

## 5 x 3.2mm, Wide Operating Temperature 1.25MHz to 125.0MHz

### FEATURES

- Femto second integrated phase jitter 500fs typical.
- Superior phase noise performance
- Wide operating temperature from -55° to +125°C



### SPECIFICATION

Model Number	XON53 Series			
Output Logic	LVCMOS			
Supply Voltage V <sub>DD</sub>	1.8 V <sub>DD</sub> ±10%	+2.5 V <sub>DD</sub> ±10%	+3.3 V <sub>DD</sub> ±10%	+5.0 V <sub>DD</sub> ±10%
Logic High "1" (90% of V <sub>DD</sub> minimum)	1.62V	2.25V	2.97V	4.5V
Logic Low "0" (10% of V <sub>DD</sub> maximum)	0.18V	0.25V	0.33V	0.5V
Current Consumption (max.)	1.25 ~ 20MHz: 7mA	1.25 ~ 20MHz: 8mA	1.25 ~ 20MHz: 10mA	1.25 ~ 20MHz: 12mA
	20 ~ 60MHz: 12mA	20 ~ 60MHz: 15mA	20 ~ 60MHz: 18mA	20 ~ 60MHz: 20mA
Rise Time (Tr) / Fall Time (Tf)	7 ns max.	7ns max.	10ns max.	10ns max.
	Measured between 10% ~ 90% of wave form (CL = 15pF)			
Load	15pF			
Start-up Time	1.25 ~ 32MHz: 5ms max. ; >32MHz: 10ms max.			
Duty Cycle	Standard: 50%±10% ; Option 50% ±5% (Add "S" after the part number for this option)			
Enable/Disable Function	Enable/Disable function on Pad 1 is standard for XON53 series oscillators			
Phase Jitter (RMS) [25MHz, 3.3V]	500 fs typical (12kHz to 20MHz integrated)			

SSB Phase Noise [25MHz, 3.3V]	Offset	10Hz	100Hz	1kHz	10kHz	100kHz	1MHz	10MHz
	dBc/Hz (typical)		-85	-115	-140	-145	-150	-152
Storage Temperature	-55° to +125°C							
Ageing at 25°C	±2ppm maximum for first year							
Solder Profile	260°C max.							

### ORDERING/PART NUMBER GENERATION

Example: 20.000MHz XON53 050 UMA

Frequency

Series Designation XON53

Stability

050 = ±50ppm over -55° to +125°C  
100 = ±100ppm over -55° to +125°C

Output Universal (LVCMOS)

Operating Temperature Range  
(-55° to +125° (Standard))

Supply Voltage

Blank = 5.0 Volts  
A = 3.3 Volts  
B = 2.5 Volts  
C = 1.8 Volts

### OUTLINE & DIMENSIONS

