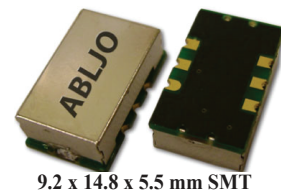


# LOW JITTER CRYSTAL OSCILLATOR



9.2 x 14.8 x 5.5 mm SMT

## ABLJO



**RoHS**  
Compliant

### FEATURES:

- High "Q", 3rd Overtone Crystal Technology
- Ultra Low Jitter performance 0.10 ps Max. (12kHz to 20MHz)
- Standard LVC MOS RF Output
- Wide Operating Temperature (-40°C to +85°C) standard
- ±40 ppm Max. All inclusive Stability (including Aging) over 10-years
- (17) Standard Frequencies between 80MHz & 200MHz
- 9x14mm RoHS Compliant SMT package

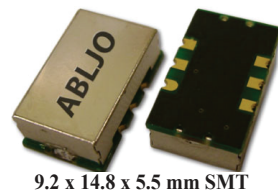
### APPLICATIONS:

- Avionics
- COTS - Military communications
- Low Phase Noise Signal Sources
- High Definition TV
- Test & Measurement
- Ultra Low Jitter RF Communication Circuitry

### STANDARD SPECIFICATIONS

Parameters	Minimum	Typical	Maximum	Units	Notes
<b>RF Output Frequency Range</b>	80.00		200.00	MHz	
Standard Available Frequencies	80.00MHz, 81.920MHz, 92.160MHz, 96MHz, 98.304MHz, 100MHz, 106.250MHz, 120MHz, 122.880MHz, 125MHz, 150MHz, 155.520MHz, 156.250MHz, 160MHz, 184.32MHz, 187.5MHz, and 200MHz				
Supply Voltage	3.135	3.300	3.465	Volts	
<b>Current Drain</b>					
80MHz ~ 99.999MHz			25.00	mA	
100MHz ~ 149.999MHz			30.00	mA	
150MHz ~ 200MHz			40.00	mA	
<b>Waveform</b>	<b>LVC MOS</b>				
V <sub>OH</sub>	0.1*V <sub>dd</sub>			Volts	
V <sub>OL</sub>			0.1*V <sub>dd</sub>	Ω	
Symmetry	45	50	55	%	
Rise & Fall Times			3.0	ns	
<b>Operating Temperature Range</b>	-40		+85	°C	
<b>Frequency Stability</b>					
Over (-40° C to +85°C)			±25.00	ppm	
ALL effects, including Aging			±40.00	ppm	
Storage Temperature Range	-40		+85	°C	
Aging					
First Year			±2.00	ppm	
5-Years			±5.00	ppm	
10-Years			±7.00	ppm	
<b>Phase Noise (100MHz Carrier)</b>					V <sub>dd</sub> =3.3V
@ 10 Hz offset		-70		dBc/Hz	
@ 100 Hz offset		-105		dBc/Hz	
@ 1,000 Hz offset		-135		dBc/Hz	
@ 10,000 Hz offset		-144	-140	dBc/Hz	
@ 25,000 Hz offset		-150	-145	dBc/Hz	
@ 100,000 Hz offset		-155	-150	dBc/Hz	
<b>Integrated RMS Phase Jitter (12kHz ~ 20MHz BW)</b>		75	100	Femto Seconds	0.10 ps Max.

