

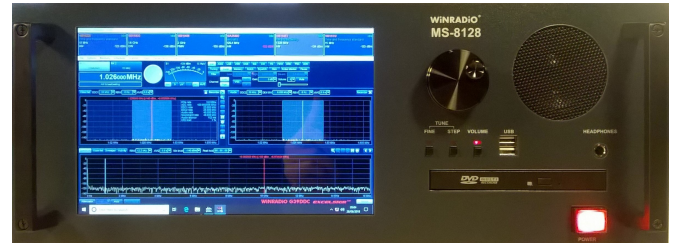
# MS - 8128/G3

## Multichannel Radio Monitoring System

- Automatic computer-controlled radio surveillance
- Fully integrated and compact solution
- Software-Defined Radio architecture
- Independent monitoring of eight channels
- Compression and storage of demodulated signals
- Choice of receivers for a wide frequency range
- Automated scheduling of surveillance tasks
- Master/Slave signal search operations
- Optional remote control via LAN/WAN
- Ruggedized enclosure for mobile operations

The task of multichannel radio frequency surveillance and monitoring would typically involve a number of separate radio receivers, audio recorders and other discrete components interconnected into bulky and expensive systems.

WiNRADiO MS-8128 Spectrum Monitoring System provides an elegant, fully integrated solution, specifically designed for computer-controlled automatic monitoring of frequencies ranging from VLF frequencies up to low microwave, in all major modulation modes. The system is designed to monitor radio frequencies on multiple channels simultaneously, record digitized signals on the hard disk for easy later retrieval, and perform automatic decisions based on the received signals.



The built-in hard disk allows a typical storage of several months of continuous recording, and a re-writable CD-ROM or DVD drive makes archiving of recordings easy. The unit is capable of unattended operation and, if the Client/Server Option is fitted, it can be operated remotely. The recorded audio can also be remotely searched and streamed to the operator.

WiNRADiO card-based receivers are at the heart of the WiNRADiO MS-8128 Series Multichannel Radio Monitoring Systems, making it possible to achieve the necessary high level of integration.

Each card contains a high-performance software-defined receiver with built-in DSP and external connections for antenna and audio output. The receivers are designed to operate in the harsh electromagnetic environment existing inside a computer-based system, and are ideally suited for simultaneous multichannel operation.



This system is based on a ruggedized heavy-duty 19" rackmounted industrial computer. The front panel features a high-contrast wide-angle display. There is provision for connection of an external keyboard and mouse. The system includes eight independent receiver cards, and is capable of simultaneous monitoring of eight channels ranging from VLF to UHF frequencies.

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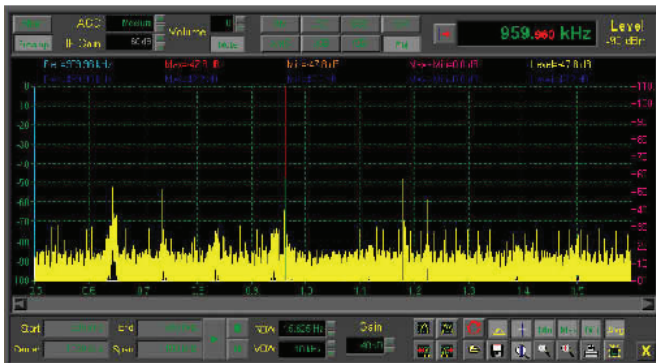
[www.winradio.com](http://www.winradio.com)

## Software

The MS-8128 software allows the user to control each individual receiver separately and observe its operational status, as well as set the system parameters for multichannel monitoring and surveillance operations.

The receiver control software contains numerous advanced features, many tuning and scanning options, and virtually unlimited channel memories.

Each receiver features an independent software-defined demodulator with continuously adjustable IF bandwidth, IF shift, notch and audio filters. All these settings are graphically adjustable, allowing the user to observe the real-time signal spectrum superimposed over the contours of the current filter settings.



Several different types of signal spectra can be displayed, to monitor activity on a particular channel or in a particular band. Scanned spectra can be stored and printed for later reference. The built-in spectrum analyzer also allows direct "click-on-peak" tuning of the associated receiver from within the displayed spectrum.

## Automatic Operation

The MS-8128 Series can be programmed for fully automated operation. Automated recording tasks can be initiated by signal level variations as well as time and calendar based schedules. The system's response can be selected from a range of built-in pre-defined options, including alerting the operator, start or stop recording, change receiver settings and others.

Recording may be performed either with the standard WAV format, or with a special enhanced format which contains time stamps, signal strength and other information. This format is suitable for further processing by optional transcription and audio processing software.

An important facility of the MS-8128 system is the "hand off" feature, where a "master" scanning receiver can hand off a radio channel to another "slave" receiver if a signal is found, and then continue searching the band.

## Options and Custom Tailored Solutions

The MS-8128 system can be tailored to specific customer requirements, by selecting the most appropriate receivers, computer configurations and accessories to suit the required monitoring and surveillance application.

The WA-0831/0851 Antenna Distribution Unit contains a computer controlled antenna matrix switch, preamplifiers with an extremely high third order intercept point, and a combination of suitable filters. The unit splits multiple input signals into multiple output signals with no loss. A suitable wide-band antenna is also available.



WA-0851 Antenna Distribution System

The MS-8128 Client/Server Option makes it possible to operate the MS-8128 Multichannel Monitoring Systems remotely via a computer network or a dial-up telephone connection.

WAARP is a powerful transcription and audio analysis software package, especially suitable for processing enhanced recordings acquired with the MS-8128 system. The software makes it possible to analyze and annotate recordings, re-play them under varying speeds without pitch change, as well as convert between audio recording formats.

## Specifications

<b>Mainframe</b>	
<b>Enclosure</b>	19" rackmount, heavy duty
<b>Built-in Display</b>	WGXA 10.1" IPS colour display
<b>Height</b>	4U (6.9"=177mm)
<b>Depth</b>	16.5" approx (415 mm)
<b>Weight</b>	42.9 lb approx (19.5 kg)
<b>Receiver</b>	
<b>Receiver type</b>	WINRADIO G3 Software-Defined Receivers
<b>Frequency range</b>	VLF to UHF (various options available)
<b>Modes</b>	AM, NFM, WFM, USB, LSB, ISB, DSB, CW
<b>Tuning resolution</b>	1 Hz
<b>Audio output</b>	4 W
<b>Antenna connection</b>	50 ohm

*Specifications are subject to change without prior notice due to continuous product development.*

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