SPINNER
Antenna Monitoring System

Engineered to Detect Failures Early and Safeguard Your Infrastructure

HIGH FREQUENCY PERFORMANCE WORLDWIDE
www.spinner-group.com

SPINNER Antenna Monitoring System (AMS)

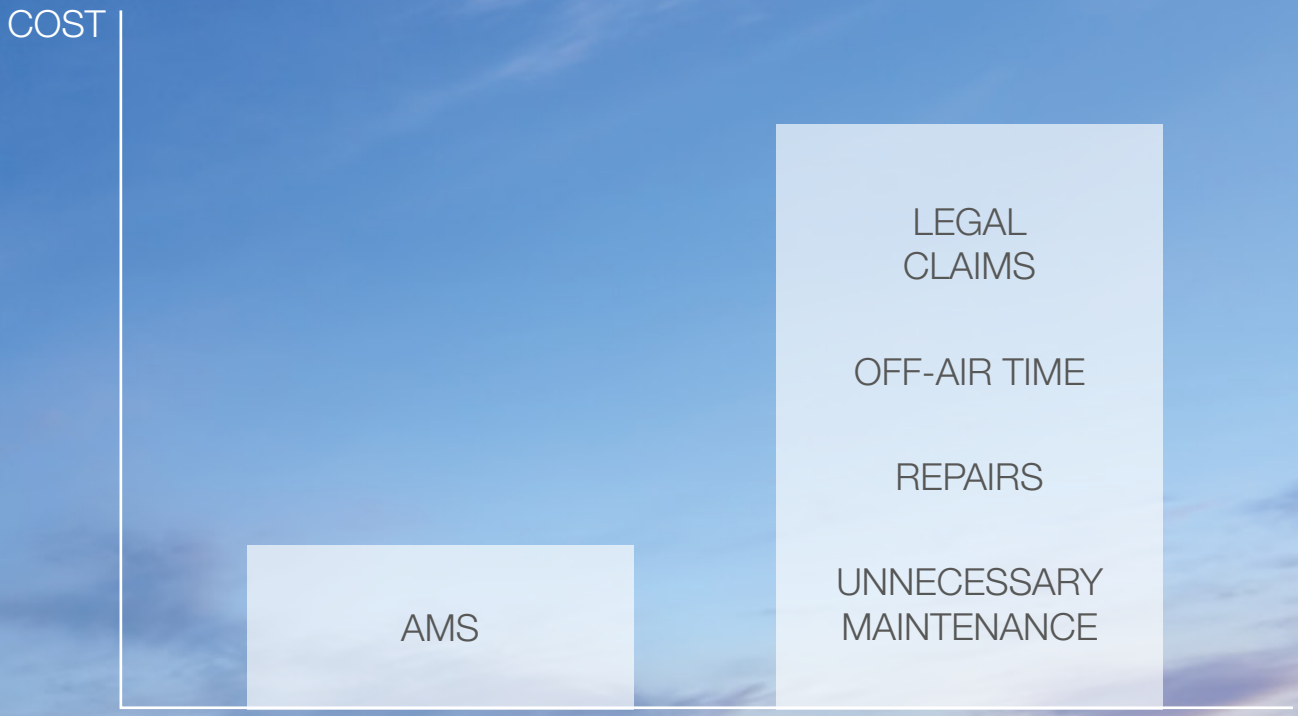
Radio and television broadcasters worldwide rely on their systems to deliver content to listeners and viewers. But though their infrastructure may be robust, it isn‘t invulnerable. Degradation can occur as a result of long-term use and environmental stress. Feeder cables can be damaged by strong winds, 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

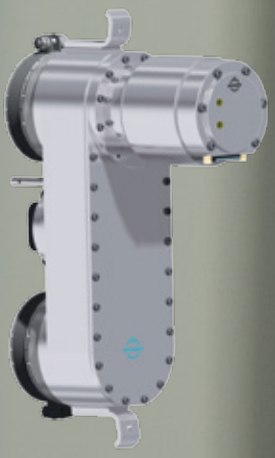
- Compact design
- Fast and easy installation
- All components housed at a single indoor location
- No invasive changes to the system
- No signal distortion, antenna pattern unaffected