# LOW JITTER CRYSTAL OSCILLATOR



**ABLJO**



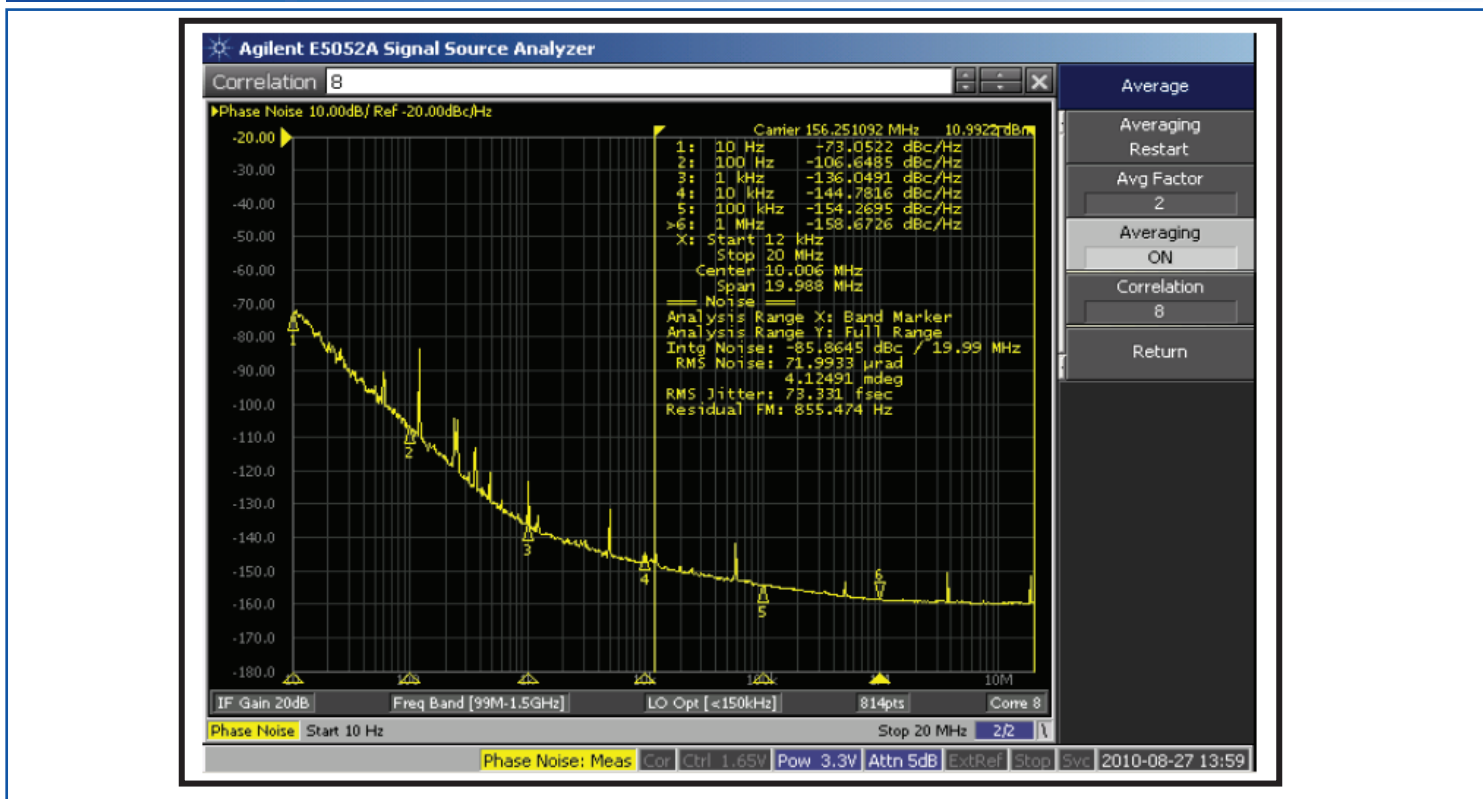
**RoHS**  
Compliant

9.2 x 14.8 x 5.5 mm SMT

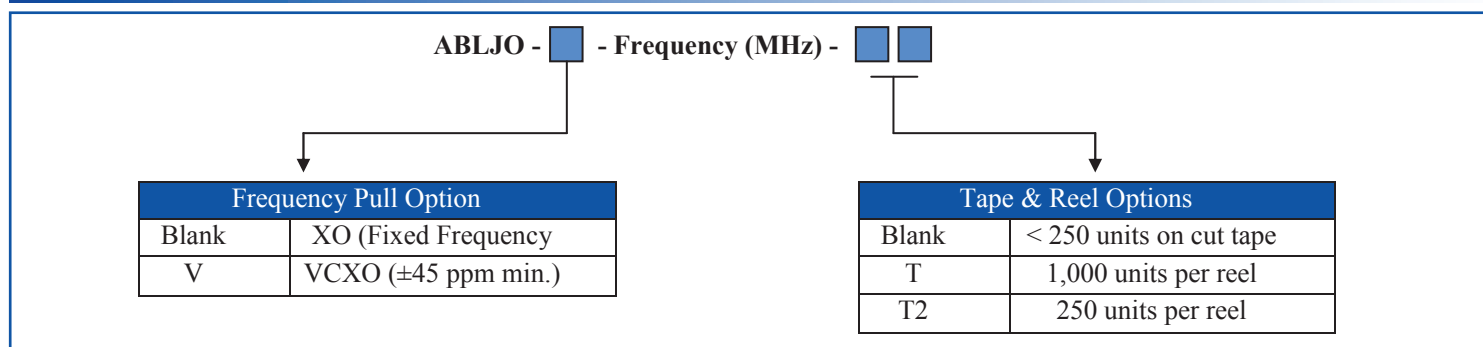
## STANDARD SPECIFICATIONS - continued

Parameters	Minimum	Typical	Maximum	Units	Notes
Electrical Frequency Adjustment					
Control Voltage Range (Vc)	0.0		3.30	<b>Volts</b>	
Frequency Pull Range	±45.00			<b>ppm</b>	
Frequency Pull Slope		Positive			
Control Voltage Port Impedance	10			kΩ	
Center Control Voltage	1.45	1.65	1.85	<b>Volts</b>	
Control Port Linearity			±10	%	

