

David King @ Multimedia - 5th October 2018

DAB+

AN UPDATE



more choice
of stations



niche
formats



clear
reception



exceptional
sound quality



song & artist
information



news & weather
updates



Pause and
rewind



Tuning by
station name



no drain on
battery life



No
sign up



No subscription
fees

The Box You Can't Beat

<https://www.dropbox.com/s/tmvrkycow5in5t8/%E2%80%9CDigital%20radio.%20The%20>

DAB/DAB+ A Potted History:

- DAB - Under Development since 1981 in Germany
- First Transmissions in Germany 1988
- DAB Codec MPEG-1 Audio Layer II ("MP2")
- 500 million people were in the coverage area by 2006 .
- DAB+ is launched in 2006 with Audio Codec HE-AAC version 2 ("AAC+").
- AAC+ 3 x more efficient than MP2
- DAB+ Higher Quality, More Stations or Mix.
- DAB+ launched in Australia 1 July 2009.

Worldwide

Regular Services

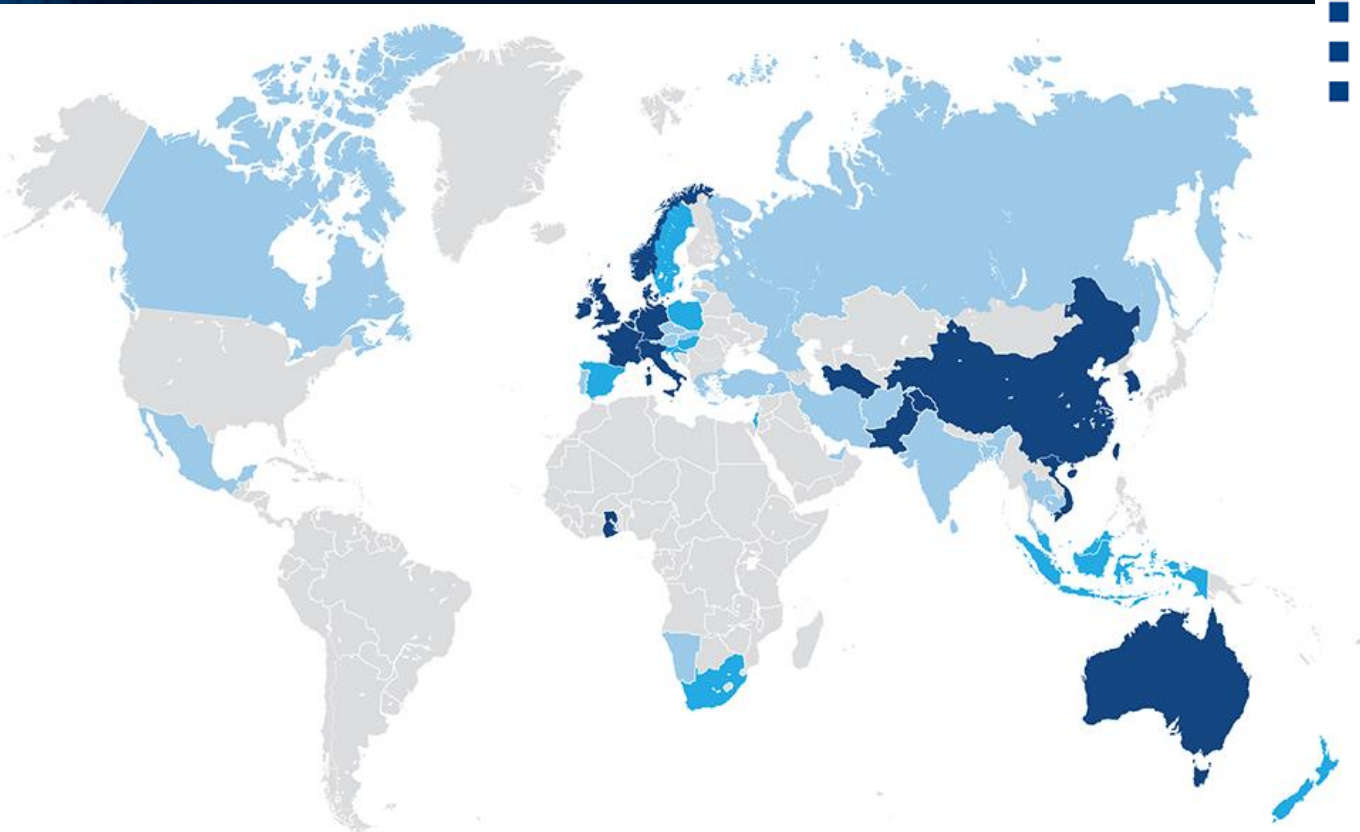
- Australia
- Belgium
- China
- Czech Republic
- Denmark
- Germany
- Hong Kong
- Malta
- Netherlands
- Norway
- Poland
- South Korea
- Sweden
- Switzerland
- United Kingdom

