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TECHNICAL SPECIFICATION

**Digital Audio Broadcasting (DAB);
Registered Tables**

Reference
RTS/JTC-DAB-101

Keywords
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radio, registration

ETSI

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Foreword

This Technical Specification (TS) has been produced by Joint Technical Committee (JTC) Broadcast of the European Broadcasting Union (EBU), Comité Européen de Normalisation ELECtrotechnique (CENELEC) and the European Telecommunications Standards Institute (ETSI).

NOTE 1: The EBU/ETSI JTC Broadcast was established in 1990 to co-ordinate the drafting of standards in the specific field of broadcasting and related fields. Since 1995 the JTC Broadcast became a tripartite body by including in the Memorandum of Understanding also CENELEC, which is responsible for the standardization of radio and television receivers. The EBU is a professional association of broadcasting organizations whose work includes the co-ordination of its members' activities in the technical, legal, programme-making and programme-exchange domains. The EBU has active members in about 60 countries in the European broadcasting area; its headquarters is in Geneva.

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The Eureka Project 147 was established in 1987, with funding from the European Commission, to develop a system for the broadcasting of audio and data to fixed, portable or mobile receivers. Their work resulted in the publication of European Standard, ETSI EN 300 401 [1], for DAB® (see note 2) which now has worldwide acceptance.

NOTE 2: DAB® is a registered trademark owned by one of the Eureka Project 147 partners.

The DAB family of standards is supported by WorldDAB, an organization with members drawn from broadcasting organizations and telecommunication providers together with companies from the professional and consumer electronics industry.

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

1 Scope

The present document contains a number of tables for use in the implementation of the Digital Audio Broadcasting (DAB), system [1] and the related Multimedia Object Transfer (MOT) standard [2]. The tables in the present document are maintained by the WorldDAB Technical Committee.

The procedure for registering a new value in an existing table or the registration of a new table in the present document is described in clause 4.

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at https://docbox.etsi.org/Reference/.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are necessary for the application of the present document.

[1] ETSI EN 300 401 (V2.1.1): "Radio broadcasting systems; Digital Audio Broadcasting (DAB) to mobile, portable and fixed receivers".

[2] ETSI EN 301 234: "Digital Audio Broadcasting (DAB); Multimedia Object Transfer (MOT) protocol".

[3] ETSI TS 103 466: "Digital Audio Broadcasting (DAB); DAB audio coding (MPEG Layer II)".

[4] ETSI TS 102 563: "Digital Audio Broadcasting (DAB); DAB+ audio coding (MPEG HE-AACv2)".

[5] ETSI TS 101 759: "Digital Audio Broadcasting (DAB); Data Broadcasting - Transparent Data Channel (TDC)".

[6] ETSI TS 102 427: "Digital Audio Broadcasting (DAB); Data Broadcasting - MPEG-2 TS streaming".

[7] ETSI TS 101 499: "Hybrid Digital Radio (DAB, DRM, RadioDNS); SlideShow; User Application Specification".

[8] ETSI TS 103 551: "Digital Audio Broadcasting (DAB); Transport of TPEG services".

[9] ETSI TS 102 818: "Hybrid Digital Radio (DAB, DRM, RadioDNS); XML Specification for Service and Programme Information (SPI)".

[10] ETSI TS 102 428: "Digital Audio Broadcasting (DAB); DMB video service; User Application Specification".

[11] ETSI TS 103 177: "Digital Audio Broadcasting (DAB); Filecasting; User application specification".

[12] ETSI TS 102 979: "Digital Audio Broadcasting (DAB); Journaline; User application specification".

[13] ETSI TS 103 176: "Digital Audio Broadcasting (DAB); Rules of implementation; Service information features".

[14]   IEC 62106 (all parts) (2018): "Radio data system (RDS) -- VHF/FM sound broadcasting in the frequency range from 64,0 MHz to 108,0 MHz".

[15]   ISO/IEC 10646: "Information technology -- Universal Coded Character Set (UCS)".

[16]   IETF RFC 1866: "Hypertext Markup Language - 2.0".

[17]   ISO/IEC 8859-1: "Information technology -- 8-bit single-byte coded graphic character sets -- Part 1: Latin alphabet No. 1".

[18]   ISO 32000-1:2008: "Document management -- Portable document format - Part 1: PDF 1.7".

[19]   ISO/IEC 10918 (all parts): "Information technology -- Digital compression and coding of continuous-tone still images".

[20]   ISO/IEC 15948: "Information technology -- Computer graphics and image processing -- Portable Network Graphics (PNG): Functional specification".

[21]   ISO/IEC 11172-3: "Information technology -- Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s -- Part 3: Audio".

[22]   ISO/IEC 13818-3: "Information technology -- Generic coding of moving pictures and associated audio information -- Part 3: Audio".

[23]   ISO/IEC 14496-3: "Information technology -- Coding of audio-visual objects -- Part 3: Audio".

[24]   ISO/IEC 14496-2: "Information technology -- Coding of audio-visual objects -- Part 2: Visual".

[25]   IETF RFC 1950: "ZLIB Compressed Data Format Specification version 3.3".

[26]   IETF RFC 1952: "GZIP file format specification version 4.3".

[27]   ETSI TS 103 689: "Digital Audio Broadcasting (DAB); Filtered Information Service (FIS); Application specification".

[28]   Unicode bidirectional algorithm, UAX#9.

NOTE: Available at http://www.unicode.org/reports/tr9/.

2.2   Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

Not applicable.

3   Definition of terms, symbols and abbreviations

3.1   Terms

Void.

3.2   Symbols

Void.

3.3   Abbreviations

For the purposes of the present document, the following abbreviations apply:

AM	Amplitude Modulation
AMSS	Amplitude Modulation Signalling System
ASBU	Arab States Broadcasting Union
ASCII	American Standard Code for Information Interchange
CIF	Common Interleaved Frame
DAB	Digital Audio Broadcasting
DL	Dynamic Label
DMB	Digital Multimedia Broadcasting
DSCTy	Data Service Component Type
EBU	European Broadcasting Union
ECC	Extended Country Codes
FIB	Fast Information Block
FIC	Fast Information Channel
FIG	Fast Information Group
FIS	Filtered Information Service
FM	Frequency Modulation
HTML	Hyper Text Mark-up Language
ITU	International Telecommunications Union
JFIF	JPEG File Interchange Format
JPEG	Joint Photographic Experts Group
LTO	Local Time Offset
LTR	Left-To-Right
MCI	Multiplex Configuration Information
MOT	Multimedia Object Transfer
MPEG	Moving Pictures Expert Group
OE	Other Ensemble
PAD	Programme Associated Data
PNG	Portable Network Graphics
PTy	Programme Type
RDS	Radio Data System
rfu	reserved for future use
RTL	Right-To-Left
SI	Service Information
SPI	Service and Programme Information
tba	to be announced
TDC	Transparent Data Channel
TII	Transmitter Identification Information
TPEG	Transport Protocol Experts Group
UCS	Universal Character Set
UTF	Unicode Transformation Format

4 Registration procedure

4.1 Registration authority

The content of the present document is maintained by the WorldDAB Technical Committee. Applications for the registration of a value in an existing table or registration of a new table are to be sent to the address below. Note that only applications which are in line with the rules described in the following clauses can be accepted by the registration authority.

Applications for registration should be sent to:

WorldDAB Project Office,
55 New Oxford Street,
LONDON,
WC1A 1BS,
England
Tel: +44 20 7010 0742
E-mail: worlddab-irc@worlddab.org

4.2 Registration of a value in an existing table

Applications for a new value to be defined in an **existing** table shall be sent to the WorldDAB Project Office. The requirement shall be clearly stated, including table to be considered, requirement and proposed number to be used. Support from other organizations for the request should be cited also.

The WorldDAB Project Office will confirm that no numbering conflicts occur at this stage and circulate the proposal to the WorldDAB Technical Committee members for a 30 day comment period. If there are no adverse comments, then the application, as amended by any helpful editorial suggestions will be accepted and published within 30 days on the WorldDAB website. If there are adverse comments, then the application will be considered by the WorldDAB Technical Committee at its next plenary meeting following the comment period. The applicant will be given an opportunity during the meeting to describe their proposal and reasons for it. The decision of the WorldDAB Technical Committee meeting will be final and if the application is accepted, as amended by any helpful editorial suggestions, it will be published within 30 days on the WorldDAB website.

4.3 Registration of a new table

Applications for a **new** table to be defined shall be sent to the WorldDAB Project Office. The requirement shall be clearly stated, including table function to be considered, requirement and proposed numbering system to be used. Support from other organizations for the request should be cited also.

The WorldDAB Project Office will prepare a briefing for the next WorldDAB Technical Committee plenary meeting and the applicant will be given an opportunity to describe their proposal and reasons for it. The decision of the WorldDAB Technical Committee meeting will be final and if the application is accepted, as amended by any helpful editorial suggestions, it will be published within 30 days on the WorldDAB website.

5 Registered tables in ETSI EN 300 401

5.1 General

The following tables provide enumeration of FIG data fields in ETSI EN 300 401 [1].

5.2   Character sets (Charset)

See clause 5.2.2.2 of ETSI EN 300 401 [1].

Table 1 contains all *presently* registered character sets and their bit values used in the FIG type 1 data field and dynamic labels. All the remaining values are reserved for future use. Usage details are provided in ETSI TS 103 176 [13], clause 8.

Table 1: Charset values

b$_7$	b$_6$	b$_5$	b$_4$	Character set (Charset)
0	0	0	0	Complete EBU Latin based repertoire - see annex C
0	1	1	0	ISO/IEC 10646 [15] using UTF-16 transformation format, big endian byte order (see note)
1	1	1	1	ISO/IEC 10646 [15] using UTF-8 transformation format
NOTE:				UTF-16 is an extension of UCS-2; in DAB the code range is restricted to 2-byte characters (i.e. basic multilingual plane only).

5.3   Audio and Data Service Component Type (ASCTy/DSCTy)

See clause 6.3.1 of ETSI EN 300 401 [1].

Table 2a contains all *presently* registered Audio Service Component Types and their bit values. All the remaining values (not shown) are reserved for future use.

Table 2a: ASCTy types

b$_{13}$	b$_{12}$	b$_{11}$	b$_{10}$	b$_9$	b$_8$	Dec	ASCTy types
0	0	0	0	0	0	0	DAB audio (see ETSI TS 103 466 [3])
0	0	0	0	0	1	1	Not used
0	0	0	0	1	0	2	Not used
							Rfu
1	1	1	1	1	1	63	DAB+ audio (see ETSI TS 102 563 [4])

Table 2b contains all *presently* registered Data Service Component Types and their bit values. All the remaining values (not shown) are reserved for future use.

Table 2b: DSCTy types

b$_{13}$	b$_{12}$	b$_{11}$	b$_{10}$	b$_9$	b$_8$	Dec	DSCTy types
0	0	0	0	0	0	0	Not used
0	0	0	0	0	1	1	Not used
0	0	0	0	1	0	2	Not used
0	0	0	0	1	1	3	Not used
0	0	0	1	0	0	4	Not used
0	0	0	1	0	1	5	Transparent Data Channel (TDC), see ETSI TS 101 759 [5]
							Rfu
0	1	1	0	0	0	24	MPEG-2 Transport Stream, see ETSI TS 102 427 [6]
							Rfu
1	1	1	0	1	1	59	Not used
1	1	1	1	0	0	60	Multimedia Object Transfer (MOT), see ETSI EN 301 234 [2]
1	1	1	1	0	1	61	Proprietary service: no DSCTy signalled
1	1	1	1	1	0	62	Not used
1	1	1	1	1	1	63	Not used

5.4 Country Id

See clause 6.3.1 of ETSI EN 300 401 [1].

Tables 3 to 7 are separated into International Telecommunications Union (ITU) regions for convenience only; they contain Country Identifiers (Country Id) and the Extended Country Codes (ECC), and, for information, the ITU code. The Country Id codes and ECC are shown in their binary-coded hexadecimal form. Country identifier code "0" (hex) is not used.

NOTE: Lower case characters have been used where there is no known ITU code.

Table 3: ITU Region 1 (European broadcasting area)

Country	ITU code	ECC	Country Id	Country	ITU code	ECC	Country Id
Albania	ALB	E0	9	Latvia	LVA	E3	9
Algeria	ALG	E0	2	Lebanon	LBN	E3	A
Andorra	AND	E0	3	Libya	LBY	E1	D
Armenia	ARM	E4	A	Liechtenstein	LIE	E2	9
Austria	AUT	E0	A	Lithuania	LTU	E2	C
Azerbaijan	AZE	E3	B	Luxembourg	LUX	E1	7
Azores	AZR	E4	8	Macedonia	MKD	E4	3
Belgium	BEL	E0	6	Madeira	MDR	E4	8
Belarus	BLR	E3	F	Malta	MLT	E0	C
Bosnia Herzegovina	BIH	E4	F	Moldova	MDA	E4	1
Bulgaria	BUL	E1	8	Monaco	MCO	E2	B
Canary Islands	CNR	E2	E	Montenegro	MNE	E3	1
Croatia	HRV	E3	C	Morocco	MRC	E2	1
Cyprus	CYP	E1	2	Netherlands	HOL	E3	8
Czech Republic	CZE	E2	2	Norway	NOR	E2	F
Denmark	DNK	E1	9	Palestine	-	E0	8
Egypt	EGY	E0	F	Poland	POL	E2	3
Estonia	EST	E4	2	Portugal	POR	E4	8
Faroe	DNK	E1	9	Romania	ROU	E1	E
Finland	FNL	E1	6	Russian Federation	RUS	E0	7
France	F	E1	F	San Marino	SM	E1	3
Georgia	GEO	E4	C	Serbia	SRB	E2	D
Germany	D	E0	D, 1	Slovakia	SVK	E2	5
Gibraltar	GIB	E1	A	Slovenia	SVN	E4	9
Greece	GRC	E1	1	Spain	E	E2	E
Hungary	HNG	E0	B	Sweden	S	E3	E
Iceland	ISL	E2	A	Switzerland	SUI	E1	4
Iraq	IRQ	E1	B	Syria	SYR	E2	6
Ireland	IRL	E3	2	Tajikistan	TJK	E3	5
Israel	ISR	E0	4	Tunisia	TUN	E2	7
Italy	I	E0	5	Turkey	TUR	E3	3
Jordan	JOR	E1	5	Turkmenistan	TKM	E4	E
Kazakhstan	KAZ	E3	D	Ukraine	UKR	E4	6
Kosovo	-	E4	7	United Kingdom	G	E1	C
Kyrgyzstan	KGZ	E5	3	Uzbekistan	UZB	E4	B
				Vatican	CVA	E2	4

Table 4: ITU Region 1 (African broadcasting area)

Country	ITU code	ECC	Country Id	Country	ITU code	ECC	Country Id
Ascension Island	ASC	D1	A	Mauritius	MAU	D3	A
Angola	AGL	D0	6	Madagascar	MDG	D0	4
Algeria	ALG	E0	2	Malawi	MWI	D0	F
Burundi	BDI	D1	9	Mali	MLI	D0	5
Benin	BEN	D0	E	Morocco	MRC	E2	1
Burkina Faso	BFA	D0	B	Mauritania	MTN	D1	4
Botswana	BOT	D1	B	Mozambique	MOZ	D2	3
Cameroon	CME	D0	1	Niger	NGR	D2	8
Canary Islands	CNR	E2	E	Nigeria	NIG	D1	F
Central African Republic	CAF	D0	2	Namibia	NMB	D1	1
Chad	TCD	D2	9	Rwanda	RRW	D3	5
Congo	COG	D0	C	Sao Tome and Principe	STP	D1	5
Comoros	COM	D1	C	Seychelles	SEY	D3	8
Cape Verde	CPV	D1	6	Senegal	SEN	D1	7
Cote d'Ivoire	CTI	D2	C	Sierra Leone	SRL	D2	1
Djibouti	DJI	D0	3	Somalia	SOM	D2	7
Egypt	EGY	E0	F	South Africa	AFS	D0	A
Ethiopia	ETH	D1	E	Sudan	SDN	D3	C
Gabon	GAB	D0	8	Swaziland	SWZ	D2	5
Ghana	GHA	D1	3	Togo	TGO	D0	D
Gambia	GMB	D1	8	Tunisia	TUN	E2	7
Guinea-Bissau	GNB	D2	A	Tanzania	TZA	D1	D
Equatorial Guinea	GNE	D0	7	Uganda	UGA	D2	4
Republic of Guinea	GUI	D0	9	Western Sahara	AOE	D3	3
Kenya	KEN	D2	6	Zaire	ZAI	D2	B
Liberia	LBR	D1	2	Zambia	ZMB	D2	E
Libya	LBY	E1	D	Zanzibar	ZAN	D2	D
Lesotho	LSO	D3	6	Zimbabwe	ZWE	D2	2