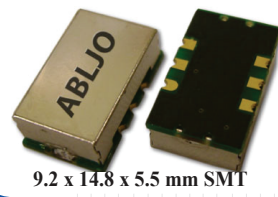
## TYPICAL PHASE NOISE PERFORMANCE @ 156.25MHz CARRIER



## OPTIONS AND PART IDENTIFICATION:



# LOW JITTER CRYSTAL OSCILLATOR

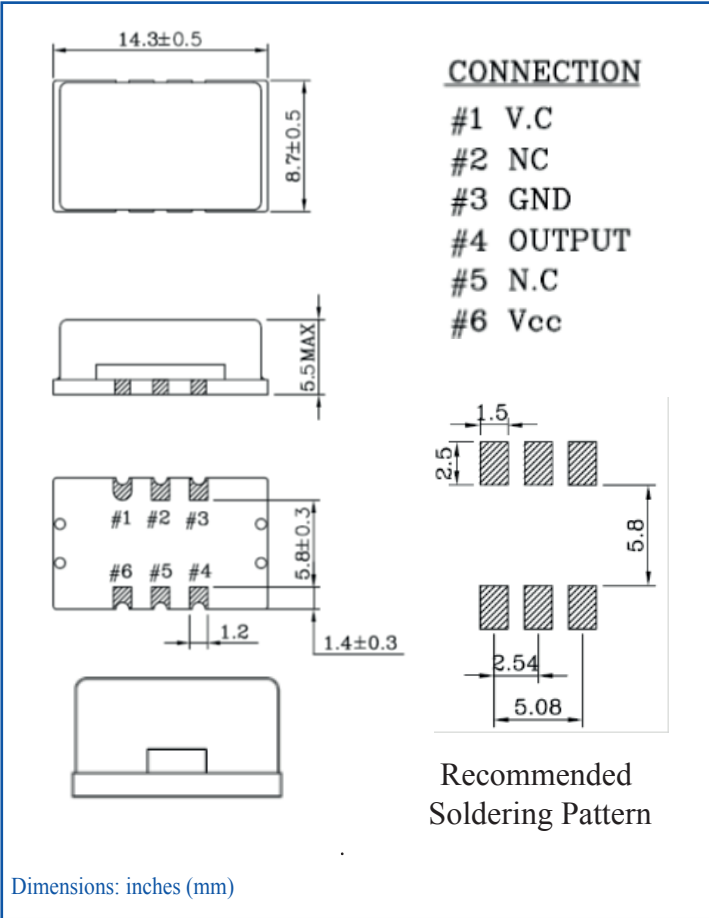


**ABLJO**



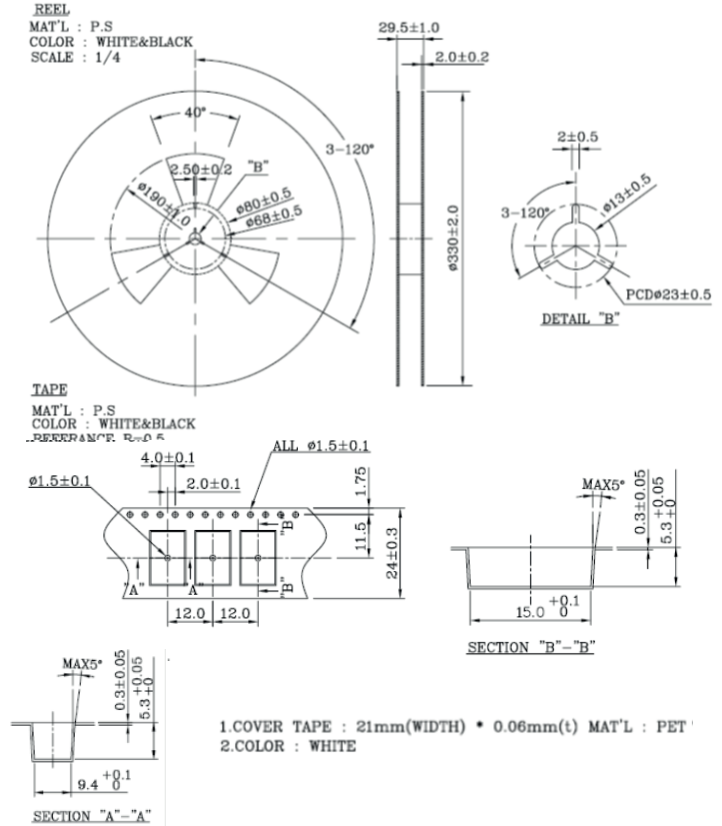