Undergoing Trials/Regulation

- Austria
- Brunei Darussalam
- Chinese Taipei
- Croatia
- France
- Ghana
- Hungary
- Indonesia
- Ireland
- Israel
- Italy
- Kuwait
- Malaysia
- New Zealand
- Romania
- South Africa
- Spain
- Thailand
- Vietnam

Interested

- Bangladesh
- Canada
- Estonia
- Greece
- India
- Lao
- Lithuania
- Mexico
- Monaco
- Namibia
- Papua New Guinea
- Portugal
- Russian Federation
- Slovakia
- Slovenia
- Turkey
- Iran

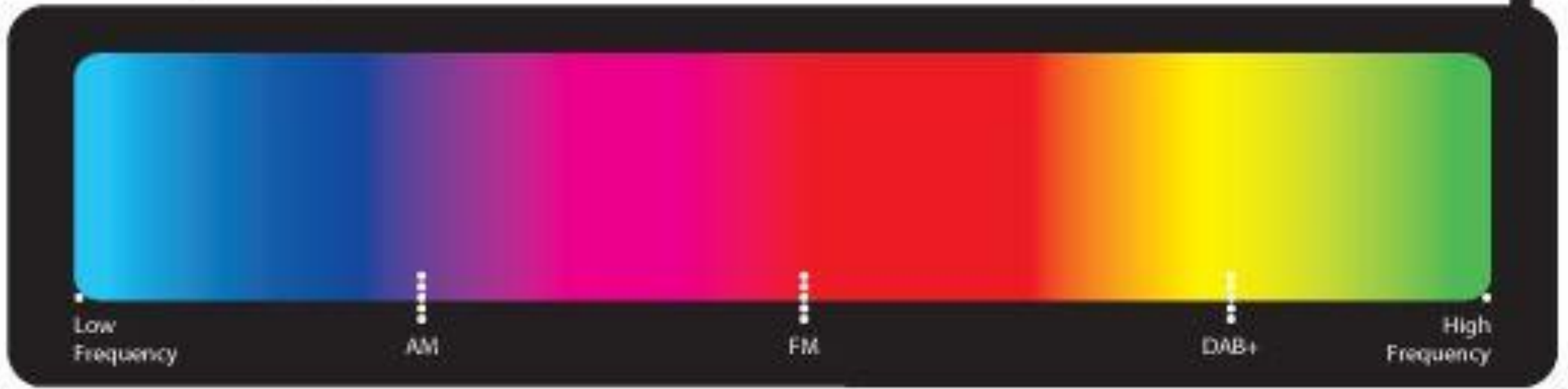


DAB+/DAB/DMB

DAB/DAB+ Coverage

Country ↕	Coverage (% of population) ▼
France	?
Norway	99.7
Switzerland	99.5
Belgium	99 (with 99% population DAB+ coverage anticipated by end early 2018)[21]
Denmark	98
UK	97
Germany	96
Netherlands	95
Italy	85
Australia	65
Spain	20

Radio Frequency Bands



DAB+ uses a far more advanced and technically robust transmission system and operates in Australia in **VHF Band III (Ch9/9A)**. Like other digital technologies, it uses higher frequencies which work extremely well in range but have a “cliff edge” drop off at the boundary of reception. DAB+ is both a cost effective and spectrum efficient technology, allowing broadcasters to offer their popular analogue stations simulcast in digital quality, as well as new digital only stations. DAB+ uses a robust modulation which is designed for radio reception in mobile environments, such as vehicles and public transport.

DAB+ digital radio is currently available in the five metropolitan capital cities of Sydney, Melbourne, Brisbane, Adelaide and Perth. The digital radio signal in these markets is operating at full power and installation of additional repeater sites since launch in 2009 has continued to improve coverage. Low power DAB+ trial signals commenced in Canberra in July 2010 and Darwin in August 2010.



Melbourne Commercial Station Listener Survey No 5 2018

**Total
Digital/Internet:
601,000
Age 10+**

Period:
Sun May 27 to Sat Jun 30
Sun Jul 15 to Sat Aug 18.

MELBOURNE RADIO - DAB+ STATIONS ONLY - SURVEY 5 2018

Cumulative Audience (000's) by Demographic, Listening via DAB+ or Internet, Mon-Sun 5.30am-12midnight

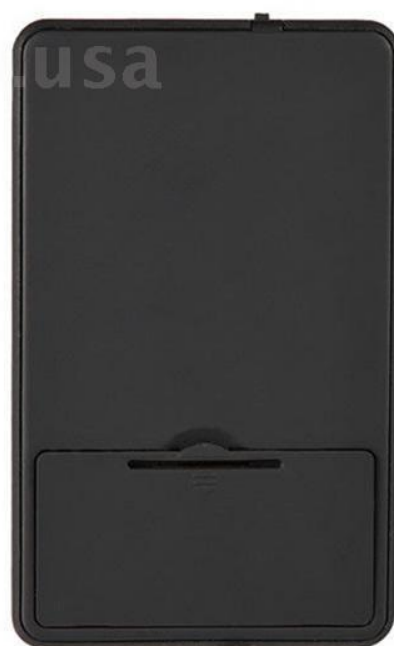
Station	People 10+			People 10-17			People 18-24			People 25-39			People 40-54			People 55-64			People 65+		
	This	Last	+/-	This	Last	+/-	This	Last	+/-	This	Last	+/-	This	Last	+/-	This	Last	+/-	This	Last	+/-
AUSSIE	36	41	-5	5	6	-1	2	4	-2	10	19	-9	6	4	2	5	4	1	8	4	4
BUDDHA HITS	26	33	-7	3	7	-4	5	5	0	10	13	-3	4	6	-2	4	2	2	*	*	*
Chemist Warehouse Remix	24	23	1	5	2	3	2	5	-3	12	12	0	3	3	0	2	1	1	*	*	*
Coles Radio	65	64	1	2	8	-6	16	17	-1	30	27	3	11	7	4	5	2	3	2	2	0
EASY HITS	40	43	-3	7	11	-4	2	2	0	13	15	-2	11	9	2	3	1	2	4	6	-2
Edge Digital	18	20	-2	1	3	-2	*	2	*	13	11	2	4	2	2	*	1	*	*	1	*
Kinderling Kids	20	20	0	4	2	2	5	5	0	6	7	-1	6	6	0	*	*	*	*	*	*
Koffee	26	22	4	*	2	*	*	*	*	5	6	-1	16	9	7	2	4	-2	4	1	3
Kool	34	34	0	4	2	2	5	2	3	5	11	-6	14	12	2	2	2	0	4	5	-1
MMM CLASSIC ROCK	55	56	-1	6	5	1	5	2	3	11	22	-11	18	13	5	7	10	-3	8	4	4
MMM COUNTRY	22	17	5	3	*	*	*	*	*	11	12	-1	7	4	3	*	*	*	*	2	*
MMM GREATEST HITS	14	19	-5	3	2	1	2	2	0	4	9	-5	3	6	-3	*	*	*	2	*	*
MMM MODERN DIGITAL	10	8	2	2	1	1	*	*	*	9	7	2	*	*	*	*	*	*	*	*	*
NTS News Talk Sport	7	10	-3	*	*	*	*	*	*	6	9	-3	2	1	1	*	*	*	*	*	*
OLDSKOOL HITS	62	48	14	7	4	3	6	5	1	25	30	-5	21	7	14	2	2	0	1	*	*
Rythmos	12	13	-1	7	4	3	*	*	*	3	6	-3	*	*	*	2	4	-2	*	*	*
The 80s iHeartRadio	46	56	-10	8	7	1	2	2	0	16	27	-11	13	16	-3	3	*	*	3	5	-2
The 90s iHeartRadio	55	72	-17	9	14	-5	10	7	3	27	38	-11	6	8	-2	2	1	1	2	3	-1
triple j Unearthed	40	38	2	13	10	3	14	13	1	13	13	0	*	*	*	*	*	*	*	2	*
ABC Country	29	25	4	8	4	4	*	*	*	3	13	-10	10	*	*	2	*	*	5	8	-3
ABC Grandstand	27	35	-8	2	3	-1	*	5	*	5	2	3	10	12	-2	6	7	-1	4	5	-1
ABC Jazz	47	44	3	11	8	3	3	5	-2	8	7	1	12	5	7	5	10	-5	8	8	0
ABC KIDS LISTEN	37	45	-8	6	9	-3	3	3	0	21	27	-6	6	4	2	*	*	*	*	1	*
Double J	74	53	21	9	5	4	7	4	3	34	21	13	18	17	1	4	5	-1	2	*	*
Total Digital/Internet Only	601	585	16	67	75	-8	61	64	-3	207	212	-5	161	126	35	47	51	-4	58	57	1

