

# ARC Plus

## Remote Monitoring & Control System

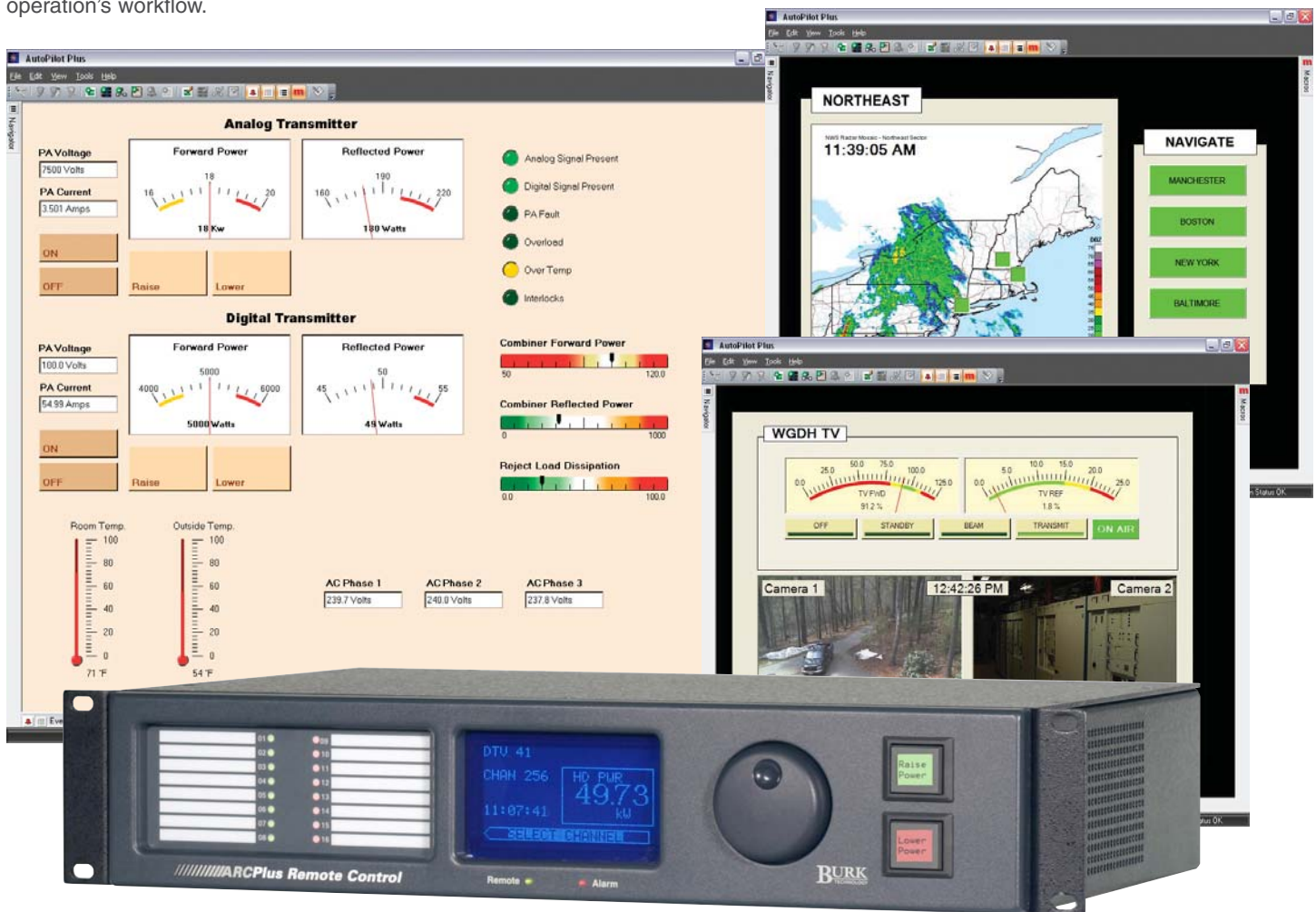
### The Industry's Most Powerful Remote Control System

The ARC Plus remote monitoring and control system delivers unparalleled flexibility for managing remote sites. IP-based data distribution is reinforced with RS-232, telephone dial-up, and front-panel access. Built-in macros provide automatic control and minimize downtime for unattended operations, and the embedded system architecture assures 24/7 peace-of-mind as a dedicated PC is not required.

