

5Vdc • TTL OUTPUT • FULL-SIZE AND HALF-SIZE DIP

CRYSTAL CLOCK OSCILLATORS

ACT and AHT



20.2 x 12.6 x 5.08 mm

FEATURES:

- Hermetically sealed metal package.
- TTL output.
- Case ground for EMI protection.
- Tristate Enable/Disable options.

APPLICATIONS:

- Provide clock signals for microprocessors and digital circuits.
- TTL output for low EMI applications.

STANDARD SPECIFICATIONS

PARAMETERS	SPECIFICATIONS
Package Type	ACT (14 DIP) and AHT (8 DIP)
Frequency Range (F_0)	500kHz - 70MHz
Operating Temperature (T_{OPR})	0°C to +70°C (See Options)
Storage Temperature (T_{STO})	-55°C to +125°C
Frequency Stability ($\Delta F/F_0$)	±100ppm max. (See Options)
Supply Voltage (V_{dd})	5Vdc ±10%
Input Current (I_{dd})	30mA max. $F_0 \leq 25$ MHz (Without Load) 70mA max. $F_0 \sim 25.01$ MHz - 70MHz
Duty Cycle or Symmetry (at 1.4 Vdc)	45/55% max. for $F \leq 8.0$ MHz 40/60% max. for $F > 8.0$ MHz (See Options)
Rise and Fall Times (T_R / T_F)	10ns max. for $F \leq 30$ MHz 6ns max. for $F > 30$ MHz (See Options)
Output Load	10TTL max.
Output Voltage (V_{OH})	2.4Vdc min.
(V_{OL})	0.4Vdc max.
Start-up Time (T_{OSC})	10ms max.
Tristate Function (V_{IH})	"1" or Open: Oscillation ≥ 2.2 V
(Option "-A" ONLY) (V_{IL})	"0": Output disabled in high impedance (HiZ) < 0.8V
Output Disable/Enable Time	100ns max. (for Option "-A" ONLY)

* Pin 1 has internal pull-up resistor which allows Pin 1 to be left floating (enable high) Option A
Test circuit, waveforms, see appendix B. Recommended handling, see appendix F.
Environmental and mechanical specifications, see appendix C. Group 1.
Marking, see appendix G. Value added, see appendix D.
Application notes, see appendix A. Reflow profile, see appendix E. Packaging, see appendix H.

ORDERING OPTIONS

AXT - Frequency - Temperature - Overall Frequency Stability - Duty Cycle - Tristate - Value Added - Packaging

C or H		-S for 45/55%	-A	-T Tape and reel
XX.XXXXX MHz		-T for 47.5/52.5%	Tristate E/D	-TY tray packing
-D for -10°C to +60°C	-J for ± 20ppm max	-G Gull Wing*		
-E for -20°C to +70°C	-R for ± 25ppm max	-G2 Gull Wing (AHT)		
-F for -30°C to +70°C	-K for ± 30ppm max	-GHT Gull Wing		
-N for -30°C to +85°C	-H for ± 35ppm max	reflow capable*		
-L for -40°C to +85°C	-C for ± 50ppm max	-QXX (Trimmed Leads)*		

PIN #	PIN #	FUNCTION
ACT	AHT	
1	1	NC or Tristate E/D
7	4	GND / Case
8	5	Output
14	8	Vdd

NOTE: Left blank if standard • All specifications and markings subject to change without notice

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