ~ +70°C to -40 ~ +85 °C	Please specify
Temp Storage Range	Tstg	-50~100°C	
Supply Voltage	V <sub>DD</sub>	3.3Vdc $\pm 10\%$ , 5.0Vdc $\pm 10\%$	Please specify
Supply Current	I <sub>op</sub>	15mA max 16.5mA max 35mA max 50mA max	20kHz - 32MHz 32MHz - 50MHz 50MHz - 125MHz 125MHz - 160MHz
Duty Cycle	TW/t	40/60% TTL 40/60% HCMOS	Measured at +1.4Volts Measured at 50% V <sub>DD</sub> Please specify
Output Level '0'	VOL	TTL 0.4V max, HCMOS V <sub>DD</sub> X 0.1 max	
Output Level '1'	VOH	TTL 2.4V min, HCMOS V <sub>DD</sub> -(V <sub>DD</sub> X 0.1) min	
Output Logic		TTL / HCMOS	
Output Load		TTL 2 ~ 10 Gates CMOS 15 or 50pF	
Rise & Fall Time	tr/tf	TTL 10nSec max, 3nSec typical Measured between 0.4V ~ 2.4V (RL = 390Ω ; CL = 15pF) CMOS 10nSec max, 3nSec typical Measured between 10%~ 90% V <sub>DD</sub> (CL = 15pF)	
Start-up Time		10mSec max, 5ms typical	
Option on Pin 1		Output is low impedance when >0.8V is applied to pin 1. Disable time is 150nSec max	Please specify
Aging		$\pm 5\text{ppm}$ / year max	@25°C
Period Jitter (Absolute)		25~43pS	Dependent on frequency

### Dimensions (mm)



Plating Material on leads  
98-99%Sn

ACT1100HS Part Number  
Prefix 'HS'

ACT1700HS Part Number  
Prefix 'HL'

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

Customer to specify : Frequency, Frequency Stability, Operating Temperature Range, Supply Voltage, Duty Cycle, Output Enable (Tristate) If required  
 In line with our ongoing policy of product evolution and improvement, the above specification may be subject to change without notice  
 ISO9001:2000 Registered

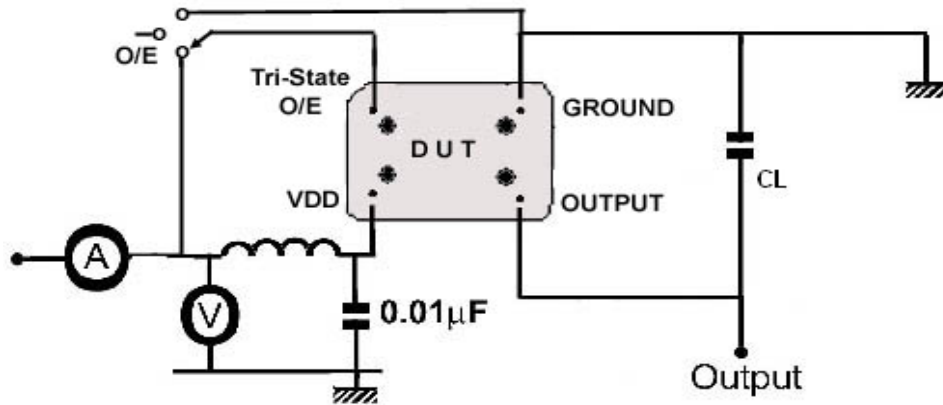
For quotations or further information please contact us at  
 3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, U

<http://www.actcrystals.com>

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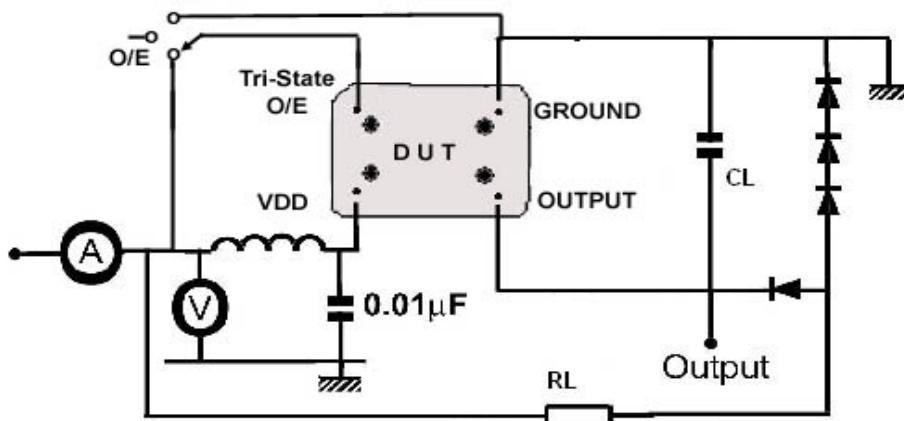
### Application circuits

#### CMOS Test Circuit



Output to oscilloscope and/or frequency counter

#### TTL Test Circuit



Output to oscilloscope and/or frequency counter

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