

MOBILTEX

CorTalk® RMU1

REMOTE MONITORING FOR TEST STATIONS AND COUPONS

CorTalk® INT1

ACCESSORY INTERRUPTION CONTROLLER

CorTalk



AN INDUSTRY-FIRST SOLUTION — TWO-WAY COMMUNICATIONS AND GPS-SYNCHRONIZED INTERRUPTION

Designed to fit entirely under a standard CP test station, the RMU1+INT1 is truly a “hidden talent” delivering a small, powerful tool for remote monitoring of CP single or double coupons and structure bond applications with permanent interruption functionality.

The CorTalk RMU1 collects and transmits CP performance data and GPS location as frequently as every few hours via satellite or cellular network. This provides technicians with a highly detailed, near-real-time view of the CP system and helps identify short-lived events that may impact CP performance.

**THE COMPACT SIZE OF THE RMU1
ALLOWS EASY INSTALLATION
TYPICALLY IN UNDER 20 MINUTES**

RMU1 Generation 4 is also capable of two-way communication and can provide remote, GPS-synchronized interruption with the addition of MOBILTEX INT1, a compact accessory module.

When combined with the MOBILTEX CorView web analytics platform, pipeline operators can implement a network of RMU1+INT1 devices to realize huge operational benefit, gain deep CP system performance insights, instantly generate reports, and effectively identify areas of concern.



ADVANTAGES OF CORTALK RMU1

- Fast, simple installation; typically under 20 minutes.
- Configurable as a CP coupon or critical bond remote monitor.
- Multiple analog measurement channels provide accurate measurements for all required AC and DC parameters.
- A user-replaceable battery provides up to 10 years of monitoring, data transmission and helps maximize lightning isolation.
- Satellite or cellular transmission with cost-effective communication plans.
- Intuitive configuration using any web-enabled device.
- Generation 4 hardware platform allows connection of additional external accessory modules.



INT1: REMOTE, GPS-SYNCHRONIZED INTERRUPTION FOR BONDS AND SACRIFICIAL ANODES

Eliminate the need to install portable interrupters at test stations or to physically break bonds between pipelines, foreign rectifiers and structures when performing close interval survey (CIS) activities.

The MOBILTEX CorTalk INT1 enables field technicians to quickly and permanently add remote, GPS-synchronized interruption capabilities to CorTalk RMU1 devices to obtain true off-potential readings during CIS.

The plug-and-play INT1 is designed for quick connection using a single cable and automatically pairs itself to the RMU1 Generation 4 device. Once active, the devices function as a single unit and enable interruption activities to be remotely configured and controlled using any web-enabled device and the MOBILTEX CorView interface.



Transmit in real-time directly to technicians via satellite or cellular network



KEY FEATURES CORTALK INT1

- 2 DC/AC potential measurement channels and 1 DC/AC current measurement channel.
- 7A maximum for bond/anode current switching.
- +/-31V DC, 22V AC potential range.

SIMILAR TO THE RMU1, THE INT1 INTERRUPTER ACCESSORY FITS ENTIRELY WITHIN A STANDARD CP TEST STATION.

A second configuration uses a slightly larger test station cap to house the RMU1 and INT1, enabling a portable reference cell to be inserted down into the test post. In both cases, the INT1 is powered by an internal battery, which provides up to 10 years of operation.

RMU1 SPECIFICATIONS

ENVIRONMENTAL:

Operating Temperature	-40° to +60° C (-40° to +140° F)
Storage Temperature	-45° to +80° C (-49° to +176° F)
Maximum Altitude	5000 meters above sea level
Humidity	0 to 100% RH non-condensing

POWER | COMMUNICATIONS | DATA:

Battery Life	Typically 10 years — readings every 7 days Typically 5 years — readings every 12 hours and 2 weeks of interruption per year [+INT1]
Internal Battery Measurement	OK, Warning and Low conditions displayed on CorView
Communications	Globalstar Simplex Satellite (RMU1S) Iridium SBD Satellite (RMU1I) Cellular UMTS B2,5 and LTE B2,4,5,12,13 (RMU1G) Cellular LTE Cat M1/NBLoT B2,4,5,12,13 (RMU1G-LTEM)
GPS Receiver	72-channel u-blox M8
Datalogger Storage (Factory Enabled Option)	1 million reading points

PHYSICAL:

Weight	225 grams (0.5 lbs)
Size	80mm x 80mm x 110mm (3.15"x3.15"x4.33")
Enclosure	UV stable, wide temperature polycarbonate

PERFORMANCE:

Pollution Degree	1
External Analog Channels	2 potential, 1 bond shunt, 1 coupon current
Measurement Type	Category 1 (as per CSA C22.2 – 61010)
Analog Ranges (DC & AC True RMS)	Potential: +/-31VDC, 22VAC Current: +/-6mADC, 4.25mAAC Low Range +/-60mADC, 42.5mAAC Med Range +/-200mADC, 140mAAC High Range Bond Shunt: +/-6mVDC, 4.25mVAC Low Range +/-60mVDC, 42.5mVAC Med Range +/-200mVDC, 140mVAC High Range
AC Rejection on DC Readings	>65dB @ 50/60Hz
Lightning Immunity	Survives multiple 30KV surges
Isolated Digital Input	+/-100VDC maximum <-3VDC or >3VDC for activation (bi-directional sense) Optically isolated (2500V _{RMS})
DC Measurement Accuracy (over operational temperature)	Potential: +/-1% + 1mV Current: +/-0.75% + 10uA Low Range +/-0.5% + 15uA Med Range +/-0.5% + 35uA High Range Bond Shunt: +/-0.75% + 2uV Low Range +/-0.5% + 5uV Med Range +/-0.5% + 15uV High Range
AC Measurement Accuracy (over operational temperature)	Potential: +/-1.25% + 5mV, 20mV floor Current: +/-1% + 5uA, 5uA floor Low Range +/-1% + 15uA, 50uA floor Med Range +/-1% + 50uA, 150uA floor High Range Bond Shunt: +/-1.1% + 25 uV, 5uV floor Low Range +/-1.1% + 35 uV, 50uV floor Med Range +/-1.1% + 75uV, 150uV floor High Range
Coupon Current Shunt	1 ohm
Input Impedance	>20 Mohm (potential) 130 Kohm (bond current shunt)
ADC Resolution	16 bits
Temp. Measurement Accuracy	+/-4° C (+/-7° F) over -40° to +60° C (-40° to +140° F)

INT1 SPECIFICATIONS

ENVIRONMENTAL:

Operating Temperature	-40° to +60° C (-40° to +140° F)
Storage Temperature	-45° to +80° C (-49° to +176° F)
Maximum Altitude	5000 meters above sea level
Humidity	0 to 100% RH non-condensing

POWER | DATA STORAGE:

Battery Life	Typically 5 years based on readings every 12 hours and 2 weeks of interruption per year
Internal Battery Measurement	OK, Warning and Low conditions displayed on CorView
Datalogger Storage (Factory Enabled Option)	1 million reading points

PHYSICAL:

Weight	300 grams (0.7 lbs)
Size	80mm x 28mm x 172mm (3.15"x1.10"x6.80")
Enclosure	UV stable, wide temperature polycarbonate

PERFORMANCE:

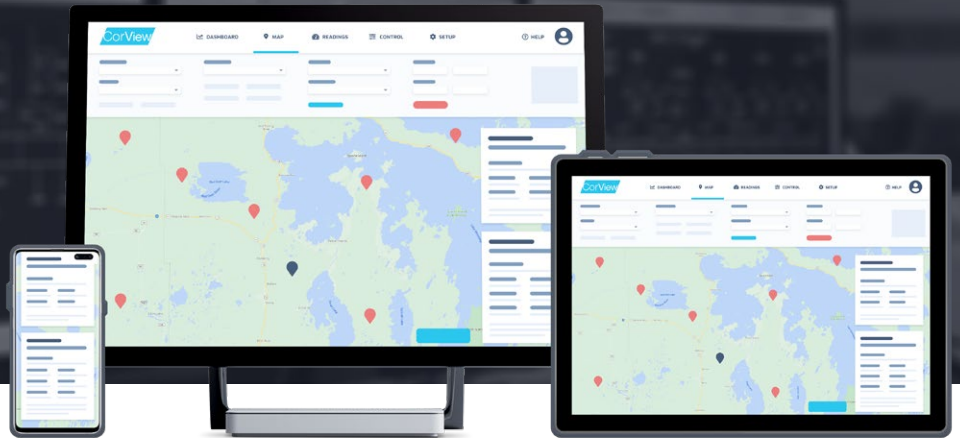
Pollution Degree	1
External Analog Channels	2 potential, 1 bond current
Measurement Type	Category 1 (as per CSA C22.2 – 61010)
Analog Ranges (DC & AC True RMS)	Potential: +/-31VDC, 22VAC Bond Current: +/-300mADC, 210mAAC Low Range +/-3ADC, 2.1AAC Med Range +/-10ADC, 7AAC High Range
AC Rejection on DC Readings	>65dB @ 50/60Hz
Lightning Immunity	Survives multiple 30KV surges
DC Measurement Accuracy (over operational temperature)	Potential: +/-1% + 1mV Bond Current: +/-0.75% + 10uA Low Range +/-0.5% + 15uA Med Range +/-0.5% + 35uA High Range
AC Measurement Accuracy (over operational temperature)	Potential: +/-1.25% + 5mV, 20mV floor Bond Current: +/-1% + 5uA, 5uA floor Low Range +/-1% + 15uA, 50uA floor Med Range +/-1% + 50uA, 150uA floor High Range
Bond Current Shunt	0.02 ohm
Input Impedance	>20 Mohm (potential) 130 Kohm (bond current shunt)
ADC Resolution	16 bits
Temp. Measurement Accuracy	+/-4° C (+/-7° F) over -40° to +60° C (-40° to +140° F)



READY TO SPEAK TO ONE OF OUR PRODUCT SPECIALISTS?

