

Factsheet for Swiss DAB+ broadcast networks

DigiMig Planners Roundtable

Digital radio via DAB+ is becoming increasingly popular. FM frequencies in Switzerland will be switched off by the end of 2024 at the latest.

Better listening quality, wider range of radio stations, larger broadcast area: thanks to these advantages, DAB+ technology has now replaced analogue FM-broadcast as the standard for radio listening in Switzerland.

DAB+ is a technology which allows further improvements and additions to increase the benefit to the audience. This is done through further implementations of standardized applications and functions.

This document shows the current status in Switzerland, indicates future developments, and provides information on the next planned steps.

Manufacturers of DAB+ radio receivers can use the information provided in this factsheet to test their devices. Their customers are keen to benefit from new functions.

Rmo, 16.03.2022

DAB+ Broadcast SRG SSR

	SRG SSR															
Broadcast	1 ensemble per language region (total 4) SFN network <table border="1"> <thead> <tr> <th>Ensemble</th> <th>Channel</th> <th>EID</th> </tr> </thead> <tbody> <tr> <td>D01</td> <td>12C</td> <td>4001</td> </tr> <tr> <td>F01</td> <td>12A</td> <td>4041</td> </tr> <tr> <td>I01</td> <td>12A</td> <td>4081</td> </tr> <tr> <td>R01</td> <td>12D</td> <td>40C1</td> </tr> </tbody> </table>	Ensemble	Channel	EID	D01	12C	4001	F01	12A	4041	I01	12A	4081	R01	12D	40C1
Ensemble	Channel	EID														
D01	12C	4001														
F01	12A	4041														
I01	12A	4081														
R01	12D	40C1														
Radiostations	Composition of ensembles according: www.broadcast.ch															
Network ID Service ID	According ID-concept of Swiss regulator OFCOM															
Audio	Encoding exclusive DAB+ / AAC+ datarates from 48 to 96 kbit/s															
Programm Type PTY	Yes															
Station Name	According to DAB+ ensemble configuration															
Song Title / Links	DLS, DLplus, per radiostation 1.2 kbit/s (configuration «short») over PAD / X-PAD															
Artist / Composer	DLS, DLplus, per radiostation 1.2 kbit/s (configuration «short») over PAD / X-PAD															
Station Logos	Yes, use of SPI in a Packet Mode Data Service in NPAD as service information, no program information on SPI															
Traffic Information	TPEG, TEC and TFP without encryption															
Announcement (TA)	Yes (Announcement Typ 1 “Road Traffic Flash) (FIG 0/19) with Cluster (FIG 0/18)															
Other Ensemble Announcement (OE)	Yes (FIG 0/25 und FIG 0/26)															
Service Information	<ul style="list-style-type: none"> • Yes, frequency information (FIG 0/21) • Yes, other ensemble (FIG 0/24) • F0/09 marking of country if original abroad 															
Service Following	Service Linking Hardlinks (switch between two data sets) FIG 0/6															
Hardlinks	Yes															
Softlinks	No															
Service Configuration	Yes, FIG 0/7 changes of configurations No, FIG 0/20 stations list info for DAB+ receivers															
Adaption of DAB+ standard EN300401 from 2006-06 V 1.4.1 to 2017 V 2.1.1 partially																

DAB+ Broadcast SwissMediaCast AG

	SwissMediaCast																					
Broadcast	<p>1 language regional ensemble in Swiss German part 4 regional ensembles in Swiss German part 1 language regional ensemble in Ticino 1 language regional ensemble in Swiss German part (planned) Total 6 SFN networks and 1 planned SFN network</p> <table border="1"> <thead> <tr> <th>Ensemble</th> <th>Channel</th> <th>EID</th> </tr> </thead> <tbody> <tr> <td>SMC DCH 02</td> <td>07D</td> <td>4200</td> </tr> <tr> <td>SMC DCH 03-N</td> <td>07A</td> <td>4201</td> </tr> <tr> <td>SMC DCH 03-O</td> <td>09B</td> <td>4202</td> </tr> <tr> <td>SMC DCH 03-BEFR</td> <td>08B</td> <td>4203</td> </tr> <tr> <td>SMC DCH 03-VS</td> <td>11C</td> <td>4204</td> </tr> <tr> <td>SMC ICH 03</td> <td>08C</td> <td>4284</td> </tr> </tbody> </table>	Ensemble	Channel	EID	SMC DCH 02	07D	4200	SMC DCH 03-N	07A	4201	SMC DCH 03-O	09B	4202	SMC DCH 03-BEFR	08B	4203	SMC DCH 03-VS	11C	4204	SMC ICH 03	08C	4284
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SMC DCH 03-BEFR	08B	4203																				
SMC DCH 03-VS	11C	4204																				
SMC ICH 03	08C	4284																				
Radiostations	Composition of ensembles according: www.swissmediacast.ch																					
Network ID Service ID	According ID-concept of Swiss regulator OFCOM																					
Programm Type PTY	Yes																					
Audio	Encoding DAB+ / AAC+ datarates of 48 - 96 kbit/s; actual datarates at 64 kbit/s and 32kbit/s																					
Station Name	According to DAB+ ensemble configuration																					
Song Title	DLS, DLplus planned, per radiostation between 1.2 kbit/s and 4kbit/s over PAD / X-PAD																					
Artist / Composer	DLS, DLplus planned, per radiostation 1.2 kbit/s and 4kbit/s (configuration «short») over PAD / X-PAD																					
DAB+ Slideshow	MOT Slideshow in X-PAD, trigger time = now (visual display ads and images with station logos are provided by DAB+ slideshow)																					
Station Logos via SPI in NPAD	No. No use of SPI in NPAD due to lack of capacity units.																					
Traffic Information	no																					
Announcement (TA)	Yes (announcement type 1 “road traffic flash”) (FIG 0/19) clustered according (FIG 0/18)																					
Other Ensemble Announcement (OE)	Yes (planned) (FIG 0/25 und FIG 0/26)																					
Service Information	<ul style="list-style-type: none"> • Yes, frequency information (FIG 0/21) • Yes, other ensemble (FIG 0/24) • F0/09 marking of country if original abroad 																					
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DAB+ Broadcast Romandie Médias SA

	Romandie Médias SA
Broadcast	1 Language regional ensemble in French-speaking part of Switzerland
Radiostations	Composition of ensembles according: https://romandiemedias.ch/
Network ID Service ID	According ID-concept of Swiss regulator OFCOM
Programm Type PTY	Yes
Audio	Encoding DAB+ / AAC+ with data rates of 64 - 72 kbit/s; currently all at 64 kbit/s
Station Name	According to DAB+ ensemble configuration
Song Title	DLS over PAD / X-PAD, per radiostation 8 kbit/s
Artist / Composer	DLS over PAD / X-PAD, per radiostation 8 kbit/s
DAB+ Slideshow	MOT Slideshow in X-PAD, trigger time = now (visual display ads and images with station logos are provided by DAB+ slideshow)
Station Logos via SPI in NPAD	No. No use of SPI in NPAD due to lack of capacity units.
Traffic Information	Not used
Announcement (TA)	Yes, but not used
Other Ensemble Announcement (OE)	
Service Information	FIG 0/9
Service Following	FIG 0/6 (service linking)
Hardlinks	Yes
Softlinks	No
Service Configuration	FIG 0/17 Programme Type (PTy)
Adaption of DAB+ standard EN300401 from 2006-06 V 1.4.1 to 2017 V 2.1.1 partially	

DAB+ Broadcast Digris

	digris																																																																								
Broadcast	DAB+ „island“ single transmitter or small SFN areas.																																																																								
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Programme	https://www.digris.ch/verbreitung/programme/																																																																								
Network ID Service ID	According ID-concept of Swiss regulator OFCOM (extraction from database possible)																																																																								
Programm Type PTY	Yes																																																																								
Audio	72kbit/s for stereo content, 48kbit/s for mono																																																																								
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PAD / X-PAD	Yes, dynamic allocation from 1.2 to 6kbit/s - DLS, DLplus - SLS (MOT) live and endless carousel - BWS, BIFS etc. no																																																																								
Station Logos NPAD	To be defined. No use of SPI in NPAD due to lack of capacity units - Current 1-year test service provided for data receiver development but no commercial application.																																																																								
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