Control Unit

Collects and analyzes the data from the AMS Detectors (see below), triggers warnings and alarms via relay contacts and SNMP and hosts a webserver for convenient configuration of the AMS system

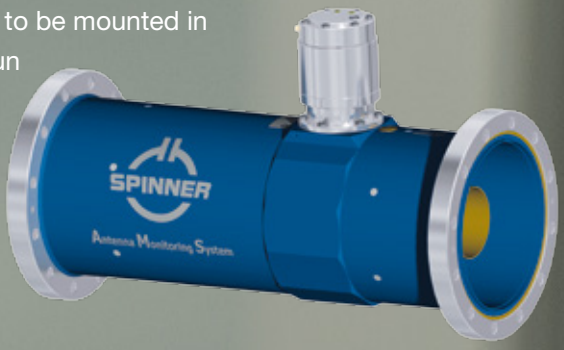
AMS U-Link

AMS Detector, to be mounted on SPINNER Patch Panels



AMS Line Section

AMS Detector, to be mounted in any rigid line run



AMS Test Adaptor

for testing the AMS functionality

Part Numbers

Basic Number			Product				AMS Detector			Version
							Size	Type	Quantity	
5	5	5	X	X	X	C	X	X	X	X
AMS Kit for Band II			0	2	0					
AMS Kit for Band III			0	3	0					
AMS Kit for Band IV/V			0	4	0					

AMS U-Links	AMS Line Section	
1 5/8" USL-D	1 5/8" EIA	1
29.5-68 USL-D	3 1/8" EIA	3
43-98 USL-D	4 1/2" EIA	4
52-120 USL	–	5
–	6 1/8" EIA	7

AMS U-Link Interlock 1	1
AMS U-Link Interlock 2	2
AMS Line Section	3

No. of AMS Detectors
To be completed 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

Main adaptor voltage	100 VAC to 240 VAC, 50 Hz to 60 Hz
Power Consumption, max.	50 W
Main Adaptor interface	IEC 60320 C14 (plug)
Interlock contacts interface	D-SUB 25 plug (10 potential-free relay contacts)
Signaling contacts interface	D-SUB 9 plug (3 potential-free relay contacts)
SNMP- and web-interface (LAN1)	RJ-45 (SNMPv2c)
Local web interface (LAN2)	RJ-45 (IE 9 or higher, Mozilla, Firefox, no Java needed)
Dimensions (L x W x H)	158 mm x 483 mm x 44 mm (19”, 1RU)
Weight, ca.	1.6 kg

AMS U-Link

Interface		1 5/8" USL-D	29.5-68 USL-D	43-98 USL-D	52-120 USL
Frequency Range		87.5 to 108 MHz 174 to 254 MHz 470 to 800 MHz	87.5 to 108 MHz 174 to 254 MHz 470 to 800 MHz	87.5 to 108 MHz 174 to 254 MHz 470 to 800 MHz	87.5 to 108 MHz 174 to 254 MHz 470 to 800 MHz
Proof voltage, max	100 MHz	7 kV	13 kV	19 kV	25 kV
Max. average power capacity	100 MHz 254 MHz 800 MHz	20.0 kW 13.5 kW 7.0 kW	51.0 kW 34.0 kW 17.5 kW	98.0 kW 67.0 kW 35.0 kW	140.0 kW 116.0 kW 60.0 kW
VSWR	100 MHz 254 MHz 800 MHz	1.04 1.06 1.06	1.04 1.06 1.06	1.04 1.06 1.06	1.04 1.06 1.06
Interface to Control Unit		D-SUB 15 socket	D-SUB 15 socket	D-SUB 15 socket	D-SUB 15 socket
Dimensions (L x W x H) mm		292 x 102 x 200	292 x 102 x 203	391 x 138 x 258	564 x 180 x 310
Weight, ca.		2.4 kg	2.5 kg	5.5 kg	11.2 kg

