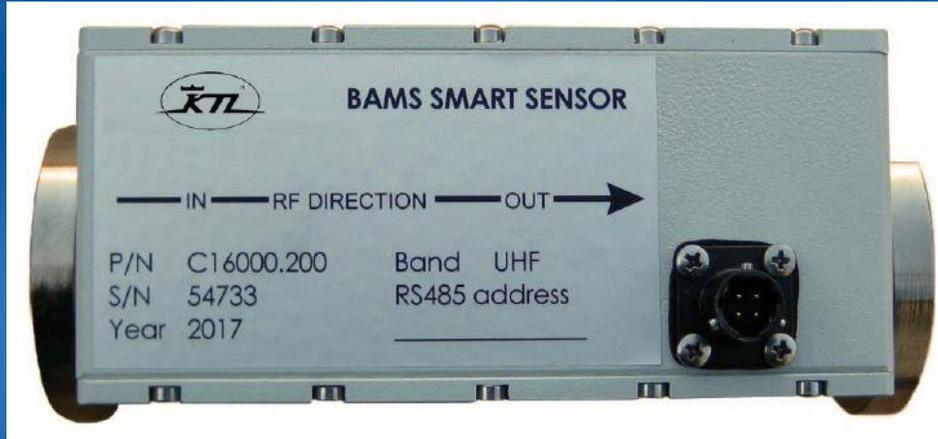




KINTRONIC LABS

an ISO 9001 registered company

BAMS – The Antennas' Doctor



Broadcasting Antenna Monitoring System - BAMS

MAIN HIDDEN TROUBLES ON ANTENNAS AFFECTING PERFORMANCE





KINTRONIC LABS

an ISO 9001 registered company



BE AWARE OF YOUR ANTENNAS HEALTH AND PERFORMANCE



LET ANTENNAS CALL YOU JUST IN CASE OF TROUBLES (IoT)



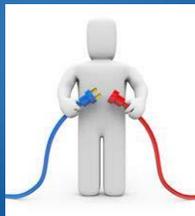
ALLOW REALTIME MONITORING



PROACTIVE MAINTENANCE



WHEREVER YOU ARE



CONNECT



BY A SYSTEM EMBEDDED IN THE ANTENNA



KINTRONIC LABS

an ISO 9001 registered company

UNEXPECTED BLACK-OUT: WHAT DO YOU PREFER?



IF YOU SELECTED THE SECOND OPTION AT LEAST ONCE



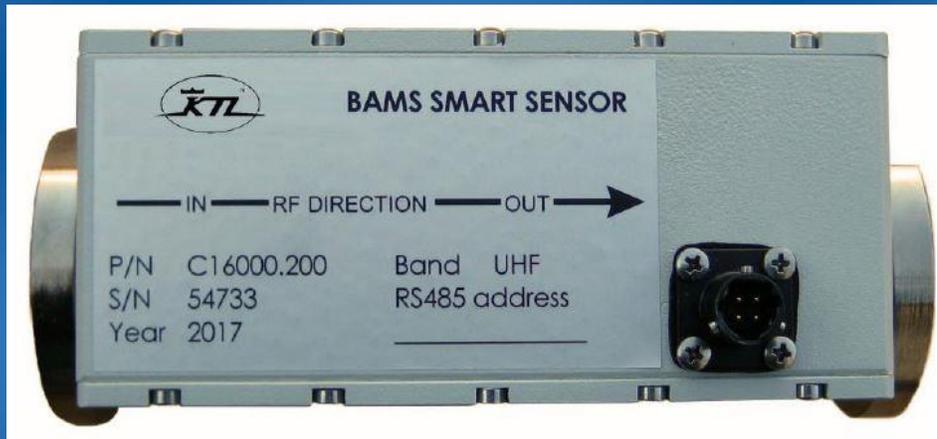
THEN YOU NEED BAMS!



