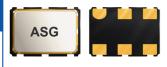
ASG-C Series





7.0 x 5.0 x 2.0mm

Moisture Sensitivity Level (MSL) - This product is Hermetically Sealed and not Moisture Sensitive; therefore MSL = N/A (Not Applicable)

FEATURES:

- ASG series is a High Performance crystal based oscillator; available either as an XO or a VCXO
- Frequency range from 10MHz to 250MHz with LVCMOS output
- Available from 10MHz to 1.50GHz with LVDS or LVPECL output
- Offered with either 2.50V or 3.30V bias voltage
- Quick turn, 1~5 business days for small quantity orders

APPLICATIONS:

- Networking, SONET/SDH
- WiMax / WLAN
- Computing
- Phase Locked Loops
- Direct Digital Synthesis (DDS)
- DSL/ADSL
- · Base Terminal Stations

STANDARD SPECIFICATIONS:

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range:	$V_{dd} = 3.3V$	10		250	MHz	
	$V_{dd} = 2.5V$	10		250	MHz	
Operating Temperature:		-40		+85	°C	
Storage Temperature:		-55		+125	°C	
Overall Frequency Stability:		-50		+50	ppm	See Note # 1
Initial Set Tolerance		-5.00	≤±1.00	+5.00	ppm	
Stability over operating temperature		-35.00	≤±20.00	+35.00	ppm	
Aging @ 25°C over 10-years		-7.00		+7.00	ppm	
Frequency variation over supply voltage change (±5%)		-2.00		+2.00	ppm	
Frequency variation over load variation (15pF ± 5%)		-1.00		+1.00	ppm	
Supply Voltage (Vdd):	$V_{dd} = 3.3V$	3.135	3.300	3.465	V	
	$V_{dd} = 2.5V$	2.375	2.500	2.625	V	
Input Current:	$V_{dd} = 3.3V$			45	mA	Frequency dependent
	$V_{dd} = 2.5V$			35	mA	Frequency dependent
Symmetry:		48	50	52	%	@ 1/2Vdd
Rise and Fall Time (Tr/Tf):			<u>≤</u> 450	1000	ps	
Output Load:				15	pF	CMOS
Output Voltage:	VOH	Vdd * 0.90			V	
	VOL			Vdd * 0.10	V	
Start-up Time:			<u>≤</u> 2.0	3.0	ms	
Enable/Disable Function :		"1" ($V_{IH} \ge 0.7*Vdd$) or Open: Oscillation "0" ($V_{IL} < 0.3*Vdd$) : High Z				
Vcontrol Range		0.00		Vdd	Volts	
Frequency Pull		±50			ppm	
Control Port Bandwidth		10			kHz	
	Integer Mode		< 0.60	1.60	ps	12kHz to 20MHz
Phase jitter RMS [tjit(\textit{\text{p}})] See Note #2	Fractional Mode		< 0.90	1.60	ps	12kHz to 20MHz

Note #1: Inclusive of initial tolerance at 25°C±3°C, operating temperature range, input voltage variation, load variation & aging.

Note #2: The rms jitter over 12kHz to 20MHz Bandwidth is dependent on the carrier and whether or not the final frequency is achieved without engaging the Fractional Mode



