

MOTOROLA ACE1000

INTRODUCTION PPT

support@ebipax.com

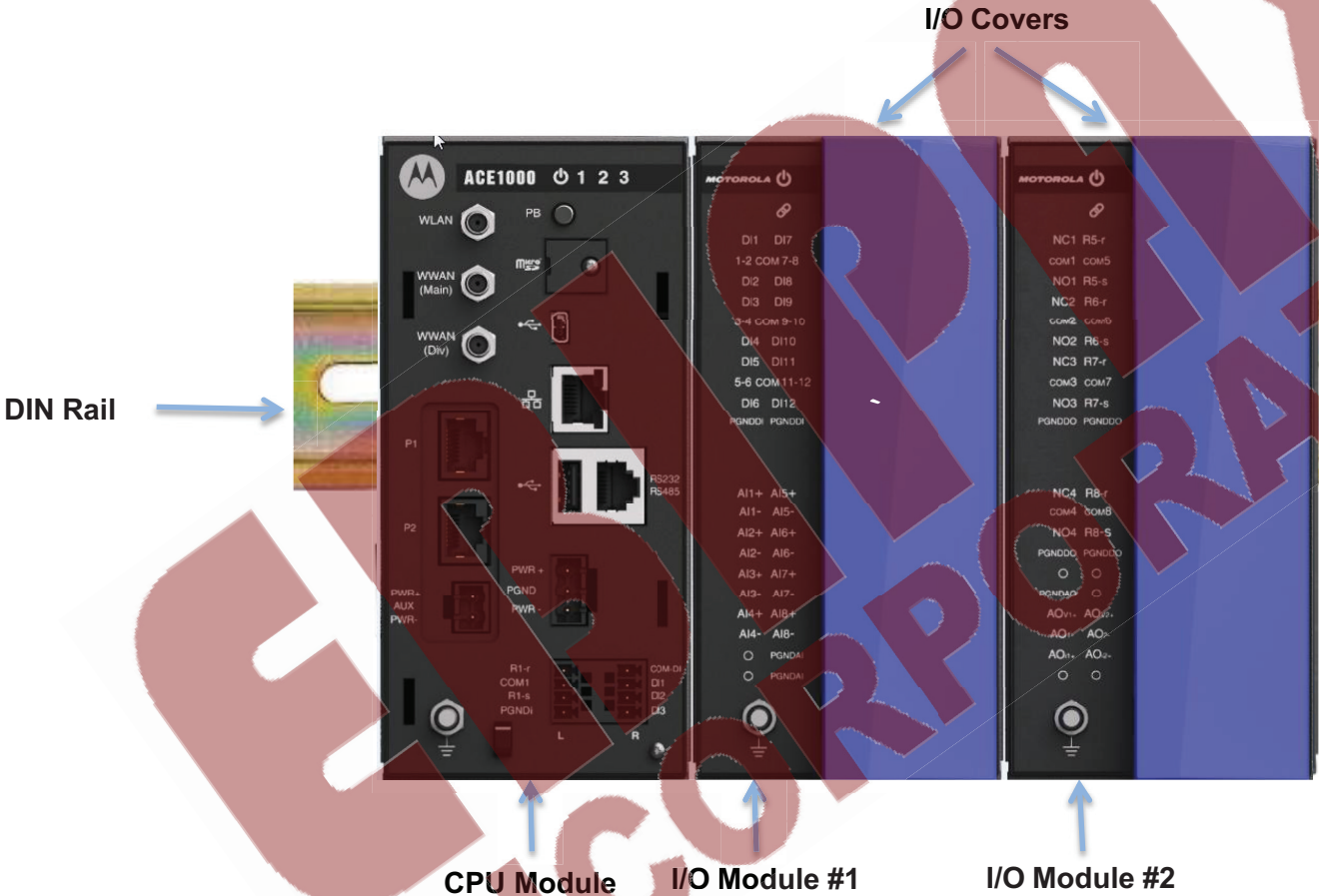
ACE1000 RTU - BUILDING BLOCKS

EBIFAX
INCORPORATED



ACE1000 – CONSTRUCTION

EBIPAX
INCORPORATED



ACE1000 – CONSTRUCTION



CPU MODULE

EBIPAX
INCORPORATED

WLAN Reverse Polarity SMA Connector
Optional (Future):
WLAN module

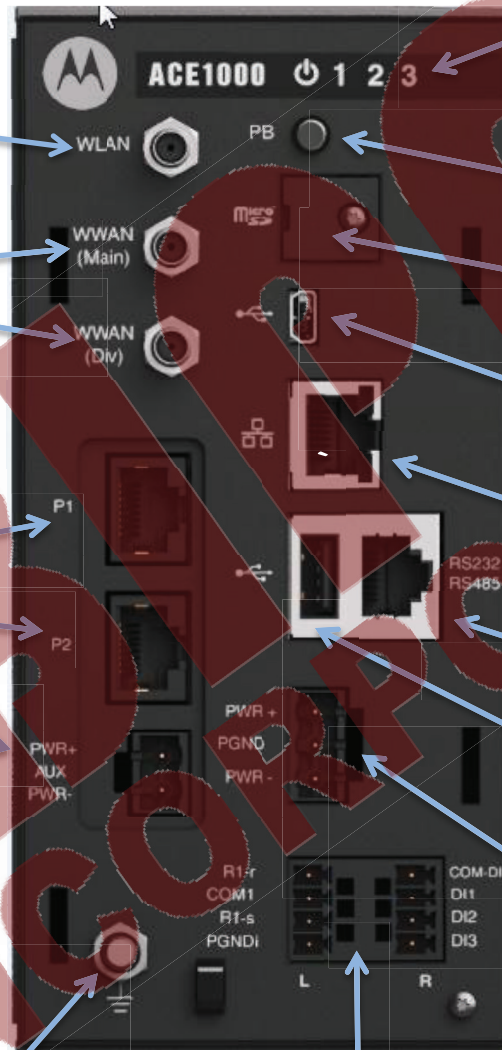
4G MIMO SMA Connectors
Optional (Future)
Cellular modem

Plug-In Board
2x RS232 (isolated) +

AUX out (configurable:
5v,7.5v,9.5v,12v,Input)

Future: Analog radio
UART, Ethernet , USB,
CAN

Grounding Screw



CPU I/Os
3 X DI
1 XDO

Power/Error and Local I/O Indication LEDs

Local LED indication can be toggled between DI state and DO state (using "Pushbutton")

Pushbutton

Micro SD Card
For local logging,
user usage

USB OTG Port
As Console port:
HTTPS, SSH
and as USB HOST
for external devices

Ethernet 10/100 Mb/sec

RS232/485 Port
For Cellular modem,
TETRA, Data radio

USB HOST Port
For ASTRO,
MotoTRBO, other
USB supported
