

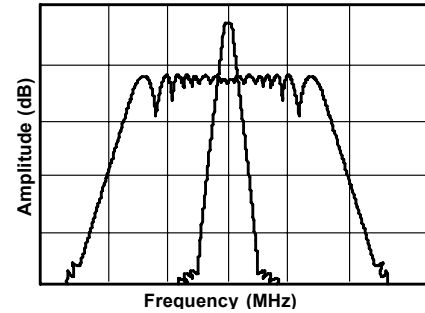
5.0VDC or 3.3VDC • 8 PINDIP • HCMOS/ TTL

LOW EMI SPREAD SPECTRUM CRYSTAL CLOCK OSCILLATORS

ASSH

FEATURES:

- Integrated Spread Spectrum technology
- Standard TTL or HCMOS output.
- Meets jitter requirements for all major CISC, RISC and DSP processors
- Frequency Range of 15 to 120 MHz @ 5.0 VDC.
- Frequency Range of 15 to 90 MHz @ 3.3 VDC.



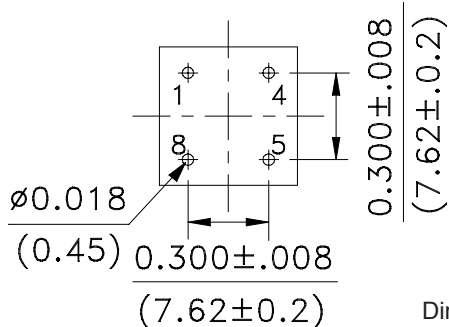
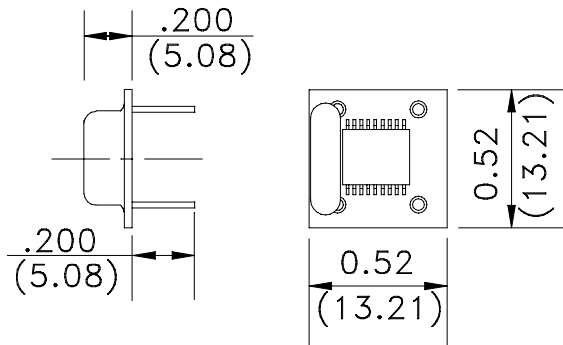
APPLICATIONS:

- Medical
- Printers
- Scanners
- Modems
- Telecommunications
- Aerospace
- Copier
- Automotive

ADDITIONAL BENEFITS:

- Reduce emissions up to 20 dB.
- Systemic approach to EMI.
- Highly cost effective compared to other methods.
- Eliminate need for individual node suppression.
- Eliminate need for expensive shielding.
- Reduce component count.
- Reduce PCB layer count.
- Drop-in replacement for 8 pin DIP packages.

MECHANICAL DIMENSIONS:



Dimensions: Inches (mm)

PIN CONFIGURATION:

Pin Number	Function
1	NC
4	GND
5	OUTPUT
8	VDC

Table1

ABRACON IS
ISO 9001 / QS 9000
CERTIFIED

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

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ABRACON[®]
CORPORATION

05/2003

LOW EMI SPREAD SPECTRUM CRYSTAL CLOCK OSCILLATORS

ASSH

Table 2

STANDARD ELECTRICAL SPECIFICATIONS			
PARAMETER	ASSH		Conditions
Operating Temperature (Topr)	0°C to +70°C		
Storage Temperature (Tsto)	- 65°C to +150°C		
Frequency Stability vs. Temp (dF/Fo)	± 100 ppm max. (See Options)		
Operating Supply Voltage (VDC)	3.3 VDC	5.0 VDC	+/- 5 %
Frequency Range (Fo)	15 – 90 MHz	15 – 120 MHz	
Operating Input Current (IDD)	40 mA max	75 mA	F = 90 MHz
Duty Cycle	45/55	45/55	% max
Output Voltage (VOH/VOL)	2.4 VDC min.	4.0 VDC min.	
Rise Time	5.0 typ.	3.5 typ.	Load =15 pF, 10 – 90%
Fall Time	3.2 typ.	2.3 typ.	Load =15 pF, 10 – 90%
Start-up Time	10 ms max. 3 ms typ.		
Aging	+/- 5ppm max. /year		
Jitter	500 ps. max.		0°C to +70°C
Output Load	10-LSTTL or 15 pF		
Modulation Frequency (Fm)	20 – 40 kHz		15 – 120 MHz

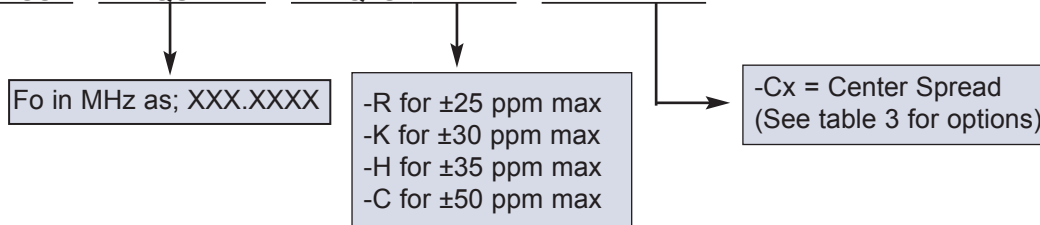
Download Spread Spectrum Clocking application note on Abracon website at www.abracon.com/emi/ssc.

Table 3

FACTORY BANDWIDTH SELECTION (±10%)	
BANDWIDTH %	Center Spread
± 0.625	C1
± 1.25	C2
± 2.50	C3
± 5.00	C4

ORDERING OPTION

ASSH - FREQUENCY - FREQ. STABILITY - BANDWIDTH



Example: ASSH-048.0000-C-C4

Would be the part number for a 48.0000 MHz, ±5.0% center spread with a +/-50 ppm center frequency accuracy .



Rev. 2.4

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