Cumulative Audience (000's) by Session, Listening via Digital or Internet, P10+ [Potential: 4453]

Station	Mon-Fri 5:30am-12mn			Breakfast Mon-Fri 5:30am-9:00am			Morning Mon-Fri 9:00am-12:00md			Afternoon Mon-Fri 12:00md-4:00pm			Drive Mon-Fri 4:00pm-7:00pm			Evening Mon-Fri 7:00pm-12:00mn			Weekend Sat-Sun 5:30am-12mn		
	This	Last	+/-	This	Last	+/-	This	Last	+/-	This	Last	+/-	This	Last	+/-	This	Last	+/-	This	Last	+/-
AUSSIE	21	34	-13	4	7	-3	9	12	-3	13	9	4	5	11	-6	1	5	-4	20	19	1
BUDDHA HITS	16	27	-11	9	8	1	2	13	-11	13	15	-2	11	17	-6	6	2	4	24	18	6
Chemist Warehouse Remix	22	23	-1	5	7	-2	2	2	0	8	13	-5	7	8	-1	8	3	5	7	8	-1
Coles Radio	53	54	-1	11	12	-1	22	17	5	19	26	-7	16	18	-2	13	16	-3	32	34	-2
EASY HITS	31	32	-1	14	10	4	8	15	-7	19	17	2	8	9	-1	5	2	3	21	24	-3
Edge Digital	17	16	1	11	6	5	4	2	2	7	5	2	5	6	-1	1	6	-5	7	10	-3
Kinderling Kids	20	18	2	6	7	-1	7	7	0	9	7	2	12	8	4	2	3	-1	12	14	-2
Koffee	19	17	2	6	3	3	8	9	-1	11	6	5	11	6	5	1	1	0	10	7	3
Kool	27	26	1	15	18	-3	12	16	-4	12	10	2	5	11	-6	5	5	0	16	17	-1
MMM CLASSIC ROCK	45	50	-5	18	14	4	22	30	-8	21	30	-9	28	19	9	10	8	2	23	18	5
MMM COUNTRY	19	14	5	9	10	-1	8	10	-2	6	7	-1	12	8	4	6	6	0	9	7	2
MMM GREATEST HITS	13	15	-2	7	8	-1	2	1	1	6	10	-4	3	4	-1	2	5	-3	5	5	0
MMM MODERN DIGITAL	10	8	2	2	3	-1	*	*	*	3	5	-2	5	2	3	*	*	*	2	2	0
NTS News Talk Sport	6	7	-1	4	4	0	4	4	0	4	5	-1	4	4	0	*	*	*	4	6	-2
OLDSKOOL HITS	44	43	1	17	14	3	22	19	3	29	20	9	34	19	15	16	10	6	32	19	13
Rythmos	8	12	-4	*	2	*	*	5	*	5	5	0	5	7	-2	3	5	-2	5	3	2
The 80s iHeartRadio	43	49	-6	9	19	-10	23	35	-12	15	23	-8	20	21	-1	12	10	2	17	20	-3
The 90s iHeartRadio	54	63	-9	21	22	-1	24	27	-3	24	27	-3	26	25	1	16	12	4	18	20	-2
triple j Unearthed	35	29	6	15	8	7	16	8	8	18	4	14	11	8	3	6	10	-4	9	16	-7
ABC Country	16	16	0	6	10	-4	5	9	-4	8	11	-3	10	6	4	2	*	*	19	17	2
ABC Grandstand	7	22	-15	*	4	*	*	4	*	5	7	-2	*	6	*	3	6	-3	25	23	2
ABC Jazz	37	38	-1	12	17	-5	10	8	2	17	9	8	18	19	-1	11	22	-11	26	31	-5
ABC KIDS LISTEN	31	42	-11	17	12	5	10	13	-3	10	18	-8	9	12	-3	4	7	-3	13	18	-5
Double J	55	47	8	22	20	2	26	21	5	20	21	-1	20	18	2	10	8	2	35	27	8
Total Digital/Internet Only	488	503	-15	192	205	-13	223	234	-11	279	275	4	260	237	23	137	147	-10	374	351	23