Table 5: Void

Table 6: ITU Region 2 (North and South Americas)

Country	ITU code	ECC	Country Id	Country	ITU code	ECC	Country Id
Anguilla	AIA	A2	1	Guyana	GUY	A3	F
Antigua and Barbuda	ATG	A2	2	Haiti	HTI	A4	D
Argentina	ARG	A2	A	Honduras	HND	A4	2
Aruba	ABW	A4	3	Jamaica	JMC	A3	3
Bahamas	BAH	A2	F	Martinique	MRT	A3	4
Barbados	BRB	A2	5	Mexico	MEX	A5	B, D, E, F
Belize	BLZ	A2	6	Montserrat	MSR	A4	5
Bermuda	BER	A2	C	Netherlands Antilles	ATN	A2	D
Bolivia	BOL	A3	1	Nicaragua	NCG	A3	7
Brazil	B	A2 / A6	B / 3, C, D	Panama	PNR	A3	9
Canada	CAN	A1	B, C, D, E	Paraguay	PRG	A3	6
Cayman Islands	CYM	A2	7	Peru	PRU	A4	7
Chile	CHL	A3	C	Puerto Rico	PTR	A0	1 to 9, A, B, D, E
Colombia	CLM	A3	2	St. Kitts	SCN	A4	A
Costa Rica	CTR	A2	8	St. Lucia	LCA	A4	B
Cuba	CUB	A2	9	St. Pierre and Miquelon	SPM	A6	F
Dominica	DMA	A3	A	St. Vincent	VCT	A5	C
Dominican Republic	DOM	A3	B	Surinam	SUR	A4	8
Ecuador	EQA	A2	3	Trinidad and Tobago	TRD	A4	6
El Salvador	SLV	A4	C	Turks and Caicos islands	TCA	A3	E
Falkland Islands	FLK	A2	4	United States of America	USA	A0	1 to 9, A, B, D, E
Greenland	GRL	A1	F	Uruguay	URG	A4	9
Grenada	GRD	A3	D	Venezuela	VEN	A4	E
Guadeloupe	GDL	A2	E	Virgin islands (British)	VRG	A5	F
Guatemala	GTM	A4	1	Virgin islands (USA)	VIR	A0	1 to 9, A, B, D, E

Table 7: ITU Region 3 (Asia and Pacific)

Country	ITU code	ECC	Country Id	Country	ITU code	ECC	Country Id
Afghanistan	AFG	F0	A	Korea (South)	KOR	F1	E
Saudi Arabia	ARS	F0	9	Korea (North)	KRE	F0	D
Australia:	AUS			Kuwait	KWT	F2	1
Capital Cities (commercial and community broadcasters)	acc	F0	1	Laos	LAO	F3	1
Regional New South Wales and ACT	arn	F0	2	Macau	MAC	F2	6
Capital Cities (national broadcasters)	acn	F0	3	Malaysia	MLA	F0	F
Regional Queensland	arq	F0	4	Maldives	MLD	F2	B
Regional South Australia and Northern Territory	arc	F0	5	Micronesia	FSM	F3	E
Regional Western Australia	arw	F0	6	Mongolia	MNG	F3	F
Regional Victoria and Tasmania	arv	F0	7	Nepal	NPL	F2	E
Regional (future)	arf	F0	8	Nauru	NRU	F1	7
Bangladesh	BGD	F1	3	New Zealand	NZL	F1	9
Bahrain	BHR	F0	E	Oman	OMA	F1	6
Myanmar (Burma)	BRM	F0	B	Pakistan	PAK	F1	4
Brunei Darussalam	BRU	F1	B	Philippines	PHL	F2	8
Bhutan	BTN	F1	2	Papua New Guinea	PNG	F3	9
Cambodia	CBG	F2	3	Qatar	QAT	F2	2
China	CHN	F0	C	Solomon Islands	SLM	F1	A
Sri Lanka	CLN	F1	C	Western Samoa	SMO	F2	4
Fiji	FJI	F1	5	Singapore	SNG	F2	A
Hong Kong	HKG	F1	F	Taiwan	-	F1	D
India	IND	F2	5	Thailand	THA	F3	2
Indonesia	INS	F2	C	Tonga	TON	F3	3
Iran	IRN	F1	8	United Arab Emirates	UAE	F2	D
Iraq	IRQ	E1	B	Vietnam	VTN	F2	7
Japan	J	F2	9	Vanuatu	VUT	F2	F
Kiribati	KIR	F1	1	Yemen	YEM	F3	B

5.5   Void

Table 8: Void

5.6   Languages code tables

See clause 8.1.2 of ETSI EN 300 401 [1].

Table 9 contains the European languages written with "Latin-based" alphabets and their hexadecimal code.

Table 10 contains other languages and their hexadecimal code.

Table 9: European Latin-based languages

Language	Code (hex)	Language	Code (hex)
Unknown/not applicable	00	Luxembourgian	19
Albanian	01	Lithuanian	1A
Breton	02	Hungarian	1B
Catalan	03	Maltese	1C
Croatian	04	Dutch	1D
Welsh	05	Norwegian	1E
Czech	06	Occitan	1F
Danish	07	Polish	20
German	08	Portuguese	21
English	09	Romanian	22
Spanish	0A	Romansh	23
Esperanto	0B	Serbian	24
Estonian	0C	Slovak	25
Basque	0D	Slovene	26
Faroese	0E	Finnish	27
French	0F	Swedish	28
Frisian	10	Turkish	29
Irish	11	Flemish	2A
Gaelic	12	Walloon	2B
Galician	13	*rfu*	2C
Icelandic	14	*rfu*	2D
Italian	15	*rfu*	2E
Sami	16	*rfu*	2F
Latin	17	Reserved for national assignment	30 to 3F
Latvian	18		

Table 10: Other languages

Language	Code (hex)		Language	Code (hex)
Amharic	7F		Marathi	5F
Arabic	7E		Ndebele	5E
Armenian	7D		Nepali	5D
Assamese	7C		Oriya	5C
Azerbaijani	7B		Papiamento	5B
Bambora	7A		Persian	5A
Belorussian	79		Punjabi	59
Bengali	78		Pushtu	58
Bulgarian	77		Quechua	57
Burmese	76		Russian	56
Chinese	75		Rusyn	55
Chuvash	74		Serbo-Croat	54
Dari	73		Shona	53
Fulani	72		Sinhalese	52
Georgian	71		Somali	51
Greek	70		Sranan Tongo	50
Gujurati	6F		Swahili	4F
Gurani	6E		Tadzhik	4E
Hausa	6D		Tamil	4D
Hebrew	6C		Tatar	4C
Hindi	6B		Telugu	4B
Indonesian	6A		Thai	4A
Japanese	69		Ukranian	49
Kannada	68		Urdu	48
Kazakh	67		Uzbek	47
Khmer	66		Vietnamese	46
Korean	65		Zulu	45
Laotian	64		*rfu*	44
Macedonian	63		*rfu*	43
Malagasay	62		*rfu*	42
Malaysian	61		*rfu*	41
Moldavian	60		Background sound/clean feed	40

5.7   International Table Identifiers

See clause 8.1.3.2 of ETSI EN 300 401 [1].

Table 11 contains *presently* registered International Table Identifiers and their bit values. All the remaining values (not shown) are reserved for future use.

Table 11: International Table Identifiers

b$_7$	b$_6$	b$_5$	b$_4$	b$_3$	b$_2$	b$_1$	b$_0$	International Table Identifiers
0	0	0	0	0	0	0	1	Comprises the use of a PTy from table 12 and an Announcement type from table 14.
0	0	0	0	0	0	1	0	Comprises the use of a PTy from table 13 and an Announcement type from table 14.

5.8   Programme type

See clause 8.1.5 of ETSI EN 300 401 [1].

Table 12 is largely co-ordinated with the Programme Type codes used in RDS (except code 30 and 31) and specified in IEC 62106 [14]. The 16-character and 8-character abbreviations are recommended for display on DAB products in the English language. Other language abbreviations are shown in annex A.

**Table 12: Programme type codes and abbreviations in the English language,
applying to all countries, except for North America**

Decimal number	Code					Programme type	16-character abbreviation	8-character abbreviation
	b_4	b_3	b_2	b_1	b_0			
0	0	0	0	0	0	No programme type	None	None
1	0	0	0	0	1	News	News	News
2	0	0	0	1	0	Current Affairs	Current_Affairs	Affairs
3	0	0	0	1	1	Information	Information	Info
4	0	0	1	0	0	Sport	Sport	Sport
5	0	0	1	0	1	Education	Education	Educate
6	0	0	1	1	0	Drama	Drama	Drama
7	0	0	1	1	1	Culture	Arts	Arts
8	0	1	0	0	0	Science	Science	Science
9	0	1	0	0	1	Varied	Talk	Talk
10	0	1	0	1	0	Pop Music	Pop_Music	Pop
11	0	1	0	1	1	Rock Music	Rock_Music	Rock
12	0	1	1	0	0	Easy Listening Music	Easy_Listening	Easy
13	0	1	1	0	1	Light Classical	Light_Classical	Classics
14	0	1	1	1	0	Serious Classical	Classical_Music	Classics
15	0	1	1	1	1	Other Music	Music	Music
16	1	0	0	0	0	Weather/meteorology	Weather	Weather
17	1	0	0	0	1	Finance/Business	Finance	Finance
18	1	0	0	1	0	Children's programmes	Children's	Children
19	1	0	0	1	1	Social Affairs	Factual	Factual
20	1	0	1	0	0	Religion	Religion	Religion
21	1	0	1	0	1	Phone In	Phone_In	Phone_In
22	1	0	1	1	0	Travel	Travel	Travel
23	1	0	1	1	0	Leisure	Leisure	Leisure
24	1	1	0	0	0	Jazz Music	Jazz_and_Blues	Jazz
25	1	1	0	0	1	Country Music	Country_Music	Country
26	1	1	0	1	0	National Music	National_Music	Nation_M
27	1	1	0	1	1	Oldies Music	Oldies_Music	Oldies
28	1	1	1	0	0	Folk Music	Folk_Music	Folk
29	1	1	1	0	1	Documentary	Documentary	Document
30	1	1	1	1	0	*Not used*		
31	1	1	1	1	1	*Not used*		
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.								
NOTE 2: The notation _ is used to indicate the use of the "space" character.								

Table 13 is co-ordinated with the Program Type codes used in North America (except code 30 and 31) and specified in IEC 62106 [14]. The 16-character and 8-character abbreviations are recommended for display on DAB products for use in North America.

**Table 13: Programme type codes and abbreviations in the English language,
applying to North America**

Decimal number	Code					Program type	16-character abbreviation	8-character abbreviation
	b_4	b_3	b_2	b_1	b_0			
0	0	0	0	0	0	No program type	None	None
1	0	0	0	0	1	News	News	News
2	0	0	0	1	0	Information	Information	Inform
3	0	0	0	1	1	Sports	Sports	Sports
4	0	0	1	0	0	Talk	Talk	Talk
5	0	0	1	0	1	Rock	Rock	Rock
6	0	0	1	1	0	Classic Rock	Classic_Rock	Cls_Rock
7	0	0	1	1	1	Adult Hits	Adult_Hits	Adlt_Hit
8	0	1	0	0	0	Soft Rock	Soft_Rock	Soft_Rck
9	0	1	0	0	1	Top 40	Top_40	Top_40
10	0	1	0	1	0	Country	Country	Country
11	0	1	0	1	1	Oldies	Oldies	Oldies
12	0	1	1	0	0	Soft	Soft	Soft
13	0	1	1	0	1	Nostalgia	Nostalgia	Nostalga
14	0	1	1	1	0	Jazz	Jazz	Jazz
15	0	1	1	1	1	Classical	Classical	Classicl
16	1	0	0	0	0	Rhythm and Blues	Rhythm_and_Blues	R_&_B
17	1	0	0	0	1	Soft Rhythm and Blues	Soft_R_&_B	Soft_R&B
18	1	0	0	1	0	Foreign Language	Foreign_Language	Language
19	1	0	0	1	1	Religious Music	Religious_Music	Rel_Musc
20	1	0	1	0	0	Religious Talk	Religious_Talk	Rel_Talk
21	1	0	1	0	1	Personality	Personality	Persnlty
22	1	0	1	1	0	Public	Public	Public
23	1	0	1	1	0	College	College	College
24	1	1	0	0	0	: rfu		
25	1	1	0	0	1	: rfu		
26	1	1	0	1	0	: rfu		
27	1	1	0	1	1	: rfu		
28	1	1	1	0	0	: rfu		
29	1	1	1	0	1	Weather	Weather	Weather
30	1	1	1	1	0	Not used		
31	1	1	1	1	1	Not used		
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0010/ (see clause 5.7) which references the PTy codes for North American DAB use.								
NOTE 2: The notation _ is used to indicate the use of the "space" character.								

5.9   Announcements

See clause 8.1.6 of ETSI EN 300 401 [1]. Table 14 contains all *presently* registered announcement types, their descriptions and bit flags. This table forms part 2 of the International Table Identifiers /0000 0001/ and /0000 0010/ (see table 11). All the remaining values (not detailed) are reserved for future use.

Table 14: Announcement types and their descriptions

Bit flag	Announcement type	Description
b_0	Alarm	Information about a serious or even life-threatening situation.
b_1	Road Traffic flash	Information about problems on the road.
b_2	Transport flash	Information concerning Public Transport, such as: schedules of buses, ferries, planes or trains.
b_3	Warning/Service	Information about incidents of less importance than Alarm Announcements, such as: disruption of power or water supplies.
b_4	News flash	News bulletin.
b_5	Area weather flash	Weather bulletin.
b_6	Event announcement	Information about commercial, cultural or public events.
b_7	Special event	Information on unscheduled or previously unforeseen events.
b_8	Programme Information	Information about current or future radio broadcasts or programmes.
b_9	Sport report	Bulletin of news about sport.
b_{10}	Financial report	Bulletin of news about finance or business.
b_{11}	*Reserved for future definition*	tba
b_{12}	*Reserved for future definition*	tba
b_{13}	*Reserved for future definition*	tba
b_{14}	*Reserved for future definition*	tba
b_{15}	*Reserved for future definition*	tba

Table 15 shows the 16-character and 8-character abbreviations recommended for display on DAB products for the English language. Other languages abbreviations are detailed in annex B. All the remaining values (not detailed) are reserved for future use.

Table 15: Announcement types and abbreviations in the English language

Bit flag	Announcement type	16-character abbreviation	8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Traffic_News	Traffic
b_2	Transport flash	Transport_News	Travel
b_3	Warning/Service	Warning	Warning
b_4	News flash	News	News
b_5	Area weather flash	Weather	Weather
b_6	Event announcement	Event	Event
b_7	Special event	Special_event	Special
b_8	Programme Information	Radio_info	Rad_info
b_9	Sport report	Sports_news	Sports
b_{10}	Financial report	Financial_news	Finance
b_{11}	*Reserved for future definition*	tba	tba
b_{12}	*Reserved for future definition*	tba	tba
b_{13}	*Reserved for future definition*	tba	tba
b_{14}	*Reserved for future definition*	tba	tba
b_{15}	*Reserved for future definition*	tba	tba
NOTE: The notation _ is used to indicate the use of the "space" character.			

5.10   User Application Type

See clause 6.3.6 of ETSI EN 300 401 [1].

Table 16 contains all *presently* registered User Application Types and the references to the appropriate specifications.

Table 16: User Application Types

User Application Type (hexadecimal)	User Application	Reference
0x000	Reserved for future definition	
0x001	Not used	
0x002	SlideShow	ETSI TS 101 499 [7]
0x003	Not used	
0x004	TPEG	ETSI TS 103 551 [8]
0x005	Not used	
0x006	Not used	
0x007	SPI	ETSI TS 102 818 [9]
0x008	Not used	
0x009	DMB	ETSI TS 102 428 [10]
0x00a	Not used	
0x00b	Not used	
0x00c	Not used	
0x00d	Filecasting	ETSI TS 103 177 [11]
0x00e	FIS	ETSI TS 103 689 [27]
0x00f to 0x449	Reserved for future definition	
0x44a	Journaline® (see note 2)	ETSI TS 102 979 [12]
0x44b to 0x7ff	Reserved for future definition	
NOTE 1: User Application Types marked "Reserved for future definition" are assigned by the WorldDAB Technical Committee for user applications whose definition is published by a recognized standards body (e.g. ETSI) or for user applications whose definition is not freely available.		
NOTE 2: Journaline is a registered trade mark owned by Fraunhofer IIS.		