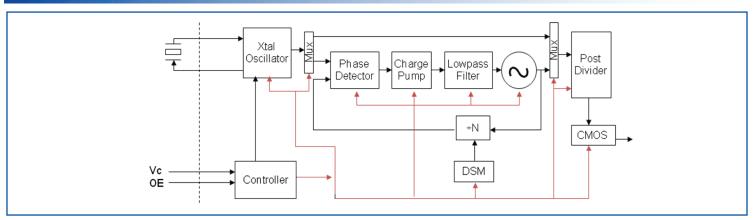


ASG-C Series

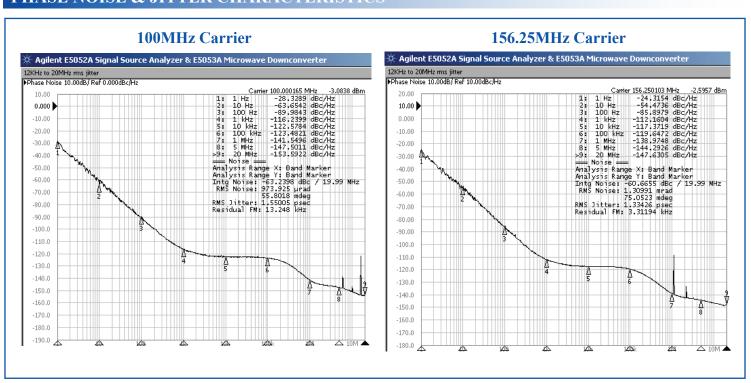




OVERALL SYSTEM BLOCK DIAGRAM



PHASE NOISE & JITTER CHARACTERISTICS



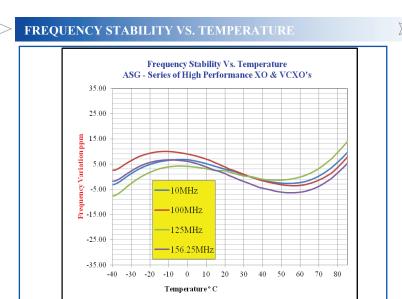


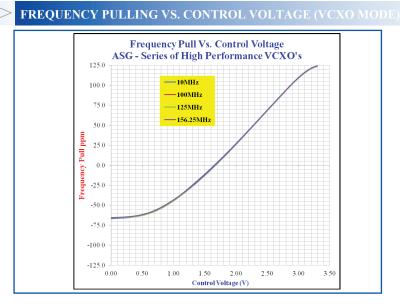
ASG-C Series



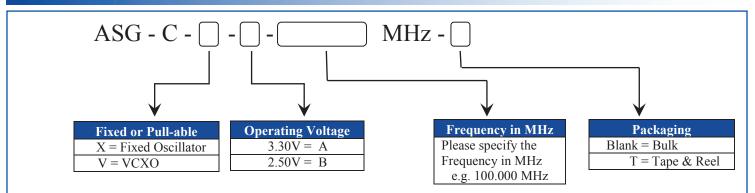


7.0 x 5.0 x 2.0mm

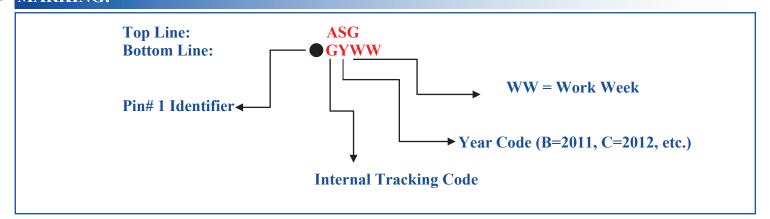




> PART IDENTIFICATION:



> MARKING:





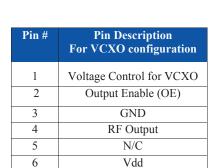


ASG-C Series

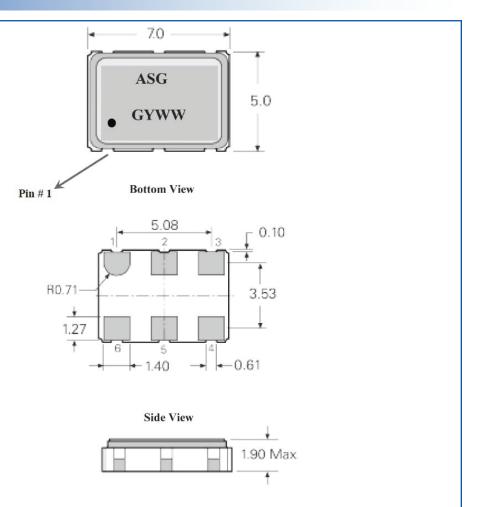




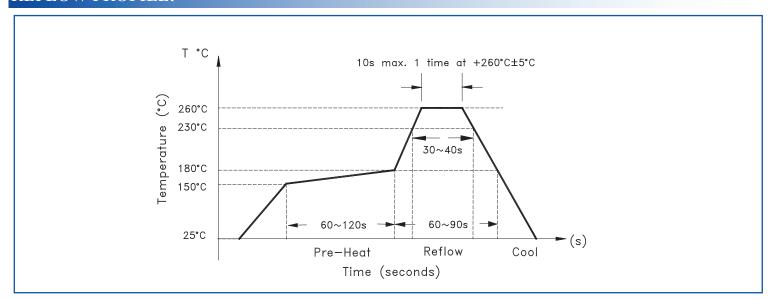
OUTLINE DIMENSIONS:



Pin #	Pin Description For XO configuration		
1	Output Enable (OE)		
2	N/C for XO		
3	GND		
4	RF Output		
5	N/C		
6	Vdd		



REFLOW PROFILE:





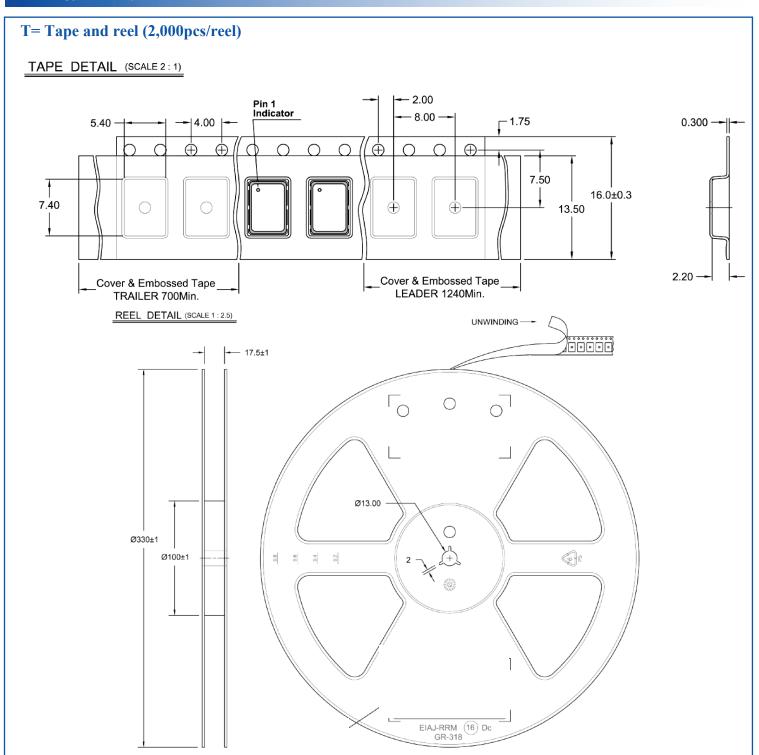


ASG-C Series





TAPE & REEL:



ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.