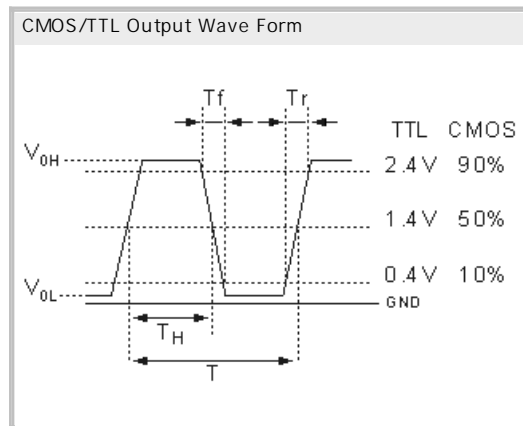
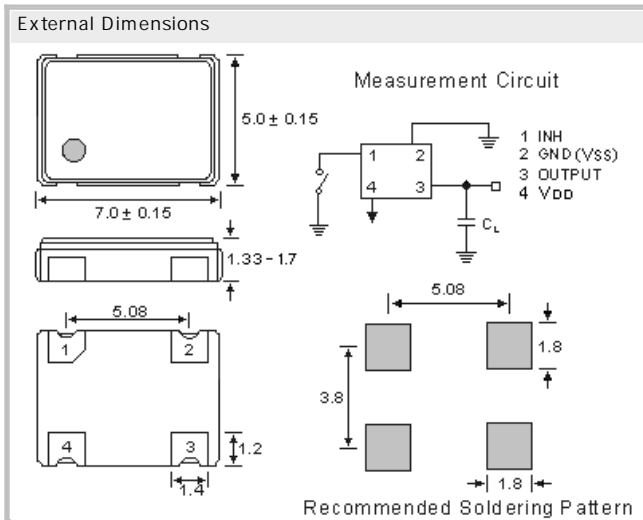


### EMI Reducing Spread Spectrum Clock Oscillator CSS7050TR3.3 3.3V

- SMD in ceramic case (7.0 x 5.0 x 1.8) mm
- Tri-State Enable / Disable
- CMOS/TTL Square Wave
- on Tape & Reel (Tape 16mm, 1000pcs per reel)
- RoHS conform; Lead-free product
- Vibration: MIL-STD-202F method 204, 35G, 50 to 2000 Hz
- Shock: MIL-STD-202F method 213B, test cond. E, 1000G 1/2 sine wave
- Available in many standard and special frequencies



## Specifications

Holder Type:	CSS7050TR3.3 Tri-State 3.3V (Voltage code is " 3.3 ")
Frequency Range:	3.500 MHz to 165.000 MHz
Frequency Stability at 25°C:	± 20 to ± 100 ppm
Operating Temperature Range:	-20°C to +70°C, -40°C to +85°C (Inclusive Operating Temp., Supply Voltage, & Load)
Storage Temperature:	-55°C to +125°C
Spread Type ( % ):	Total %    Down Spread (D)    Center Spread (C) -1%            -1% (D1)            ± 0.5 (C0.5) -3%            -3% (D3)            ± 1.5 (C1.5)
EMI Reduction:	-9 dBc min. 100 MHz at C0.5, -15 dBc min. 100MHz at C1.5 With respect to the dB level when no modulation. EMI reduction applies to the whole spectrum.
Power Supply Voltage (V <sub>dd</sub> ):	+ 3.3V D.C. ± 5 %
Maximum Supply Current:	10mA typ. (10.000MHz ~ 50.000MHz), 18mA typ. (50.000MHz ~ 100.000MHz), 35mA typ. (100.000MHz ~ 160.000MHz)
Modulation Carrier Freq. (Dither rate):	6.9 kHz min.; 55.5kHz max. Frequency dependent
Output Load:	15pF CMOS
Output Symmetry (Duty Cycle):	50% ± 5 % CL=15pF; 50% V <sub>dd</sub>
Output Voltage (V <sub>OH</sub> ) (V <sub>OL</sub> ):	2.4V min; 3.2V typical 90% of V <sub>dd</sub> min. 0.5V max; 0.2V typical 10% of V <sub>dd</sub> max.
Rise/Fall Time (10% to 90% V <sub>dd</sub> ):	4 ns max.
Start Up Time:	2 ms typical; 5 ms max.
Cycle-to-Cycle Jitter:	± 250 ps typical; ± 300 ps max.
Tri-state Function Pin 1:	Pin 1 = H or open.... Output active at pin 3 Pin 1 = L.... high impedance at pin 3; Output enable/disable time: 100ns max.
Aging:	< ± 5ppm max. / year (max.)
Reflow Condition:	260°C max for 10 sec.
See also ...:	<a href="http://www.comtec-crystals.com/docs/G/GFG2.htm">http://www.comtec-crystals.com/docs/G/GFG2.htm</a>

### GERMANY:

COMTEC CRYSTALS GmbH · Sultenstrasse 12-14  
8 5 5 8 6 P o i n g / G E R M A N Y  
Phone +49 8121 778160 · Fax +49 8121 778177  
e-Mail [info@comtec-crystals.com](mailto:info@comtec-crystals.com)  
Internet: <http://www.comtec-crystals.com>  
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### FRANCE:

COMTEC CRYSTALS SARL · 23, rue du Faucon  
6 7 5 0 0 H a g u e n a u / F R A N C E  
Phone +33 388 732162 · Fax +33 388 730118  
e-Mail [sales@comtec-crystals.com](mailto:sales@comtec-crystals.com)  
Internet: <http://www.comtec-crystals.com>  
Sous réserve de modifications.