MULTI-SYSTEM CONTROLLER

Multi-System Controller (MSC) for Redundant Television and Radio Transmission Systems

The GatesAir's Multi-System Controller (MSC) is engineered to ensure your radio or television broadcast is seamless — even in the event of transmitter failure. This nextgeneration multi-system control platform extends the redundancy capabilities of our transmitters to both new and legacy transmitter platforms — the first system on the market that integrates legacy transmitters into N+1 systems.*

Multi-System Controller Product Features

The MSC incorporates the latest advances in technology, reflecting the GatesAir's commitment to innovation and history as the industryleading provider of redundancy solutions for television and radio transmitters.

* Requires an optional MSC I/O module

- Factory scalable and configurable for N = 1 to 8
- Front panel control and readout of system status Operation in automatic or manual mode, and by local or remote control
- Local and remote selection on the front panel to lock out remote inputs during servicing
- One of N logic output to control an external video or audio router
- Ethernet interface to each transmitter and RF switch control board for easytomanage connections
- External program router control — routes the correct service to the redundant transmitter

- Fast, reliable operation
- Fail-safe — current system configuration is retained in the event of MSC fault/power failure
- Compatible with 4 port coaxial switches from multiple vendors Remote software upgrades available via network connection. Latest software is available on the GatesAir Service Portal (requires a Windows®* based PC, not provided)
- Sleek, elegant GUI — easy navigation of system level or individual transmitter control and monitoring with a single IP connection
- Screensaver with wakeup function to extend life of backlight and prevent accidental front panel button operation
- SNMP (Simple Network Management Protocol) network agent for broadcast manager operations
- External interlock monitoring — can be removed for servicing without interruption of the interlock chain
- Programmable N+1 priority — for backup of the most important programming during multiple main transmitter outages

*Windows is a registered trademark of Microsoft Corporation in the United States and other countries.

Made in USA

Product Features

Cost-effective, Reliable, Flexible

At GatesAir, we know onair time is critical. For that reason, the MultiSystem Controller is designed to maximize onair reliability for broadcasters with digital networks, and can be configured across various applications—main/alternate, N+1 and dual transmitter systems.

As an N+1 controller, the MSC is a costeffective, reliable backup system with a simpletouse interface, making it ideal for larger network operators with multiple transmitters at each site. As a dual transmitter system controller, the MSC enables increased power capability, operational flexibility, and reliability by combining two or more transmitters.

How it Works

The MSC monitors the operating status and parameters of the main transmitters and keeps the +1 reserve in standby. When the MSC detects a failure, it safely disables the main transmitter and activates the standby transmitter.

Users have the option of monitoring and controlling the MSC though the frontpanel pushbutton controls with an alpha numeric display, or remotely via a web browser or optional, parallel I/O.

In N+1 applications, the MSC monitors and controls each main or N transmitter. If the MSC detects RF output or other failure output that exceeds the user's configured time delay, it automatically sets the frequency of the reserve or +1 transmitter to that of the failed main transmitter. It then routes the correct video/audio to the reserve, changes the configuration of the RF switching system to place the reserve transmitter on air, and turns it on. The failed main transmitter's RF output is simultaneously routed to the dummy load, where it can be tested and repaired without further broadcast interruptions.

If a second main transmitter fails, the reserve will back up the highestpriority transmitter.

MSC Compatibility

The MSC is designed specifically for GatesAir transmission products, including Maxiva™ UHF (ULX and UAX) DTV transmitters, Flexiva VHF (FAX and FLX) FM and HD Radio transmitters, Platinum™ VHF (VLX and VAX) DTV transmitters and Platinum Z, ZX® and HPX® FM and HD Radio™* transmitters. With an optional I/O module, the MSC also works with most legacy and other vendors' transmitters in N+1 systems.

HD Radio™ is a registered trademark of Xperi® Corporation.

Multi-System Controller

Specifications

Size	19 in. (48.2 cm) rack-mountable unit, 1 RU x ~18 in. (45.7 cm) deep
Weight	Approximately 8 lbs. (3.6 kg)
Power Supply	Universal power supply input with automatic selection; accepts any line voltage 90 to 264 VAC, 50/60 Hz
Cooling	~100 CFM
Options	
Scheduler	Enables transmitters to be turned on and off automatically per a user-defined schedule with two periods per day; scheduler can set a oneweek schedule for the entire year and modify individual days for fast, easy schedule programming
Customizable Overall Block Diagram	Allows users to label each transmitter with operating frequency and select a layout of left to right or right to left to match the building floor plan
Data Logging	Transmitter data logging with search capability — assists users in identifying operating parameter trends
Screensaver	Screensaver with wakeup function — extends the life of backlight and prevents accidental frontpanel button operation
Rack Mount	1RU EIA rackmount chassis
Power Supply	Universal power supply input with automatic selection, 90 to 264 VAC input, 47 to 63 Hz, 65 Watts
MSC Tablet Display Unit	
Touch Screen Control	Wireless interface with touchscreen control
Interface	Tablet GUI mounted on a 4RU EIA panel for easy navigation of the MSC and transmitter functional areas

MSC I/O Module
I/O module for interfacing to the MSC
Parallel I/O control to the MSC
Rack Size - 1RU EIA rackmount chassis
Opto-isolated and RFI-filtered command outputs, status inputs and analog metering inputs Dual ethernet ports: one for operation and one for user configuration GatesAir micromodule for easy software updates using our In-System Programming (ISP) software Universal power supply input with automatic selection, 90 to 264 VAC input, 47 to 63 Hz, 65 Watts
MSC IP Module
IP module for N+1 to Platinum Z transmitter interface Features: Platinum Z RS-232 serial to ethernet converter for interfacing basic operating parameters and control GatesAir micro-module for easy software updates Dual ethernet ports: one for operation and one for user configuration