6   Registered tables in ETSI EN 301 234 (MOT)

6.1   Content type and content subtypes

See clause 6.1 of ETSI EN 301 234 [2].

Table 17 contains values for the MOT header parameters content type and content subtype.

Table 17: Content type and content subtypes

Content type b_{14} b_9	Interpretation	Content subtype b_8 b_0	Interpretation
000000	general data	000000000	Object Transfer
		000000001	Not used
000001	text	000000000	Not used
		000000001	Not used
		000000010	HTML [16], (default: ISO Latin 1 [17])
		000000011	PDF [18]
000010	image	000000000	Not used
		000000001	JFIF (JPEG) [19]
		000000010	Not used
		000000011	PNG [20]
000011	audio	000000000	Not used
		000000001	MPEG I audio Layer II [21]
		000000010	Not used
		000000011	Not used
		000000100	MPEG II audio Layer II [22]
		000000101	Not used
		000000110	Not used
		000000111	Not used
		000001000	Not used
		000001001	Not used
		000001010	MPEG 4 audio [23]
000100	video	000000000	Not used
		000000001	Not used
		000000010	MPEG 4 video [24]
		000000011	Not used
000101	MOT transport	000000000	Header update
		000000001	Header only
000110	system	000000000	Not used
		000000001	Not used
000111	application	*all values*	Defined by user application
111111	proprietary table	*all values*	Defined by proprietary application
NOTE: Content subtypes marked as "Not used" were previously assigned but are no longer relevant.			

6.2   Compressed data formats

See clause 6.2.2.1.3 of ETSI EN 301 234 [2].

Table 18 contains the registered values for the compressed data formats.

Table 18

CompressionId	Description	Specification reference
0x00	Reserved	
0x01	Gzip compressed data format (deflate)	IETF RFC 1950 [25] and IETF RFC 1952 [26]
NOTE 1: The gzip file format potentially allows compression algorithms other than the "Deflate" algorithm to be used, although Deflate is currently the only algorithm specified for use with this format.		
NOTE 2: A software library to decode gzip files coded with the Deflate algorithm is freely available and may be obtained from: http://www.gzip.org.		

6.3   Character set indicator

See clause 6.2.2.1.1 of ETSI EN 301 234 [2].

Table 19 contains values for coding the character set indicator for the MOT ContentName.

Table 19

b_7	b_6	b_5	b_4	Description
0	0	0	0	Complete EBU Latin based repertoire - see annex C
0	1	0	0	ISO Latin Alphabet No. 1 (see ISO/IEC 8859-1 [17])
1	1	1	1	ISO/IEC 10646 [15] using UTF-8 transformation format

Annex A (informative):
Programme type codes, translations

Tables are not shown in alphabetical order, because new tables may be added at the end of this annex in the future.

Table A.1: Dutch Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Dutch PTy	Dutch 16-character abbreviation	Dutch 8-character abbreviation
0	No programme type	niet gedefinieerd	niet_bepaald	geen
1	News	Nieuws	Nieuws	Nieuws
2	Current Affairs	Actualiteit	Actualiteit	Actueel
3	Information	Informatie	Informatie	Info
4	Sport	Sport	Sport	Sport
5	Education	Educatie	Educatie	Educat.
6	Drama	Drama	Drama	Drama
7	Culture	Cultuur	Cultuur	Cultuur
8	Science	Wetenschap	Wetenschap	Wetensch
9	Varied	Varia en gesprekken	Varia	Varia
10	Pop Music	Pop	Popmuziek	Pop
11	Rock Music	Rock	Rockmuziek	Rock
12	Easy Listening Music	Melodie: ontspanningsmuziek	Melodie	Melodie
13	Light Classical	Licht klassiek	Licht_klassiek	Licht _ Kl
14	Serious Classical	Klassiek	Klassieke_muziek	Klassiek
15	Other Music	Overige muziek	Muziek	Muziek
16	Weather/meteorology	Weerbericht	Het_weer	Het_weer
17	Finance/Business	Economie	Economie	Economie
18	Children's programmes	Voor kinderen	Voor_kinderen	Kinderen
19	Social Affairs	Maatschappelijk	Maatschappelijk	Maatsch.
20	Religion	Religie	Religie	Religie
21	Phone In	Doe mee !	Doe_mee_!	Doe_mee
22	Travel	Reizen	Reizen	Reizen
23	Leisure	Vrije tijd	Vrije_tijd	Vrije_T.
24	Jazz Music	Jazz	Jazz	Jazz
25	Country Music	Country	Countrymuziek	Country
26	National Music	Nationale muziek	Nationale_muziek	Eigen_M
27	Oldies Music	Gouwe Ouwe	Gouwe_ouwe	Goud
28	Folk Music	Volksmuziek	Volksmuziek	Folk
29	Documentary	Documentaires	Documentaires	Document
30	*Not used*			
31	*Not used*			

NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.
NOTE 2: The notation _ is used to indicate the use of the "space" character.

Table A.2: French Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	French PTy	French 16-character abbreviation	French 8-character abbreviation
0	No programme type	Codification de programme non utilisée ou genre non défini	Non _ défini	Aucun
1	News	Informations	Informations	Infos
2	Current Affairs	Magazine	Magazine	Magazine
3	Information	Info-Service	Info-Service	Services
4	Sport	Sport	Sport	Sport
5	Education	Education	Educatif	Educatif
6	Drama	Dramatique	Fiction	Fiction
7	Culture	Culture	Culture	Culture
8	Science	Sciences	Sciences	Sciences
9	Varied	Divertissement	Divertissement	Divers
10	Pop Music	Pop	Musique_Pop	M_Pop
11	Rock Music	Rock	Musique_Rock	M_Rock
12	Easy Listening Music	Chansons	Chansons	Chansons
13	Light Classical	Classique Léger	Classique_Léger	M_Cl_Lég
14	Serious Classical	Musique Classique	MusiqueClassique	Classiq
15	Other Music	Autre Musique	Autre_Musique	Autre_M
16	Weather/meteorology	Météo	Météo	Météo
17	Finance/Business	Economie et Finances	Economie	Economie
18	Children's programmes	Programmes pour enfants	Enfants	Enfants
19	Social Affairs	Société	Société	Société
20	Religion	Religion	Religion	Religion
21	Phone In	Ligne ouverte et interactivité	Ligne_ouverte	Forum
22	Travel	Voyages	Voyages	Voyages
23	Leisure	Loisirs	Loisirs	Loisirs
24	Jazz Music	Musique de jazz	Jazz	Jazz
25	Country Music	Musique de country	Country	Country
26	National Music	Chansons du pays	Chanson_du_pays	Ch_pays
27	Oldies Music	Musique rétro	Musique_rétro	Rétro
28	Folk Music	Musique folklorique	Folklore	Folklore
29	Documentary	Documentaire	Documentaire	Document
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.3: German Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	German PTy	German 16-character abbreviation	German 8-character abbreviation
0	No programme type	Keine Programmartkennung	Kein_PTY	Kein_PTY
1	News	Nachrichtendienst	Nachrichten	Nachrich
2	Current Affairs	Politik und Zeitgeschehen	Aktuelle_Info	Aktuell
3	Information	Service Programm	Service_Programm	Service
4	Sport	Sport	Sport	Sport
5	Education	Lernen und Weiterbildung	Bildung	Bildung
6	Drama	Hörspiel und Literatur	Hörspiel_+_Lit	Hör+Lit
7	Culture	Kultur, Kirche und Gesellschaft	Kultur+Gesellsch	Kultur
8	Science	Wissenschaft	Wissenschaft	Wissen
9	Varied	Unterhaltendes Wort	Unterhaltung	Unterh
10	Pop Music	Popmusik	Pop_Musik	Pop
11	Rock Music	Rockmusik	Rock_Musik	Rock
12	Easy Listening Music	Unterhaltungsmusik	Unterhalt_Musik	U-Musik
13	Light Classical	Leichte klassische Musik	Leichte_Klassik	L-Musik
14	Serious Classical	Ernste klassische Musik	Ernste_Klassik	E-Musik
15	Other Music	Spezielle Musikprogramme	Spezielle_Musik	Musik
16	Weather/meteorology	Wetter	Wetter	Wetter
17	Finance/Business	Wirtschaft	Wirtschaft	Wirtsch
18	Children's programmes	Kinderprogramm	Kinderprogramm	Kinder
19	Social Affairs	Soziales	Soziales	Soziales
20	Religion	Religion	Religion	Religion
21	Phone In	Anrufsendung	Anrufsendung	Anruf
22	Travel	Reiseinformation	Reiseinformation	Reise
23	Leisure	Freizeit	Freizeit	Freizeit
24	Jazz Music	Jazz	Jazz	Jazz
25	Country Music	Countrymusik	Country_Musik	Country
26	National Music	Musik des Landes	Landesmusik	Landes_M
27	Oldies Music	Oldiemusik	Oldies_Musik	Oldies
28	Folk Music	Folklore	Folklore	Folklore
29	Documentary	Feature	Feature	Feature
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.4: Norwegian Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Norwegian PTy	Norwegian 16-character abbreviation	Norwegian 8-character abbreviation
0	No programme type	Ingen programtype eller udefinert	Ikke_PTY	Ikke_PTY
1	News	Nyheter	Nyheter	Nyheter
2	Current Affairs	Aktuell reportasje	Aktuelt	Aktuelt
3	Information	Informasjon	Informasjon	Info
4	Sport	Sport	Sport	Sport
5	Education	Undervisning	Undervisning	Undervsn
6	Drama	Radioteater	Radioteater	Teater
7	Culture	Kultur	Kultur	Kultur
8	Science	Vitenskap	Vitenskap	Vitenskp
9	Varied	Underholdning	Underholdning	Underh
10	Pop Music	Pop musikk	Pop_musikk	Pop_mus
11	Rock Music	Rock musikk	Rock_musikk	Rock_mus
12	Easy Listening Music	Lett musikk	Lett_musikk	Lett_mus
13	Light Classical	Underholdningsmusikk	Lett_klassisk	Undh_mus
14	Serious Classical	Klassisk musikk	Klassisk_musikk	Klas_mus
15	Other Music	Diverse musikk	Diverse_musikk	Div_mus
16	Weather/meteorology	Værmelding	Værmelding	Vær
17	Finance/Business	Økonomi	Økonomi	Økonomi
18	Children's programmes	Barneprogram	Barneprogram	Barn
19	Social Affairs	Sosialprogram	Sosialprogram	Sosial
20	Religion	Religion	Religion	Religion
21	Phone In	Innringing	Ring_inn	Ring_inn
22	Travel	Reiseprogram	Reiseliv	Reise
23	Leisure	Fritidsprogram	Fritid	Fritid
24	Jazz Music	Jazz	Jazz_musikk	Jazz
25	Country Music	Countrymusikk	Countrymusikk	Country
26	National Music	Nasjonal musikk	Nasjonal_musikk	Nasj_mus
27	Oldies Music	Gammelpop	Gammelpop	Gml_pop
28	Folk Music	Folkemusikk	Folkemusikk	Folk_mus
29	Documentary	Dokumentar	Dokumentar	Dok
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America. NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.5: Portuguese Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Portuguese PTy	Portuguese 16-character abbreviation	Portuguese 8-character abbreviation
0	No programme type	Não definido	Não_definido	Não_def
1	News	Notícias	Notícias	Notícias
2	Current Affairs	Actualidade	Actualidade	Actual
3	Information	Informação	Informação	Info
4	Sport	Desporto	Desporto	Desporto
5	Education	Educação	Educação	Educação
6	Drama	Teatro Radiofónico	Rádio-Teatro	Teatro
7	Culture	Cultura	Cultura	Cultura
8	Science	Ciência	Ciência	Ciência
9	Varied	Variado	Variado	Variado
10	Pop Music	Música Pop	Música_Pop	Pop
11	Rock Music	Música Rock	Música_Rock	Rock
12	Easy Listening Music	Música Ligeira	Música_Ligeira	MLigeira
13	Light Classical	Clássica Ligeira	Clássica_Ligeira	ClassLig
14	Serious Classical	Música Clássica	Música_Clássica	Classica
15	Other Music	Outras Músicas	Outras_Músicas	Outras_M
16	Weather/meteorology	Meteorologia	Meteorologia	Meteo
17	Finance/Business	Economia	Economia	Economia
18	Children's programmes	Programa Infantil	Progr._Infantil	Infantil
19	Social Affairs	Acontec Sociais	Acontec._Social	A.Social
20	Religion	Religião	Religião	Religião
21	Phone In	Telefonemas dos ouvintes	Phone_In	Phone_In
22	Travel	Viagens	Viagens	Viagens
23	Leisure	Lazer	Lazer	Lazer
24	Jazz Music	Música de Jazz	Música_de_Jazz	Jazz
25	Country Music	Música Country	Música_Country	Country
26	National Music	Música Nacional	Música_Nacional	Nacional
27	Oldies Music	Música Antiga	Música_Antiga	M.Antiga
28	Folk Music	Música Folk	Música_Folk	Folclore
29	Documentary	Documentário	Documentário	Document
30	*Not used*			
31	*Not used*			

NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.
NOTE 2: The notation _ is used to indicate the use of the "space" character.