AutoPilot Plus software completes the package by adding real-time control via PC, video monitoring, network management, and report generation. Thanks to the easy-to-use custom view designer, AutoPilot Plus is a perfect match for even the most complex operation's workflow.

### Power, Flexibility and Efficiency

- ❑ IP-based broadcast remote control for exceptional scalability
- ❑ Easy operator access via front panel, web, software or telephone
- ❑ Email alerts and selective alarm reporting allow efficient fault resolution
- ❑ Integrates SNMP and other network devices to provide maximum scope for remote monitoring
- ❑ Ready for expansion – scales to 256 metering and status channels, 256 relay pairs (momentary or latching) and 512 virtual channels
- ❑ Backwards compatibility provides seamless ARC-16 upgrade path



# ARCPlus

## IP-Based Control Built for the Realities of Broadcast

The ARC Plus joins IT networking with RF engineering while maintaining the 24/7 dependability demanded by remote, mission critical operations. While IP connectivity provides a powerful mode of access, the embedded architecture achieves unparalleled reliability in unattended operation.

Easy front panel navigation facilitates monitoring and control for all sites in the system. AutoPilot Plus software connects over TCP/IP or via modem to allow access via RS-232. For real-time monitoring and control via web, the system provides a built-in web server. Optional dial-up telephone control and dial-out alarm notification assure an independent backup connection and a critical link to on-call operators.

## Onboard Automatic Control

To meet the needs of unattended operations, built-in macros automatically manage routine tasks and perform complex fault recovery. This includes power and pattern changes, auxiliary transmitter switching, program source management, tower light monitoring, and much more. Since the macros run directly from the remote control hardware, they do not depend on a PC. In addition, site-to-site control allows the system to automatically monitor conditions at multiple sites and easily coordinate off-site backup operations.

## Designed for Real World IP Connectivity

Slow links, latent connections or intermittent dropouts are not a problem for the ARC Plus. Even in a multi-site environment, a 9600 baud link allows full-featured deployment of the ARC Plus platform.

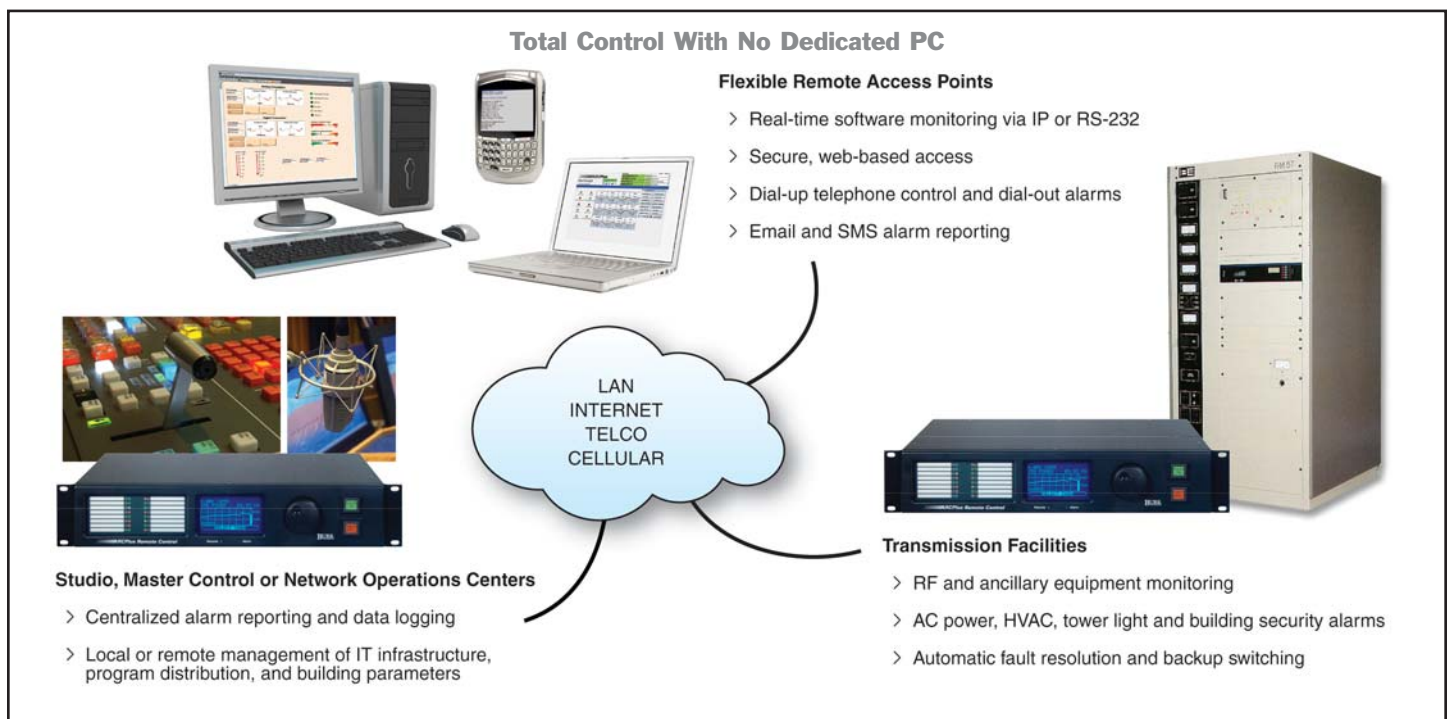
The system is also designed to thrive in conjunction with alternatives and backups to traditional TCP/IP:

- Dial-up modem over telco link
- Telephone access via optional ESI Plus
- Full-time RS-232 connection via Burk SL-1

For sites with a POTS line only, the ARC Plus SA provides outstanding benefit as a "stand-alone" dial-up remote control.

## Efficient, Flexible Alarm Notification

The ARC Plus uses selective alarm notification to alert appropriate people to alarm conditions. Whether the alarm affects programming, engineering, or another area of responsibility, a targeted alert via email, SMS, or page/telephone notification assures the fastest response. At the same time, virtual channels assess out-of-tolerance conditions in aggregate, allowing the ARC Plus to report a small number of actionable messages instead of all alarms caused by a single failure.

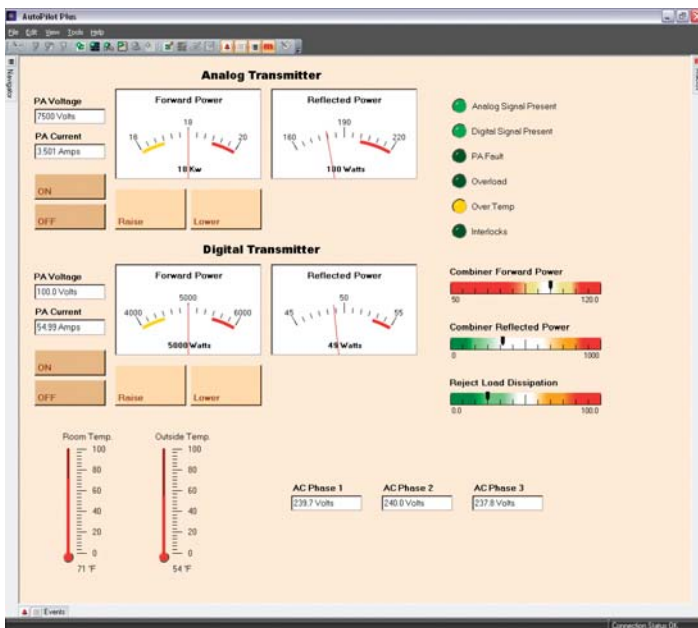




## Powerful On-Screen Monitoring and Control

AutoPilot Plus makes it easy to distribute system access across the entire operation. Monitor real-time data, manage alarms, create detailed reports, and integrate video monitoring. Manage IT infrastructure, including SNMP devices, with the onboard network manager. Custom views allow complete control of the operator interface, so frontline operators have all the resources they need to monitor remote sites and escalate areas of concern.

