SERIES

C⦿RTEX

Davicom Cortex Series

Your Remote Site Management Solution for Alarms, Monitoring & Control

Davicom's new generation of intelligent site management systems is designed to meet the most stringent requirements of the broadcast and wireless telecommunications industries. These best-in-class, stand-alone monitoring and control units interface easily with virtually any type of remote site equipment and sensors, thereby ensuring maximum flexibility and expandability.

320 CORTEX
POWER
- COMMUNICATIONS
- USER ONLINE
- ACTIVITY
ALARM
PAUSE   LOCAL
davicom

360 CORTEX
POWER
- COMMUNICATIONS
- USER ONLINE
- ACTIVITY
ALARM
PAUSE   LOCAL
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BEST of SHOW Radio — 2018

SBE — 2018 TECHNOLOGY AWARD ★★

Let the Davicom CORTEX be Your Brain at the Site

Decide & Control

Cortex units can make decisions based on Virtual Logic Gates, automating the control of equipment at the remote site. Based on the readings from the sensors it is connected to, the Cortex series units can control a broad range of equipment in multiple ways.

Sense Site Status & Environment

Connect multiple types of sensors to add environmental awareness to your Cortex. Low-cost and widely available MODBUS sensors can also be used.

360 ˚Awareness

Manage your site through a standard dial-up modem connection, by DTMF/voice response or through a network connection. Get situational awareness on any device with the web based interface or let the Cortex tell you what's potentially wrong at your site.
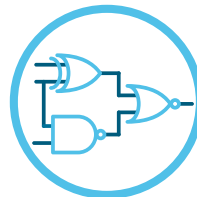
Listen & Recall

Cortex units can listen to your site audio and warn you of potential silence, or even relay live audio back to you via telephone or IP streaming. It is also capable of keeping track of all conditions and events that happen at your site.

Your Manager at the Site. Here's Why.

Design Automation Without a Single Line of Code!

Cortex systems provide automation with decision-making features and commands that go well beyond conventional telemetry systems. Units can for example detect an RF failure; place the standby transmitter on-air to restore the signal, and alert on-call personnel. Engineering staff can then diagnose the problem from the event history log and, using remote measurements, decide on the appropriate course of action.
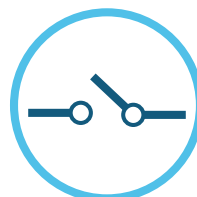
Virtual Logic Gates

Math Functions

Schedulers

Virtual Relays

Activity Timers

Up/Down Counters

Connect Any Type of Analog or Status Sensor

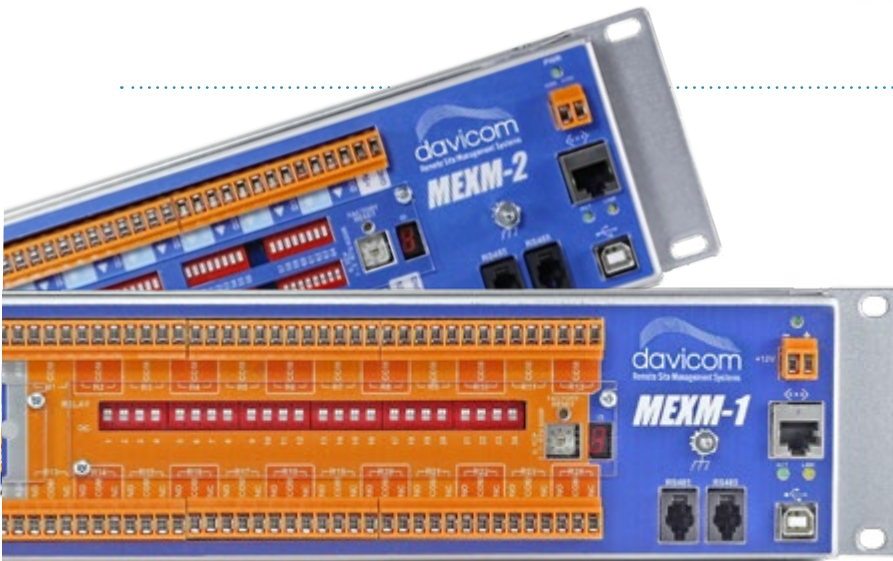Directly connect analog sensors, status sensors and audio feeds. No extra boards to buy!