Table A.6: Spanish Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Spanish PTy	Spanish 16-character abbreviation	Spanish 8-character abbreviation
0	No programme type	No se indica el tipo programa	Ninguno	Ninguno
1	News	Noticias	Noticias	Noticias
2	Current Affairs	Magazin	Magazine	Magazine
3	Information	Información	Información	Info
4	Sport	Deportes	Deportes	Deportes
5	Education	Educación	Educación	Educa
6	Drama	Drama	Drama	Drama
7	Culture	Cultura	Cultura	Cultura
8	Science	Ciencia	Ciencia	Ciencia
9	Varied	Varios	Varios	Varios
10	Pop Music	Música Pop	Música_Pop	M_Pop
11	Rock Music	Música Rock	Música_Rock	M_Rock
12	Easy Listening Music	Grand éxitos	Grandes_éxitos	G_éxitos
13	Light Classical	Música Ligera	Música_Ligera	M_Ligera
14	Serious Classical	Música Clásica	Música_Clásica	Clásica
15	Other Music	Otra Música	Música_Varia	M_Varia
16	Weather/meteorology	Información Metereológica	Meteorología	Meteo
17	Finance/Business	Economia	Economía	Economía
18	Children's programmes	Infancia	Infancia	Infancia
19	Social Affairs	Sociedad	Sociedad	Sociedad
20	Religion	Religión	Religión	Religión
21	Phone In	Opinión	Opinión-Oyentes	Opinión
22	Travel	Viajes	Viajes	Viajes
23	Leisure	Ocio	Ocio	Ocio
24	Jazz Music	Música Jazz	Música_Jazz	M_Jazz
25	Country Music	Música Country	Música_Country	Country
26	National Music	Música Nacional	Música_Nacional	Nacional
27	Oldies Music	Música de ayer	Música_de_Ayer	M_Ayer
28	Folk Music	Música Folk	Música_Folk	M_Folk
29	Documentary	Documental	Documental	Docu
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.7: Swedish Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Swedish PTy	Swedish 16-character abbreviation	Swedish 8-character abbreviation
0	No programme type	Programtypen saknas eller är odefinierad	Pty_saknas	Pty_sakn
1	News	Korta nyheter	Nyheter	Nyheter
2	Current Affairs	Fördjupning av nyheter	Aktualiteter	Aktuellt
3	Information	Allmän information	Information	Info
4	Sport	Sport	Sport	Sport
5	Education	Utbildningsprogram	Utbildning	Utbildn
6	Drama	Teater och program om teater	Teater	Teater
7	Culture	Kultur i bred mening	Kultur	Kultur
8	Science	Vetenskapsprogram	Vetenskap	Vetenskp
9	Varied	Underhållningsprogram	Underhållning	Underh
10	Pop Music	Populärmusik	Popmusik	Pop
11	Rock Music	Rockmusik	Rockmusik	Rock
12	Easy Listening Music	Underhållningsmusik	Lättlyssnat	Lättlyss
13	Light Classical	Lätt klassisk musik(ej kompletta verk)	Lätt_klassiskt	L_klass
14	Serious Classical	Kompletta klassiska verk	Klassisk_musik	Klassisk
15	Other Music	Övrig Musik	Övrig_musik	Övrig_m
16	Weather/meteorology	Väderrapporter	Väder	Väder
17	Finance/Business	Ekonomiprogram	Ekonomi	Ekonomi
18	Children's programmes	Barnprogram	För_barn	För_barn
19	Social Affairs	Program om sociala frågor	Sociala_frågor	Socialt
20	Religion	Andliga frågor	Andliga_frågor	Andligt
21	Phone In	Telefonväkteri	Telefonväkteri	Telefon
22	Travel	Resor och semester	Resor_&_semester	Resor
23	Leisure	Fritid och hobby	Fritid_&_hobby	Fritid
24	Jazz Music	Jazzmusik	Jazzmusik	Jazz
25	Country Music	Countrymusik	Countrymusik	Country
26	National Music	Nationell musik	Nationell_musik	Nation_m
27	Oldies Music	Klassisk pop	Gamla_godingar	Oldies
28	Folk Music	Folkmusik	Folkmusik	Folkm
29	Documentary	Dokumentärer	Dokumentärer	Dokument
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.8: Finnish Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Finnish PTy	Finnish 16-character abbreviation	Finnish 8-character abbreviation
0	No programme type	Ei ohjelmatyyppiä	Ei_määritelty	Ei_määr
1	News	Uutiset	Uutiset	Uutiset
2	Current Affairs	Ajankohtaista	Ajankohtaista	Ajankoht
3	Information	Tiedotuksia	Tiedotuksia	Tiedoksi
4	Sport	Urheilu	Urheilu	Urheilu
5	Education	Opetus	Opetus	Opetus
6	Drama	Kuunnelma	Kuunnelma	Kuunn
7	Culture	Kulttuuri	Kulttuuri	Kultt
8	Science	Tiede	Tiede	Tiede
9	Varied	Puheviihde	Puheviihde	P-viihde
10	Pop Music	Pop-musiikki	Pop	Pop
11	Rock Music	Rock-musiikki	Rock	Rock
12	Easy Listening Music	Kevyt musiikki	Kevyt_musiikki	Kevyttä
13	Light Classical	Kevyt klassinen musiikki	Kevyt_klassinen	K._klass
14	Serious Classical	Klassinen musiikki	Klassinen	Klass
15	Other Music	Muu musiikki	Muu_musiikki	Muu_mus
16	Weather/meteorology	Säätiedotus	Säätiedotus	Sää
17	Finance/Business	Talousohjelma	Talousohjelma	Talous
18	Children's programmes	Lastenohjelma	Lastenohjelma	Lapsille
19	Social Affairs	Yhteiskunta	Yhteiskunta	Yhtkunta
20	Religion	Uskonto	Uskonto	Uskonto
21	Phone In	Yleisökontakti	Yleisökontakti	Kontakti
22	Travel	Matkailu	Matkailu	Matkailu
23	Leisure	Vapaa-aika	Vapaa-aika	Vap.aika
24	Jazz Music	Jazz-musiikki	Jazz	Jazz
25	Country Music	Country-musiikki	Country	Country
26	National Music	Kotimainen musiikki	Kotim._musiikki	Kotim.
27	Oldies Music	Aikuisten musiikki	Oldies	Oldies
28	Folk Music	Kansanmusiikki	Kansanmusiikki	Kansanm
29	Documentary	Dokumentti	Dokumentti	Dokum
30	*Not used*			
31	*Not used*			

NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.
NOTE 2: The notation _ is used to indicate the use of the "space" character.

Table A.9: Danish Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Danish PTy	Danish 16-character abbreviation	Danish 8-character abbreviation
0	No programme type	Ej defineret	PTY_mangler	PTYmangl
1	News	Nyheder	Korte_nyheder	Nyheder
2	Current Affairs	Aktuelt	Nyh._og_baggrund	Aktuelt
3	Information	Almen information	Almen_Info	Info
4	Sport	Sport	Sport	Sport
5	Education	Undervisning	Uddannelse	Udd
6	Drama	Drama	Drama	Drama
7	Culture	Kultur	Kultur	Kultur
8	Science	Videnskab	Videnskab	Vid.skab
9	Varied	Varieret underholdning	Underholdning	Bl.Undh
10	Pop Music	Pop musik	PopMusik	Pop
11	Rock Music	Rock musik	Rockmusik	Rock
12	Easy Listening Music	Underholdnings musik	Uhld.Musik	Undh.Mus
13	Light Classical	Let Klassisk musik	Let_klassisk	LetKlass
14	Serious Classical	Klassisk musik	Klassisk	Klassisk
15	Other Music	Blandet musik	Blandet_Musik	Bla_Mus
16	Weather/meteorology	Vejrudsigt	Vejr	Vejr
17	Finance/Business	Økonimi & Erhverv	Økonomi&erhverv	Økonomi
18	Children's programmes	Børne programmer	Børneprogram	For_børn
19	Social Affairs	Program om sociale emner	Social_prg.	Social
20	Religion	Kirke & Tro	Kirke_&_Tro	Religion
21	Phone In	Telefon program	Tlf._Prg.	Tlf.prg
22	Travel	Rejser & Ferie	Rejser_og_ferie	Rejser
23	Leisure	Hobby & Fritid	Hobby_og_fritid	Fritid
24	Jazz Music	Jazz musik	Jazzmusik	Jazz
25	Country Music	Country musik	Countrymusik	Country
26	National Music	Dansktop musik	Dansktop_musik	Dansktop
27	Oldies Music	Gamle kendinge	Gamle_kendinge	Oldies
28	Folk Music	Folke musik	Folkemusik	FolkMus
29	Documentary	Dokumentar program	Dokummentar	Doku.prg
30	*Not used*			
31	*Not used*			

NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.
NOTE 2: The notation _ is used to indicate the use of the "space" character.

Table A.10: Italian Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Italian PTy	Italian 16-character abbreviation	Italian 8-character abbreviation
0	No programme type	Non trasmesso/non definito	Nessun_PTY	No_PTY
1	News	Ultime Notizie	Notiziario	Notizie
2	Current Affairs	Attualità, Magazine	Magazine	Magazine
3	Information	Informazioni	Informazioni	Info
4	Sport	Notizie Sportive	Sport	Sport
5	Education	Programmi Educativi	Educazione	Edu
6	Drama	Commedia e Teatro	Prosa	Prosa
7	Culture	Programmi Culturali	Cultura	Cultura
8	Science	Programmi Scientifici	Scienza	Scienza
9	Varied	Vari Generi	Vari_Generi	Vari
10	Pop Music	Musica Pop	Musica_Pop	Pop
11	Rock Music	Musica Rock	Musica_Rock	Rock
12	Easy Listening Music	Musica Leggera	Musica_Leggera	Leggera
13	Light Classical	Musica Classica Leggera	Classica_Leggera	Clas_Leg
14	Serious Classical	Musica Classica	Musica_Classica	Classica
15	Other Music	Altri Generi di Musica	Musica_Varia	Musica
16	Weather/meteorology	Previsioni del Tempo	Meteo	Meteo
17	Finance/Business	Economia e Finanza	Economia	Economia
18	Children's programmes	Programmi per Ragazzi	Ragazzi	Ragazzi
19	Social Affairs	Programmi Sociali	Societa'	Societa'
20	Religion	Programmi Religiosi	Religione	Relig
21	Phone In	Forum, Opinioni	Opinioni	Opinioni
22	Travel	Viaggi	Viaggi_e_Turismo	Viaggi
23	Leisure	Svago	Svago	Svago
24	Jazz Music	Musica Jazz	Musica_Jazz	Jazz
25	Country Music	Musica Country	Musica_Country	Country
26	National Music	Musica Italiana	Musica_Italiana	Italiana
27	Oldies Music	Vecchi Successi	Revival	Revival
28	Folk Music	Musica Popolare	Musica_Folk	Folk
29	Documentary	Documentari	Documentari	Document
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.11: Lithuanian Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Lithuanian PTy	Lithuanian 16-character abbreviation	Lithuanian 8-character abbreviation
0	No programme type	Programos tipas neapibrėžtas	Nenurodyta	Nenurodė
1	News	Žinios	Žinios	Žinios
2	Current Affairs	Aktualijos	Aktualijos	Aktualu
3	Information	Informacija	Informacija	Info
4	Sport	Sportas	Sportas	Sportas
5	Education	Šviečiamosios	Šviečiamosios	Šviečiam
6	Drama	Radijo teatras	Radijo_teatras	Teatras
7	Culture	Kultūra	Kultūra	Kultūra
8	Science	Mokslas	Mokslas	Mokslas
9	Varied	Įvairūs	Įvairūs	Įvairūs
10	Pop Music	Pop muzika	Popmuzika	Popmuz
11	Rock Music	Roko muzika	Roko_muzika	Rokas
12	Easy Listening Music	Lengvoji muzika	Lengvoji_muzika	Lengvoji
13	Light Classical	Populiarioji klasikinė muzika	Popul_klasika	Popul_kl
14	Serious Classical	Klasikinė muzika	Klasikinė muzika	Klasika
15	Other Music	Kitų žanrų muzika	Kt_žanrų muzika	Kita_muz
16	Weather/meteorology	Oras	Oras	Oras
17	Finance/Business	Finansai	Finansai	Finansai
18	Children's programmes	Laidos vaikams	Laidos vaikams	Vaikams
19	Social Affairs	Visuomeninės laidos	Visuomeninės_	Visuomen
20	Religion	Religinės laidos	Religinės_laidos	Religija
21	Phone In	Skambučiai į studiją	Skamb_į_studiją	Skambink
22	Travel	Kelionės	Kelionės	Kelionės
23	Leisure	Laisvalaikis	Laisvalaikis	Laisval
24	Jazz Music	Džiazas	Džiazas	Džiazas
25	Country Music	Kantri	Kantri	Kantri
26	National Music	Liaudies muzika	Liaudies_muzika	Liaudies
27	Oldies Music	Seni hitai	Seni_hitai	Hitai
28	Folk Music	Folkloras	Folkloras	Folklor
29	Documentary	Dokumentika	Dokumentika	Dokument
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.12: Polish Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Polish PTy	Polish 16-character abbreviation	Polish 8-character abbreviation
0	No programme type	Brak typu programu lub niezdefiniowany	Niezdefiniowany	Brak
1	News	Wiadomości	Wiadomosci	Wiadom.
2	Current Affairs	Wydarzenia Bieżące	Wydarze. Biezace	Biezace
3	Information	Informacje	Informacje	Inform.
4	Sport	Sport	Sport	Sport
5	Education	Edukacja	Edukacja	Edukacja
6	Drama	Dramat	Dramat	Dramat
7	Culture	Kultura	Kultura	Kultura
8	Science	Nauka	Nauka	Nauka
9	Varied	Różne	Rozne	Rozne
10	Pop Music	Muzyka Pop	Muzyka_Pop	Pop
11	Rock Music	Muzyka Rock	Muzyka_Rock	Rock
12	Easy Listening Music	Muzyka Łatwa	Muzyka_Lekka	M.Lekka
13	Light Classical	Muzyka Klasyczna Lekka	Muz. Klas._Lekka	Lek.Klas
14	Serious Classical	Muzyka Klasyczna Poważna	Muz._Klas._Pow.	Pow.Klas
15	Other Music	Muzyka Inna	Muzyka_Inna	Muz.Inna
16	Weather/meteorology	Pogoda	Pogoda	Pogoda
17	Finance/Business	Finanse	Finanse	Finanse
18	Children's programmes	Programy Dziecięce	Prog._Dzieciece	Dzieci
19	Social Affairs	Wydarzenia Społeczne	Wyd._Spoleczne	Spoleczn
20	Religion	Religia	Religia	Religia
21	Phone In	Audycja Z Telefonicznym Udziałem Słuchaczy	Telefon.Udzial.	Telefon
22	Travel	Podróże	Podruze	Podruze
23	Leisure	Czas Wolny	Czas_Wolny	CzasWol.
24	Jazz Music	Muzyka Jazzowa	Muzyka_Jazz	Jazz
25	Country Music	Muzyka Country	Muzyka_Country	Country
26	National Music	Muzyka Narodowa	Muzyka_Narodowa	M.Narod.
27	Oldies Music	Muzyka Archiwalna	Muz._Archiwalna	M._Arch.
28	Folk Music	Muzyka Ludowa	Muzyka_Ludowa	M.Ludowa
29	Documentary	Dokument	Dokument	Dokument
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.13: Romanian Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Romanian PTy	Romanian 16-character abbreviation	Romanian 8-character abbreviation
0	No programme type	Tip de program nedefinit	Nedefinit	Niciunul
1	News	Radiojurnal	Radiojurnal	Ştiri
2	Current Affairs	Actualităţi, magazin	Actualităţi	Magazin
3	Information	Informaţii	Informaţii	Info
4	Sport	Sport	Sport	Sport
5	Education	Program educativ	Educativ	Educativ
6	Drama	Teatru	Teatru	Teatru
7	Culture	Program cultural	Cultural	Cultural
8	Science	Program ştiinţific	Ştiinţific	Ştiinţă
9	Varied	Varietăţi	Varietăţi	Variat
10	Pop Music	Muzică pop	Muzică_pop	Pop
11	Rock Music	Muzică rock	Muzică_rock	Rock
12	Easy Listening Music	Muzică Uşoară	Muzică_uşoară	Melodii
13	Light Classical	Muzică clasică accesibilă	Clasic_Lejer	Clasic_L
14	Serious Classical	Muzică clasică	Muzică_Clasică	Clasic
15	Other Music	Altă muzică	Altă_Muzică	Altă_Muz
16	Weather/meteorology	Prognoza Meteo	Meteo	Meteo
17	Finance/Business	Finanţe şi economie	Econ_Finanţe	Economie
18	Children's programmes	Programe pentru copii	Copii	Copii
19	Social Affairs	Actualităţi sociale	Social	Social
20	Religion	Religie	Religie	Religie
21	Phone In	Dialog cu ascultătorii	Phone_In	Phone_In
22	Travel	Călătorii	Călătorii	Turism
23	Leisure	Timp liber	Timp_Liber	Relaxare
24	Jazz Music	Muzică de jazz	Muzică_de_Jazz	Jazz
25	Country Music	Muzică country	Muzică_Country	Country
26	National Music	Muzică Românească	Muz_Roman	Muz_Ro
27	Oldies Music	Muzica retro	Muzica_Retro	M_Retro
28	Folk Music	Muzică Populară	Muzică_Populară	Populară
29	Documentary	Documentar	Documentar	Document
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.14: Slovene Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Slovenian PTy	Slovenian 16-character abbreviation	Slovenian 8-character abbreviation
0	No programme type	Neopredeljeno	Neopredeljeno	Neoprede
1	News	Novice	Novice	Novice
2	Current Affairs	Aktualna dogajanja	Aktualna_dogajan	Aktualno
3	Information	Obvestila	Obvestila	Obvestil
4	Sport	Šport	Šport	Šport
5	Education	Izobraževanje	Izobraževanje	Izobraže
6	Drama	Dramatizirana zvočna predstava	Dramatizi.Predst	Drama
7	Culture	Kultura	Kultura	Kultura
8	Science	Znanost	Znanost	Znanost
9	Varied	Razno	Razno	Razno
10	Pop Music	Pop glasba	Pop_glasba	Pop
11	Rock Music	Rock glasba	Rock_glasba	Rock
12	Easy Listening Music	Razvedrilna glasba	Razvedril._glasb	Razvedri
13	Light Classical	Lahka klasična glasba	Lahka_klasična	Klasična
14	Serious Classical	Resna klasična glasba	Resna_klasična	Resna
15	Other Music	Druga glasba	Druga_glasba	Glasba
16	Weather/meteorology	Vreme	Vreme	Vreme
17	Finance/Business	Finance	Finance	Finance
18	Children's programmes	Otroški program	Otroški_program	Otroški
19	Social Affairs	Družba	Družba	Druzba
20	Religion	Religija	Religija	Religija
21	Phone In	Pogovorna oddaja	Pogovorna_oddaja	Pogovorn
22	Travel	Potovanja	Potovanja	Potovanj
23	Leisure	Prosti čas	Prosti_čas	Prosti_Č
24	Jazz Music	Jazz glasba	Jazz_glasba	Jazz
25	Country Music	Country glasba	Country_glasba	Country
26	National Music	Domača glasba	Domača_glasba	Domača
27	Oldies Music	Stari hiti	Stari_hiti	Star_hit
28	Folk Music	Narodna glasba	Narodna_glasba	Narodna
29	Documentary	Dokumentarna oddaja	Dokumentar._odd.	Dokument
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.					
NOTE 2: The notation _ is used to indicate the use of the "space" character.					