CALL TOLL-FREE IN US OR CANADA:
1.844.689.3282 | (844.MTX.DATA)

CORVIEW PLATFORM



MOBILTEX CORVIEW: POWERFUL VISUALIZATION AND CONTROL — IN ONE PLATFORM

CorView delivers powerful, secure two-way communication capabilities, data storage and reporting for the entire range of MOBILTEX CorTalk remote monitoring devices.

- **INTUITIVE INTERFACE DESIGNED FOR EASE-OF-USE**

The CorView platform is designed for simplicity. Its thoughtfully engineered UI enables key personnel to quickly and easily access the data repository, reporting functions and remote RMU controls with virtually no training.

- **ACCESS ANYWHERE, WITH ANY WEB-ENABLED DEVICE**

All data that is transmitted from the RMU devices is stored in the secure MOBILTEX database and can be accessed from any location, providing users instant, comprehensive access to all performance data and activities.

- **CREATE DETAILED REPORTS, GRAPHS AND MAPS**

Technicians and managers can easily view and download measurement data, create trending graphs and generate reports. CorView also displays easy-to-read maps that provide near real-time display of system status so technicians can see where CorTalk devices are operating normally, performing interruption activities or experiencing alarm conditions.

- **REMOTELY CONTROL AND UPDATE IN-FIELD DEVICES**

CorView's robust cellular or satellite communication capabilities enable two-way communication with most RMU devices to remotely modify device configurations and to apply software updates and eliminate the need for time-consuming manual system updates.

- **NO I.T. OVERHEAD**

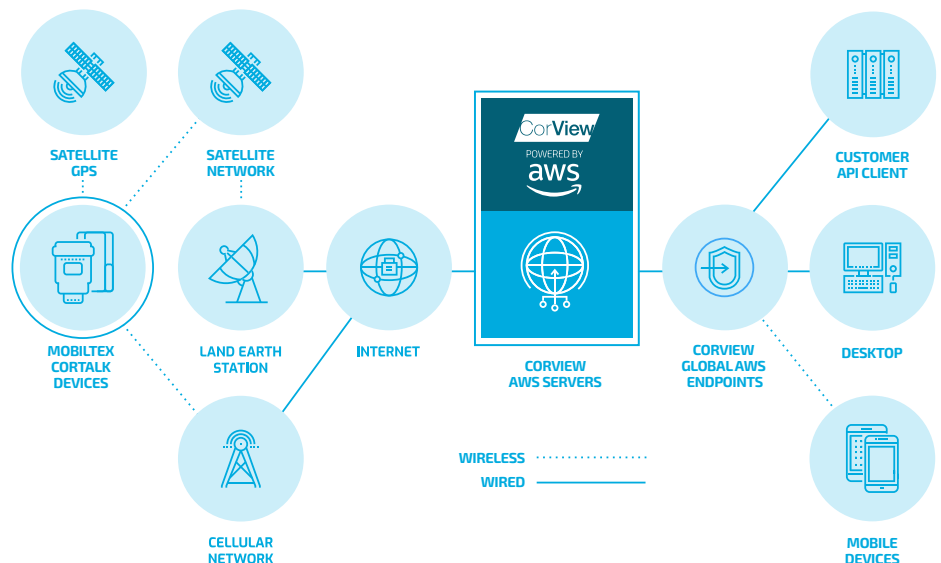
The CorView platform is entirely hosted and supported by MOBILTEX, all updates and enhancements to the platform are automatic and ongoing.

CLOUD ACCESS

1 DATA ACQUISITION & CONTROL

2 VISUALIZATION & ANALYSIS

3 REPORTING, ALARMS & COLLABORATION





MOBILTEX.COM

ABOUT MOBILTEX®

At MOBILTEX, technology is just the beginning. We've been leading the industry in cathodic protection monitoring for corrosion prevention on over one hundred thousand of miles of pipelines throughout North America and around the world. That's why pipeline and corrosion engineers across all industries have come to rely on us.

With our innovative engineering, design and manufacturing, we've created dependable IIoT technology that's built smart, built tough, and built to last. Our success comes from thinking like our customers and we always engineer to

effectively solve your unique challenges. We're proud to say we've proven our technology in the harshest, most challenging of environments — time and time again.

But it doesn't stop there, every one of our solutions is backed by our industry leading customer service and support team that's ready to take you from product selection, to the initial set-up, through to our ongoing support.

THIS IS MOBILTEX. WE'RE THERE.



30+ YEARS
OF CP INNOVATION



>120K MILES
OF PIPELINE MONITORED



~200
MAJOR ORGANIZATIONS
ASSETS PROTECTED



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