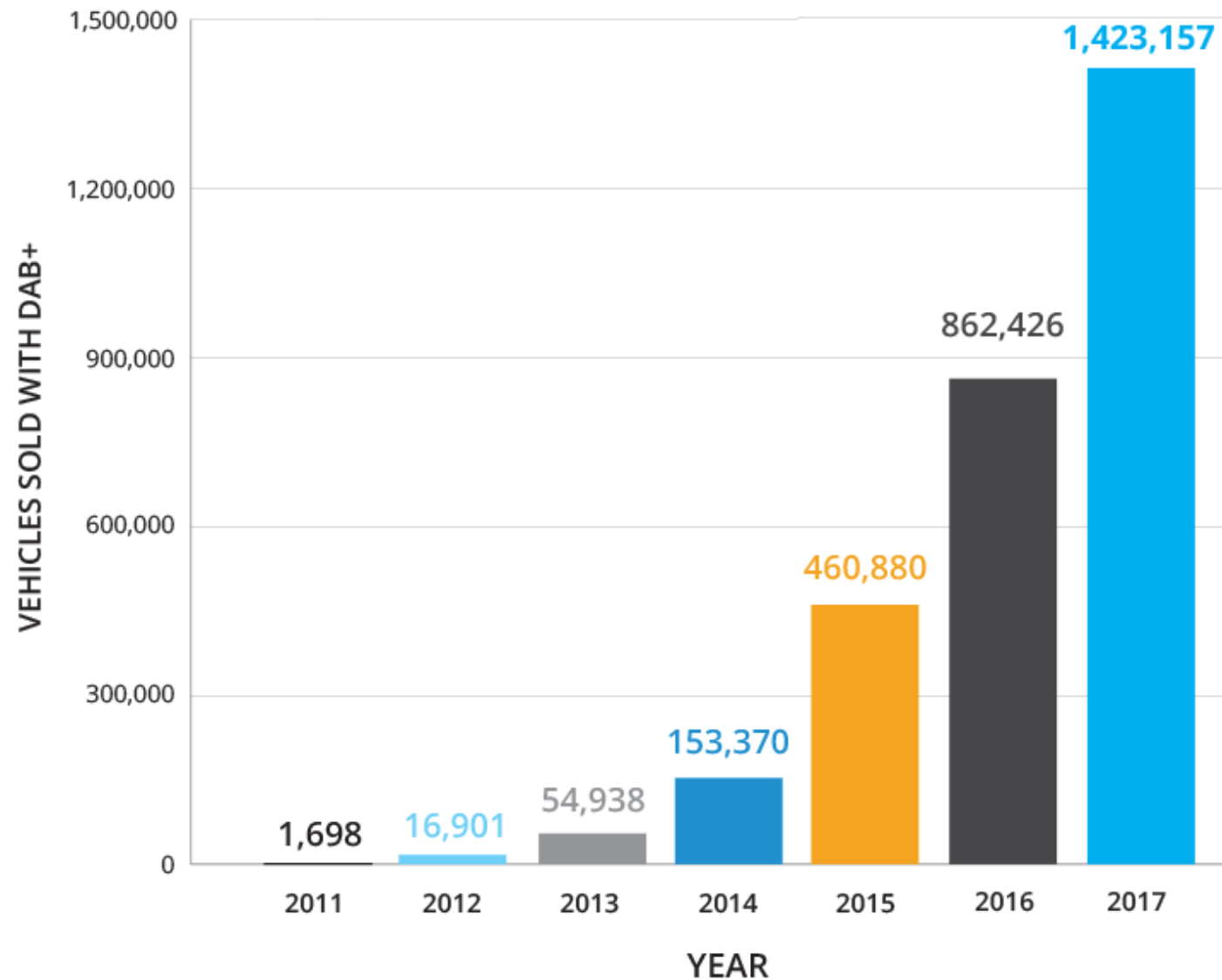




DAB+ in vehicles

More than **1.42 million** new vehicles have been sold in Australia with DAB+ digital radio factory fitted.

Cumulative sales of vehicles sold with DAB+ digital radio



Sources:

2014-2017: Glass's Automotive Business Intelligence, December 2017

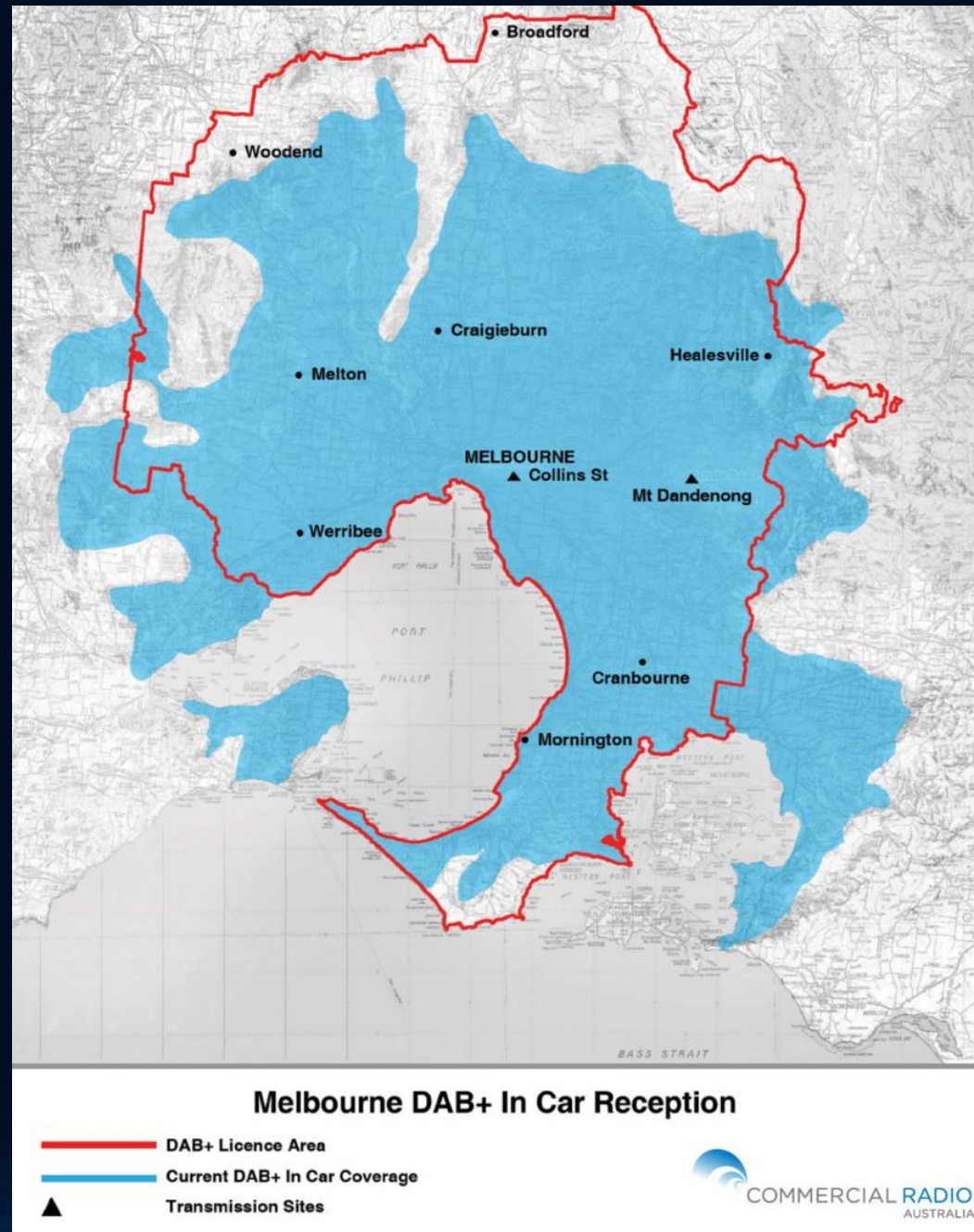
2011-2013: Total sales reported by vehicle manufacturers in Australia supporting DAB+ digital radio

DAB+ in vehicles

Forty four automotive brands now offer DAB+ digital radio as a standard or optional feature.



Melbourne DAB+ In Car Reception



Questions/ Comments?

<http://www.digitalradioplus.com.au/>