Any I/O can be assigned to an activity monitor that checks for too much, or too little activity on the input. Daily cumulative runtimes are stored and logged.

Use any analog input to turn your Cortex into an audio silence detector.

Control External Equipment

With its relay outputs, the Cortex can command and control other equipment. From remotely switching to a backup transmitter to turning on the generator when a power outage occurs, the Cortex can take smart decisions to keep your site transmitting.

Need More I/O?

No worries, MEXM expansion panels or Modbus slaves will let you add up to:

256	256	256
Analogs Inputs	Status Inputs	Relay Outputs

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320
C⦿RTEX

Pause & Local buttons
Safeguard on-site personnel by blocking automation & remote access.

Audio Listening Jack
Access site audio from the front panel jack.

Health Indicator LEDs
Instantly assess site & unit status with the front panel LEDs.

Local Connection
USB connector for local connection to laptop computer.

Audio Input/Output
Connect site audio to the line-in or feed the audio to an external mic input.

Power Failure Check
Monitor AC power at your site with the included wall-wart.

I/O Connectors
Connect all I/O's to the compact DB-25 connectors.

On-board USB hub
Connect up to 2 USB devices (Memory stick or other Davicom products).

Power input
12 VDC for easy battery backup.

Ethernet Port
Connect to the outside world and/or to other onsite equipment.

Phone Line
Connect to the outside world via dial-up modem.

360 CORTEX

Pause & Local buttons
Safeguard on-site personnel by blocking automation & remote access.

OLED Display
Immediate access to alarms, I/O states & basic configurations.

Audio Listening Jack
Access site audio from the front panel jack.

Menu Buttons
Convenient buttons let you navigate through the different menus.

Local Connection
USB connector for local connection to laptop computer.

Health Indicator LEDs
Instantly assess site & unit status with the front panel LEDs.

I/O Connectors
Connect all I/O's to the compact DB-50 connectors.

Dual Power Supply
Add redundancy by connecting two 10 to 30 VDC power supplies.

On-board USB hub
Connect 4 USB devices (keyboard, mouse, memory stick or other Davicom products).

Power Failure Check
Monitor AC power at your site with the included wall-wart.

Ethernet Switch
Connect to the outside world and/or to other onsite equipment.

Audio Input/Output
Connect site audio to the line or mic input and feed the audio to an external mic input using line-out.

Serial Connection
Connect to legacy devices or to the outside world through this serial port.
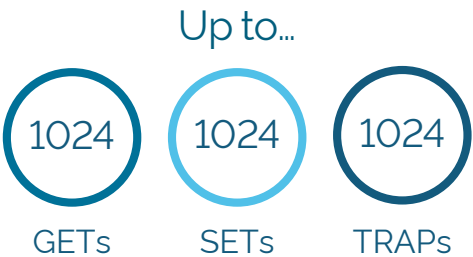
Phone Line
Connect to the outside world via dial-up modem.

Simple Network Management Protocol (SNMP)

SNMP Agent

Cortex units have a built-in SNMP agent to allow monitoring and control from a central SNMP manager. When activated, this agent allows remote SNMP management systems to perform GETs, SETs and to receive traps from Davicom units.

This feature has the added benefit of converting non-SNMP legacy site devices into SNMP-capable equipment through the Cortex's GPIO and SNMP agent.

Up to…

1024 GETs **1024** SETs **1024** TRAPs

SNMP Manager

The Cortex built-in SNMP Manager* allows it to take readings, set controls and receive alarms from SNMP enabled devices. This monitoring and control is achieved over a simple TCP/IP connection between devices, thus greatly facilitating interface wiring.

Available SNMP Manager Packages

Included	Cortex 320	Cortex 360
GETs	8	128
SETs	8	128
TRAPs	8	128

Plus	Cortex 320	Cortex 360
GETs	64	256
SETs	64	256
TRAPs	64	256

Pro	Cortex 320	Cortex 360
GETs	128	512
SETs	128	512
TRAPs	128	512

Ultra	Cortex 320	Cortex 360
GETs	256	1024
SETs	256	1024
TRAPs	256	1024

Build a Cortex Smart Network

Use the Cortex's SNMP agents and managers to build a complete network of interconnected, interacting and redundant site managers.