Table A.15: Bulgarian Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Bulgarian PTy	Bulgarian 16-character abbreviation	Bulgarian 8-character abbreviation
0	No programme type	Без Име	Без Име	Без Име
1	News	Новини	Новини	Новини
2	Current Affairs	Актуално Предаване	Актуално	Актуално
3	Information	Информация	Информация	Инфо
4	Sport	Спорт	Спорт	Спорт
5	Education	Образование	Образование	Знание
6	Drama	Радио Театър	Радио_Театър	Р_Театър
7	Culture	Култура	Култура	Култура
8	Science	Наука	Наука	Наука
9	Varied	Разни Развлечение	Развлечение	Разни
10	Pop Music	Поп Музика	Поп_Музика	Поп
11	Rock Music	Рок Музика	Рок_Музика	Рок
12	Easy Listening Music	Музика За Релакс	Музика_За_Релакс	Релакс
13	Light Classical	Лека Класика	Лека_Класика	Класика
14	Serious Classical	Класика	Класика	Класика
15	Other Music	Музика	Музика	Музика
16	Weather/meteorology	Прогноза За Времето	Времето	Времето
17	Finance/Business	Икономика	Икономика	Бизнес
18	Children's programmes	Предаване За Деца	За_Децата	За_Деца
19	Social Affairs	Общество	Общество	Общество
20	Religion	Религия	Религия	Религия
21	Phone In	Слушателско Включване Открита Линия	Открита_Линия	Слушател
22	Travel	Туризъм	Туризъм	Туризъм
23	Leisure	Хоби Свободно Време	Свободно_Време	Хоби
24	Jazz Music	Джаз	Джаз	Джаз
25	Country Music	Кънтри Музика	Кънтри_Музика	Кънтри
26	National Music	Българска Музика	Българска_Музика	Бг_Муз
27	Oldies Music	Ретро Музика	Ретро_Музика	Ретро
28	Folk Music	Народна Музика	Народна_Музика	Народна
29	Documentary	Документалистика	Документалистика	Документ
30	*Not used*			
31	*Not used*			

NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.
NOTE 2: The notation _ is used to indicate the use of the "space" character.

Table A.16: Croatian Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Croatian PTy	Croatian 16-character abbreviation	Croatian 8-character abbreviation
0	No programme type	Neodređeno	Nijedan	Nijedan
1	News	Vijesti	Vijesti	Vijesti
2	Current Affairs	Aktualna događanja	Aktualno	Aktualno
3	Information	Obavijesti	Obavijesti	Info
4	Sport	Sport	Sport	Sport
5	Education	Obrazovanje	Obrazovanje	Obrazov
6	Drama	Drama	Drama	Drama
7	Culture	Kultura	Kultura	Kultura
8	Science	Znanost	Znanost	Znanost
9	Varied	Razno	Razno	Razno
10	Pop Music	Pop glazba	Pop_glazba	Pop
11	Rock Music	Rock glazba	Rock_glazba	Rock
12	Easy Listening Music	Zabavna glazba	Zabavna_glazba	Zabavna
13	Light Classical	Lagana klasična glazba	Lagana_klasična	Klasika
14	Serious Classical	Ozbiljna glazba	Ozbiljna_glazba	Ozbiljna
15	Other Music	Ostala glazba	Ostala_glazba	Glazba
16	Weather/meteorology	Vrijeme	Vrijeme	Vrijeme
17	Finance/Business	Financije	Financije	Financij
18	Children's programmes	Dječji program	Dječji_program	Dječji_p
19	Social Affairs	Društvena događanja	Društvena_događ	Društvo
20	Religion	Religija	Religija	Religija
21	Phone In	Kontakt program	Kontakt_program	Kontakt
22	Travel	Putovanja	Putovanja	Putovanja
23	Leisure	Slobodno vrijeme	Slobodno_vrijeme	Slobodno
24	Jazz Music	Jazz glazba	Jazz_glazba	Jazz
25	Country Music	Country glazba	Country_glazba	Country
26	National Music	Domaća glazba	Domaća_glazba	Domaća_g
27	Oldies Music	Stari hitovi	Stari_hitovi	Stari_hi
28	Folk Music	Narodna glazba	Narodna_glazba	Narodna
29	Documentary	Dokumentarno	Dokumentarno	Dokumen
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.17: Czech Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Czech PTy	Czech 16-character abbreviation	Czech 8-character abbreviation
0	No programme type	Nedefinovaný program	Žádný	Žádný
1	News	Zprávy	Zpravy	Zpravy
2	Current Affairs	Publicistika	Publicistika	Publicis
3	Information	Informace	Informace	Info
4	Sport	Sport	Sport	Sport
5	Education	Vzdělání	Vzdelani	Vzdelani
6	Drama	Drama	Drama	Drama
7	Culture	Kultura	Kultura	Kultura
8	Science	Věda	Veda	Veda
9	Varied	Různé	Ruzne_Zanry	Ruzne
10	Pop Music	Pop Music	Popova_Hudba	Pop_M
11	Rock Music	Rock Music	Rockova_Hudba	Rock_M
12	Easy Listening Music	Oddychová hudba	Oddychova_Hudba	Oddych
13	Light Classical	Klasika	Klasicka_Hudba	Klasika
14	Serious Classical	Vážná hudba	Vazna_Hudba	Vázna_H
15	Other Music	Jiná hudba	Jina_Hudba	Jina_H
16	Weather/meteorology	Počasí	Pocasi	Pocasi
17	Finance/Business	Finance	Finance	Finance
18	Children's programmes	Dětský program	Detsky_Program	Detsky_P
19	Social Affairs	Společenská tematika	Spolecenska_Tem	Komunit
20	Religion	Náboženská tematika	Nabozens._Temata	Vira
21	Phone In	Telefonáty	Telefonaty	Telefony
22	Travel	Cestování	Cestovani	Cestov
23	Leisure	Zábava	Zabava	Zabava
24	Jazz Music	Jazzová hudba	Jazzova_Hudba	Jazz
25	Country Music	Country hudba	Country_Hudba	Country
26	National Music	Národní hudba	Narodni_Hudba	Narodni
27	Oldies Music	Oldies hudba	Oldies_Hudba	Oldies
28	Folk Music	Folková hudba	Folkova_Hudba	Folk
29	Documentary	Dokumentární program	Dokumenty	Dokum
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.18: Estonian Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Estonian PTy	Estonian 16-character abbreviation	Estonian 8-character abbreviation
0	No programme type	Programmi tüüp puudub	Puudub	Puudub
1	News	Uudised	Uudised	Uudised
2	Current Affairs	Päevakajalised teemad	Päevakajalist	Magasin
3	Information	Informatsioon d	Teated	Teated
4	Sport	Spordisaade	Sport	Sport
5	Education	Haridussaade	Haridus	Haridus
6	Drama	Kuuldemäng	Kuuldemäng	Draama
7	Culture	Kultuurisaade	Kultuur	Kultuur
8	Science	Teadussaade	Teadus	Teadus
9	Varied	Mitmesugused teemad	Varia	Varia
10	Pop Music	Pop muusika	Pop	Pop
11	Rock Music	Rock muusika	Rock	Rock
12	Easy Listening Music	Meeleolumuusika	Meeleolumuusika	Meeleolu
13	Light Classical	Kerge klassikaline muusika	Kerge_Klassika	Kerge_Kl
14	Serious Classical	Klassikaline muusika	Klassika	Klassika
15	Other Music	Muu muusika	Muu_muusika	Muusika
16	Weather/meteorology	Ilmateade	Ilmateade	Ilm
17	Finance/Business	Majandussaade	Majandus	Majandus
18	Children's programmes	Lastesaade	Lastesaade	Lastele
19	Social Affairs	Sotsiaalsaated	Ühiskonnaelu	Ühiskond
20	Religion	Ususaade	Ususaade	Ususaade
21	Phone In	Telefonikontakt	Avatud_eeter	Telefon
22	Travel	Reisisaade	Reisisaade	Reisid
23	Leisure	Vaba aeg ja hobid	Vaba_Aeg,_Hobid	Vaba_Aeg
24	Jazz Music	Jazzmuusika	Dzäss	Dzäss
25	Country Music	Kantrimuusika	Kantri	Kantri
26	National Music	Rahvamuusika	Rahvamuusika	Etno
27	Oldies Music	Retromuusika	Retro	Retro
28	Folk Music	Folkmuusika	Folk	Folk
29	Documentary	Dokumentaalsaade	Dokumentaalsaade	Dokument
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Table A.19: Hungarian Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Hungarian PTy	Hungarian 16-character abbreviation	Hungarian 8-character abbreviation
0	No programme type	Nincs program típus	Nincs	Nincs
1	News	Hírek	Hírek	Hírek
2	Current Affairs	Magazin	Magazin_Műsor	Magazin
3	Information	Információ	Információ	Inform
4	Sport	Sport	Sport	Sport
5	Education	Oktatás	Oktatás	Oktatás
6	Drama	Hangjáték	Hangjáték	Hangjáté
7	Culture	Kultúra	Kultúra	Kultúra
8	Science	Tudományos műsor	Tudományos_Műsor	Tudomány
9	Varied	Vegyes	Vegyes	Vegyes
10	Pop Music	Popzene	Popzene	Popzene
11	Rock Music	Rockzene	Rockzene	Rockzene
12	Easy Listening Music	Könnyűzene	Könnyűzene	Könnyűze
13	Light Classical	Klasszikus zene	Klasszikus_Zene	Kla_Zene
14	Serious Classical	Komolyzene	Komolyzene	Komolyze
15	Other Music	Egyéb zene	Egyéb_Zene	Más_Zene
16	Weather/meteorology	Időjárás	Időjárás	Időjárás
17	Finance/Business	Pénzügyi, gazdasági műsor	Pénzügy_Gazdaság	Pénz_Gaz
18	Children's programmes	Gyermekműsor	Gyermekműsor	Gyermek
19	Social Affairs	Társadalmi ügyek	Társadalmi_Ügyek	Társ_Ügy
20	Religion	Vallási műsor	Vallási_Műsor	Vallás
21	Phone In	Telefonos műsor	Telefonos_Műsor	Telefon
22	Travel	Utazási információk	Utazási_Infó	Utazás
23	Leisure	Szabadidő	Szabadidő	Szab_Idő
24	Jazz Music	Jazz	Jazz	Jazz
25	Country Music	Countryzene	Countryzene	Country
26	National Music	Nemzeti zene	Nemzeti_Zene	Nemz_Zen
27	Oldies Music	Oldies zene	Oldies_Zene	Oldies
28	Folk Music	Népzene ne	Népzene	Népzene
29	Documentary	Dokumentumműsor	Dokumentumműsor	Dokument
30	*Not used*			
31	*Not used*			
NOTE 1:	This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.			
NOTE 2:	The notation _ is used to indicate the use of the "space" character.			

Table A.20: Russian Programme types and 16-character and 8-character abbreviations

Decimal number	Programme type (see table 12)	Russian PTy	Russian 16-character abbreviation	Russian 8-character abbreviation
0	No programme type	Неопределенный	Никто	Никто
1	News	Новости	Новости	Новости
2	Current Affairs	Аналитическая	Аналитика	Анализ
3	Information	Информационная	Информация	Инфо
4	Sport	Спортивная	Спорт	Спорт
5	Education	Образовательная	Образование	Знание
6	Drama	Драма	Драма	Драма
7	Culture	Культура	Культура	Культура
8	Science	Наука	Наука	Наука
9	Varied	Разговорная	Развлечение	Разное
10	Pop Music	Поп	Поп	Поп
11	Rock Music	Рок	Рок	Рок
12	Easy Listening Music	Лёгкая музыка	Лёгкая_Музыка	Лёгкая
13	Light Classical	Лёгкая классическая музыка	Лёгкая_Классика	Классика
14	Serious Classical	Классическая музыка	Классика	Классика
15	Other Music	Прочая музыка	Музыка	Музыка
16	Weather/meteorology	Погода	Погода	Погода
17	Finance/Business	Финансы	Финансы	Финансы
18	Children's programmes	Детские программы	Детское_Радио	Детское
19	Social Affairs	Социальные темы	Общество	Общество
20	Religion	Религия	Религия	Религия
21	Phone In	Интерактивные программы	Открытая_Линия	Звонить
22	Travel	Путешествие	Туризм	Туризм
23	Leisure	Досуг	Досуг	Досуг
24	Jazz Music	Джаз	Джаз	Джаз
25	Country Music	Кантри музыка	Музыка_Кантри	Кантри
26	National Music	Отечественная музыка	Русская_Музыка	Русская
27	Oldies Music	Ретро	Ретро	Ретро
28	Folk Music	Народная музыка	Народная_Музыка	Народная
29	Documentary	Документальный	Документалистика	Документ
30	*Not used*			
31	*Not used*			
NOTE 1: This table forms part 1 of the International Table Identifier /0000 0001/ (see clause 5.7) which references the PTy codes for DAB use, **except** in North America.				
NOTE 2: The notation _ is used to indicate the use of the "space" character.				

Annex B (informative):
Announcement type codes, translations

Tables are not shown in alphabetical order, because new tables may be added at the end of this annex in the future.

Table B.1: Danish Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	Danish 16-character abbreviation	Danish 8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Trafik	Trafik
b_2	Transport flash	Kollektiv_Trafik	Trafik
b_3	Warning/Service	Advarsel	Advarsel
b_4	News flash	Nyheder	Nyheder
b_5	Area weather flash	Vejret	Vejret
b_6	Event announcement	Arrangementer	Arrangementer
b_7	Special event	Begivenhed	Begivenhed
b_8	Programme Information	Radio_info	Radio_info
b_9	Sport report	Sport	Sport
b_{10}	Financial report	Økonomi	Økonomi
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE:	The notation _ is used to indicate the use of the "space" character.		

Table B.2: Dutch Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	Dutch 16-character abbreviation	Dutch 8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Verkeersinfo	Verkeer
b_2	Transport flash	Openbaar_vervoer	Openb.V.
b_3	Warning/Service	Waarschuwing	Opgelet
b_4	News flash	Nieuwsbericht	Nieuws
b_5	Area weather flash	Weerbericht	Het_weer
b_6	Event announcement	Melding	Melding
b_7	Special event	Speciaal bericht	Speciaal
b_8	Programme Information	Radio-informatie	Radio_Inf
b_9	Sport report	Sportbericht	Sport
b_{10}	Financial report	Financieel	Financ.
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE:	The notation _ is used to indicate the use of the "space" character.		

Table B.3: French Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	French 16-character abbreviation	French 8-character abbreviation
b_0	Alarm	Alerte_générale	Alerte
b_1	Road Traffic flash	Trafic_routier	Trafic
b_2	Transport flash	Transport/commun	Transpor
b_3	Warning/Service	Incidents	Incident
b_4	News flash	Les_actualités	Nouvelle
b_5	Area weather flash	Flash_Météo	Météo
b_6	Event announcement	Évènement	Flash
b_7	Special event	Flash_spécial	Spécial
b_8	Programme Information	Infos_radio	Info_rad
b_9	Sport report	Infos_sport	Sport
b_{10}	Financial report	Financier	Finances
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the "space" character.			

Table B.4: German Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	German 16-character abbreviation	German 8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Verkehr	Verkehr
b_2	Transport flash	Reisen	Reisen
b_3	Warning/Service	Warnung	Warnung
b_4	News flash	Aktuelles	Aktuell
b_5	Area weather flash	Wetter	Wetter
b_6	Event announcement	Service	Service
b_7	Special event	Eilmeldung	Eilmeld
b_8	Programme Information	Programm_Info	Prog_Inf
b_9	Sport report	Sport	Sport
b_{10}	Financial report	Wirtschaft	Wirtsch
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the "space" character.			

