MHT Technology Ltd's Hardware

Mini Receiver

MHT Technology Ltd

Digital Transformation with Human Design

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The Mini Receiver consolidates devices from multiple vendors into a single unit for cost-effective bulk liquid storage.

Learn more about our scalable, open solution suitable for depots, terminals, and refineries.

Launched in 2006

Trusted by customers for over 7 years

575 Mini Receivers in use across the world

Supports up to 400 devices and 20 ports.

Overview

The Mini Receiver is designed to keep our customer's site's running as efficient and cost-effective as possible. It is a smartly compact tank gauging and tank inventory management system, suited for tank farms of any size using various communication protocols for their installed field devices.

MHT's Mini Receiver 'mark 1' was first launched in 2006, revolutionising the industry by enabling sites to have more freedom in their suppliers and eliminating 'vendor lock-in.' Since then we have continued to innovate by developing the latest version 'the mark 3' in 2013 which directly interfaces up to 400 devices simultaneously.

The Mini features a full graphical LCD touch screen for accessibility, a choice up 8 or 20 configurable serial communication ports that can serve as host or field ports, full inventory calculations to API/ASTM standards and an OPC Data Access Server.

In addition to being a small tank inventory management system, it can be used as a foreign device gateway to higher-level DCS and site-wide business information systems by providing an open interface to older legacy and proprietary protocols and interfaces.

The Mini is available in a choice of enclosure materials, the stainless steel option is suitable for wall mount applications, and the aluminium option is suitable for installation within standard 19-inch rack cabinets.

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Key Features

Different gauage commands

The display can also be used to invoke a range of gauge commands which include Servo Check / Test, Stow / Lock, Unstow / Unlock, Water Dip and Density /Temperature Profile.

Networking functionality

The 20 port Mini features dual ethernet ports, allowing redundancy at the network level with autosensing connection which can be configured for different IP addresses. A web server can provide a comprehensive view of tank data to desktop browsers connected to the network.

Configurability

Data can be displayed on innovative 7” touch screen display that are customisable to suit individual site requirements and configure audible alarms.

Reliability

All firmware is stored on a flash drive for maximum reliability, and integrated tools used to create custom configurations that suit individual site requirements are included as standard with each Mini Receiver.

Service monitoring

An internal watchdog can be enabled to monitor the operation of critical services and should any fail, the system can be configured to automatically restart, ensuring maximum up-time.

Flexibility

Different vendors tools can also be utilised to configure gauges by tunneling through the Mini Receiver.

Communication options

The wall-mount Mini Receiver offers a maximum of 8 serial communication ports and the rack-mount options can accommodate either 8 or 20 serial communication ports. Each option has standard RS-232 / RS-422 / RS-485 serial ports available to be configured for host interfaces.

Compatability

The Mini Receiver can also be used as a foreign device gateway to higher level DCS and site wide business information systems by providing an open interface to older legacy and proprietary protocols and interfaces.

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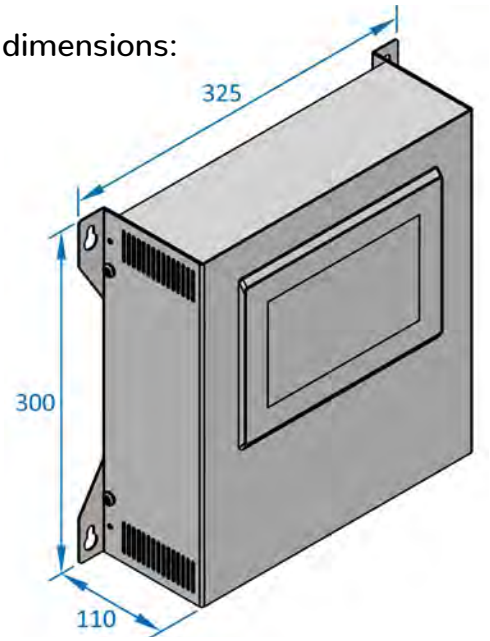
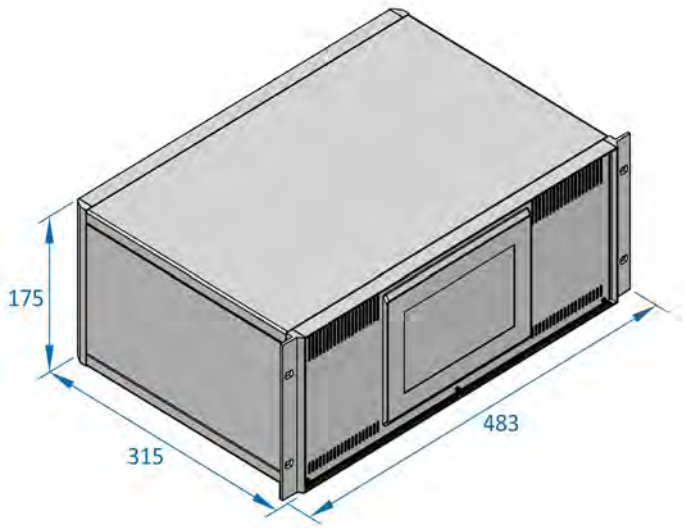
System Architecture

The Mini can be supplied as a standalone unit, a larger system or as a redundant pair. All models support a fully redundant architecture. If two identically configured Mini Receivers are booted up, one will automatically assume the function of being the master. The master Mini Receiver will poll for data whilst the slave Mini Receiver polls the master for the data. If communication is lost, the slave Mini Receiver will automatically take over.

External dimensions:





CPU: **8 port options** **20 port option**	 AMD Geode™ LX800 500Mhz Intel Celeron 1.58Ghz
Memory: **8 port options** **20 port option**	 2 GB RAM 4 GB RAM
Disk: **8 port options** **20 port option**	 2GB Compact Flash as C drive 1 GB on HDD module as D drive 8 GB on HDD module as C and D drive
Operating system: **8 port options** **20 port option**	 Windows Embedded Standard 2009 Windows 7 Embedded
Optional display:	7” widescreen module, 640 x 480 px
Input:	Touch screen keyboard
Serial comms:	RS-232, RS-422, RS-485, Enraf BPM, TRL/2, Current Loop, Mark / Space, Scientific Instruments, Contrec SLIP, GPE, Hectronic, L&J Tankway, HART®
Weight:	4.5 - 6 kgs

Ethernet: **8 port options** **20 port option**	 1 port, 10/100 Mbps, auto-sensing 2 ports, 10/100 Mbps, auto sensing
Power supply:	100-240 Vac
Power consumption:	8-port 50 W 20-port 70 W
USB:	2 external ports, USB 2.0 compliant
Comms status:	Tx / Rx LEDs for each port
IP rating:	IP20
Operating temperature:	0 to 40 ºC
Storage temperature:	0 to 85 ºC
Mounting:	To suit M6 bolts, four positions
Host interface support:	Modbus TCP via Ethernet, Modbus RTU Slave, OPC Data Access Server, Enraf ASCII Host, Whessoe ASCII Host, ‘Saab’ TankMaster

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