AMS Line Section

Interface		1 5/8" EIA	3 1/8" EIA	4 1/2" EIA	6 1/8" EIA
Frequency Range		87.5 to 108 MHz 174 to 254 MHz 470 to 800 MHz	87.5 to 108 MHz 174 to 254 MHz 470 to 800 MHz	87.5 to 108 MHz 174 to 254 MHz 470 to 800 MHz	87.5 to 108 MHz 174 to 254 MHz 470 to 800 MHz
Proof voltage, max	100 MHz	7 kV	14 kV	19 kV	28 kV
Max. average power capacity	100 MHz 254 MHz 800 MHz	20.0 kW 13.5 kW 7.0 kW	67.0 kW 44.0 kW 23.0 kW	112.0 kW 74.0 kW 38.0 kW	140.0 kW 116.0 kW 78.0 kW
VSWR	100 MHz 254 MHz 800 MHz	1.04 1.06 1.06	1.04 1.06 1.06	1.04 1.06 1.06	1.04 1.06 1.06
Interface to Control Unit		D-SUB 15 socket	D-SUB 15 socket	D-SUB 15 socket	D-SUB 15 socket
Dimensions (L x W x H) mm		335 x 130 x 213	335 x 130 x 213	360 x 160 x 255	460 x 210 x 303
Weight, ca.		4.6 kg	4.6 kg	5.5 kg	10.7 kg

HIGH FREQUENCY PERFORMANCE WORLDWIDE

SPINNER designs and builds cutting-edge radio frequency systems, setting performance and longevity standards for others to follow. The company's track record of innovation dates back to 1946, and many of today's mainstream products are rooted in SPINNER inventions.
Industry leaders continue to count on SPINNER's engineering excellence to drive down their costs of service and ownership with premium-quality, off-the-shelf products and custom solutions.
Headquartered in Munich, Germany, the global frontrunner in RF components remains the first choice in simple-yet-smart RF solutions.

www.spinner-group.com

SPINNER GmbH
Headquarters
Erzgiessereistr. 33
80335 Munich
GERMANY
Phone: +49 89 12601-0
Fax: +49 89 12601-1292
info@spinner-group.com
www.spinner-group.com

SPINNER Austria GmbH
Triester Str. 190
1230 Vienna
AUSTRIA
Phone: +43 1 66277 51
Fax: +43 1 66277 5115
info-austria@spinner-group.com

SPINNER Electrotécnica S.L.
c/ Perú, 4 – Local n° 15
28230 Las Rozas (MADRID)
SPAIN
Phone: +34 91 6305 842
Fax: +34 91 6305 838
info-iberia@spinner-group.com

OOO SPINNER Elektrotechnik
Kozhevnicheskaja str. 1, bld. 1
Office 420
115114 Moscow
RUSSIA
Phone: + 7 495 6385 321
Fax: + 7 499 2353 358
info-russia@spinner-group.com

SPINNER France S.A.R.L.
24 Rue Albert Priolet
78100 St. Germain en Laye
FRANCE
Phone: +33 1 74 13 85 24
info-france@spinner-group.com

SPINNER ICT Inc.
5126 S. Royal Atlanta Drive
Tucker, GA 30084-3052
USA
Phone: +1 770 2636 326
Fax: +1 770 9343 384
info-atlanta@spinner-group.com

SPINNER Nordic AB
Kråketorpsgatan 20
43153 Mölndal
SWEDEN
Phone: +46 31 7061670
Fax: +46 31 7061679
info-nordic@spinner-group.com

SPINNER Telecommunication
Devices (Shanghai) Co., Ltd.
351 Lian Yang Road
Songjiang Industrial Zone
Shanghai 201613
P.R. CHINA
Phone: +86 21 577 45377
Fax: +86 21 577 40962
info-china@spinner-group.com

SPINNER UK Ltd.
Suite 8 Phoenix House
Golborne Enterprise Park,
High Street
Golborne, Warrington
WA3 3DP
UNITED KINGDOM
Phone: +44 1942 275222
Fax: +44 1942 275221
info-uk@spinner-group.com

Certified according to DIN EN ISO 9001 / 14001

2.0/BC/10.2016