Table B.5: Norwegian Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	Norwegian 16-character abbreviation	Norwegian 8-character abbreviation
b_0	Alarm	ALARM	ALARM
b_1	Road Traffic flash	Veitrafikk	Trafikk
b_2	Transport flash	Rutetrafikk	Ruteinfo
b_3	Warning/Service	Service	Service
b_4	News flash	Nyheter	Nyheter
b_5	Area weather flash	Vær	Vær
b_6	Event announcement	Arrangementer	Arrangem
b_7	Special event	I_dag	I_dag
b_8	Programme Information	Programinfo	Proginfo
b_9	Sport report	Sportsnytt	Sport
b_{10}	Financial report	Økonominytt	Økonomi
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the "space" character.			

Table B.6: Spanish Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	Spanish 16-character abbreviation	Spanish 8-character abbreviation
b_0	Alarm	Alarma	Alarma
b_1	Road Traffic flash	Info_Tráfico	Tráfico
b_2	Transport flash	Info_Viaje	Viaje
b_3	Warning/Service	Aviso	Aviso
b_4	News flash	Noticias	Noticias
b_5	Area weather flash	Meteorología	Meteo
b_6	Event announcement	Suceso	Suceso
b_7	Special event	Suceso_Especial	Especial
b_8	Programme Information	InformacionRadio	InfRadio
b_9	Sport report	Deportes	Deportes
b_{10}	Financial report	Economía	Economía
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the "space" character.			

Table B.7: Slovenian Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	Slovenian 16-character abbreviation	Slovenian 8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Promet	Promet
b_2	Transport flash	Javni_prevoz	Prevozi
b_3	Warning/Service	Opozorilo	Pozor
b_4	News flash	Vest	Vest
b_5	Area weather flash	Vreme	Vreme
b_6	Event announcement	Dogodek	Dogodek
b_7	Special event	Izredni_dogodek	Nujno
b_8	Programme Information	Radio_program	Radio
b_9	Sport report	Sport	Sport
b_{10}	Financial report	Finance	Finance
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the "space" character.			

Table B.8: Swedish Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	Swedish 16-character abbreviation	Swedish 8-character abbreviation
b_0	Alarm	!!LARM!!	!!LARM!!
b_1	Road Traffic flash	Vägtrafikinfo	Väginfo
b_2	Transport flash	Kollektivtrafik	Koll.tra
b_3	Warning/Service	Serviceinfo	Service
b_4	News flash	Nyheter	Nyheter
b_5	Area weather flash	Väder	Väder
b_6	Event announcement	Evenemangsinfo	Evenema
b_7	Special event	Extrasändning	Extra
b_8	Programme Information	Programinfo	Prgminfo
b_9	Sport report	Sportnyheter	Sportnyh
b_{10}	Financial report	Ekonominyheter	Ekonomi
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the "space" character.			

Table B.9: Finnish Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	Finnish 16-character abbreviation	Finnish 8-character abbreviation
b_0	Alarm	HÄLYTYS	HÄLYTYS
b_1	Road Traffic flash	Liikennetiedote	Liikenne
b_2	Transport flash	Joukkoliikenne	Joukkol.
b_3	Warning/Service	Varoituksia	Varoitus
b_4	News flash	Uutiset	Uutiset
b_5	Area weather flash	Säätiedotus	Sää
b_6	Alarm	Tapahtumatiedot	Tapahtuu
b_7	Road Traffic flash	Erikoistiedote	Erikois
b_8	Programme Information	Ohjelmatiedot	Ohjelmat
b_9	Sport report	Urheilu-uutiset	Urheilu
b_{10}	Financial report	Talousuutiset	Talous
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the "space" character.			

Table B.10: Italian Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	Italian 16-character abbreviation	Italian 8-character abbreviation
b_0	Alarm	Allarme	Allarme
b_1	Road Traffic flash	Situaz._Traffico	Traffico
b_2	Transport flash	Trasporti	Trasporti
b_3	Warning/Service	Comun._Servizio	Servizio
b_4	News flash	Notizie_flash	Notizie
b_5	Area weather flash	Meteo_locale	Meteo
b_6	Event announcement	Annuncio_evento	Evento
b_7	Special event	Evento_speciale	Speciale
b_8	Programme Information	Info_programma	ProgInfo
b_9	Sport report	Notizie_sportive	Sport
b_{10}	Financial report	Economia _ Finanza	Economia
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the "space" character.			

Table B.11: Turkish Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	Turkish 16-character abbreviation	Turkish 8-character abbreviation
b_0	Alarm	Alarm	Alarm
b_1	Road Traffic flash	Yol_Trafik	Trafik
b_2	Transport flash	Ulaşım	Ulaşım
b_3	Warning/Service	Uyarı	Uyarı
b_4	News flash	Haberler	Haberler
b_5	Area weather flash	Hava_durumu	Hava
b_6	Event announcement	Etkinlik	Etkinlik
b_7	Special event	Özel_olay	Özel
b_8	Programme Information	Radyoda_bugün	Radyoda
b_9	Sport report	Spor	Spor
b_{10}	Financial report	Finans_haberleri	Finans
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE 1: The notation _ is used to indicate the use of the "space" character. NOTE 2: The Turkish characters used in rows b_2 and b_3 *are electronically* correct, but do NOT print correctly on all printers.			

Table B.12: Portuguese Announcement types, 16-character and 8-character abbreviations

Bit Flag	Announcement type (see tables 14 and 15)	Portuguese 16-character abbreviation	Portuguese 8-character abbreviation
b_0	Alarm	Alarme	Alarme
b_1	Road Traffic flash	Trânsito	Trânsito
b_2	Transport flash	Transportes	Transpor
b_3	Warning/Service	Aviso	Aviso
b_4	News flash	Notícias	Notícias
b_5	Area weather flash	Meteorologia	Meteo
b_6	Event announcement	Acontecimento	Acontece
b_7	Special event	Especial	Especial
b_8	Programme Information	Informação_Rádio	InfRadio
b_9	Sport report	Desporto	Desporto
b_{10}	Financial report	Economia	Economia
b_{11}	Reserved for future definition	tba	tba
b_{12}	Reserved for future definition	tba	tba
b_{13}	Reserved for future definition	tba	tba
b_{14}	Reserved for future definition	tba	tba
b_{15}	Reserved for future definition	tba	tba
NOTE: The notation _ is used to indicate the use of the "space" character.			

Annex C (normative):
Complete EBU Latin based repertoire

This annex contains example glyphs (Arial font), unicode character codes, unicode character names and presentation on 14-segment starburst displays for each character of the complete EBU Latin based repertoire. The codes 0x00, 0x0A, 0x0B and 0x1F are reserved for future definition and are not displayed.

Table C.1: Complete EBU Latin based repertoire with unicode numbers

Character code (hexadecimal)																
	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-A	-B	-C	-D	-E	-F
0-		0118 Ę	012E Į	0172 Ų	0102 Ă	0116 Ė	010E Ď	0218 Ș	021A Ț	010A Ċ			0120 Ġ	0139 Ĺ	017B Ż	0143 Ń
1-	0105 ą	0119 ę	012F į	0173 ų	0103 ă	0117 ė	010F ď	0219 ș	021B ț	010B ċ	0147 Ň	011A Ě	0121 ġ	013A ĺ	017C ż	
2-	0020	0021 !	0022 "	0023 #	0142 ł	0025 %	0026 &	0027 '	0028 (	0029)	002A *	002B +	002C ,	002D -	002E .	002F /
3-	0030 0	0031 1	0032 2	0033 3	0034 4	0035 5	0036 6	0037 7	0038 8	0039 9	003A :	003B ;	003C <	003D =	003E >	003F ?
4-	0040 @	0041 A	0042 B	0043 C	0044 D	0045 E	0046 F	0047 G	0048 H	0049 I	004A J	004B K	004C L	004D M	004E N	004F O
5-	0050 P	0051 Q	0052 R	0053 S	0054 T	0055 U	0056 V	0057 W	0058 X	0059 Y	005A Z	005B [	016E Ů	005D]	0141 Ł	005F _
6-	0104 Ą	0061 a	0062 b	0063 c	0064 d	0065 e	0066 f	0067 g	0068 h	0069 i	006A j	006B k	006C l	006D m	006E n	006F o
7-	0070 p	0071 q	0072 r	0073 s	0074 t	0075 u	0076 v	0077 w	0078 x	0079 y	007A z	00AB «	016F ů	00BB »	013D Ľ	0126 Ħ
8-	00E1 á	00E0 à	00E9 é	00E8 è	00ED í	00EC ì	00F3 ó	00F2 ò	00FA ú	00F9 ù	00D1 Ñ	00C7 Ç	015E Ş	00DF ß	00A1 ¡	0178 Ÿ
9-	00E2 â	00E4 ä	00EA ê	00EB ë	00EE î	00EF ï	00F4 ô	00F6 ö	00FB û	00FC ü	00F1 ñ	00E7 ç	015F ş	011F ğ	0131 ı	00FF ÿ
A-	0136 Ķ	0145 Ņ	00A9 ©	0122 Ģ	011E Ğ	011B ě	0148 ň	0151 ő	0150 Ő	20AC €	00A3 £	0024 $	0100 Ā	0112 Ē	012A Ī	016A Ū
B-	0137 ķ	0146 ņ	013B Ļ	0123 ģ	013C ļ	0130 İ	0144 ń	0171 ű	0170 Ű	00BF ¿	013E ľ	00B0 °	0101 ā	0113 ē	012B ī	016B ū
C-	00C1 Á	00C0 À	00C9 É	00C8 È	00CD Í	00CC Ì	00D3 Ó	00D2 Ò	00DA Ú	00D9 Ù	0158 Ř	010C Č	0160 Š	017D Ž	00D0 Ð	013F Ŀ
D-	00C2 Â	00C4 Ä	00CA Ê	00CB Ë	00CE Î	00CF Ï	00D4 Ô	00D6 Ö	00DB Û	00DC Ü	0159 ř	010D č	0161 š	017E ž	0111 đ	0140 ŀ
E-	00C3 Ã	00C5 Å	00C6 Æ	0152 Œ	0177 ŷ	00DD Ý	00D5 Õ	00D8 Ø	00DE Þ	014A Ŋ	0154 Ŕ	0106 Ć	015A Ś	0179 Ź	0164 Ť	00F0 ð
F-	00E3 ã	00E5 å	00E6 æ	0153 œ	0175 ŵ	00FD ý	00F5 õ	00F8 ø	00FE þ	014B ŋ	0155 ŕ	0107 ć	015B ś	017A ź	0165 ť	0127 ħ

Table C.2: Complete EBU Latin based repertoire with unicode numbers and names

Charset = 0000 character code	Unicode number	Character graphic	Unicode name
0x00			
0x01	**U+0118**	Ę	**LATIN CAPITAL LETTER E WITH OGONEK**
0x02	**U+012E**	Į	**LATIN CAPITAL LETTER I WITH OGONEK**
0x03	**U+0172**	Ų	**LATIN CAPITAL LETTER U WITH OGONEK**
0x04	**U+0102**	Ă	**LATIN CAPITAL LETTER A WITH BREVE**
0x05	**U+0116**	Ė	**LATIN CAPITAL LETTER E WITH DOT ABOVE**
0x06	**U+010E**	Ď	**LATIN CAPITAL LETTER D WITH CARON**
0x07	**U+0218**	Ş	**LATIN CAPITAL LETTER S WITH COMMA BELOW**
0x08	**U+021A**	Ţ	**LATIN CAPITAL LETTER T WITH COMMA BELOW**
0x09	**U+010A**	Ċ	**LATIN CAPITAL LETTER C WITH DOT ABOVE**
0x0A			
0x0B			
0x0C	**U+0120**	Ġ	**LATIN CAPITAL LETTER G WITH DOT ABOVE**
0x0D	**U+0139**	Ĺ	**LATIN CAPITAL LETTER L WITH ACUTE**
0x0E	**U+017B**	Ż	**LATIN CAPITAL LETTER Z WITH DOT ABOVE**
0x0F	**U+0143**	Ń	**LATIN CAPITAL LETTER N WITH ACUTE**
0x10	**U+0105**	ą	**LATIN SMALL LETTER A WITH OGONEK**
0x11	**U+0119**	ę	**LATIN SMALL LETTER E WITH OGONEK**
0x12	**U+012F**	į	**LATIN SMALL LETTER I WITH OGONEK**
0x13	**U+0173**	ų	**LATIN SMALL LETTER U WITH OGONEK**
0x14	**U+0103**	ă	**LATIN SMALL LETTER A WITH BREVE**
0x15	**U+0117**	ė	**LATIN SMALL LETTER E WITH DOT ABOVE**
0x16	**U+010F**	ď	**LATIN SMALL LETTER D WITH CARON**
0x17	**U+0219**	ş	**LATIN SMALL LETTER S WITH COMMA BELOW**
0x18	**U+021B**	ţ	**LATIN SMALL LETTER T WITH COMMA BELOW**
0x19	**U+010B**	ċ	**LATIN SMALL LETTER C WITH DOT ABOVE**
0x1A	**U+0147**	Ň	**LATIN CAPITAL LETTER N WITH CARON**
0x1B	**U+011A**	Ě	**LATIN CAPITAL LETTER E WITH CARON**
0x1C	**U+0121**	ġ	**LATIN SMALL LETTER G WITH DOT ABOVE**
0x1D	**U+013A**	ĺ	**LATIN SMALL LETTER L WITH ACUTE**
0x1E	**U+017C**	ż	**LATIN SMALL LETTER Z WITH DOT ABOVE**
0x1F			
0x20	U+0020	<space>	SPACE
0x21	U+0021	!	EXCLAMATION MARK
0x22	U+0022	"	QUOTATION MARK
0x23	U+0023	#	NUMBER SIGN
0x24	**U+0142**	ł	**LATIN SMALL LETTER L WITH STROKE**
0x25	U+0025	%	PERCENT SIGN
0x26	U+0026	&	AMPERSAND
0x27	U+0027	'	APOSTOPHE
0x28	U+0028	(	LEFT PARENTHESIS
0x29	U+0029	)	RIGHT PARENTHESIS
0x2A	U+002A	*	ASTERISK
0x2B	U+002B	+	PLUS SIGN
0x2C	U+002C	,	COMMA
0x2D	U+002D	-	HYPHEN-MINUS
0x2E	U+002E	.	FULL STOP
0x2F	U+002F	/	SOLIDUS
0x30	U+0030	0	DIGIT ZERO
0x31	U+0031	1	DIGIT ONE
0x32	U+0032	2	DIGIT TWO
0x33	U+0033	3	DIGIT THREE
0x34	U+0034	4	DIGIT FOUR
0x35	U+0035	5	DIGIT FIVE
0x36	U+0036	6	DIGIT SIX
0x37	U+0037	7	DIGIT SEVEN
0x38	U+0038	8	DIGIT EIGHT
0x39	U+0039	9	DIGIT NINE
0x3A	U+003A	:	COLON
0x3B	U+003B	;	SEMICOLON
0x3C	U+003C	<	LESS-THAN SIGN