KINTRONIC LABS

an ISO 9001 registered company

BAMS Components – 1. Smart Sensors (one per flange)



Four Models	:	UHF, VHF, DAB, FM
Insertion loss	:	< 0.05 dB
SWR	:	< 1.05 UHF model < 1.03 the other models
Impedance	:	50 Ω
Directivity	:	> 30 dB
Max working power	:	Depending on RF IN/OUT connectors
RF IN/OUT connectors	:	DIN 7/16" (male-male or female-female or mix), EIA 7/8", 1-5/8" or EIA 3-1/8"
Power measurements	:	Forward and Reflected Power (RMS), channel selective for UHF and VHF versions
Power measurement accuracy	:	± 0.5 dB
Power measurement dynamic range	:	30 dB
RF line pneumatic measures	:	Temperature, pressure, relative humidity, dew point
Communication standard	:	Serial RS485 half-duplex
Power supply and serial connector	:	Two identical IP67 connectors for easy paralleling
Operating temperature	:	-67 to + 158 $^{\circ}$ F (-40 to + 70 $^{\circ}$ C)
Dimensions and weight	:	Depending on RF IN/OUT connectors
Mounting	:	Self-supported



KINTRONIC LABS

an ISO 9001 registered company

BAMS Components – 2. Data Manager (one per station)



- Max No of directional coupler simultaneously controlled : Up to 127
- Max distance from coupler to data logger : Up to 4920 ft (1500 m)
- Main software features :
 - real time antenna system monitoring
 - problems and failures localization
 - assessment of site faults prior to dispatching personnel to site
 - programmable alarms and thresholds
 - data storage and long-term performance analysis
 - fast transient registration
 - analysis of failures or performance deviations caused by atmospheric phenomena
 - dew point and pressure monitor in pressurized antennas
 - moisture/water detection
- Remote control : Ethernet port with the following protocols HTTP, TCP/IP, SNMP, TFTP, FTP, Telnet, DHCP others on request
- Power supply : 110-240 VAC 50/60 Hz (UPS embedded)
- Power consumption : < 60 VA
- Operating temperature : +14 to + 122 °F (-10 to + 50 °C)
- Mounting : Wall, floor, 19" and ETSI N3 racks
- Dimensions for 19" rack version : 19" (482 mm) W, 1-3/4"H (44 mm) (1 U), 9-7/8" (250 mm) D
- Weight : About 6.6 lbs (3 kg)



