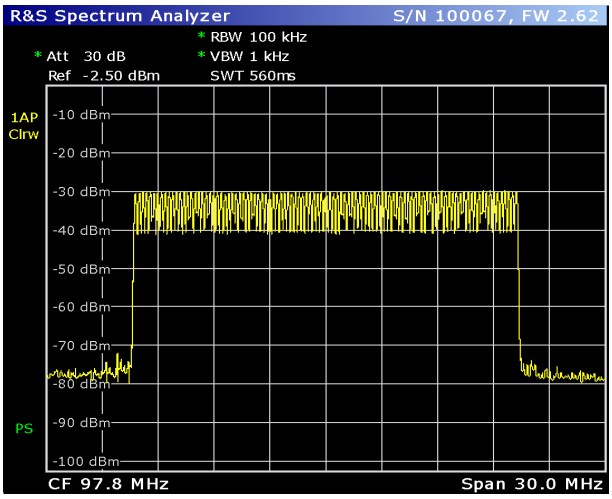
FM Radio-based Event Warning and Emergency Alert System

Description

The heart of the system is a multi-frequency FM transmitter which can send emergency warnings and alert signals on all radio frequencies simultaneuosly (88 - 108 MHz band) within 50-100 m from its position, temporarily covering the standard radio signal in order to transmit the warning to all the vehicles within that range.

According to statistics, about 74% of drivers listen to the radio while at the wheel: our technology uses this media to reach those people and quickly notify them the emergency warnings or alert messages in a safe and effective way. Moreover, it can also be used for public order messages, law enforcement needs, or civil defense warnings.

The system is extremely compact and doesn't need any expensive additional infrastructures. It can be mounted in fixed positions (highways, road tunnels, etc.) or on mobile posts (to alert people about temporary roadworks, accidents, traffic jams, etc.).



It can transmit an audio message, a voice alert or other messages. Thanks to embedded RDS encoder, it uses the "Traffic Alert" function to make the radio switch automatically to the FM tuner, transmitting the alert signal both as an audio message and as an RDS text. Even if the driver is listening to a CD or an MP3, the receiver with an active RDS Traffic Alert warning will automatically switch to the FM tuner in order for the alert to be heard.

The system can also be installed in emergency or rescue vehicles to quickly alert the nearby drivers about the approaching of these vehicles. It can be either activated directly by the rescue vehicle personnel in case of an emergency coming from a mobile post, or remotely from the headquarters, in case of use in a fixed position.

Key Features*

Operating frequency range	- all 87.6-108 MHz or 87.5-107.9 MHz (103 channels with 200 KHz spacing)
Inputs	- RJ45 feed through waterproof connector for data stream and control - DC 24/48 V MIL-STD connector
Output	- RF N type connector 50 Ohm
RF Power Out	- 20/50 mW per channel (20/50 W) (depending on options)
Power Consumption	- 200/500 W (depending on options)
Power Supply	- 24 VDC
Operating Range	- Operating range -15° to 60°C - Storage range -15° to 75°C - 100m / 1 Km coverage (depending on options)
Dimensions	- Outdoor unit (ODU module): 442 x 312 x 165.5 mm
Antenna	- Groundplane or Directive (depending on options)

** all options and configurations to be defined during the contract and network designing phase.*

System Installation Examples

Cool Feature

This FM Alert system can be connected to an environmental sensor network: when a dangerous event is detected, an alert signal is automatically transmitted on all FM frequencies with an active RDS Traffic Alert warning.

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