devices

Input Power
9-30VDC

CPU SPECS

- CPU - SITARA Cortex A8
- OS - Linux Embedded
- Memory
 - SD Card (up to 32 GB) support for logging and user data
- RTC
 - Leap year support
 - RTC Backup Battery
 - Date and Time – Set via Web interface or STS
 - Date and time can be synced via NTP, MDLC, GPS Receiver interface



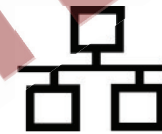
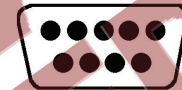
CPU SPECS (2)

- Power
 - Input voltage range: 9-30 VDC
 - AUX output voltage: on plug-in (optional)
 - Typical consumption: ~9W (Including Two I/Os expansions)
 - Runtime consumption: 65mA @ 12V DC (1 x RS485, 1 x RS-232, No I/Os)
 - Sleep mode consumption : ~5.5mA @12v
- CPU I/Os
 - 3 x Digital Inputs (DI):
 - Wet inputs (Externally powered: 0-3v='0', 6v- input voltage='1')
 - De-bouncing filter: 10,20,30,40,50 msec
 - Fast counter:
 - Isolation:
 - 1 X Digital Output (DO):
 - Magnetically Latched Form C (SPDT)
 - Hardware back indication
 - Support up to 1A
 - Isolation



