



CHASSIS

Obsolete Product - for Reference Only

VXIbus Chassis Models 1261A/E & 1261A/R



- Built-in Frequency Standards With Up to 5 Outputs
- Frequency Outputs Available — 1, 5, 10MHz and 1PPS
- Built-in High-stability Oven Oscillator - 1261A/E or Built-in Rubidium Vapor Oscillator--1261A/R
- Monitor and Alarm for Output Presence and Rubidium Lock
- Ability to Lock Stability to CLK10 and Distribute on VXIbus Backplane

Built-in Reference

These two VXIbus mainframe configurations offer significant cost savings over a mainframe with an external frequency standard and distribution system.

Model 1261A/E incorporates a high-stability oven oscillator with aging characteristics of 5×10^{-10} per day. Model 1261A/R features a rubidium standard with stability of 5×10^{-11} per month. Both mainframes provide distribution of the standard through as many as 5 buffered outputs. This permits the Slot 0, VXIbus

modules, and external rack-and-stack instruments to be locked to one accurate standard.

Output Monitor

Both models feature monitoring capability that senses each reference output, sounds an alarm and implements a GPIB SRQ if any of the signals are lost. The 1261A/R also monitors the rubidium lock signal. These alarms alert the user to any situation where the frequency standard is not available, warning that system accuracy may be affected.

Since oscillators require continuous power to maintain accuracy, a standby source is provided when the chassis is powered down. For the 1261A/E, the 5V power required for the oven oscillator is sourced from the internal power supplies. When in this mode, the mainframe will display the message "Standby" on the front panel. Standby power for the 1261A/R (22V-28V) is input by the user via a jack on the chassis rear panel, thus assuring continuous warming of the oscillator.

1261A/E and 1261A/R Specifications

OUTPUTS

Quantity

3 standard, 2 additional as options

Frequency/Level

1MHz, 5MHz, 10MHz (select in any combination)

1Vrms/50W

Optional TTL/CMOS compatible

1 PPS (available as one of additional outputs)

TTL/CMOS compatible

Protection

Short circuit

500 mW reverse power

Location

50Ω BNC connectors on rear panel

Cutout in cable tray for front panel access

OSCILLATORS

High Stability Oven Oscillator

Stability

$\leq 5 \times 10^{-10}$ /day (avg. over 10 days)

$\leq 1 \times 10^{-8}$ /day after 3 mos.

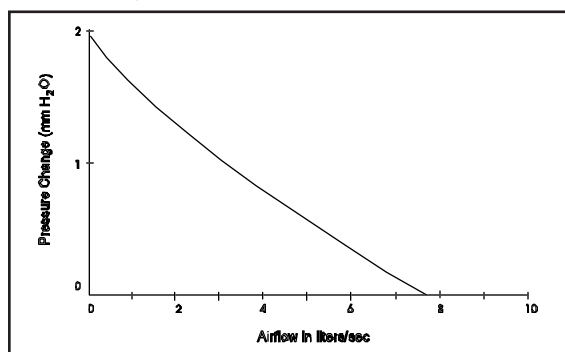
$\leq 2 \times 10^{-7}$ in first year

Adjustment range (accessible to rear panel)

Coarse: $\pm 1 \times 10^{-6}$ min.

Fine: 1×10^{-7} min.

Setability: 1×10^{-9} min.



Cooling Curve

Rubidium Vapor Oscillator

Accuracy: 1×10^{-9} /year

Stability: $\leq 4 \times 10^{-11}$ /day (after 1 hour stabilization at $+25^{\circ}\text{C} \pm 3^{\circ}\text{C}$)

$\leq 5 \times 10^{-11}$ /mo. (after 1 month continuous operation)

Warm-up: ≤ 4 minutes to reach 1×10^{-9} at 25°C ambient

Retrace: 2×10^{-11} after 1 hour power on at $+25^{\circ}\text{C}$ and up to 48 hrs. power off

Setting Resolution: 1×10^{-11}

Monitor

Option P is standard on chassis with built-in oscillators Additional alarm conditions:

Output(s) not present

Lock (rubidium option only)

Standby enabled

24V not present (rubidium option only in standby)

Standby

Oven oscillator standby power derived from internal power supplies
Rubidium oscillator standby power requires external 22V-28V (2A) source input to rear panel connector

GENERAL

Dimensions

Option installed inside 1261AM or 1261AH chassis

Footprint is identical to standard chassis

Weight

(above standard 1261AM or 1261AH chassis)

Oven Oscillator: additional 1lb.

(.45kg)

Rubidium Oscillator: additional

2lb.(.91kg)

Temperature

(chassis ambient)

Operating:

Oven Oscillator: 0°C to $+50^{\circ}\text{C}$

Rubidium Oscillator: 0°C to $+40^{\circ}\text{C}$

Storage:

Oven Oscillator: -40°C to $+70^{\circ}\text{C}$

Rubidium Oscillator: -40°C to $+70^{\circ}\text{C}$

Ordering Information 1MHz, 5MHz or 10MHz

High Stability Oven Oscillator

1261AM/E: 407195 - FF-FF-FF

[FF refers to frequency: 1MHz (01), 5MHz (05) or 10MHz (10)]

1261AH/E: 407193 - FF-FF-FF

Rubidium Oscillator

1261AM/R: 407196 - FF-FF-FF

1261AH/R: 407194 - FF-FF-FF

Additional Outputs

1MHz/5MHz/10MHz Output Kit:

405079 - FF

1PPS Output Kit: 407198

All 1261A Chassis Options Available

All chassis specifications the same as the Model 1261A

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ORDERING INFORMATION

Model	Description	Part Number
1261AH/E	VXI Chassis with Internal High Stability Oven Oscillator (specify 3 outputs)	407193
1261AH/R	VXI Chassis with Internal Rubidium Oscillator (specify 3 outputs)	407194
1261AM/E	VXI Chassis with Internal High Stability Oven Oscillator (specify 3 outputs)	407195
1261AM/R	VXI Chassis with Internal Rubidium Oscillator (specify 3 outputs)	407196



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