## Fully Customizable Operator Interface

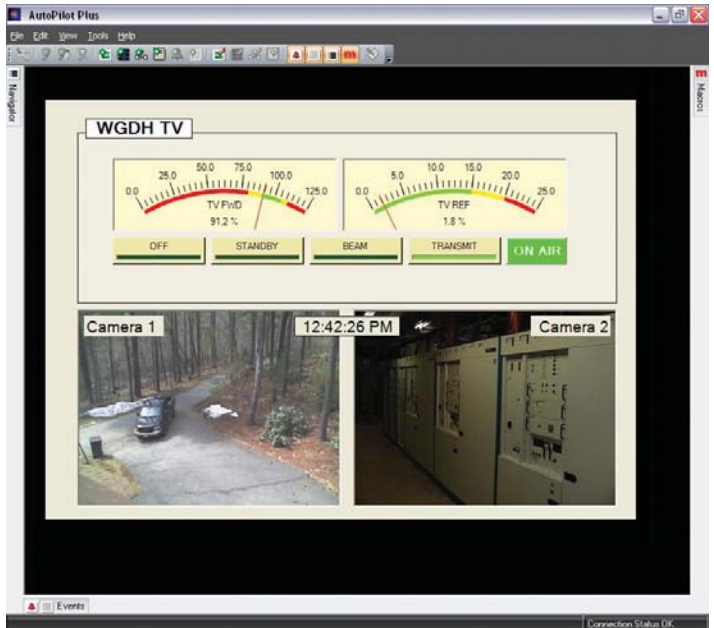


Whether for top-level central monitoring or detailed local management, it has never been easier to view and interact with remote sites. Full customization of each metering, status and command element, plus user-defined graphics, maps, diagrams and reference data allow AutoPilot Plus to offer a full-featured operator interface that matches the operation's requirements exactly, whether there is one site or many.

## Automatic Logging and Custom Reports

Use the AutoPilot Plus logging engine and report generation tools to create detailed, customized reports. Show alarm history and event summaries, track status changes over time, and print telemetry logs. Run reports on-demand or schedule them automatically.

## Security Monitoring and Weather Radar



Now you can view live images of the remote site and monitor weather radar alongside the plant conditions reported by the ARC Plus. Monitor video to check security or see whether personnel are on-site. View rain and snow activity on the weather radar to predict satellite or STL impact, lightning risk, or site accessibility issues. Get the "big picture" view of the remote site so you know exactly what is happening when you are not there.

## SNMP and Network Management

Depend on the fully-integrated SNMP manager in AutoPilot Plus to monitor IT infrastructure on the same platform as your broadcast plant. AutoPilot Plus connects to SNMP and non-SNMP network devices to alert users to online/offline conditions, equipment uptime, slow or missing ping responses, and much more. Easily monitor workstations, servers, printers, routers, firewalls, etc., and get to the source of network problems faster than ever.



## Mobile Web Access

Access to the ARC Plus is as close as your web-enabled PDA. With the built-in, secure mobile web display, viewing alarm activity, taking readings, and issuing commands on-the-fly has never been easier.



# SPECIFICATIONS

## All Units

### Operating Environment

0 to 40°C; 5 to 85% RH

### Power Requirements:

100 to 240 VAC, 47-63Hz, 1A

## ARC Plus



Main unit provides memory/processor functions, front panel control, embedded web server, Ethernet and RS-232 communications, and PLUS BUS connections to Integrated Input and Integrated Command Relay Units.

### Dimensions (WxHxD):

2RU: 19" x 3.5" x 12" (48.26 cm x 8.89 cm x 30.48 cm)

### Memory:

Nonvolatile FLASH memory and battery-backed real-time clock store data for 20 years without power.

### Front Panel Interface:

4x20-character Vacuum Fluorescent Display with jog wheel navigation; 16 bi-color LEDs show status signals and are mappable to a variety of status data on any site or channel; Dynamically updated command buttons show user-defined command text with tricolor backlight; Alarm LED alerts users to local or global alarm conditions (user definable); Remote LED indicates maintenance mode status



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### Communication Ports:

RJ-45 Ethernet port for 10/100BaseT network connection; 4 PLUSBUS ports support connections for up to 16 IIUs and 32 ICRUs; COM ports for optional dial-up modem and ARC-16 connection

## Integrated Input Unit (IIU)



The Integrated Input Unit connects 16 metering and 16 status channels to the ARC Plus. Channel capacity is expanded by adding up to 16 IIUs for 256 metering and 256 status channels.

### Dimensions (WxHxD):

1RU: 19" x 1.75" x 12" (48.26 cm x 4.45 cm x 30.48 cm)

### Metering Input Ranges & Accuracy

-5 to 5, 0 to 5, -10 to 10, 0 to 10VDC; >99.75% accuracy, full-scale

### Status Input Range

0 to 28VDC or switch closure

## Integrated Command Relay Unit (ICRU)



The Integrated Command Relay Unit connects 8 pairs of command relays to the ARC Plus. Channel capacity is expanded by adding up to 32 ICRUs for 256 command channels.

### Dimensions (WxHxD):

1RU: 19" x 1.75" x 12" (48.26 cm x 4.45 cm x 30.48 cm)

### Output Types:

Form C relay outputs, (C, NO, NC), each user-configurable for momentary or latching output.