COMMUNICATIONS SPEC

- Serial Ports
 - Main board: RS232 (115.2kbps)/RS485 (460 kbps), Half/Full Duplex with/without CD
 - Plug In (Optional): Isolated 2 X RS232 (115.2 kbps)
- Ethernet Port
 - On board: 10/100Mbps
- USB Ports
 - Host port
 - On The Go (OTG)
- Plug-in Ports Roadmap:
 - Analog radio modem
 - Ethernet
 - WiFi
 - WAN (cellular)



PROTOCOL SUPPORT

- MDLC:
 - Session
 - Mini Session
 - Frame Sequence
 - Date and time, file transfer
 - MDLC over IP
 - MDLC over Serial
 - Table structures:
 - Same as MOSCAD-M
- 3RD Party SCADA Protocols:
 - Modbus (Slave/Master over RS232/RS485 and Ethernet)

SUPPORTED RADIO / MODEMS

- Motorola Radio Support :
 - MotoTRBO
 - ASTRO (P.25)
 - TETRA
- 3rd Party Modem Support:
 - Cellular Modem
 - Leased Line Modem
 - Data Radio
 - Broadband Radio



OPERATING CONDITIONS

Operating Temperature:

- - 40 to +70°C (excluding radios)

Storage Temperature:

- -55 to + 85°C (excluding radios)

Operating Humidity:

- 5% to 95% RH @ 50°C

Mechanical Vibrations:

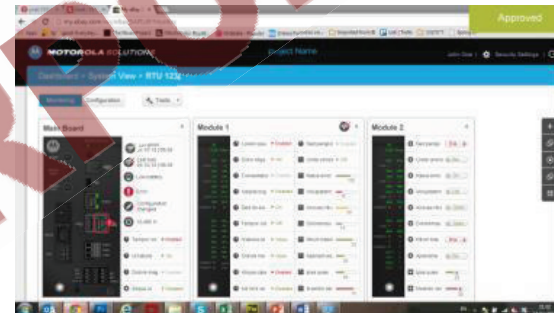
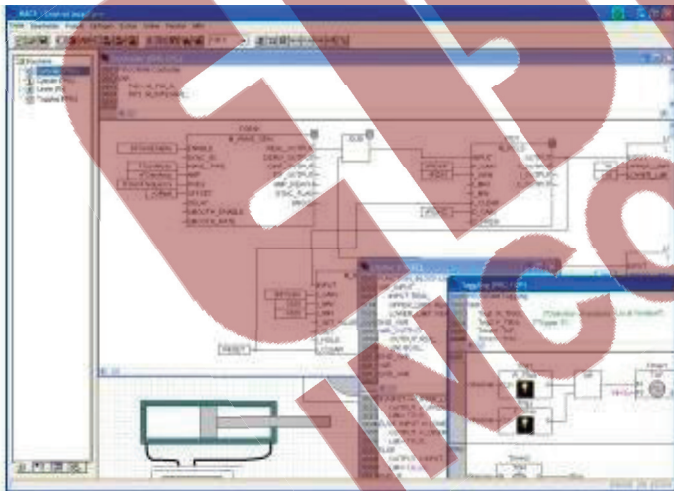
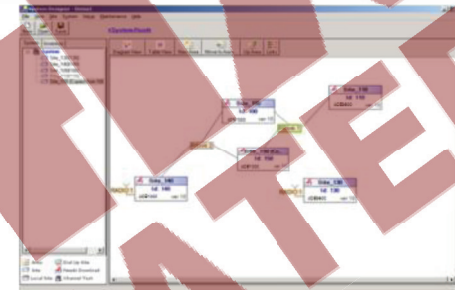
- EIA/TIA 603 Base station, Sinusoidal 0.07mm @ 10-30 Hz,
0.035 mm @ 30-60 Hz

Operating Altitude:

- -400m to +4000 meter

CONFIGURATION AND PROGRAMMING

- Configuration:
 - Web Browser
 - STS
- Programming Tools:
 - Easy Programming Tool (via Web browser)
 - Codesys IEC 61131-3 Programmer
 - C Toolkit



More info...

Please contact us at support@ebipax.com

**EBIPAX
INCORPORATED**