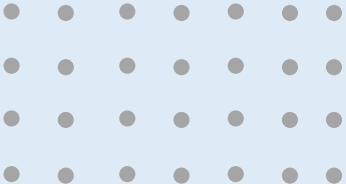
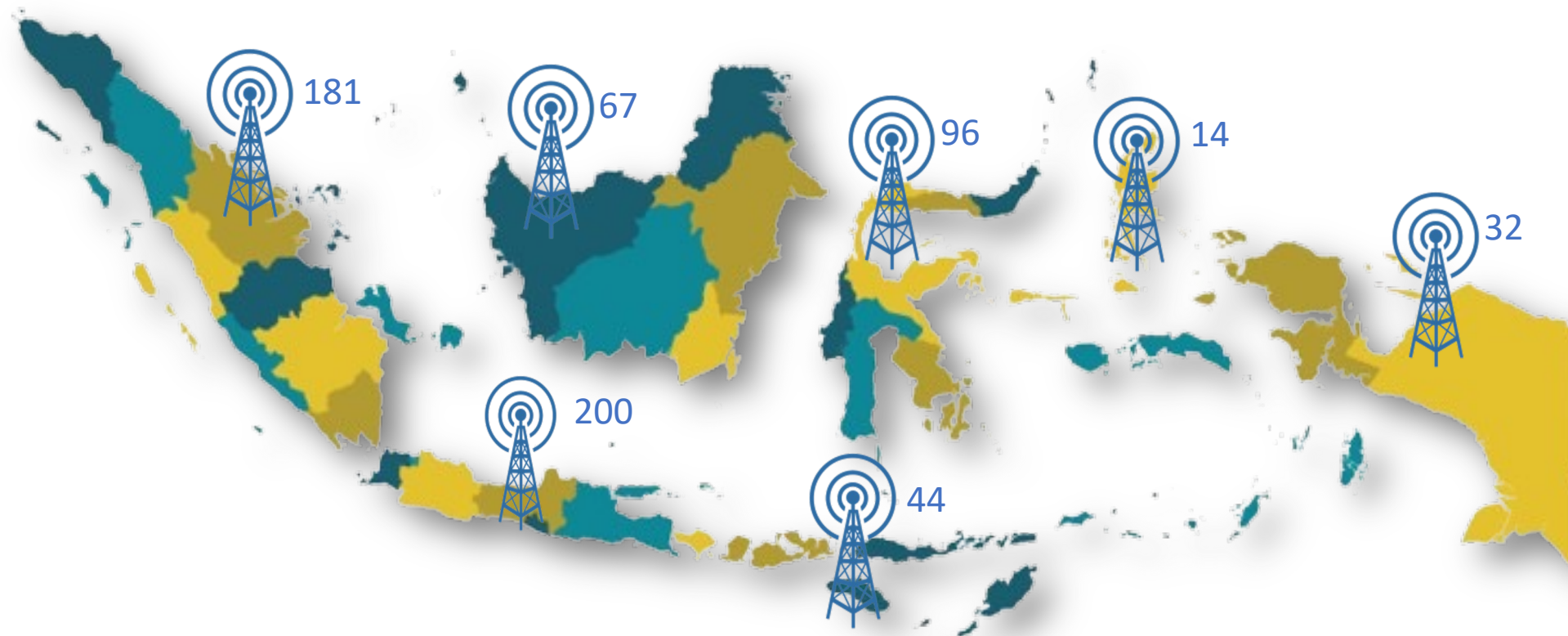




DAB in INDONESIA



RADIO BROADCASTER



1251

Government Regulation

DAB Broadcaster

- Radio Band 3 (Upper) : VHF 202 – 230 MHz
- Network Model : Multiplex
- Program / Cannal : 16
- Bandwidth : 1536 kHz
- Receiver : Multimode Chipset (DAB and DRM in on module), on going review.



Digital Radio and Processing System-On-Chip

SAF360X [Receive alerts](#)

[Overview](#) [Product Details](#) [Documentation](#) [Training](#) [Support](#)

[BUY/PARAMETRICS](#)

[PACKAGE/QUALITY](#)

The SAF360x is a monolithic integrated digital terrestrial radio processor. The SAF360x family includes different chip variants—SAF3600, SAF3601, SAF3602, SAF3604, SAF3606, SAF3607. The SAF360x provides reception, demodulation, audio decoding and application processing for various digital radio standards.

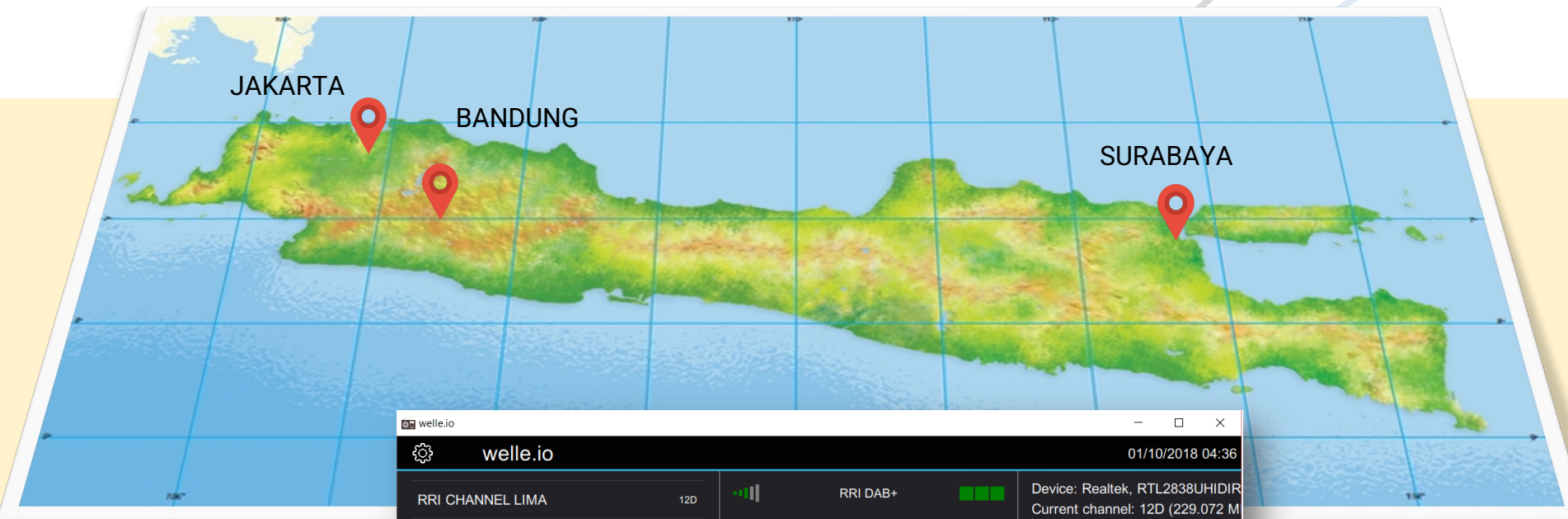
The SAF360x system-on-chip (SoC) is a next generation HD Radio/DAB/DAB+/T-DMB/ DRM solution for breakthrough in system integration and cost reduction. The chip is qualified in accordance with AEC-Q100 and includes the following features:

- Next generation HD Radio / DAB / DAB+ / T-DMB / DRM solution for breakthrough in system cost reduction
- Dual channel processing with on-chip dual DAB front-end, memory and source decoding
- End-of-production line programmability
- DAB-FM / DAB-DAB blending
- Advanced reception improvement algorithms
- Integrated antenna splitter enabling antenna diversity
- On chip voltage regulation for performance critical Front-end supply via an external transistor from 3.3 V (SAF3601, SAF3602, SAF3604, SAF3606 only)
- Single system XTAL with optional clock reference output capabilities
- Small PCB footprint using state-of-the-art BGA package

IMPORTANT: For additional information and sample availability, contact your local [Sales Office](#) or [Authorized Distributor](#).

DAB in Indonesia

Trial since 2014



RRI – DAB+









Frequency : 229,072 Mhz

cannal / Program RRI :

- Pro-1 : local content
- Pro-2 : Youth
- Pro-3 : News
- Pro-4 : Culture
- Channel 5 : Just Music Top-40
- VOI : Voice of Indonesia
- Jazz
- Oldies

The screenshot shows the welle.io DAB+ receiver interface. On the left is a channel list with 'RRI CHANNEL LIMA' selected. The main display shows 'RRI PRO 1' with a signal strength indicator and technical details: 'DAB+ test 48KHz 128bit', '128 kbps, Stereo, DAB+', and 'none'. A logo for 'RRI PRO 1' is displayed, identifying it as 'Pusat Pemberdayaan Masyarakat FM 91.2 MHz JAKARTA'. On the right, technical data is shown: 'Device: Realtek, RTL2838UHIDIR', 'Current channel: 12D (229.072 Mhz)', 'Frequency correction: -10916 Hz', 'SNR: 10 dB', 'Frame errors: 0', 'RS errors: 0', 'AAC errors: 0', 'Frame synchronization: OK', and 'FIC CRC: OK'. A spectrum analyzer at the bottom right shows a signal peak at 229.072 MHz.

DAB receivers in Indonesia

 <p>Preorder</p> <p>Radio Fm Digital Stereo 1 Din Dengan Dab Dab Fm ...</p> <p>Rp878.000</p> <p>Cashback</p> <p>Kota Surabaya</p> <p>+ Keranjang</p>	 <p>Preorder</p> <p>JS 2.4 Portable DAB/DAB+ Digital Radio F...</p> <p>Rp774.000</p> <p>Cashback</p> <p>Jakarta Pusat</p> <p>+ Keranjang</p>	<p>new definition of radio DAB+</p>  <p>Car DAB+ Digital Radio Box Auto Car Stereo Receiver ...</p> <p>Rp935.000</p> <p>Cashback</p> <p>Kota Surabaya</p> <p>+ Keranjang</p>	 <p>SDR RTL2832U R828D A300U DAB FM Radio ...</p> <p>Rp495.645</p> <p>Jakarta Selatan</p> <p>+ Keranjang</p>
 <p>Preorder</p> <p>Car DAB Digital Radio and Receiver FM AUX Original</p> <p>Rp242.000</p>	 <p>Preorder</p> <p>FCN 2.4 Portable DAB/DAB+ Digital Radio F...</p> <p>Rp615.000</p>	 <p>Preorder</p> <p>SDR RTL2832U R828D A300U DAB FM Radio ...</p> <p>Rp531.600</p>	 <p>Preorder</p> <p>USB-Dongle DAB/DAB+ Radio Receiver</p> <p>Rp498.508</p>

30 – 75 USD

- Car Radio
- Desk Portable
- Dongle
- Car Modul

Key Challenge

1. Receiver Digital Radio (on going review by government)
 - In-car radio Receiver : recently 17 million cars unit, additional around 1 million unit/year
 - DAB In-car radio will be use in big cities which have high transportation traffic.
 - Smartphone receiver : will be challenge to implement, cause head to head with music portal which use quota of data.
 - Portable receiver, market estimation will more slow than in-car receivers, cause of limited and hi cost production.
 - Dongle receiver, it's more simple to implement which ease connect to PC. Laptop or other portable device.



DAB+
Digital Audio Broadcasting



Market Challenge

2. Mux Rental Price for Broadcaster

- Broadcaster will compare the rental price with self investment ini DAB Transmitter in long period. It's depend also on market / audience acceptance.
- More Higher the rental cost, more difficult for broadcaster switch to DAB.

3. Product Substitute >> Digital Media

- Media digital, especially music platform like: spotify, i-tunes etc. will be 'substitute" / product alternative and will be undirect competitor for Digital Radio.
- Free wi-fi Facilities growing very fast, it's possible for user to choose music streaming than Digital Radio.





thank you