BAMS – How Does it Work - Principle

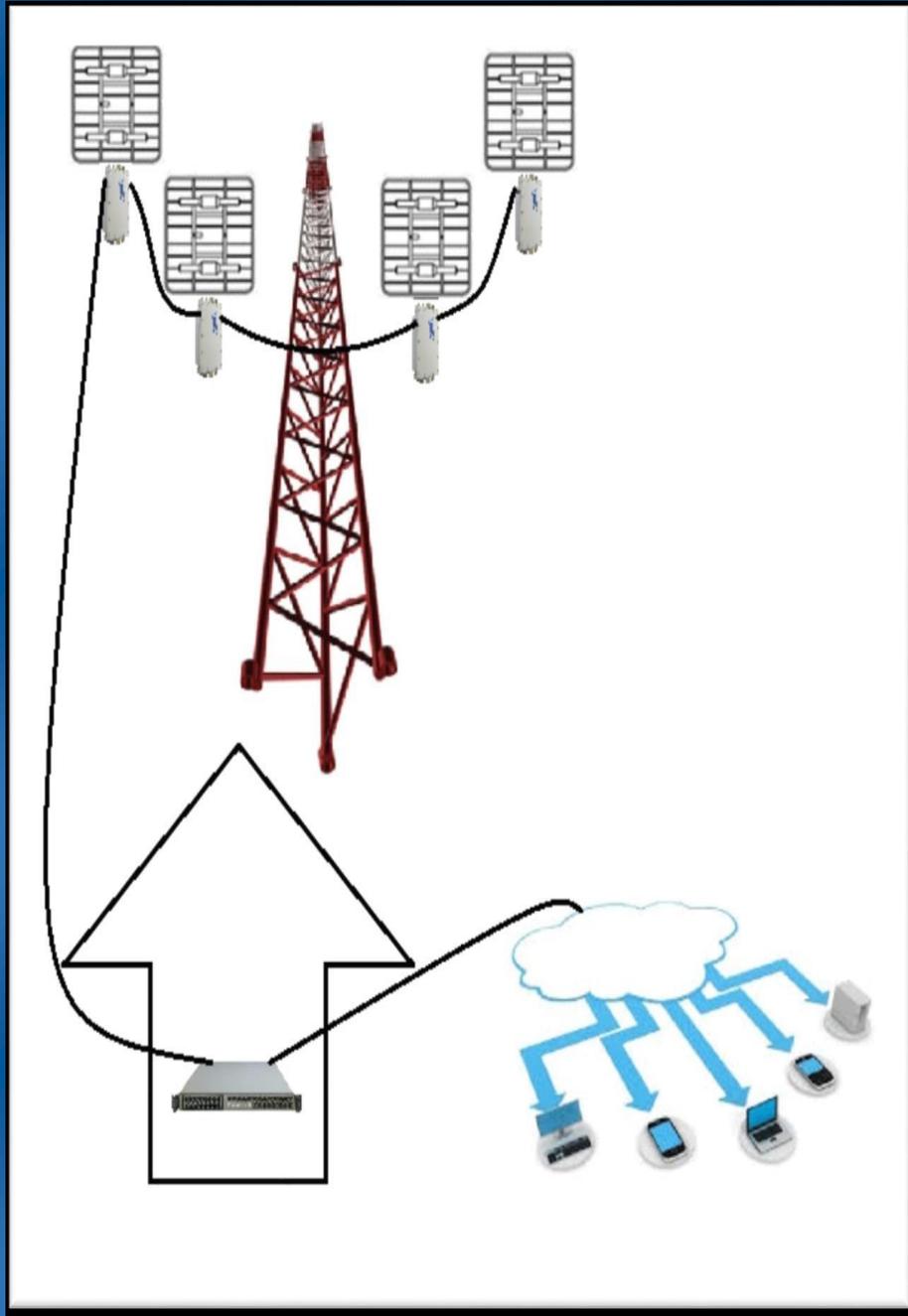




KINTRONIC LABS

an ISO 9001 registered company

BAMS – How Does it Work - *Scheme*





KINTRONIC LABS

an ISO 9001 registered company

BAMS – Additional Features

SELECTIVE MONITORING of
Each **INDIVIDUAL CHANNEL**

EASY INSTALLATION by **FEW & SHORT CABLES** (Single cable for signal and power connection)

SINGLE SENSOR covering **30 dB POWER RANGE** (i.e. EIA 7/8 version covers 2 W - 2 kW)

CORRELATION between **ENVIRONMENTAL** conditions and antenna **PERFORMANCE**

NO JUNCTION BOX required

SLA (SERVICE LEVEL AGREEMENT) - measure and show your customer you really fulfilled it *for each channel*

PRESSURE MAP inside antenna allows one to **EASILY LOCALIZE AIR LEAKAGES** (pressure monitoring embedded in SMART sensors)

HARDENIZED by **DIGITAL** connection

WEATHER & PERFORMANCE DEVIATION - link antenna status to environmental conditions (temperature, relative humidity and wind)

TRANSIENT & PERMANENT Monitoring



KINTRONIC LABS

an ISO 9001 registered company

WHY KINTRONIC LABS

LONG EXPERIENCE

- 60+ years manufacturing products for the broadcast industry

TOTAL ANTENNA CARE

- PRESERVE by PRESSURIZATION & DEHYDRATION equipment

WIDE RANGE OF SKILLS

- Electronics
- Mechanics
- Pneumatics
- RF
- IT

WORLDWIDE

- Equipment installed in 100+ different countries

