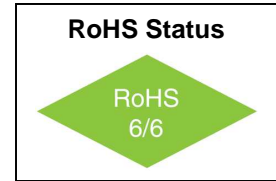


VFAC3
Surface Mount Clock Oscillator
ACMOS / LSTTL Compatible



Features

- ACMOS – TTL Compatible
- Very Low Phase Jitter
- Wide Frequency Range
- Miniature Ceramic Package
- EMI Shielded
- Tight Duty Cycle Available
- Wide Temperature Range Available
- 5.0V, 3.3V, 2.5V, and 1.8V Available
- Tristate control standard



NOT RECOMMENDED FOR NEW DESIGNS
Use CTS Model CB3

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Input Break Down Voltage	V _{cc}		-0.5		7.0	V	
Storage Temp.	T _s		-55		+125	°C	
Frequency Range	F		20 20 20		165 200 125	MHz	5V 3.3V, 2.5V, 1.8V
Frequency Stability	ΔF/F	Overall conditions including: calibration, temp., aging 10 yrs, shock, vibration	±20		±100	ppm	See "How to Order" table
Input Voltage	V _{cc}		4.75 3.15 2.38 1.71	5.00 3.30 2.50 1.80	5.25 3.45 2.63 1.89	V	See "How to Order" table
Input Current	I _{cc}	F= 100MHz 15pF load			70	mA	
Load	5 LSTTL loads or 15pF						
Duty Cycle		@1.4V @50% V _{cc}	40 40	50 50	60 60	%	5% and 2.5% options available
Rise / Fall Time	T _r /T _f	0.4V to 2.4V 20% to 80%			1.5	ns	
Logic "1" Level	V _{oh}	Max Load	0.9V _{cc}			V	
Logic "0" Level	V _{ol}	Max Load			0.1V _{cc}	V	
Start-up Time	T _s				15	ms	
Phase Jitter	f _j	12KHz to 20MHz			1	ps	RMS
Tristate Function	Input HIGH (>0.8V _{cc}) or floating: Active; Input LOW (0.5V): Infinite Impedance						
Enable/ Disable Time					100	ns	

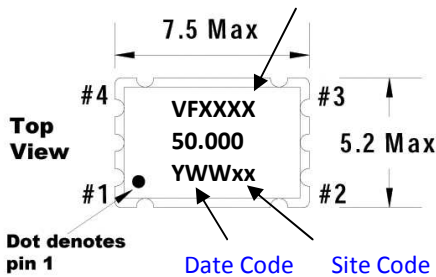
VFAC3
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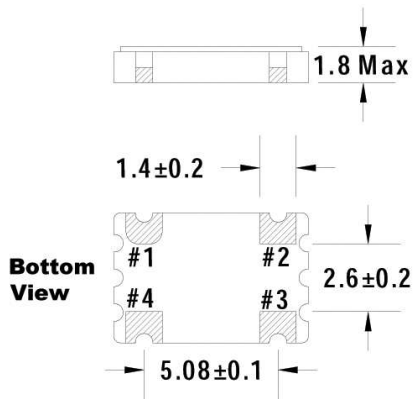
Environmental and Mechanical Conditions

Parameter	Condition
Operating Temperature Range	0°C to +70°C or -40°C to +85°C available
Mechanical Shock	Per MIL-STD-202, Method 213, Cond. E
Thermal Shock	Per MIL-STD-883, Method 1011, Cond. A
Vibration	Per MIL-STD-883, Method 2007, Cond. A
Soldering Conditions	260°C for 10s Max., or 230°C for 90s
Hermetic Seal	Leak rate less than 5 x 10 ⁻⁸ atm.cc/s of helium

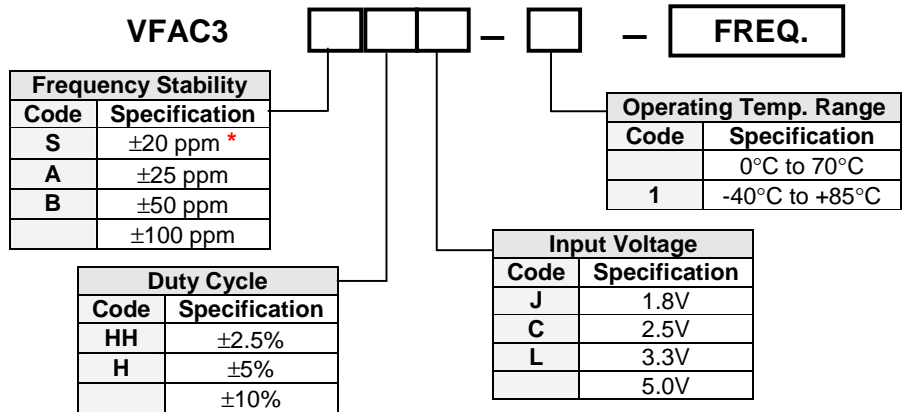
OIO Part Number (See Appendix)



