



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

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

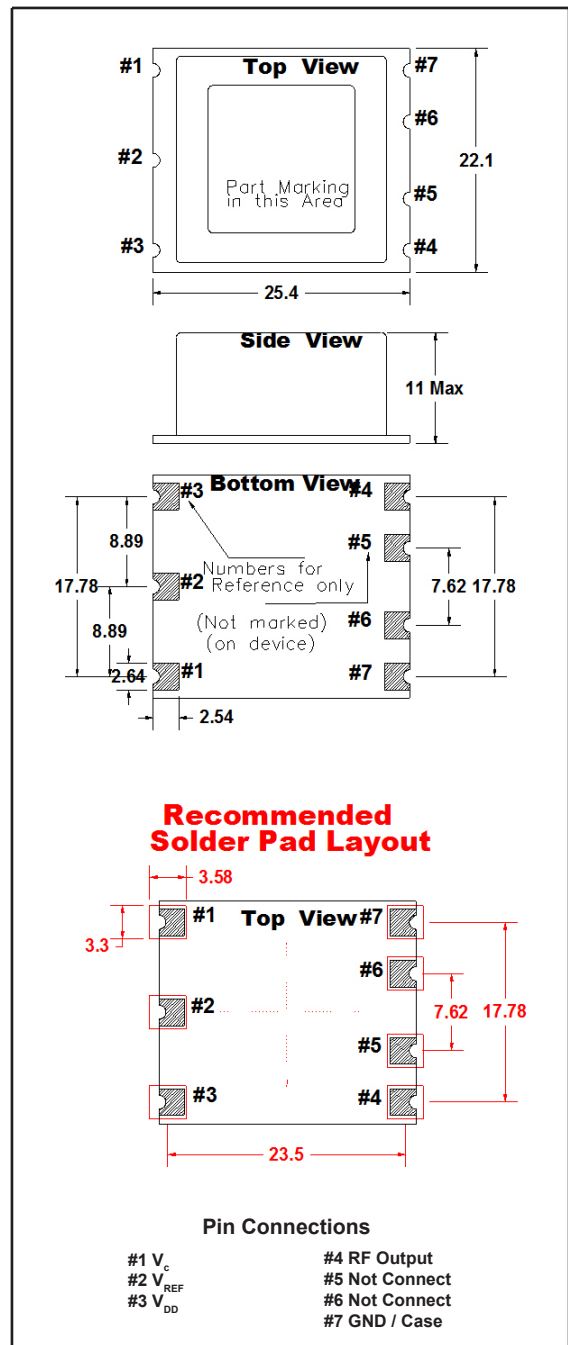
10 MHz	12.8 MHz	15.36 MHz	19.2 MHz
20 MHz	25 MHz	38.88 MHz	

## • ELECTRICAL CHARACTERISTICS

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

## FEATURES

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





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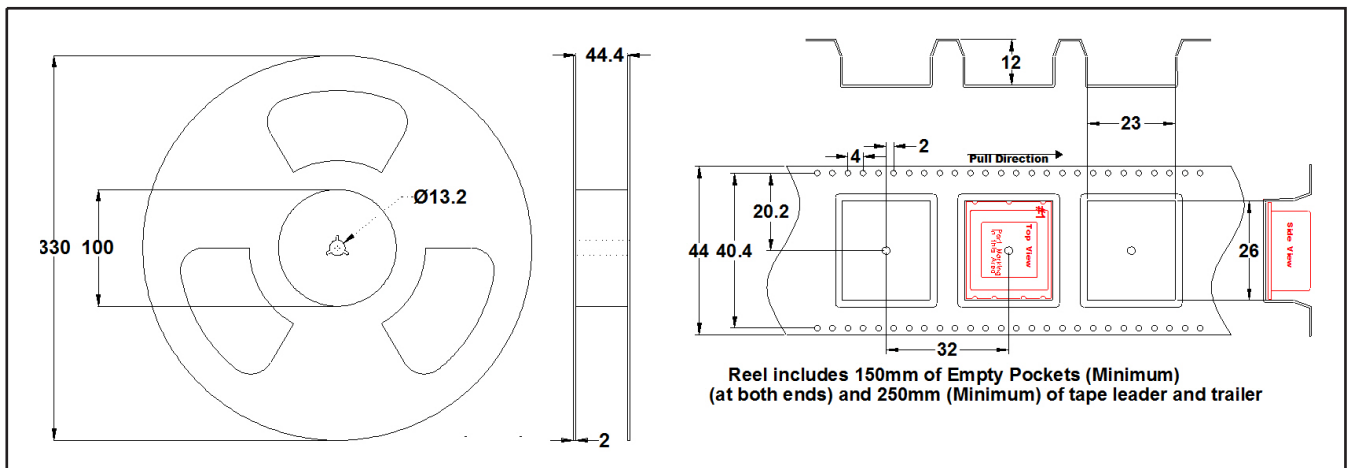


## • Other Stabilities Available

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:

