

<b>Specification</b>	<b>AXIOM260-500</b>	Issue: 01	Date: 2008-09-22
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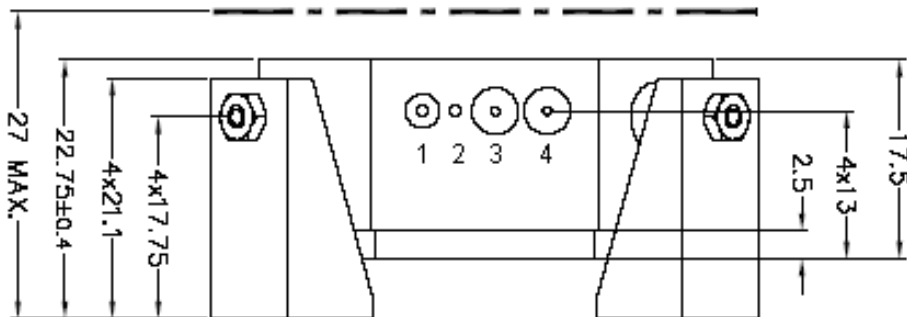
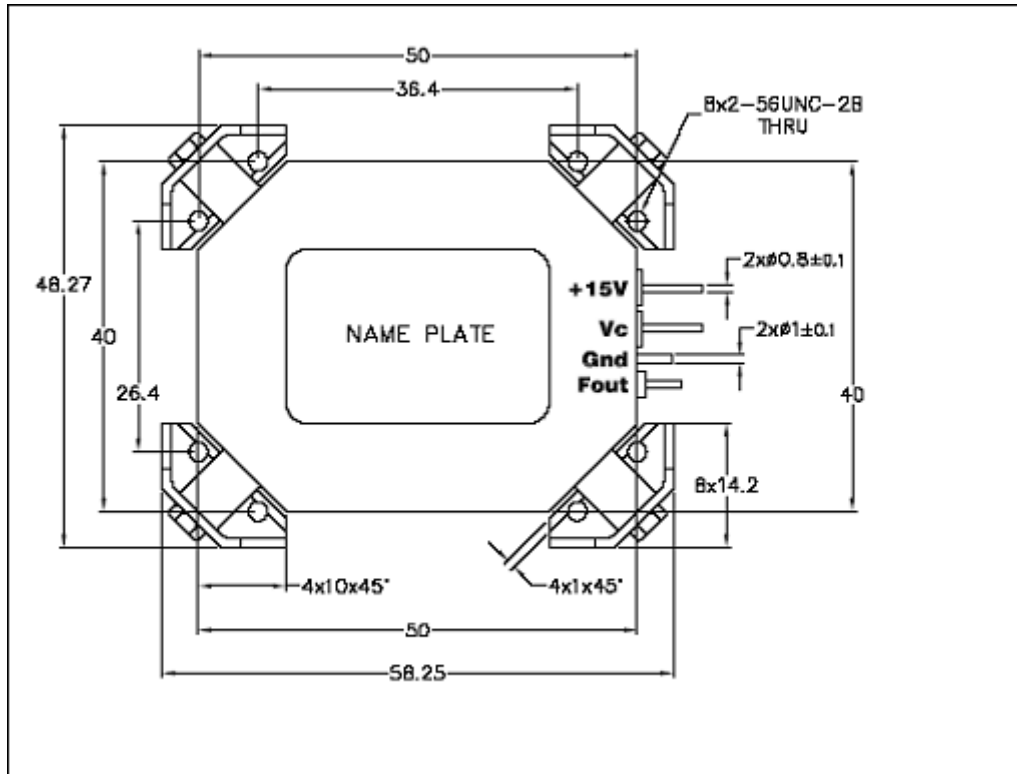
**Oscillator type : OCXO with Low Phase Noise under Vibration**

Parameter	min.	typ.	max.	Unit	Condition
<b>Nominal frequency</b>	100.000			MHz	@V <sub>C</sub> = 0 V
<b>Frequency stability</b>					
Initial tolerance at delivery			± 0.5	ppm	@+25°C @V <sub>C</sub> = (2.5± 0.25) V
vs. temperature in operating temperature range			± 2.0	ppm	-40°C~+75°C
vs. supply voltage variation			± 100	ppb	V <sub>S</sub> ± 5%
vs. load change			± 100	ppb	R <sub>L</sub> ± 5%
Long term (aging) over 10 years			± 2	ppm	
<b>Frequency adjustment range</b>					
Electronic Frequency Control (EFC)	± 1.5			ppm	
EFC voltage V <sub>C</sub>	0	2.5	5	V	
EFC slope (Δf / ΔV <sub>C</sub> )	positive				
EFC input impedance	50			kΩ	
<b>RF output</b>					
Signal waveform	Sine wave				
Load R <sub>L</sub>	50			Ω	
Output level	+5	+7	+9	dBm dBm dBm	
Harmonics				dBc	
Spurious				dBc	
Warm-up time			4	min	Δf/f <sub>0</sub> < ± 0.5 ppm
Phase noise in quiet state		-115 -145 -155 -160		dBc/Hz dBc/Hz dBc/Hz dBc/Hz	@ 100 Hz @ 1kHz @ 10 kHz @ 100 kHz
Phase noise under vibration (vibration spectrum see table III)		-85 -136 -145 -155		dBc/Hz dBc/Hz dBc/Hz dBc/Hz	@ 100 Hz @ 1kHz @ 10 kHz @ 100 kHz
<b>Supply voltage V<sub>S</sub></b>	7.6	8	8.4	V	
<b>Power consumption</b> (steady state)			2.5	W	@ +25°C
<b>Power consumption</b> (warm-up)			5.0	W	
<b>Operating temperature range</b>	-40		+75	°C	
<b>Operable temperature range</b>	-45		+80	°C	
<b>Storage temperature range</b>	-55		+105	°C	
<b>Enclosure</b>	58.25 x 48.27 x 22.75			mm	see drawing
<b>Weight</b>				gram	Including shock absorbers

**Notes:**

1. Terminology and test conditions are according to IEC standard IEC60679-1 and MIL-PRF-55310, unless otherwise stated

**Enclosure drawings**



**Pin connections**

Pin #	Symbol	Function
1	RF OUT	RF Output
2	GND	Ground, case
3	V <sub>C</sub>	Control Voltage (EFC)
5	V <sub>S</sub>	Supply Voltage

Table 2: pin connections

### Environmental conditions

Test	Reference	Test conditions
Mechanical shock	MIL-STD-810E Method 561.4	Procedure I, VI
Vibration, random	MIL-STD-810C Para 3.2.24.5	20 Hz 0.04 g <sup>2</sup> /Hz 1000 Hz 0.04 g <sup>2</sup> /Hz 2000 Hz 0.01 g <sup>2</sup> /Hz All three axes 7.6 g r.m.s.
Endurance tests (ageing)	MIL-PRF55310	30 days operation @25°C

Table 3: Environmental conditions