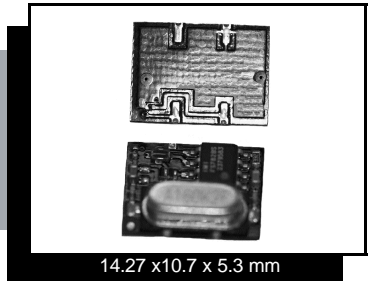


5.0VDC or 3.3VDC • HCMOS/ TTL SPREAD-SPECTRUM • SURFACE-MOUNT
ULTRA LOW NOISE CRYSTAL CLOCK OSCILLATORS
ASSM and ASSML



FEATURES:

- Patented spread spectrum technology.
- Standard TTL or HCMOS compatible output.
- Meets clock requirements on all major CISC, RISC, and DSP processors.
- Reduce electromagnetic emissions up to 20dB!
- Meets FCC and EMC Directive for EMI requirements.
- Drop-in replacement for standard plastic SMD crystal oscillators
- Wide frequency range 4.0MHz to 128MHz.

APPLICATIONS:

- Telecommunications.
- Consumer electronics, printers.
- Capital equipment.
- Medical equipment.
- Aerospace.

STANDARD SPECIFICATIONS

PARAMETERS	ASSM	ASSML
Frequency Range (F ₀)	4.0MHz - 128MHz	
Operating Temperature (T _{OPR})	0°C to +70°C(See Options)	
Storage Temperature (T _{STO})	-65°C to +150°C	
Frequency Stability VS.Temp.(ΔF/F ₀)	±100ppm max. (See Options)	
Supply Voltage (V _{dd})	5.0Vdc ± 5%	3.3Vdc ± 5%
Input Current (I _{dd})	30mA max.	
Duty Cycle (S _{YM})	45/55% max.	
Rise and Fall Times (T _r / T _f)	3.5ns max.	
Output Load	10LSTTL or 15pF	
Output Voltage (V _{OH} , V _{OL})	V _{dd} - 1.0V min. (V _{OH}) ; 0.4Vdc max. (V _{OL})	
Start-up Time (T _{osc})	10ms max. ,5ms typ.	
Aging	±5ppm max./year	
Jitter	250ps typ.	
Bandwidth variations	5% typ. (±2.5% of center frequency)(See Options)	

Test circuit, waveforms, see appendix B. Reflow profile, see appendix E.
 Environmental and mechanical specifications, Please call Abracon for details.
 Recommended handling, see appendix F.

ORDERING OPTIONS

ASSMX - Frequency - Temperature - Frequency Stability - Bandwidth - Packaging

Blank or L XX.XXXX MHz

- E for -20°C to +70°C
- F for -30°C to +70°C
- N for -30°C to +85°C
- L for -40°C to +85°C

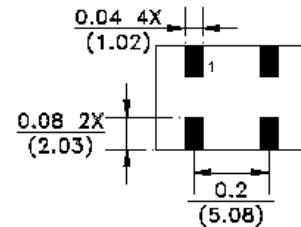
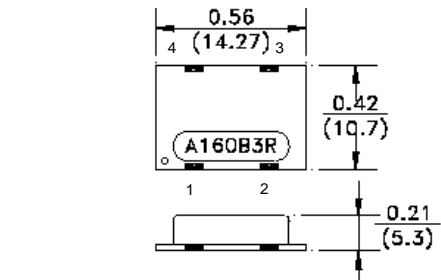
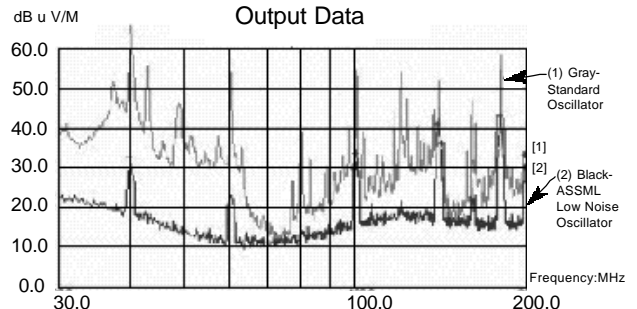
- R for ± 25ppm max
- K for ± 30ppm max
- H for ± 35ppm max
- C for ± 50ppm max

- B1 for 1%(±0.5% of F₀)
- B2 for 2%(±1% of F₀)
- B3 for 3%(±1.5% of F₀)
- B4 for 4%(±2% of F₀)

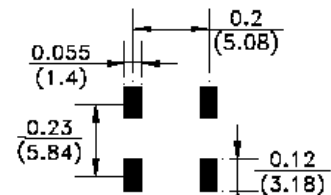
-T for Tape and Reel

PIN NUMBER	FUNCTION
1	NC
2	GND
3	Output
4	V _{dd}

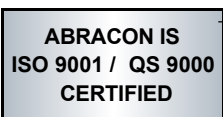
Output Data



Recommended Land Pattern



Dimensions: Inches (mm)



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

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