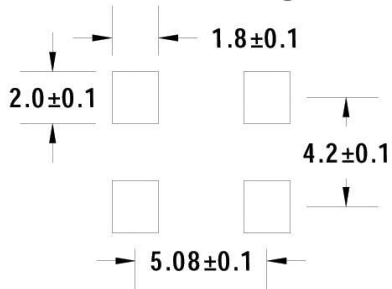
Pin #	Connection
Pin 1	Tristate Control
Pin 2	Ground
Pin 3	Output
Pin 4	Vcc



How to Order



Recommended Solder Pad Layout



* : ± 20 ppm over -40 to +85C does not include Aging.

Not all performance combinations and frequencies may be available. Contact your local CTS Representative or CTS Customer Service for availability.

VFAC3
Surface Mount Clock Oscillator
ACMOS / LSTTL Compatible



Appendix

4 - Digit part numbers are used for marking.

SN	PART NUMBER	ORDERING CODE
1	OIO3163	VFAC3AHL-1-106.250MHZ
2	OIO3312	VFAC3BHL-150MHZ
3	OIO3314	VFAC3SHL-100.0000MHZ
4	OIO3348	VFAC3L-133.0000MHZ
5	OIO3431	VFAC3BHL-156.2500MHZ
6	OIO3446	VFAC3L-1-106.2500MHZ
7	OIO3701	VFAC3BHL-1-106.250MHZ
8	OIO3743	VFAC3BHL-105.000MHZ
9	OIO3828	VFAC3AHL-1-80.000MHZ
10	OIO3870	VFAC3SHL-1-83.000MHZ-TR/TP
11	OIO3942	VFAC3HL-127.000MHZ
12	OIO3998	VFAC3SHL-102.400MHZ
13	OIO4011	VFAC3HL-150.0000MHZ
14	OIO5841	VFAC3SL-1-19.4400MHZ
15	OIO6220	VFAC3BHL-106.2500MHZ
16	OIO6232	VFAC3HL-125.0000MHZ
17	OIO6747	VFAC3BL-125.0000MHZ-T/R
18	OIO6859	VFAC3BHL-125.0000MHZ-T/R
19	OIO6956	VFAC3BHL-1-125.0000MHZ-T/R
20	OIO6965	VFAC3BHL-1-100.0000MHZ
21	OIO7129	VFAC3HL-1-150.0MHZ
22	OIO7157	VFAC3BHL-80.00MHZ
23	OIO7251	VFAC3BHL-1-156.250MHZ
24	OIO7500	VFAC3HL-1-156.250MHZ
25	OIO7605	VFAC3BHL-1-120MHZ
26	OIO7680	VFAC3BHL-1-155.520MHZ
27	OIO7702	VFAC3HL-40MHZ
28	OIO7704	VFAC3HL-80MHZ
29	OIO7718	VFAC3HL-50.000MHZ
30	OIO7771	VFAC3SHL-40MHZ
31	OIO7781	VFAC3BHL-1-25MHZ
32	OIO7793	VFAC3BHL-65.000MHZ
33	OIO7802	VFAC3BHL-1-62.50MHZ
34	OIO7805	VFAC3BL-1-115.000MHZ
35	OIO7883	VFAC3L-125.0093
36	OIO8190	VFAC3BHC-25.000MHZ
37	OIO8200	VFAC3BHL-50.00MHZ
38	OIO8362	VFAC3AHC-1-33.330MHZ
39	OIO8436	VFAC3BHL-40.00MHZ
40	OIO8495	VFAC3AHC-25.000MHZ

SN	PART NUMBER	ORDERING CODE
41	OIO8516	VFAC3BHL-20.00MHz
42	OIO8578	VFAC3BHJ-40.000MHZ
43	OIO8609	VFAC3AHL-1-66.00MH
44	OIO8691	VFAC3BHL-1-66.667MHZ
45	OIO8705	VFAC3BHL-44.736MHZ
46	OIO8738	VFAC3BHC-80.000MHZ
47	OIO8739	VFAC3BHJ-80.000MHZ
48	OIO8787	VFAC3BHL-1-132.000MHZ
49	OIO8815	VFAC3SHC-1-20.000MHZ
50	OIO8829	VFAC3SHL-44.736MHZ
51	OIO8844	VFAC3AL-1-200.000MHZ
52	OIO8871	VFAC3SHC-1-60.000MHZ
53	OIO8880	VFAC3BHC-1-66.000MHZ
54	OIO8920	VFAC3AHL-125.0093MHZ
55	OIO8967	VFAC3BL-50.000MHZ
56	OIO8971	VFAC3AHJ-25.000MHZ