Charset = 0000 character code	Unicode number	Character graphic	Unicode name
0x3D	U+003D	=	EQUALS SIGN
0x3E	U+003E	>	GREATER-THAN SIGN
0x3F	U+003F	?	QUESTION MARK
0x40	U+0040	@	COMMERCIAL AT
0x41	U+0041	A	LATIN CAPITAL LETTER A
0x42	U+0042	B	LATIN CAPITAL LETTER B
0x43	U+0043	C	LATIN CAPITAL LETTER C
0x44	U+0044	D	LATIN CAPITAL LETTER D
0x45	U+0045	E	LATIN CAPITAL LETTER E
0x46	U+0046	F	LATIN CAPITAL LETTER F
0x47	U+0047	G	LATIN CAPITAL LETTER G
0x48	U+0048	H	LATIN CAPITAL LETTER H
0x49	U+0049	I	LATIN CAPITAL LETTER I
0x4A	U+004A	J	LATIN CAPITAL LETTER J
0x4B	U+004B	K	LATIN CAPITAL LETTER K
0x4C	U+004C	L	LATIN CAPITAL LETTER L
0x4D	U+004D	M	LATIN CAPITAL LETTER M
0x4E	U+004E	N	LATIN CAPITAL LETTER N
0x4F	U+004F	O	LATIN CAPITAL LETTER O
0x50	U+0050	P	LATIN CAPITAL LETTER P
0x51	U+0051	Q	LATIN CAPITAL LETTER Q
0x52	U+0052	R	LATIN CAPITAL LETTER R
0x53	U+0053	S	LATIN CAPITAL LETTER S
0x54	U+0054	T	LATIN CAPITAL LETTER T
0x55	U+0055	U	LATIN CAPITAL LETTER U
0x56	U+0056	V	LATIN CAPITAL LETTER V
0x57	U+0057	W	LATIN CAPITAL LETTER W
0x58	U+0058	X	LATIN CAPITAL LETTER X
0x59	U+0059	Y	LATIN CAPITAL LETTER Y
0x5A	U+005A	Z	LATIN CAPITAL LETTER Z
0x5B	U+005B	[	LEFT SQUARE BRACKET
0x5C	**U+016E**	**Ů**	**LATIN CAPITAL LETTER U WITH RING ABOVE**
0x5D	U+005D	]	RIGHT SQUARE BRACKET
0x5E	**U+0141**	**Ł**	**LATIN CAPITAL LETTER L WITH STROKE**
0x5F	U+005F	_	LOW LINE
0x60	**U+0104**	**Ą**	**LATIN CAPITAL LETTER A WITH OGONEK**
0x61	U+0061	a	LATIN SMALL LETTER A
0x62	U+0062	b	LATIN SMALL LETTER B
0x63	U+0063	c	LATIN SMALL LETTER C
0x64	U+0064	d	LATIN SMALL LETTER D
0x65	U+0065	e	LATIN SMALL LETTER E
0x66	U+0066	f	LATIN SMALL LETTER F
0x67	U+0067	g	LATIN SMALL LETTER G
0x68	U+0068	h	LATIN SMALL LETTER H
0x69	U+0069	i	LATIN SMALL LETTER I
0x6A	U+006A	j	LATIN SMALL LETTER J
0x6B	U+006B	k	LATIN SMALL LETTER K
0x6C	U+006C	l	LATIN SMALL LETTER L
0x6D	U+006D	m	LATIN SMALL LETTER M
0x6E	U+006E	n	LATIN SMALL LETTER N
0x6F	U+006F	o	LATIN SMALL LETTER O
0x70	U+0070	p	LATIN SMALL LETTER P
0x71	U+0071	q	LATIN SMALL LETTER Q
0x72	U+0072	r	LATIN SMALL LETTER R
0x73	U+0073	s	LATIN SMALL LETTER S
0x74	U+0074	t	LATIN SMALL LETTER T
0x75	U+0075	u	LATIN SMALL LETTER U
0x76	U+0076	v	LATIN SMALL LETTER V
0x77	U+0077	w	LATIN SMALL LETTER W
0x78	U+0078	x	LATIN SMALL LETTER X
0x79	U+0079	y	LATIN SMALL LETTER Y
0x7A	U+007A	z	LATIN SMALL LETTER Z
0x7B	**U+00AB**	**«**	**LEFT-POINTING DOUBLE ANGLE QUOTATION MARK**

Charset = 0000 character code	Unicode number	Character graphic	Unicode name
0x7C	**U+016F**	ů	**LATIN SMALL LETTER U WITH RING ABOVE**
0x7D	**U+00BB**	»	**RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK**
0x7E	**U+013D**	Ľ	**LATIN CAPITAL LETTER L WITH CARON**
0x7F	**U+0126**	Ħ	**LATIN CAPITAL LETTER H WITH STROKE**
0x80	U+00E1	á	LATIN SMALL LETTER A WITH ACUTE
0x81	U+00E0	à	LATIN SMALL LETTER A WITH GRAVE
0x82	U+00E9	é	LATIN SMALL LETTER E WITH ACUTE
0x83	U+00E8	è	LATIN SMALL LETTER E WITH GRAVE
0x84	U+00ED	í	LATIN SMALL LETTER I WITH ACUTE
0x85	U+00EC	ì	LATIN SMALL LETTER I WITH GRAVE
0x86	U+00F3	ó	LATIN SMALL LETTER O WITH ACUTE
0x87	U+00F2	ò	LATIN SMALL LETTER O WITH GRAVE
0x88	U+00FA	ú	LATIN SMALL LETTER U WITH ACUTE
0x89	U+00F9	ù	LATIN SMALL LETTER U WITH GRAVE
0x8A	U+00D1	Ñ	LATIN CAPITAL LETTER N WITH TILDE
0x8B	U+00C7	Ç	LATIN CAPITAL LETTER C WITH CEDILLA
0x8C	U+015E	Ş	LATIN CAPITAL LETTER S WITH CEDILLA
0x8D	U+00DF	ß	LATIN SMALL LETTER SHARP S (German)
0x8E	U+00A1	¡	INVERTED EXCLAMATION MARK
0x8F	U+0178	Ÿ	LATIN CAPITAL LETTER Y WITH DIAERESIS
0x90	U+00E2	â	LATIN SMALL LETTER A WITH CIRCUMFLEX
0x91	U+00E4	ä	LATIN SMALL LETTER A WITH DIAERESIS
0x92	U+00EA	ê	LATIN SMALL LETTER E WITH CIRCUMFLEX
0x93	U+00EB	ë	LATIN SMALL LETTER E WITH DIAERESIS
0x94	U+00EE	î	LATIN SMALL LETTER I WITH CIRCUMFLEX
0x95	U+00EF	ï	LATIN SMALL LETTER I WITH DIAERESIS
0x96	U+00F4	ô	LATIN SMALL LETTER O WITH CIRCUMFLEX
0x97	U+00F6	ö	LATIN SMALL LETTER O WITH DIAERESIS
0x98	U+00FB	û	LATIN SMALL LETTER U WITH CIRCUMFLEX
0x99	U+00FC	ü	LATIN SMALL LETTER U WITH DIAERESIS
0x9A	U+00F1	ñ	LATIN SMALL LETTER N WITH TILDE
0x9B	U+00E7	ç	LATIN SMALL LETTER C WITH CEDILLA
0x9C	U+015F	ş	LATIN SMALL LETTER S WITH CEDILLA
0x9D	U+011F	ğ	LATIN SMALL LETTER G WITH BREVE
0x9E	U+0131	ı	LATIN SMALL LETTER DOTLESS I
0x9F	U+00FF	ÿ	LATIN SMALL LETTER Y WITH DIAERESIS
0xA0	U+0136	Ķ	LATIN CAPITAL LETTER K WITH CEDILLA
0xA1	U+0145	Ņ	LATIN CAPITAL LETTER N WITH CEDILLA
0xA2	U+00A9	©	COPYRIGHT SIGN
0xA3	U+0122	Ģ	LATIN CAPITAL LETTER G WITH CEDILLA
0xA4	U+011E	Ğ	LATIN CAPITAL LETTER G WITH BREVE
0xA5	U+011B	ě	LATIN SMALL LETTER E WITH CARON
0xA6	U+0148	ň	LATIN SMALL LETTER N WITH CARON
0xA7	U+0151	ő	LATIN SMALL LETTER O WITH DOUBLE ACUTE
0xA8	U+0150	Ő	LATIN CAPITAL LETTER O WITH DOUBLE ACUTE
0xA9	U+20AC	€	EURO SIGN
0xAA	U+00A3	£	POUND SIGN
0xAB	U+0024	$	DOLLAR SIGN
0xAC	U+0100	Ā	LATIN CAPITAL LETTER A WITH MACRON
0xAD	U+0112	Ē	LATIN CAPITAL LETTER E WITH MACRON
0xAE	U+012A	Ī	LATIN CAPITAL LETTER I WITH MACRON
0xAF	U+016A	Ū	LATIN CAPITAL LETTER U WITH MACRON
0xB0	U+0137	ķ	LATIN SMALL LETTER K WITH CEDILLA
0xB1	U+0146	ņ	LATIN SMALL LETTER N WITH CEDILLA
0xB2	U+013B	Ļ	LATIN CAPITAL LETTER L WITH CEDILLA
0xB3	U+0123	ģ	LATIN SMALL LETTER G WITH CEDILLA
0xB4	U+013C	ļ	LATIN SMALL LETTER L WITH CEDILLA
0xB5	U+0130	İ	LATIN CAPITAL LETTER I WITH DOT ABOVE
0xB6	U+0144	ń	LATIN SMALL LETTER N WITH ACUTE
0xB7	U+0171	ű	LATIN SMALL LETTER U WITH DOUBLE ACUTE
0xB8	U+0170	Ű	LATIN CAPITAL LETTER U WITH DOUBLE ACUTE
0xB9	U+00BF	¿	INVERTED QUESTION MARK
0xBA	U+013E	ľ	LATIN SMALL LETTER L WITH CARON

Charset = 0000 character code	Unicode number	Character graphic	Unicode name
0xBB	U+00B0	°	DEGREE SIGN
0xBC	U+0101	ā	LATIN SMALL LETTER A WITH MACRON
0xBD	U+0113	ē	LATIN SMALL LETTER E WITH MACRON
0xBE	U+012B	ī	LATIN SMALL LETTER I WITH MACRON
0xBF	U+016B	ū	LATIN SMALL LETTER U WITH MACRON
0xC0	U+00C1	Á	LATIN CAPITAL LETTER A WITH ACUTE
0xC1	U+00C0	À	LATIN CAPITAL LETTER A WITH GRAVE
0xC2	U+00C9	É	LATIN CAPITAL LETTER E WITH ACUTE
0xC3	U+00C8	È	LATIN CAPITAL LETTER E WITH GRAVE
0xC4	U+00CD	Í	LATIN CAPITAL LETTER I WITH ACUTE
0xC5	U+00CC	Ì	LATIN CAPITAL LETTER I WITH GRAVE
0xC6	U+00D3	Ó	LATIN CAPITAL LETTER O WITH ACUTE
0xC7	U+00D2	Ò	LATIN CAPITAL LETTER O WITH GRAVE
0xC8	U+00DA	Ú	LATIN CAPITAL LETTER U WITH ACUTE
0xC9	U+00D9	Ù	LATIN CAPITAL LETTER U WITH GRAVE
0xCA	U+0158	Ř	LATIN CAPITAL LETTER R WITH CARON
0xCB	U+010C	Č	LATIN CAPITAL LETTER C WITH CARON
0xCC	U+0160	Š	LATIN CAPITAL LETTER S WITH CARON
0xCD	U+017D	Ž	LATIN CAPITAL LETTER Z WITH CARON
0xCE	U+00D0	Ð	LATIN CAPITAL LETTER ETH
0xCF	U+013F	Ŀ	LATIN CAPITAL LETTER L WITH MIDDLE DOT
0xD0	U+00C2	Â	LATIN CAPITAL LETTER A WITH CIRCUMFLEX
0xD1	U+00C4	Ä	LATIN CAPITAL LETTER A WITH DIAERESIS
0xD2	U+00CA	Ê	LATIN CAPITAL LETTER E WITH CIRCUMFLEX
0xD3	U+00CB	Ë	LATIN CAPITAL LETTER A WITH DIAERESIS
0xD4	U+00CE	Î	LATIN CAPITAL LETTER I WITH CIRCUMFLEX
0xD5	U+00CF	Ï	LATIN CAPITAL LETTER I WITH DIAERESIS
0xD6	U+00D4	Ô	LATIN CAPITAL LETTER O WITH CIRCUMFLEX
0xD7	U+00D6	Ö	LATIN CAPITAL LETTER O WITH DIAERESIS
0xD8	U+00DB	Û	LATIN CAPITAL LETTER U WITH CIRCUMFLEX
0xD9	U+00DC	Ü	LATIN CAPITAL LETTER U WITH DIAERESIS
0xDA	U+0159	ř	LATIN SMALL LETTER R WITH CARON
0xDB	U+010D	č	LATIN SMALL LETTER C WITH CARON
0xDC	U+0161	š	LATIN SMALL LETTER S WITH CARON
0xDD	U+017E	ž	LATIN SMALL LETTER Z WITH CARON
0xDE	U+0111	đ	LATIN SMALL LETTER D WITH STROKE
0xDF	U+0140	ŀ	LATIN SMALL LETTER L WITH MIDDLE DOT
0xE0	U+00C3	Ã	LATIN CAPITAL LETTER A WITH TILDE
0xE1	U+00C5	Å	LATIN CAPITAL LETTER A WITH RING ABOVE
0xE2	U+00C6	Æ	LATIN CAPITAL LETTER AE
0xE3	U+0152	Œ	LATIN CAPITAL LIGATURE OE
0xE4	U+0177	ŷ	LATIN SMALL LETTER Y WITH CIRCUMFLEX
0xE5	U+00DD	Ý	LATIN CAPITAL LETTER Y WITH ACUTE
0xE6	U+00D5	Õ	LATIN CAPITAL LETTER O WITH TILDE
0xE7	U+00D8	Ø	LATIN CAPITAL LETTER O WITH STROKE
0xE8	U+00DE	Þ	LATIN CAPITAL LETTER THORN
0xE9	U+014A	Ŋ	LATIN CAPITAL LETTER ENG
0xEA	U+0154	Ŕ	LATIN CAPITAL LETTER R WITH ACUTE
0xEB	U+0106	Ć	LATIN CAPITAL LETTER C WITH ACUTE
0xEC	U+015A	Ś	LATIN CAPITAL LETTER S WITH ACUTE
0xED	U+0179	Ź	LATIN CAPITAL LETTER Z WITH ACUTE
0xEE	U+0164	Ť	LATIN CAPITAL LETTER T WITH CARON
0xEF	U+00F0	ð	LATIN SMALL LETTER ETH
0xF0	U+00E3	ã	LATIN SMALL LETTER A WITH TILDE
0xF1	U+00E5	å	LATIN SMALL LETTER A WITH RING
0xF2	U+00E6	æ	LATIN SMALL LETTER AE
0xF3	U+0153	œ	LATIN SMALL LIGATURE OE
0xF4	U+0175	ŵ	LATIN SMALL LETTER W WITH CIRCUMFLEX
0xF5	U+00FD	ý	LATIN SMALL LETTER Y WITH ACUTE
0xF6	U+00F5	õ	LATIN SMALL LETTER O WITH TILDE
0xF7	U+00F8	ø	LATIN SMALL LETTER O WITH STROKE
0xF8	U+00FE	þ	LATIN SMALL LETTER THORN
0xF9	U+014B	ŋ	LATIN SMALL LETTER ENG

Charset = 0000 character code	Unicode number	Character graphic	Unicode name
0xFA	U+0155	ŕ	LATIN SMALL LETTER R WITH ACUTE
0xFB	U+0107	ć	LATIN SMALL LETTER C WITH ACUTE
0xFC	U+015B	ś	LATIN SMALL LETTER S WITH ACUTE
0xFD	U+017A	ź	LATIN SMALL LETTER Z WITH ACUTE
0xFE	U+0165	ť	LATIN SMALL LETTER T WITH CARON
0xFF	U+0127	ħ	LATIN SMALL LETTER H WITH STROKE
NOTE: Bold indicates non-ASCII characters in the first half of the table.			