**RoHS  
Compliant**

## OUTLINE DIMENSIONS:

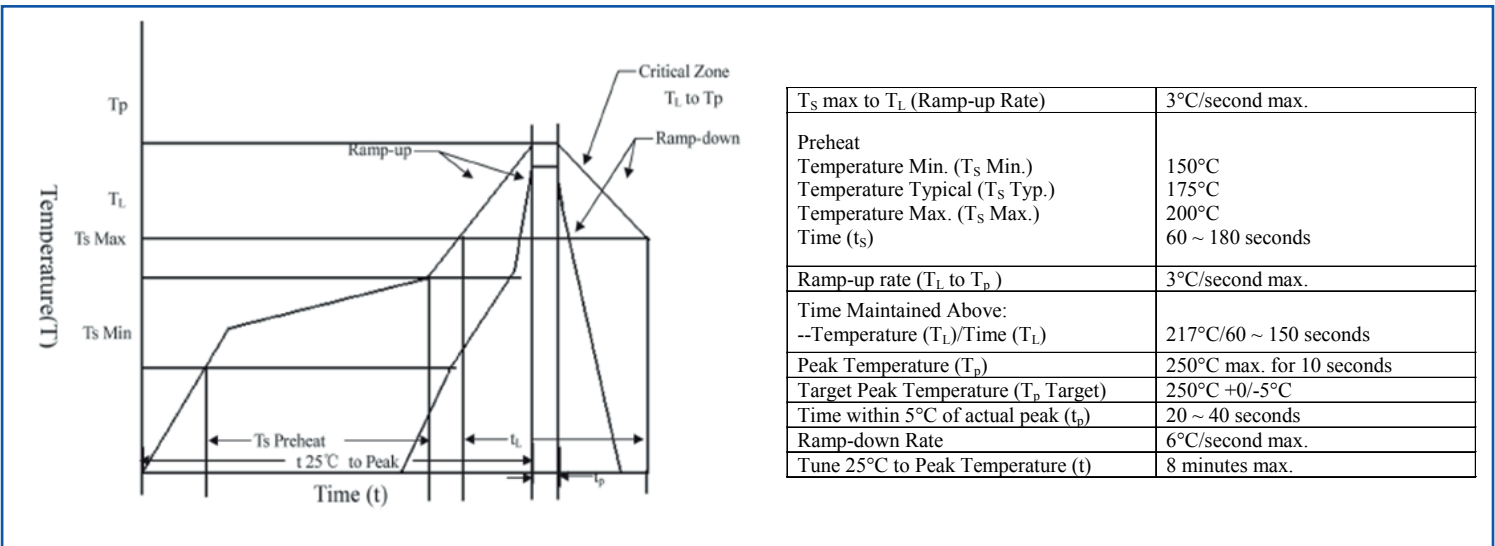


## TAPE & REEL:

(1,000) units per reel standard,  
(250) units per reel available (option # T2)



## REFLOW PROFILE:



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