CORTEX   CORTEX

CORTEX

Use network PINGs to debug your network

Ping different network branches or even the outside Internet to map network connectivity and faults.

Or use this feature as a failsafe to reset flaky network elements!

Have your Davicom automatically reset network components from the remote end of your network link.

Complete Web-Based Interface

Clean · Modern · Easy To Use

The Cortex series' web-based workspaces are completely customizable by the user. In addition, each user can have different workspaces on multiple devices (smartphone, tablet or PC). These workspaces have the advantage of being stored directly on the Cortex unit itself, thereby ensuring a uniform look when being accessed by different users. For low-bandwidth communications, workspaces may also be located on your personal computer using our DavLink software.

Save Two Firmware Versions in the Same Unit

Count on stress-free firmware upgrades thanks to the Cortex's dual firmware memory spaces that ensure fail-over and roll-back operation. Upgrades become virtually unbreakable, even if you pull the plug during an upgrade!

Top-quality design for Electromagnetic Compatibility

Davicom units have been developed and tested to operate in high-level electric fields and to resist electrostatic discharges. Exactly the type of environment you would expect to find near high power transmitters on a mountaintop with a metal tower!

Smartphone app for Easy Control and Notifications

The Dav2You APP brings you the exact information you need, when you need it and where you need it. Whether on the road, at the office or at the site, you can connect to any Cortex unit or receive notifications and get critical site information within seconds.

– App Store is a service mark of Apple Inc.

All Davicom units have the following features

- USB device port on front panel
- Secure IP over Ethernet or Internet
- Automatic action on conditions or events
- Voice response/DTMF over phone
- FAX transmission capability
- Automatic detection of PSTN dial-tone
- Compatible with DavNet NOC software
- Integrated Web Server
- 100 ms sampling interval on inputs
- Individual Relay pulsing to 0.1s resolution
- 16 alarm-call lists, with 10 recipients per list
- Configurable delays on individual alarms
- Hysteresis on metering inputs

- 4 simultaneous users
- Automatic commands between remote Davicom units
- Alarms via E-Mail with HTML and XML file attachments
- Alarms via SMS
- Alarm transmission to multiple Pagers
- Vocal descriptions from 400-word vocabulary
- Sync to NTP & ACTS servers
- Battery Discharge Test
- Internal Battery Backed RTC
- PSTN Caller ID placed in log
- RF immunity to 10V/m
- Electro Static Discharge immunity

- to 12kV
- User configurable screens
- Multiple workspaces
- Operation from 12 VDC supply
- Automatic Day-Night settings from Latitude & Longitude
- Modbus I/O expansion capability in TCP or RTU modes
- Logging to: System log (1024 events), Custom log (1024 events), EAS log (1024 events), Data logs (millions of events at 1 Hz rate)
- Automatic VSWR calculation
- Linearization of sensor inputs
- No moving parts (Cooling Fan nor HDD)

Specifications	CORTEX 320	CORTEX 360
Metering (Analog) Inputs	12* (single ended/unipolar)	8 (differential/bipolar)
Status (Digital) Inputs	4	16
Audio Inputs for remote listening	1	2
Outputs (Command Relays)	6	8
Network Monitoring Pings	32	64
Virtual Logic Gates	128	128
Event schedulers	64	128
Math Functions	16	32
Unit to Unit Commands	128	128
Counters	16	32
SNMP Agent	Yes	Yes
SNMP Manager	Yes	Yes
USB Host Ports (hub)	2	4
Ethernet ports (switch)	1	4
Power Supply	12VDC, single	10-30VDC, dual redundant inputs – 48VDC option
Front Panel Display	7 Status LEDS	Scrollable OLED display
Operating Temperature	0° to -70°C (-40° to +70°C optional)	-40° to +70°C
Dimensions	15.5" x 11" x 1.75"	19" x 12" x 1.75"
Rack Space	1 RU, half width (requires tray)	1 RU
Weight	2.42 lbs	4 lbs

*Can be used as status inputs

davicom
Remote Site Management Systems

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