SPINNER
Antenna Monitoring System

Engineered to Detect Failures Early and Safeguard Your Infrastructure

HIGH FREQUENCY PERFORMANCE WORLDWIDE
www.spinner-group.com
Radio and television broadcasters worldwide rely on their systems to deliver content to listeners and viewers. But though their infrastructure may be robust, it isn’t invulnerable. Degradation can occur as a result of long-term use and environmental stress. Feeder cables can be damaged by strong winds, ice, or corrosion. Problems can also arise from improper installation, RF overloads, or lightning strikes.

Over the long term, these problems can cause the site to go off-air or even lead to fire, thus completely disabling the broadcast system. Operators therefore need a reliable early failure detection system that pinpoints problems with cables, splitters, or antennas at an early stage before they can cause more serious damage. The SPINNER Antenna Monitoring System (AMS) does all this and more.

The AMS is engineered to detect flaws in broadcast transmission systems and alert you to a problem before damage is done. It helps you stay on the air day in, day out.

This SPINNER solution monitors the entire antenna system, from patch panels across feeder cables all the way to the final dipoles. Recently patented measurement equipment detects even the slightest signs of moisture penetration, triggering an alarm both locally on warning lamps and remotely via an SNMP interface. All events are permanently recorded and can be reviewed from anywhere via a user-friendly web interface.
Off-air time isn’t just a technical issue. The financial cost of repairs and claims brought by content providers can also be huge. By helping you avoid these pitfalls, the AMS gives you enormous value for money.
Features

- Compact design
- Fast and easy installation
- All components housed at a single indoor location
- No invasive changes to the system
- No signal distortion, antenna pattern unaffected

Control Unit
For analyzing the RF signal received from the AMS U-links or AMS line section

AMS U-Link
Mounted in SPINNER patch panels

AMS Test Adaptor
Simulates arc and moisture penetration

AMS Line Section
to be mounted in any on rigid line run
## Part Numbers

<table>
<thead>
<tr>
<th>BASIC NUMBER</th>
<th>PRODUCT</th>
<th>SIZE</th>
<th>ACCESSORIES</th>
<th>VERSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>XXX</td>
<td>C</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Test Adaptor**
- 010

**Control Unit for FM**
- 020

**Control Unit for VHF**
- 030

**Control Unit for UHF**
- 040

### AMS U-Links

<table>
<thead>
<tr>
<th>AMS Line Section</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 5/8” USL-D</td>
<td>1</td>
</tr>
<tr>
<td>3 1/8” EIA</td>
<td>3</td>
</tr>
<tr>
<td>4 1/2” EIA</td>
<td>4</td>
</tr>
<tr>
<td>6 1/8” EIA</td>
<td>7</td>
</tr>
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</table>

### AMS U-Links with Accessories
- with AMS U-Link Interlock 1
- with AMS U-Link Interlock 2
- with AMS Line Section

**Quantity of Accessories**
- 1
- 2
- 3

*internally filled by SPINNER*
Interfaces

- Local signaling via LEDs and status relays
- Interlock relays for connecting to transmitter interlock loops
- Remote signaling via SNMP and web interface
## Technical Data

### Control Unit

<table>
<thead>
<tr>
<th>Supply Voltage</th>
<th>24 VDC +/- 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Current, Max.</td>
<td>0.85 A</td>
</tr>
<tr>
<td>Mains Adaptor Voltage</td>
<td>90 VAC to 264 VAC, 47 to 63 Hz, 127 VDC to 370 VDC</td>
</tr>
<tr>
<td>Mains Adaptor Power Consumption, Max.</td>
<td>30 W</td>
</tr>
<tr>
<td>Weight</td>
<td>1.6 kg</td>
</tr>
<tr>
<td>Dimensions (L x W x H) mm</td>
<td>158 x 483 x 44 (19&quot;, 1RU)</td>
</tr>
</tbody>
</table>

### U-Link

<table>
<thead>
<tr>
<th>Interface</th>
<th>158 USL-D</th>
<th>68 USL-D</th>
<th>98 USL-D</th>
<th>120 USL (HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>87.5 MHz to 108 MHz</td>
<td>87.5 MHz to 108 MHz</td>
<td>87.5 MHz to 108 MHz</td>
<td>87.5 MHz to 108 MHz</td>
</tr>
<tr>
<td></td>
<td>174 MHz to 254 MHz</td>
<td>174 MHz to 254 MHz</td>
<td>174 MHz to 254 MHz</td>
<td>174 MHz to 254 MHz</td>
</tr>
<tr>
<td></td>
<td>470 MHz to 860 MHz</td>
<td>470 MHz to 860 MHz</td>
<td>470 MHz to 860 MHz</td>
<td>470 MHz to 860 MHz</td>
</tr>
<tr>
<td>Proof Voltage, Max.</td>
<td>7 kV</td>
<td>13 kV</td>
<td>19 kV</td>
<td>25 kV</td>
</tr>
<tr>
<td>Average Power Capability, Max.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 MHz</td>
<td>20.0 kW</td>
<td>51.0 kW</td>
<td>98.0 kW</td>
<td>169.0 kW</td>
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<tr>
<td>254 MHz</td>
<td>13.5 kW</td>
<td>34.0 kW</td>
<td>67.0 kW</td>
<td>116.0 kW</td>
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<tr>
<td>860 MHz</td>
<td>7.0 kW</td>
<td>17.5 kW</td>
<td>35.0 kW</td>
<td>60.0 kW</td>
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<tr>
<td>VSWR</td>
<td>1.06</td>
<td>1.06</td>
<td>1.06</td>
<td>1.06</td>
</tr>
<tr>
<td>Weight</td>
<td>xxxx</td>
<td>xxxx</td>
<td>xxxx</td>
<td>xxxx</td>
</tr>
<tr>
<td>Dimensions (L x W x H) mm</td>
<td>xxxx</td>
<td>xxxx</td>
<td>xxxx</td>
<td>xxxxx</td>
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</table>

### Line Sections

<table>
<thead>
<tr>
<th>Interface</th>
<th>1 5/8&quot; EIA</th>
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<th>4 1/2&quot; EIA</th>
<th>6 1/8&quot; EIA</th>
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<td>19 kV</td>
<td>25 kV</td>
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<tr>
<td>Average Power Capability, Max.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 MHz</td>
<td>20.0 kW</td>
<td>51.0 kW</td>
<td>98.0 kW</td>
<td>140.0 kW</td>
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<tr>
<td>254 MHz</td>
<td>13.5 kW</td>
<td>34.0 kW</td>
<td>64.0 kW</td>
<td>92.0 kW</td>
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<tr>
<td>860 MHz</td>
<td>7.0 kW</td>
<td>17.5 kW</td>
<td>35.0 kW</td>
<td>47.0 kW</td>
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<tr>
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<td>1.06</td>
<td>1.06</td>
<td>1.06</td>
<td>1.06</td>
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<tr>
<td>Weight</td>
<td>xxxx</td>
<td>xxxx</td>
<td>xxxx</td>
<td>xxxx</td>
</tr>
<tr>
<td>Dimensions (L x W x H) mm</td>
<td>xxxx</td>
<td>xxxx</td>
<td>xxxx</td>
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</table>
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