



FM RADIO-BASED EVENT WARNING AND EMERGENCY ALERT SYSTEM



TECNOROLL BMB s.r.l.

Efficient warning and alert notification

Drivers must pay attention to a great number of details and events occurring around them all the time.

Sometimes they happen to be distracted and don't notice important warning signs, especially when they are driving on roads they are quite familiar with, which lead them to drive less carefully.

The loud music people listen to while driving may also cover the sound of the sirens of an approaching ambulance or police car, sometimes with fatal consequences.

According to statistics, about 74% of drivers listen to the radio while at the wheel: our FLEXMod FM211 can use this media to reach those people and quickly notify them emergency warnings or alert messages in a safe and effective way.

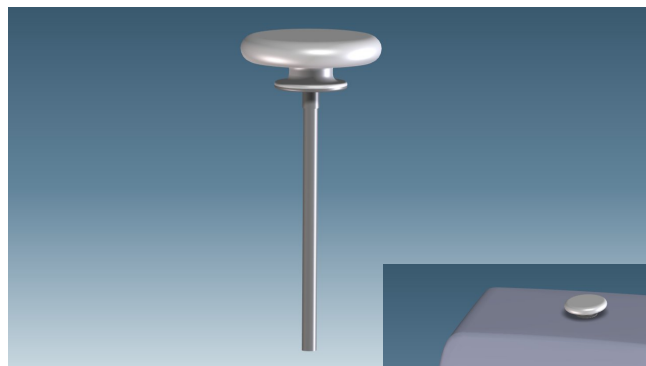


This technology can also be used for public order messages, law enforcement needs (e.g. during demonstrations and meetings, sports events, etc.), or civil defence warnings.

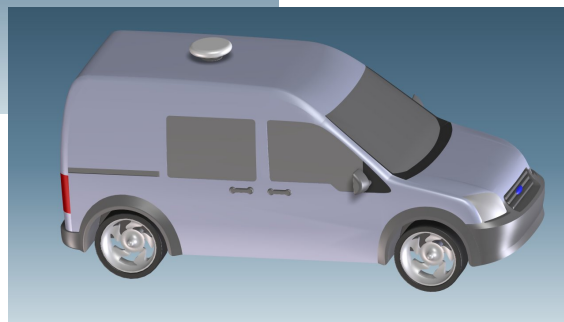
The FLEXMod FM211 system

FLEXMod FM211 is extremely compact. It can be mounted either in fixed positions (highways, road tunnels, beaches, etc.) or on mobile posts (to alert people about roadworks, accidents, traffic jams, etc.). It can also be installed in vehicles like ambulances, fire trucks or police patrol cars to quickly alert the other drivers about the approaching rescue vehicle.

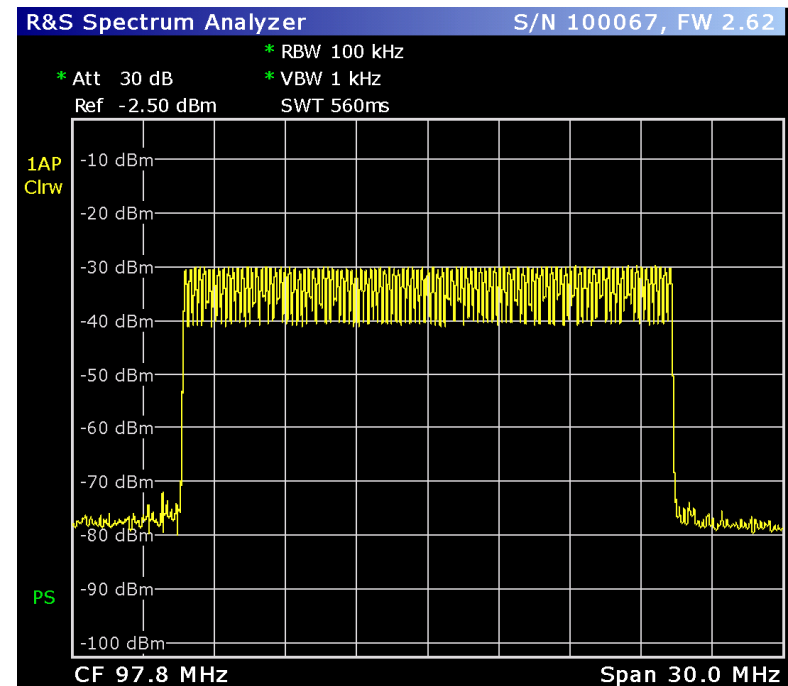
Alerts broadcast on all the FM channels at the same time.



Mast mounted version



Rescue vehicle mounted version



Date: 30.APR.2014 17:13:31

The system doesn't need any expensive additional infrastructures. It can be easily added to the existing devices, offering extra functionalities to the emergency management network.

FM211 System operation

The heart of the system is an FM transmitter which can send alert signals **on all radio channels at the same time (88-108 Mhz band)**.

It can transmit an audio message, a voice alert or the sound of a rescue vehicle siren.

Thanks to the embedded RDS encoder, the system 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 TA will automatically switch to the FM tuner in order for the alert to be heard.

The system can be 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 (to warn people about specific events on highways, in road tunnels, etc).

1 → approaching ambulance
alert signal sent in FM



2 → Signal received by vehicle
on any FM channel

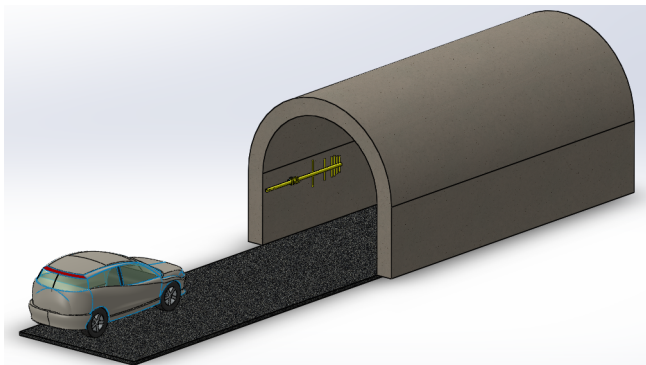


3 → Radios receive the message:
"Warning, ambulance approaching"

Example of use in a fixed position

The system, mounted in a fixed position directly on an existing infrastructure, warns drivers about an emergency, a specific alert or danger in a highway tunnel.

It can transmit warnings about tunnel conditions, send alerts in case of traffic jams, accidents, obstacles on the road or other dangers, increasing the effectiveness of the existing warning panels when a dangerous event has occurred.



Example of use for road warnings (tunnels, bridges, etc. ...)

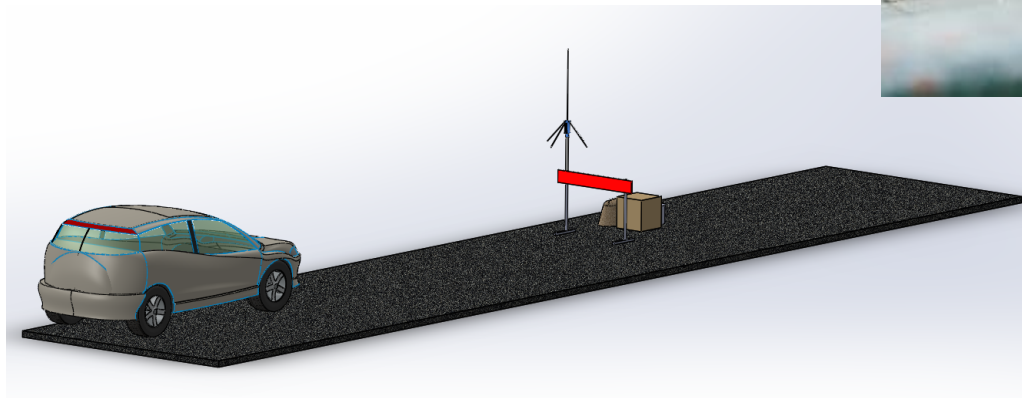
Example of use in a mobile post

Mounted on a pole or a tripod, the system can alert drivers about potentially dangerous temporary situations.

It can transmit warnings about lane closures and modified traffic circulation due to roadworks or accidents, signal the presence of obstacles on the road, or send other important alert messages.



Example of use in a mobile post for road-works.



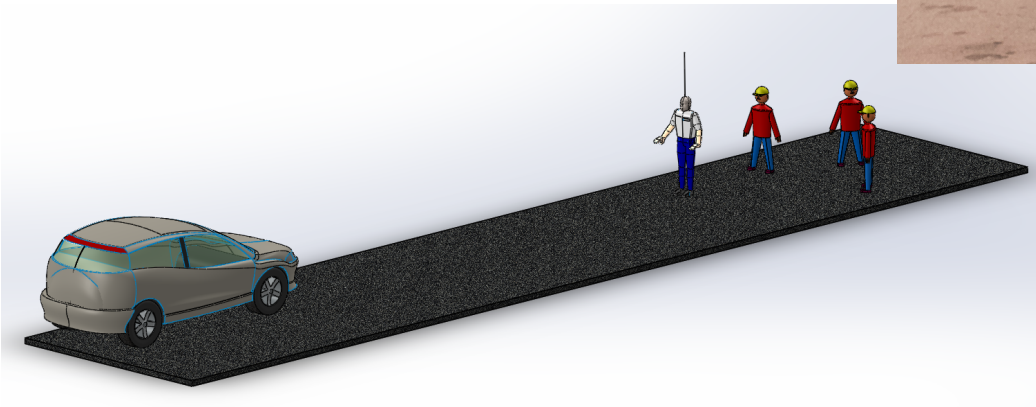
Example of hand-held use

Worn by an operator, for example in a rucksack on his back, the system can alert drivers about potentially dangerous temporary situations.

It can send real-time alert signals to people driving in dangerous areas, or warn them about expanding or moving natural calamities like forest fires, floods, tornadoes, etc.



Example of hand-held use for mobile events



Instant alerts in case of earthquakes or floods

In the event of natural disasters such as earthquakes or sudden events like flash floods, FLEXMod technology can offer several advantages:

- Instant local alerts: the signal is managed directly on site, and not sent to the headquarters and back, thus drastically reducing the response time of the alert system once the event has triggered the local sensors.
- Capillary and optimized coverage: even small areas like a single bridge or a road tunnel entrance can be covered easily and cost-effectively.



Example of a local alert system installed near a bridge.

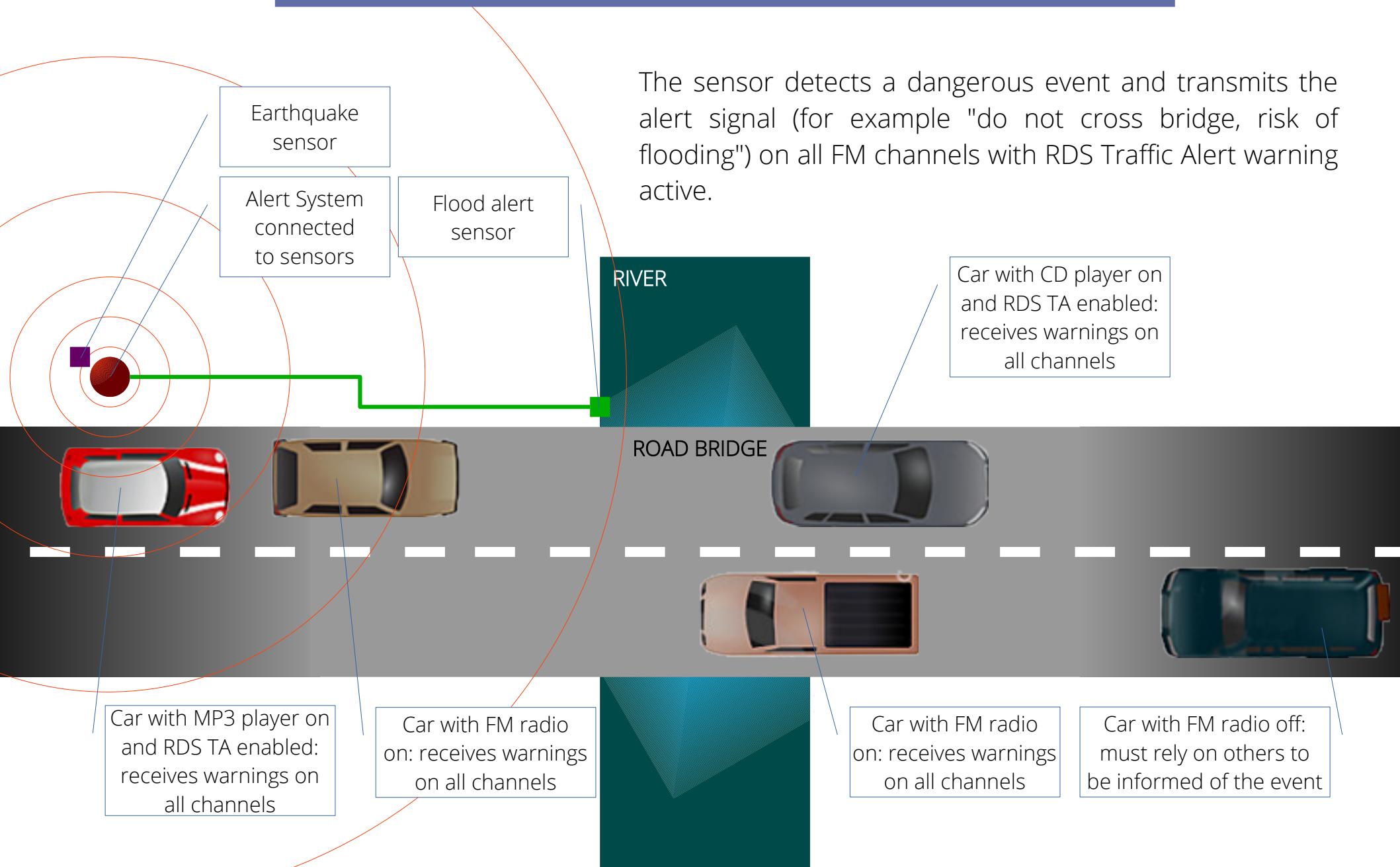
Instant alerts in hazardous areas

Installed in hazardous areas, the FLEXMod technology can provide instant alerts that can be received by a large part of the population, potentially helping to save lives.

It can transmit, for example, warnings about incoming missile strikes or bombardments, and inform people about the nearest shelter.



Instant alerts in case of earthquakes or floods



The sensor detects a dangerous event and transmits the alert signal (for example "do not cross bridge, risk of flooding") on all FM channels with RDS Traffic Alert warning active.

Other uses for the FLEXMod FM211



The system is designed to be used by police forces, civil defence workers, road managers, rescue vehicle operators and so on.

These are just some examples of the versatile use of the FM211 system:

- Alerts on natural disasters (earthquakes, floods, tsunamis, tornadoes, etc.)
- Public order messages (special or unexpected events, etc.)
- Alerts about approaching rescue vehicles
- Alerts about approaching large, slow-moving vehicles
- Warnings about the presence of people/animals/objects on the road
- Special warnings (e.g. beach announcements)
- Special alert messages for the population coming from police forces, etc.
- Etc...



Road block alert



Large, slow-moving vehicle



Natural disaster

Contacts



TECNOROLL BMB s.r.l.



TECNOROLL BMB s.r.l.

Via Olona, 9 - 21040 Vedano Olona (VA)
Tel: +39 0332 866544 - Fax: +39 0332 404581
www.tecnoroll.it info@tecnoroll.it