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IMS - XHERb: External Holdover Expansion

PRS10 Rubidium Oscillator

The Meinberg XHERb chassis adds superior holdover performance to the Meinberg IMS time and frequency systems. It contains either one or two PRS10 Rubidium modules from Stanford Research and can be equipped with dual power supplies for each Rubidium module.

The module will be connected to the reference clock of the associated IMS chassis and the Rubidium will be steered as long as the reference clock is synchronized.

In case the reference clock loses its sync source, the XHE chassis provides the sync reference for IMS chassis based on its holdover performance.

Key Features

- XHERb unit provides holdover synchronization reference for connected IMS unit
- Holdover duration: 72 hours at stratum 1 level performance

Characteristics

Dimensions of the front panel	14HP/3U (70mm x 128mm)
Electrical Connectors	64 pin rear VG edge connector DIN 41612
Frequency Retrace	$\pm 5E-11$ (72 hrs. off then 72 hrs. on)
Power Consumption	Power Consumption Single Rubidium Module (typ.): during Warm Up ca. 80 W during Operation ca. 30 W
Operating Voltage	2 x AC/DC Power Supply: UN = 100-240 V AC (50/60 Hz) / 110-240 V DC Umax = 90-253 V AC / 100-330 V DC or 2 x DC Power Supply: UN = 48 V DC Umax = 20-60 V DC or AC/DC DC Combination Power Supply
Oscillator Aging	Aging (after 30 days): monthly: 5E-11 yearly: 5E-10
Board Dimensions	160 mm x 100 mm, 1,5 mm Epoxy
Warm Up Time	< 20 minutes (time to 1E-9)
Temperature Drift	+/- 1E-10 (-20°C...65°C)
Short Term Stability (Tau = 1 sec)	(Allan Variance) < 2E-12 (100 s)
Physical Dimensions	483mm x 132mm x 275mm / Width x Height x Depth
Supported Temperature	0 ... 40 °C
Supported Humidity	Max. 85 % (non-condensing) at 40 °C
Technical Support	Meinberg offers free lifetime technical support via telephone or e-mail.
Warranty	Three-year warranty
RoHS Status of Product	This product is fully RoHS-compliant.
WEEE Status of Product	This product is handled as a B2B (Business to Business) category product. To ensure that the product is disposed of in a WEEE-compliant fashion, it can be returned to the manufacturer. Any transportation expenses for returning this product (at end-of-life) must be covered by the end user, while Meinberg will bear the costs for the waste disposal itself.

Manual

The English manual is available as a PDF file: [1][Download \(PDF\)](https://www.meinbergglobal.com/download/docs/manuals/english/xhe-rb.pdf)

Links:

[1] <https://www.meinbergglobal.com/download/docs/manuals/english/xhe-rb.pdf>