



Static sensitive device

Current part - Recommended for new designs

Frequency Stability Options

Operating Temperature Range		Frequency Stability (PPM)		
		±25	±50	±100
Standard	-0°C to +70°C	AS	BS	CS
Industrial	-40°C to +85°C	AI	BI	CI

Marking & Specification Code Format

Type	Voltage Code	OTR/Stability	Frequency	WWYY
HB431	1, 2 or 3	See Above	ie 175.0000	1611

Operating Conditions

Storage Temp	-55°C to +125°C
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Option Codes

Supply Voltage	Option Code
+3.3V DC	3
+2.5V DC	2
+1.8V DC	18

Electrical Characteristics Ta = +25°C, ^{Note}Inclusive of V_{DD} ±10%, Load Change ±10%, Ageing, Shock & Vibration

Parameter	Condition	Value		
Supply Voltage		1.8V ±10%	2.5V ±10%	3.3V ±10%
Frequency range		1.0 - 110.0MHz	1.0 - 166.0MHz	1.0 - 200.0MHz
Duty Cycle	@50% V _{DD}	50% ±5%		
Output Voltage	"1" Level	90% of V _{DD} Min.		
	"0" Level	10% of V _{DD} Max.		
Supply Current	Ref. to	2.5mA Max. (15pF)	3.0mA Max. (15pF)	4.0mA Max. (15pF)
PLL Off: Supply Current	25.0MHz	2.0mA Max. (15pF)	2.5mA Max. (15pF)	4.0mA Max. (15pF)
Supply Current	Ref. to	8.0mA Max. (15pF)	13.0mA Max. (15pF)	20.0mA Max. (15pF)
PLL On Supply Current	200MHz	8.5mA Max. (15pF)	12.5mA Max. (15pF)	20.0mA Max. (15pF)
Rise/Fall Time		4ns Typ. (25MHz PLL Off)	3ns Typ. (25MHz PLL Off)	3ns Typ. (25MHz PLL Off)
		1.5ns Typ. (200MHz PLL On)	1.5ns Typ. (200MHz PLL On)	1.5ns Typ. (200MHz PLL On)
Start Up Time	0V to V _{DD}	10ms Max.		
Load		15pF		
Ageing		±3PPM 1st year Max	±2PPM/Yr Max after 1st year	
Input Static Protection		+2kV Min.		
Reflow Solder Condition		260°C 10 seconds Max.		

- **Short Lead Time - Typically within 1 Week**
- **Low Jitter p-p period jitter is 70ps Typical**
- **Low Phase Noise: -114dBc/Hz at -1kHz offset (133MHz)**

Dimensions (mm)

