

World premiere of DAB+ Automatic Safety Alert (ASA) system

20 August 2024

WorldDAB and Digitalradio Deutschland e.V. proudly announce the launch of the "Automatic Safety Alert (ASA)" system after two years of intensive collaboration. This pioneering innovation in DAB+ digital radio technology aims to protect the public during emergencies by delivering reliable safety alerts without requiring an internet connection.

Benefits for listeners

Listeners will benefit from a system that alerts them even if mobile or internet connections are disrupted. ASA operates automatically in the background, can be regionally adjusted for the location, and boasts high resilience thanks to the robust DAB+ radio transmission network. The new standard will be published globally shortly, with initial tests scheduled for the IFA Berlin and the nationwide Warntag in Germany in September. By mid-2025, new generations of DAB+ radios will support the ASA standard.

Jacqueline Bierhorst, President, WorldDAB said: "Radio is consistently named as one of the most trusted media around the world. It's also rightly recognised for its critical role in times of crisis. Now, with this important digital innovation, DAB+ is future proofing this, offering listeners the reassurance of receiving Automatic Safety Alerts, tailored to their location."

Collaboration of public and private organisations

Public and private radio broadcasters, device manufacturers, and German safety authorities such as the Federal Office of Civil Protection and Disaster Assistance (BBK) have joined forces to create a critical component for crisis communication using DAB+ digital radio. With powerful transmitters covering large distances, DAB+ can send regionalised warnings, ensuring people in affected areas receive timely and accurate alerts.

The catastrophic flood in the Ahr Valley three years ago, which resulted in numerous fatalities, spurred this development in Germany. Given the current global instability and climate change, ASA holds significant international importance as DAB+ is available in around 70 percent of Europe. ASA allows radio broadcasters worldwide to enhance the safety of their listeners.

Enhanced warning clarity

Additional text and image information accompanying spoken alert messages make warnings clearer and more understandable for affected individuals. International standardisation and resource-efficient programming further ensure the system's future viability on a global scale.

ASA functionality

- Alerts: Spoken alert messages convey all relevant information about the emergency.
- Wake-up Function: Radios can be activated by DAB+ signals, crucial for future generations of radio alarm clocks.
- Switch Function: Receivers analyse references to alerts on other radio stations, increasing the flexibility and reach of warnings.
- Location Codes: The DAB+ signal indicates warning areas accurately, ensuring only those in affected regions are notified.

• Synchronisation: Wake-up cycles are very short, reducing power consumption and conserving battery power for portable receivers. Synchronisation with the radio signal ensures that all devices activate simultaneously and receive alerts concurrently.

Hardware development

WorldDAB, Digitalradio Deutschland e.V., and chip manufacturer Frontier Smart Technologies are working closely with manufacturers such as TechniSat and JVCKenwood to bring ASA-compatible devices to market, via their Siena Pro module and Kino 4 Pro chip with a new software SDK version.

With the standard's release, all DAB+ radio manufacturers worldwide are encouraged to integrate ASA into their product lines to ensure public safety through a wide range of brands. Frontier Smart Technologies have announced that the production version of ASA-compatible solutions will be available in Q4, enabling manufacturers to offer new devices to the market next summer. Other chip manufacturers are expected to follow suit.

Certification and ASA brand logo

To save lives, certification of new devices is mandatory. Digitalradio Deutschland e.V. and WorldDAB have developed a certification scheme for hardware manufacturers, based on the well-known "Digital Radio Tick Mark," which additionally tests typical ASA scenarios such as waking from standby and evaluation of location codes. An internationally recognised testing lab will ensure compliance with the standard. The ASA logo, found on certified device packaging and radios, highlights the consumer benefits and builds trust in the technology. The ASA brand logo is a registered trademark with the EUIPO for the EU, UK, and Switzerland.

IFA Berlin and Warning Day in Germany

Frontier Smart Technologies will present an initial platform test of ASA for B2B customers and the device industry at the upcoming IFA in Berlin (6-10 September). The exhibition will demonstrate how the new functions can be integrated into future generations of devices. On the nationwide Warntag (Warning Day) in Germany on 12 September, public and private radio broadcasters, in collaboration with Fraunhofer IIS, will conduct the first tests based on the ASA standard with selected devices.

Details of the new DAB+ ASA standard

The new specification for ASA "Automatic Safety Alert" via DAB+ is expected to be standardised globally by ETSI in September. ETSI, the European Telecommunications Standards Institute, develops international standards for telecommunications and digital technologies, ensuring global compatibility and safety of devices and systems.

- ASA is standardised as ETSI TS 104 090 "Digital Audio Broadcasting (DAB); Emergency Warning System (EWS); Minimum requirements and test specifications for receivers."
- The corresponding system definition is ETSI TS 104 089 "Digital Audio Broadcasting (DAB);
 Emergency Warning System (EWS); Definition and rules of behaviour."

Graphics

- DAB+ radio with ASA logo
- Frontier Smart Technologies Kino 4 Pro chip
- Frontier Smart Technologies Siena Pro module
- Jacqueline Bierhorst, President, WorldDAB
- WorldDAB logo

Notes to editors

- Experts from WorldDAB, Digitalradio Deutschland e.V., and chip manufacturer Frontier Smart Technologies are available for interview please contact WorldDAB.
- Videos (in English) from the launch event in Berlin are available:
 - Worldwide Launch of EWS Marketing Toolbox for the radio industry Jacqueline Bierhorst, President WorldDAB, and Carsten Zorger, Head Digitalradio Büro Deutschland: https://www.voutube.com/watch?v=wCo4A7ucxgU
 - Emergency Warnings via DAB+: Using DAB+'s Digital Data to Save Lives Lindsay Cornell, Chair,
 WorldDAB Technical Committee: https://www.youtube.com/watch?v=o2p0fGCbuWc

About WorldDAB

WorldDAB is the global industry association responsible for defining and promoting DAB digital radio. By bringing together radio industry professionals, WorldDAB provides knowledge and expertise that helps countries successfully adopt and implement broadcast digital radio.

Our 1300+ experts from 120 member organisations in 38 countries across the globe include public and commercial broadcasters, regulators, network providers and manufacturers of receivers, chips, professional equipment, and automobiles.

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