



25.4 x 22.1 mm, OVEN-CONTROLLED, HCMOS, SMD, XO

Model: FTM301AH Series**RoHS Compliant (exemption 7c-1) / REACH Compliant****Rev. 6/13/2014**

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• PART NUMBER SELECTION

Part Number	Model Number	Frequency Stability	Frequency Range
845-Frequency-xxxxx	FTM301AH	+10 PPB (-40~+85°C)	5 MHz to 40 MHz
845B-Frequency-xxxxx	FTM301BH	+20 PPB (-40~+85°C)	5 MHz to 40 MHz

• DEVELOPED FREQUENCIES

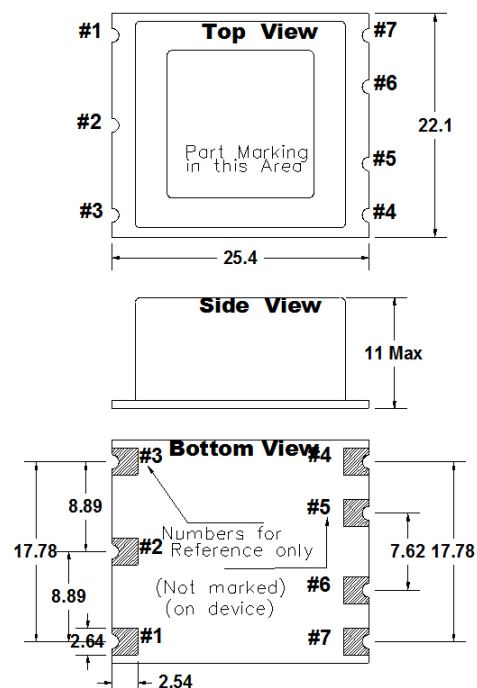
10 MHz	12.8 MHz	15.36 MHz	19.2 MHz
20 MHz	25 MHz	38.88 MHz	

• ELECTRICAL CHARACTERISTICS

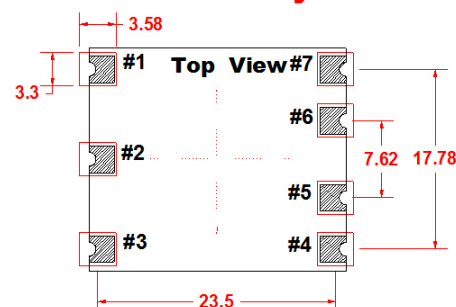
PARAMETERS	MAX (unless otherwise noted)
Frequency Range (Fo)	5.000 ~ 40.000 MHz
Frequency Stability vs.: Operating Temperature (TOPR) Referenced to +25°C after 1 hour Others available - See page 2 Change of VDD (±5%)	±10 PPB ±0.5 PPB
Temperature Range Operating (TOPR) Storage (TSTG)	-40°C ~ +85°C -40°C ~ +85°C
Supply Voltage (VDD) 5V is available - contact Fox	3.3VDC ±5%
Output Load (HCMOS) SineWave is available - contact Fox	15 pF Typ
Output Voltage (VOL) (VOH) Spurious Symmetry	0.1V Typ, 0.4V Max 3.3V Typ, 2.8V Min -60dBc Max 45% / 55%
Frequency Control Slope Pin #2 Reference (VREF into 9k Min) Frequency Change (ΔF) Non-Linearity (0.8V to (VDD) Voltage Control (Vc) Input Impedance (ZIN)	Positive 2.8 ±0.1VDC ±0.7 PPM Min ±10 % 0V to 2.8V 100k Ω Min
Warm up Time (to ±100 PPB) (Referenced to Fo @ 60min after turn-on) Warm-Up Current Operating Power	5 Minutes 1000mA Max 1.2 W Max at 25°C
Aging Short-term Aging (after 30 days) 1 st year Aging (after 30 days) Long Term (10-years ALL effects) Allan Variance 1sec samples	±0.5 PPB / day Max ±50 PPB ±0.4 PPM Max <50 x 10 ⁻¹² /Sec
Phase Noise @ 10 Hz Offset: @ 100 Hz Offset: @ 1 kHz Offset: @ 10 kHz Offset:	-120 dBc/Hz Max -135 dBc/Hz Max -145 dBc/Hz Max -155 dBc/Hz Max
Mosisture Sensitivity Level (MSL)	1
Termination Finish	Au
Weight (Typical)	5.7 grams
Reflow Limits	+260°C Max, 10"s

FEATURES

- SMD
- 3.3V Operation (5V Avail)
- HCMOS Output



Recommended Solder Pad Layout



Pin Connections

#1 V _C	#4 RF Output
#2 V _{REF}	#5 Not Connect
#3 V _{DD}	#6 Not Connect
	#7 GND / Case



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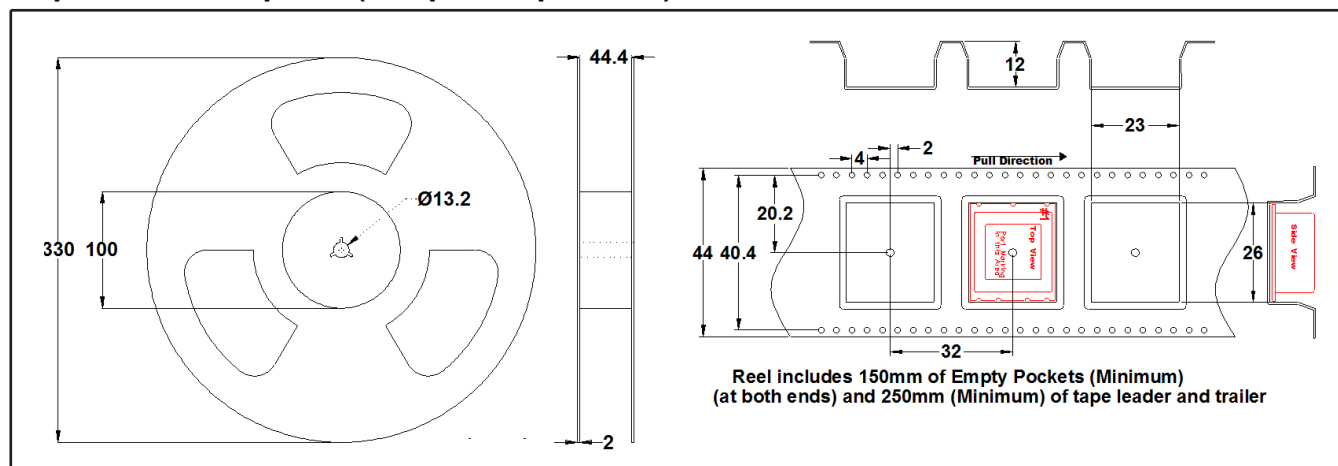
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• Other Stabilities Available

Stability Temperature	±5 PPB	±10 PPB	±20 PPB
0 ~ +70°C	○	○	○
-30°C ~ +70°C	Δ	○	○
-40°C ~ +85°C	Δ	○	○

Key: ○ = Available, Δ = Conditional, consult Fox

•Tape and Reel Specs: (150 pieces per Reel)



•Vc Adjustment Circuit:

