

#### **Factsheet for Norwegian National Broadcast Networks**

In December 2017, Norway became the first country to completely switch off national FM services, completing a year-long process of switching off region by region. 99.7% of the population has access to DAB+ reception, 6 million receivers have been sold to date, and 100% of new cars have DAB+ fitted as standard.

Manufacturers of DAB+ radio receivers can use the information provided in this factsheet to test their devices. ETI Files from NRK are always up to date with the latest ensemble configuration and can be downloaded from WorldDAB's ETI library.

There are also several local ensembles on-air all over Norway. More info about the local ensembles can be found here: <u>https://www.wohnort.org/dab/norway.html</u>

Håvard Wien

Head of radiodistribution, NRK,

13.10.2022



#### DAB+ Broadcast NRK

Broadcast	SFN network			
	Ensemble	Channel	EID	
	NRK Reg1 Oslo Vik	12C	F701	
Radiostations	NRK P1 NRK P1 Østlandssendir NRK P1 Østfold NRK P1 Buskerud NRK P1+ Østlandssend NRK P1+ Østlandssend NRK P1+ Østfold NRK P1+ Buskerud NRK P2 NRK P3 NRK P3 NRK P3 NRK MP3 NRK Klassisk NRK Nyheter NRK Sport NRK Sport NRK Super / Folkemusi NRK Jazz NRK Sàpmi NRK Trafikk 1 NRK YR 1	ingen	er from	06:00 – 21:00. Same SId)
Audio			taratos	from $24$ to $80$ kbit/s
Programme Type PTY	Yes	Encoding exclusive DAB+ / AAC+ datarates from 24 to 80 kbit/s		
DLS /DL+	0,5 kbit/s dynamic as integrated PAD. DL+ Tags: Info.traffic, Phone.Hotline, SMS.Studio, Programme.Now, Item.Title, Item.Artist, Info.Weather			
Slideshow	Yes, per radiostation 6	kbit/s dynam	nic as in	tegrated PAD.
Station Logos	Yes, use of SPI in a Pacl information.			-
Traffic Information	Yes. One traffic station Transport announceme	-	) in eac	h region and Traffic and
Announcement (TA)			•	sh" in all regions. In addition, nents. (FIG 0/18 + FIG 0/19)
Other Ensemble Announcement (OE)	No			
Service Information	<ul> <li>Yes, frequency information (FIG 0/21)</li> <li>Yes, other ensemble (FIG 0/24)</li> </ul>			
Service Following	Yes. Implicit linking. FIG 0/2 frequencies to check w For softlinking please s	hen a receive		ng used to determine which reception.
	Prese services and presses	20 2010 //1		
Hardlinks	NO			



Softlinks	Yes, for the services NRK Trafikk and NRK YR	
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		

Broadcast	SFN network			
	Ensemble	Channel	EID	
	NRK Reg2 VeTeVik	13A	F901	
Radiostations	NRK P1	•		
	NRK P1 Buskerud			
	NRK P1 Vestfold			
	NRK P1 Telemark			
	NRK P1+			
	NRK P1+ Buskerud			
	NRK P1+ Vestfold			
	NRK P1+ Telemark			
	NRK P2			
	NRK P3			
	NRK P13			
	NRK mP3			
	NRK Klassisk			
	NRK Nyheter			
	NRK Sport			
		ikk (NRK Supe	er from	06:00 – 21:00. Same SId)
	NRK Jazz			
	NRK Sàpmi			
	NRK Trafikk 2			
	NRK YR 2			
Audio	Encoding exclusive DA	B+ / AAC+ dat	tarates	from 24 to 80 kbit/s
Programme Type PTY	Yes			
DLS /DL+	0,5 kbit/s dynamic as i	•		-
	Phone.Hotline, SMS.Studio, Programme.Now, Item.Title, Item.Artist,			
	Info.Weather			
			• • .	
Slideshow	Yes, per radiostation 6			
Station Logos	Yes, use of SPI in a Pac information.	ket Mode Dai	ta Servi	ce in NPAD as service
Traffic Information		(NRK Trafikk	) in eac	h region and Traffic and
	Transport announcem	-	,	
Announcement (TA)	· ·		t flach"	and Alarm" announcements.
Announcement (TA)		n, nanspor	t nasn	and Alarm announcements.
	(FIG 0/18 + FIG 0/19)			
Other Ensemble	No			
Announcement (OE)				
Service Information	Yes, frequency info	ormation (FIG	0/21)	
	<ul> <li>Yes, other ensemb</li> </ul>	•	-,,	
		- (= •, = ')		
Service Following	Yes.			
	-			



	Implicit linking. FIG 0/24 + FIG 0/21 are being used to determine which
	frequencies to check when a receiver loose reception.
	For softlinking please see below.
Hardlinks	NO
Softlinks	Yes, for the services NRK Trafikk and NRK YR
Service Configuration	Yes, FIG 0/7 changes of configurations
	No, FIG 0/20 stations list info for DAB+ receivers
Adaption of DAB+ stand	ard EN300401 from 2006-06 V 1.4.1 to 2017 V 2.1.1 partially

Broadcast	SFN network				
	Ensemble	Channel	EID	]	
	NRK Reg3 SørRog	13F	F801		
Radiostations	NRK P1				
	NRK P1 Sørlandet				
	NRK P1 Rogaland				
	NRK P1 Hordaland				
	NRK P1+				
	NRK P1+ Sørlandet				
	NRK P1+ Rogaland				
	NRK P1+ Hordaland				
	NRK P2				
	NRK P3				
	NRK P13				
	NRK mP3				
	NRK Klassisk				
	NRK Nyheter				
	NRK Sport				
		sikk (NRK Sup	per from	06:00 – 21:00. Same SId)	
	NRK Jazz				
	NRK Sàpmi				
	NRK Trafikk 3				
	NRK YR 3				
Audio	Encoding exclusive DA	AB+ / AAC+ da	atarates	from 24 to 80 kbit/s	
Programme Type PTY	Yes				
DLS /DL+	0,5 kbit/s dynamic as	integrated PA	AD. DL+	Tags: Info.traffic,	
	Phone.Hotline, SMS.S	tudio, Progra	imme.No	ow, Item.Title, Item.Artist,	
	Info.Weather				
Slideshow	Yes, per radiostation	6 kbit/s dyna	mic as in	tegrated PAD.	
Station Logos	Yes, use of SPI in a Pa	cket Mode Da	ata Servi	ce in NPAD as service	
	information.				
Traffic Information	Yes. One traffic statio	n (NRK Trafik	k) in eac	h region and Traffic and	
	Transport announcem	nent			
Announcement (TA)	Yes. "Road Traffic flag	sh" and "Trar	nsport fla	ash" in all regions. In addition,	
			•	nents. (FIG 0/18 + FIG 0/19)	
Other Ensemble	No				
Announcement (OE)					



Service Information	<ul> <li>Yes, frequency information (FIG 0/21)</li> <li>Yes, other ensemble (FIG 0/24)</li> </ul>
Service Following	Yes. Implicit linking. FIG 0/24 + FIG 0/21 are being used to determine which frequencies to check when a receiver loose reception. For softlinking please see below.
Hardlinks	NO
Softlinks	Yes, for the services NRK Trafikk and NRK YR
Service Configuration	Yes, FIG 0/7 changes of configurations No, FIG 0/20 stations list info for DAB+ receivers
Adaption of DAB+ stand	ard EN300401 from 2006-06 V 1.4.1 to 2017 V 2.1.1 partially

Broadcast	SFN network					
	Ensemble Channel EID					
	NRK Reg4 Vest	12B	F401			
Radiostations	NRK P1					
	NRK P1 Hordaland					
	NRK P1 Sogn og Fjordane					
	NRK P1 Møre og Roms	dal				
	NRK P1+					
	NRK P1+ Hordaland					
	NRK P1+ Sogn og Fjord					
	NRK P1+ Møre og Rom	sdal				
	NRK P2					
	NRK P3					
	NRK P13					
	-	NRK mP3				
	NRK Klassisk					
	NRK Nyheter NRK Sport NRK Super / Folkemusikk (NRK Super from 06:00 – 21:00. Same SId) NRK Jazz NRK Sàpmi NRK Trafikk 4 NRK YR 4					
Audio	Encoding exclusive DAB+ / AAC+ datarates from 24 to 80 kbit/s					
Programme Type PTY	Yes	,				
DLS /DL+	0,5 kbit/s dynamic as integrated PAD. DL+ Tags: Info.traffic,			Гаgs: Info.traffic,		
	Phone.Hotline, SMS.St	udio, Prograr	nme.No	ow, Item.Title, Item.Artist,		
	Info.Weather			,		
Slideshow	Yes, per radiostation 6	kbit/s dynan	nic as in	tegrated PAD.		
Station Logos	Yes, use of SPI in a Pac information.					
Traffic Information	Yes. One traffic station	(NRK Trafikk	() in eac	h region and Traffic and		
	Transport announceme	ent				



Announcement (TA)	Yes. "Road Traffic flash" and "Transport flash" in all regions. In addition,
	one region also carries "Alarm" announcements. (FIG 0/18 + FIG 0/19)
Other Ensemble Announcement (OE)	No
Service Information	<ul> <li>Yes, frequency information (FIG 0/21)</li> <li>Yes, other ensemble (FIG 0/24)</li> </ul>
Service Following	Yes.
	Implicit linking. FIG 0/24 + FIG 0/21 are being used to determine which
	frequencies to check when a receiver loose reception.
	For softlinking please see below.
Hardlinks	NO
Softlinks	Yes, for the services NRK Trafikk and NRK YR
Service Configuration	Yes, FIG 0/7 changes of configurations
	No, FIG 0/20 stations list info for DAB+ receivers
Adaption of DAB+ stand	lard EN300401 from 2006-06 V 1.4.1 to 2017 V 2.1.1 partially

Broadcast	6 SFN networks and 1	MFN networl	k	
	Ensemble	Channel	EID	
	NRK Reg5 Innland	13E	F501	
Radiostations	NRK P1			
	NRK P1 Østlandssendir	ngen		
	NRK P1 Innlandet			
	NRK P1 Trøndelag			
	NRK P1+			
	NRK P1+ Østlandssend	ingen		
	NRK P1+ Innlandet			
	NRK P1+ Trøndelag			
	NRK P2			
	NRK P3			
	NRK P13			
	NRK mP3			
	NRK Klassisk			
	NRK Nyheter			
	NRK Sport			
	NRK Super / Folkemusikk (NRK Super from 06:00 – 21:00. Same SId)			
	NRK Jazz			
	NRK Sàpmi			
	NRK Trafikk 5			
	NRK YR 5			
Audio	Encoding exclusive DA	B+ / AAC+ da	tarates	from 24 to 80 kbit/s
Programme Type PTY	Yes			
DLS /DL+	0,5 kbit/s dynamic as i	ntegrated PA	D. DL+ 1	Tags: Info.traffic,
	Phone.Hotline, SMS.St	udio, Prograr	nme.No	w, Item.Title, Item.Artist,
	Info.Weather			



Slideshow	Yes, per radiostation 6 kbit/s dynamic as integrated PAD.
Station Logos	Yes, use of SPI in a Packet Mode Data Service in NPAD as service
	information.
Traffic Information	Yes. One traffic station (NRK Trafikk) in each region and Traffic and
	Transport announcement
Announcement (TA)	Yes. "Road Traffic flash" and "Transport flash" in all regions. In addition,
	one region also carries "Alarm" announcements. (FIG 0/18 + FIG 0/19)
Other Ensemble	No
Announcement (OE)	
Service Information	• Yes, frequency information (FIG 0/21)
	• Yes, other ensemble (FIG 0/24)
Service Following	Yes.
	Implicit linking. FIG 0/24 + FIG 0/21 are being used to determine which
	frequencies to check when a receiver loose reception.
	For softlinking please see below.
Hardlinks	NO
Softlinks	Yes, for the services NRK Trafikk and NRK YR
Service Configuration	Yes, FIG 0/7 changes of configurations
	No, FIG 0/20 stations list info for DAB+ receivers
Adaption of DAB+ stand	dard EN300401 from 2006-06 V 1.4.1 to 2017 V 2.1.1 partially
Adaption of DAB+ stand	dard EN300401 from 2006-06 V 1.4.1 to 2017 V 2.1.1 partially

Broadcast	SFN network			
	Ensemble	Channel	EID	
	NRK Reg6 TrøMøRo	12C	F301	
Radiostations	NRK P1			
	NRK P1 Innlandet			
	NRK P1 Møre og Roms	dal		
	NRK P1 Trøndelag			
	NRK P1+			
	NRK P1+ Innlandet			
	NRK P1+ Møre og Rom	sdal		
	NRK P1+ Trøndelag			
	NRK P2			
	NRK P3			
	NRK P13			
	NRK mP3			
	NRK Klassisk			
	NRK Nyheter			
	NRK Sport			
	NRK Super / Folkemusi	kk (NRK Supe	er from (	06:00 – 21:00. Same SId)
	NRK Jazz			
	NRK Sàpmi			
	NRK Trafikk 6			
	NRK YR 6			
Audio	Encoding exclusive DA	B+ / AAC+ da	tarates	from 24 to 80 kbit/s



Programme Type PTY	Yes
DLS /DL+	0,5 kbit/s dynamic as integrated PAD. DL+ Tags: Info.traffic,
	Phone.Hotline, SMS.Studio, Programme.Now, Item.Title, Item.Artist,
	Info.Weather
Slideshow	Yes, per radiostation 6 kbit/s dynamic as integrated PAD.
Station Logos	Yes, use of SPI in a Packet Mode Data Service in NPAD as service
	information.
Traffic Information	Yes. One traffic station (NRK Trafikk) in each region and Traffic and
	Transport announcement
Announcement (TA)	Yes. "Road Traffic flash" and "Transport flash" in all regions. In addition,
	one region also carries "Alarm" announcements. (FIG 0/18 + FIG 0/19)
Other Ensemble	No
Announcement (OE)	
Service Information	• Yes, frequency information (FIG 0/21)
	• Yes, other ensemble (FIG 0/24)
Service Following	Yes.
	Implicit linking. FIG 0/24 + FIG 0/21 are being used to determine which
	frequencies to check when a receiver loose reception.
	For softlinking please see below.
Hardlinks	NO
Softlinks	Yes, for the services NRK Trafikk and NRK YR
Service Configuration	Yes, FIG 0/7 changes of configurations
	No, FIG 0/20 stations list info for DAB+ receivers
Adaption of DAB+ stand	dard EN300401 from 2006-06 V 1.4.1 to 2017 V 2.1.1 partially

Broadcast	MFN- network			
	Ensemble	Channel	EID	
	NRK Reg7 NoTroFi	12B+ 13E	F601	
Radiostations	NRK P1			
	NRK P1 Nordland			
	NRK P1 Troms			
	NRK P1 Finnmark			
	NRK P1+			
	NRK P1+ Nordland			
	NRK P1+ Troms			
	NRK P1+ Finnmark			
	NRK P2			
	NRK P3			
	NRK P13			
	NRK mP3			
	NRK Klassisk			
	NRK Nyheter			
	NRK Sport			
	NRK Super / Folkemus	ikk (NRK Sup	er from	06:00 – 21:00. Same SId)



	NRK Jazz			
	NRK Sàpmi			
	NRK Trafikk 7			
	NRK YR 7			
Audio	Encoding exclusive DAB+ / AAC+ datarates from 24 to 80 kbit/s			
Programme Type PTY	Yes			
DLS /DL+	0,5 kbit/s dynamic as integrated PAD. DL+ Tags: Info.traffic,			
	Phone.Hotline, SMS.Studio, Programme.Now, Item.Title, Item.Artist,			
	Info.Weather			
Slideshow	Yes, per radiostation 6 kbit/s dynamic as integrated PAD.			
Station Logos	Yes, use of SPI in a Packet Mode Data Service in NPAD as service			
	information.			
Traffic Information	Yes. One traffic station (NRK Trafikk) in each region and Traffic and			
	Transport announcement			
Announcement (TA)	Yes. "Road Traffic flash" and "Transport flash" in all regions. In addition,			
	one region also carries "Alarm" announcements. (FIG 0/18 + FIG 0/19)			
Other Ensemble	No			
Announcement (OE)				
Service Information	<ul> <li>Yes, frequency information (FIG 0/21)</li> </ul>			
	• Yes, other ensemble (FIG 0/24)			
Service Following	Yes.			
	Implicit linking. FIG 0/24 + FIG 0/21 are being used to determine which			
	frequencies to check when a receiver loose reception.			
	In region 7, the ensemble NRK Reg7 NoTroFi is a MFN network which is			
	signalled with FIG 0/21. The channel 13E is used in the southern part and			
	the channel 12B is used in the northern part.			
	For softlinking please see below.			
Hardlinks	NO			
Softlinks	Yes, for the services NRK Trafikk and NRK YR			
Service Configuration	Yes, FIG 0/7 changes of configurations			
	No, FIG 0/20 stations list info for DAB+ receivers			
Adaption of DAB+ stand	dard EN300401 from 2006-06 V 1.4.1 to 2017 V 2.1.1 partially			

Broadcast	SFN network	SFN network			
	Ensemble	Channel	EID		
	RIKS	12D	F201		
Radiostations	KISS N`DANCE				
	NORSK POP				
	P24-7 FUN				
	P24-7 KOS				
	P24-7 MIX				
	POPPLAY				
	RADIONORGE				



	RADIO ROCK		
	TOPP 40		
	VINYL		
	NRJ NORGE		
	P4 LydenAvNorge		
	P5 Hits		
	P6 Rock		
	P7 Klem		
	P8 Pop 80s & 90s		
	P9 Retro		
	P10 Country		
Audio	One station in DAB 128 kbit/s (P4 LydenAvNorge). All other stations in DAB+ datarates from 40 to 72 kbit/s		
Programme Type PTY	Yes		
DLS /DL+	0,5 kbit/s dynamic as integrated PAD. DL+ Tags: Item.Title, Item.Artist,		
Slideshow	Yes, per radiostation 6 kbit/s dynamic as integrated PAD.		
Station Logos	Yes, use of SPI in a Packet Mode Data Service in NPAD as service		
	information. There are two different SPI services.		
Traffic Information	Yes. TPEG		
Announcement (TA)	No		
Other Ensemble	No		
Announcement (OE)			
Service Information	No		
Service Following	No		
Hardlinks	No		
Softlinks	No		
Service Configuration	No		
Adaption of DAB+ standard EN300401 from 2006-06 V 1.4.1 to 2017 V 2.1.1 partially			