

<b>Specification</b>	<b>AXIS30</b>	Issue: 08	Date: 2008-01-25
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**Oscillator type :** Wideband VCXO with low jitter  
**SMD replacement of Fujitsu M2 (F100)**

Parameter	min.	typ.	max.	Unit	Condition
<b>Frequency range</b>	10		90	MHz	
<b>Standard frequencies</b>	12.288 / 16.384 / 22.579 / 24.576 / 27.000 / 28.224			MHz	
<b>Frequency stability</b>				ppm	
Initial tolerance				ppm	
vs. temperature in operating frequency range -20°~+70°C (see Note 2)			± 80	ppm	
vs. supply voltage variation	-10		10	ppm	
vs. load change	-5		5	ppm	
long term (aging) 1 <sup>st</sup> year	-10		10	ppm	@ 40°C
Aging following years	-5		5	ppm	@ 40°C
<b>Frequency adjustment range</b>					
Electronic Frequency Control (EFC) range *see Note 3	± 500		± 1100	ppm	Option 2 = “ ”
	± 500		± 1600	ppm	Option 2 = “500”
	± 1000		± 2100	ppm	Option 2 = “1000”
	± 1500		± 2600	ppm	Option 2 = “1500”*
	± 2000		± 3200	ppm	Option 2 = “2000”*
	± 2500			ppm	Option 2 = “2500”*
	± 3000			ppm	Option 2 = “3000”*
EFC voltage V <sub>C</sub>	0.25		4.75	V	Option 1 = “50” (5 V)
	0.15		3.15	V	Option 1 = “33” (3.3 V)
EFC slope (Δf / ΔV <sub>C</sub> )	positive				
EFC input impedance	100			kΩ	
<b>RF output</b>					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time			10	ns	
Symmetry (duty cycle)	40		60	%	@ V <sub>S</sub> /2
Start-up time			4	ms	
Supply voltage V <sub>S</sub>	4.75	5.0	5.25	V	Option 1 = “50” (5 V)
	3.13	3.3	3.47	V	Option 1 = “33” (3.3 V)
<b>Current consumption</b> (steady state)			40	mA	@ +25°C
<b>Operable temperature range</b>	-45		+90	°C	
<b>Storage temperature range</b>	-50		+95	°C	
<b>Enclosure</b> (see drawing)	14.4x9.5x6 max			mm	IEC 61837 CO 27
<b>Weight</b>			3	gram	
<b>Packing</b>	Tape & reel				IEC 60286-3
<b>ESD Sensitivity</b>	1500			V	HBM as in IEC 61000-4-2

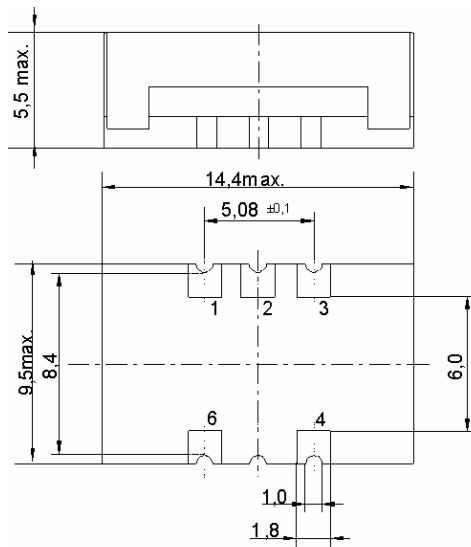
**Notes:**

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Frequency vs. temperature response is a 2<sup>nd</sup> order parabola with turn-over point around +20°C to +30°C
3. \*Pulling Range Option 2 = “1500” or larger only possible with EFC voltage 0.25V ~ 4.75 V

**Ordering Code:**

Model (Specification)	Option 1	Option 2	Frequency [MHz]
	Supply	Pulling Range	
AXIS30	50	500	28.224

## Enclosure drawing



## Pin connections

Pin #	Symbol	Function
1	VC	Control Voltage (EFC)
2	N.C.	No connection
3	GND	Ground
4	RF OUT	RF Output (see table)
6	Vs	Supply Voltage

## Environmental conditions:

Test	IEC 60068 Part ...	IEC 60679-1 clause ...	Test conditions
Visual inspection, dimensions		4.3	Enclosure styles as in IEC 60679-3 or 61837, if applicable
Solderability Resistance to soldering heat	2-20 2-58	4.6.3	Test Ta (235 ± 5)°C Method 1 Test Tb Method 1A, 5s
Shock*	2-27	4.6.8	Test Ea, 3 x per axes 100g, 6 ms half-sine pulse
Vibration, sinusoidal*	2-6	4.6.7	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Endurance tests - ageing - extended aging		4.7.1 4.7.2	30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C