Table C.3: Display of complete EBU Latin based repertoire on 14-segment starburst display

Character code (hexadecimal)															
-0	**-1**	**-2**	**-3**	**-4**	**-5**	**-6**	**-7**	**-8**	**-9**	**-A**	**-B**	**-C**	**-D**	**-E**	**-F**
0-	0118 Ę	012E Į	0172 Ų	0102 Ă	0116 Ė	010E Ď	0218 Ș	021A Ț	010A Ċ			0120 Ġ	0139 Ĺ	017B Ż	0143 Ń
1- 0105 ą	0119 ę	012F į	0173 ų	0103 ă	0117 ė	010F ď	0219 ș	021B ț	010B ċ	0147 Ň	011A Ě	0121 ġ	013A ĺ	017C ż	
2- 0020 (space)	0021 !	0022 "	0023 #	0142 ł	0025 %	0026 &	0027 '	0028 (	0029)	002A *	002B +	002C ,	002D -	002E .	002F /
3- 0030 0	0031 1	0032 2	0033 3	0034 4	0035 5	0036 6	0037 7	0038 8	0039 9	003A :	003B ;	003C <	003D =	003E >	003F ?
4- 0040 @	0041 A	0042 B	0043 C	0044 D	0045 E	0046 F	0047 G	0048 H	0049 I	004A J	004B K	004C L	004D M	004E N	004F O
5- 0050 P	0051 Q	0052 R	0053 S	0054 T	0055 U	0056 V	0057 W	0058 X	0059 Y	005A Z	005B [	016E Ů	005D]	0141 Ł	005F _
6- 0104 Ą	0061 a	0062 b	0063 c	0064 d	0065 e	0066 f	0067 g	0068 h	0069 i	006A j	006B k	006C l	006D m	006E n	006F o
7- 0070 p	0071 q	0072 r	0073 s	0074 t	0075 u	0076 v	0077 w	0078 x	0079 y	007A z	00AB «	016F ů	00BB »	013D Ľ	0126 Ħ
8- 00E1 á	00E0 à	00E9 é	00E8 è	00ED í	00EC ì	00F3 ó	00F2 ò	00FA ú	00F9 ù	00D1 Ñ	00C7 Ç	015E Ş	00DF ß	00A1 ¡	0178 Ÿ
9- 00E2 â	00E4 ä	00EA ê	00EB ë	00EE î	00EF ï	00F4 ô	00F6 ö	00FB û	00FC ü	00F1 ñ	00E7 ç	015F ş	011F ğ	0131 ı	00FF ÿ
A- 0136 Ķ	0145 Ņ	00A9 ©	0122 Ģ	011E Ğ	011B ě	0148 ň	0151 ő	0150 Ő	20AC €	00A3 £	0024 $	0100 Ā	0112 Ē	012A Ī	016A Ū
B- 0137 ķ	0146 ņ	013B Ļ	0123 ģ	013C ļ	0130 İ	0144 ń	0171 ű	0170 Ű	00BF ¿	013E ľ	00B0 °	0101 ā	0113 ē	012B ī	016B ū
C- 00C1 Á	00C0 À	00C9 É	00C8 È	00CD Í	00CC Ì	00D3 Ó	00D2 Ò	00DA Ú	00D9 Ù	0158 Ř	010C Č	0160 Š	017D Ž	00D0 Đ	013F Ŀ
D- 00C2 Â	00C4 Ä	00CA Ê	00CB Ë	00CE Î	00CF Ï	00D4 Ô	00D6 Ö	00DB Û	00DC Ü	0159 ř	010D č	0161 š	017E ž	0111 đ	0140 ŀ
E- 00C3 Ã	00C5 Å	00C6 Æ	0152 Œ	0177 ŷ	00DD Ý	00D5 Õ	00D8 Ø	00DE Þ	014A Ŋ	0154 Ŕ	0106 Ć	015A Ś	0179 Ź	0164 Ť	00F0 ð
F- 00E3 ã	00E5 å	00E6 æ	0153 œ	0175 ŵ	00FD ý	00F5 õ	00F8 ø	00FE þ	014B ŋ	0155 ŕ	0107 ć	015B ś	017A ź	0165 ť	0127 ħ

Annex D (normative):
Transition arrangements for DAB encoding equipment

D.1 Introduction

This annex describes the requirements for encoding equipment to allow receiving equipment to determine whether the ensemble is coded according to ETSI EN 300 401 [1] or to an earlier version of the standard. The primary mechanism is the receipt of FIG 0/7. FIG 0/7 shall only be signalled when all the conditions specified in clause D.2 are satisfied, and when any optional features specified in clause D.3.1 and clause D.3.2 are present, that they too conform to ETSI EN 300 401 [1].

D.2 Essential encoding requirements

D.2.1 Multiplex Configuration Information (MCI)

The coding of the MCI shall be fully in accordance with the new definition, see ETSI EN 300 401 [1], clause 6.1:

"The complete MCI for one configuration shall normally be signalled in a 96 ms period; the exceptions are that the FIG 0/8 for primary service components containing data applications and for data secondary service components, and the FIG 0/13 may be signalled at a slower rate but not less frequently than once per second. When the slower rate is used, the FIG 0/8 and FIG 0/13 for the same service component should be signalled in the FIBs corresponding to the same CIF."

"During the six second period of the reconfiguration, the MCI that describes the next configuration (see clause 6.5) shall be signalled within two consecutive 96 ms periods, and during this period the complete current configuration need only be signalled once. For the MCI signalled at the slower rate, that is FIG 0/8 and FIG 0/13 for data applications, both the current and the next configuration shall be signalled within the one second repetition period."

For ensembles containing more than about 20 service components, the "normal" repetition cycle of the FIC cannot be maintained: for such ensembles, the fixed capacity of the FIC is unable to accommodate all the MCI and SI required within the 12 FIBs available each 96 ms. In order to provide a proportionate decrease of the repetition rates, it is recommended to allocate a maximum of 10 of the 12 FIBs to signalling the MCI and the service and service component labels, with the remaining FIBs available for all other SI FIGs.

During the reconfiguration, the change flags in the FIG 0/0 shall only take the value "11" because partial Next information is no longer permitted.

When there is no reconfiguration, the FIC is formed with the FIG 0/0 at the beginning of FIB 0 of the transmission frame, see ETSI EN 300 401 [1], clause 5.1. The FIG 0/7 shall follow. When there is a reconfiguration, these positions are maintained, but the FIG 0/7 alternately signals the Current and Next configurations in each transmission frame. These rules apply even when repetition rates are lowered due to a larger number of service components in the ensemble.

The Alarm flag of FIG 0/0 shall only be active if alarm announcement signalling (FIG 0/19 and/or FIG 0/26) is supported by the multiplexer in accordance with ETSI TS 103 176 [13], clause 7, and alarm announcements are operationally supported by the ensemble provider.

FIG 0/13 (User application information) shall be signalled for all user applications with a user application type defined in table 16 of the present document. If the user application is carried in X-PAD, then the X-PAD data field of FIG 0/13 shall be used as defined.

FIG0/14 shall be provided for all packet mode sub-channels.

D.2.2   Service Information (SI)

Service labels shall be signalled for all services and service component labels shall be signalled for all audio secondary service components and all data secondary service components that require human selection. Service component labels shall NOT be signalled for primary service components.

FIG type 1 labels and/or FIG type 2 labels shall be signalled. If FIG type 2 labels are signalled they shall be coded according to ETSI TS 103 176 [13], clause 8; that is they shall set the Rfu bit to 1, include the Text control field, not include the Character flags field and contain a maximum of 32 bytes in a maximum of two segments.

Ensembles that use reconfiguration shall signal FIG 0/20 for all part-time services and service components. To support maintenance of the service list, service element addition, removal or move should be signalled sufficiently in advance of and after the change.

D.3   Requirements for optional features

D.3.1   Service Information (SI)

D.3.1.1   Introduction

Optional features remain optional, but when implemented shall be in accordance with ETSI EN 300 401 [1]. For the FIGs listed below, when FIG 0/7 is signalled in the ensemble, it also confirms that these FIGs are coded in accordance with ETSI EN 300 401 [1].

D.3.1.2   FIG 0/6 (Service linking)

The behavioural model of service following, including service linking, is defined in ETSI TS 103 176 [13]. It should be checked that the coding is in accordance with that specification. In particular, linkage sets shall not have Ids for FM without RDS or AM without AMSS (i.e. IdLQ = 10 is not used; no dummy identifiers).

D.3.1.3   FIG 0/9 (ECC and LTO)

This FIG has been simplified by removing the per-service LTO feature and limiting the number of per service ECCs that can be specified such that this FIG no longer uses the database mechanism. Therefore there shall be a single FIG 0/9 per ensemble when FIG 0/9 is signalled.

D.3.1.4   FIG 0/10 (date and time)

The long form of date and time shall be used when FIG 0/10 is signalled.

   NOTE: It is also possible to signal the short form **in addition** if there are particular receiver support issues.

D.3.1.5   FIG 0/17 (Programme Type)

Programme type has been simplified by removing the language field and the complementary code. In addition, only a single programme type per service, either static or dynamic (but not both) shall be signalled.

D.3.1.6   FIG 0/18 (Announcement Support)

Announcement support has been simplified by limiting the maximum number of ClusterIDs to 7 such that this FIG no longer uses the database mechanism. In addition, the ASu bit 0 (alarm) shall not be set because the alarm feature support is now implemented using FIG 0/0.

D.3.1.7   FIG 0/19 (Announcement Switching)

ClusterID = 0 is no longer permitted.

D.3.1.8   FIG 0/21 (Frequency information)

The Region Id and transmission modes II, III and IV have been removed and shall not be signalled. Frequencies for FM without RDS or AM shall not be signalled.

D.3.1.9   FIG 0/25 (OE Announcement Support) and FIG 0/26 (OE Announcement Switching)

These FIGs have been redesigned. Only the definitions in ETSI EN 300 401 [1] shall be used.

D.3.2   Dynamic Label

The toggle bit of the dynamic label feature shall be in compliance with the new definition (care is needed especially regarding signalling commands, e.g. "remove label from the display", DL Plus).

D.3.3   Deprecated FIGs

The following FIGs have been deprecated. It is strongly recommended NOT to signal these FIGs:

- FIG 0/11 (Region definition);

- FIC 0/12 (FIC redirection);

- FIG 0/16 (Programme Number);

- FIG 0/22 (TII database);

- FIG 0/27 (FM Announcement Support);

- FIG 0/28 (FM Announcement Switching);

- FIG 1/3, FIG 2/3 (Region label);

- FIG 2/7 (Character definition).

D.3.4   Reserved FIGs

FIG types that are marked as reserved in ETSI EN 300 401 [1] may be used for non-standard purposes (for example, proprietary data signalling) but no guarantee of interoperability can be given. All such FIGs will be ignored by standard receivers.

D.4   Receiver considerations

D.4.1   Introduction

When FIG 0/7 is present in a received ensemble it means that the FIC is encoded according to ETSI EN 300 401 [1]. This allows the receiver to implement more definitive algorithms for service lists management and some other features. If FIG 0/7 is not present in a received ensemble then the FIC is encoded according to an earlier version of the DAB system standard and receiver behaviour will need to take account of this.

D.4.2   Part-time services

When FIG 0/7 is present, then part-time service elements are properly signalled. If a service element previously broadcast in this ensemble is now neither described by MCI nor by FIG 0/20 (signalling that it is a part-time service element), then this service element is no longer broadcast on this ensemble. If this service element is not broadcast on any other (receivable) ensemble, then this service element can be removed from the service list.

When FIG 0/7 is not present, then part-time services are not signalled while off-air. If a service element previously broadcast in the ensemble is not currently described by MCI then this service element might be permanently removed or might be temporarily off-air but will be present in the ensemble again at a later time. The receiver should not remove this service element from the service list.

D.4.3   Announcements

D.4.3.1   Alarm announcements

When FIG 0/7 is present, the Alarm flag in FIG 0/0 is correctly signalling support for alarm announcements. A setting of the Alarm flag to 1 indicates all services in the ensemble shall be interrupted by a signalled alarm announcement. The ensemble fulfils all requirements for signalling alarms and will carry alarm messages that are relevant to the listeners of the ensemble. Support for tuned ensemble alarms is mandatory; support for OE alarms is optional. Receivers shall meet all requirements given in ETSI TS 103 176 [13], clauses 7.3, 7.6 and 7.7.

When FIG 0/7 is not present, receivers shall ignore announcement signalling in FIG 0/19 using the alarm Cluster Id (0xFF) and shall ignore FIG 0/26.

D.4.3.2   OE announcements

When FIG 0/7 is present, OE announcement support in FIG 0/25 and OE announcement switching in FIG 0/26 are correctly signalled. The support for OE announcements in the receiver is optional; when the feature is supported, receivers shall meet all requirements given in ETSI TS 103 176 [13], clauses 7.3 and 7.5.

When FIG 0/7 is not present, receivers shall ignore FIG 0/25 and FIG 0/26.

Annex E (normative):
Text labels - Regional profiles

E.1 Introduction

Unicode is a huge standard, covering a vast breadth of situations, not all of which will be relevant in every market. Therefore, some definition of code point usage and restrictions on the use of the flags in the text control field may assist broadcasters and receiver makers to meet the expectations of listeners with cost-effective products.

When deciding on the scope of the content of SI labels and dynamic labels, due consideration should be given to the requirements needed by receivers to correctly present the labels. The text control field is designed to convey information to receivers about the necessary rendering capabilities needed for proper display of the label. Mixing scripts in a single label makes the label more complex: additional character glyphs will be required, bidirectional processing may be needed, etc. It is therefore recommended that FIG type 2 labels do not mix LTR and RTL scripts, although this is not prohibited. With respect to dynamic labels, it is recommended that consideration be given to splitting text into shorter labels with a single script since this may result in better presentation on a wider number of receivers.

The base profile consists of the Complete EBU Latin based repertoire character set (see annex C) and only requires the use of FIG type 1 labels; the base profile is part of all the regional profiles.

The regional profiles require the use of FIG type 2 labels and describe the necessary characteristics of the SI and dynamic labels. Regional profiles are devised to harmonise the broadcast and receiver capabilities for different markets. Each regional profile shall provide definitions for:

- the use of FIG 1/x and FIG 2/x labels and permitted settings of the text control field in FIG 2 labels;

- the permitted settings of the text control field in dynamic labels;

- the permitted Unicode code points for transmission (and thus required glyph capability in receivers).

Normally, either a FIG type 1 label or a FIG type 2 label will be provided for an ensemble/service/component/etc., although regional profiles may allow both. In such cases, the repetition rates of the SI labels should be adjusted so as to ensure that the FIC is not overloaded nor label acquisition times become overly extended, and it is recommended that the overall repetition rate for the SI labels are maintained at the nominal rate of once per second and that the proportion of FIG type 1 to FIG type 2 labels is adjusted to suit the market conditions. Receivers should always present a FIG type 2 SI label in preference to a FIG type 1 SI label, provided the necessary capabilities are present.

The regional profile that a label belongs to is not signalled, but reference to specific regional profiles may be made, in for example, minimum requirements documents, to define required capabilities for a particular market.

World DAB maintains this annex to provide a central point for registration of regional profiles.

E.2 Transmission systems

A regional profile specifies the permitted coding options for labels and the code points that are allowed in the labels.

The transmission system shall pre-process all text labels to ensure that they meet the code point restrictions and text control field restrictions of the required regional profile. When the required features include the minimum RTL implementation or the simplified bidirectional algorithm, then each label shall also be checked to ensure compliance with that feature and encoded accordingly or rejected.

SI labels in which all code points are part of the Complete EBU Latin based repertoire (see annex C) shall be signalled using FIG type 1 labels.

All other SI labels shall be signalled using FIG type 2 labels. The most efficient setting of the encoding flag shall be used.

The definitions of the profiles define which SI labels are allowed as follows:

- **Base**: service components shall be given a FIG type 1 SI label **only**;

- **Either**: service components shall be given **either** a FIG type 1 SI label **or** a FIG type 2 SI label but **not both**;

- **Both**: service components shall be given **both** a FIG type 1 SI label **and** a FIG type 2 SI label.

The text pre-processing shall ensure that dynamic labels are encoded using the most efficient setting of the char set field. If bidirectional dynamic labels are not permitted by the regional profile but both LTR and RTL text is permitted, then the text should be analysed to see if splitting the text into multiple dynamic labels with a single text direction makes sense. The transmission system is required to ensure that input text is converted to output labels that use only permitted code points.

E.3   Receivers

Receivers designed for a particular regional profile shall provide all the capabilities required by that regional profile. Receivers may provide the capabilities for more than one regional profile.

Since receivers do not receive explicit signalling of which regional profile the tuned ensemble is using, they need to have a defined response to text labels that exceed their display capabilities (see ETSI TS 103 176 [13], clause 8.4).

Decoding of FIG type 1 labels is required by all regional profiles.

Decoding of FIG type 2 labels is required by all regional profiles. FIG type 2 labels shall be presented whenever the receiver has all the required capabilities to completely display the label (see ETSI EN 300 401 [1], clause 5.2.2.3.4).

NOTE: The EBU Latin profile is the base profile and does not require decoding of FIG type 2 labels.

Dynamic label decoding requires decoding of all three "Char set" options.

E.4   Regional profile definitions

E.4.1   Encoding and decoding requirements

Table E.1: Encoding and decoding requirements

Profile	SI label options (see clause E.2)	FIG type 2 text control field settings	Dynamic label charset settings	Dynamic label text control field settings	Glyph set
EBU Latin	Base	-	EBU	0000b	Complete EBU Latin-based repertoire (see annex C)
All Europe	Either	0000b	EBU UTF-16 UTF-8	0000b	Complete EBU Latin-based repertoire (see annex C) U+0384 to U+03CE (Greek) U+0400 to U+045F (Cyrillic) (see also annex F)
Arab States Broadcasting Union	Either	0100b	EBU UTF-16 UTF-8	xx00b	Complete EBU Latin-based repertoire (see annex C) U+060C (Arabic comma), U+061B (Arabic semi-colon), U+061F (Arabic question mark) U+0660 to U+066C (Arabic-Indic numerals and numerical punctuation) U+06F0 to U+06F9 (Eastern Arabic-Indic numerals) U+FE70 to U+FEFF (Arabic Presentation Forms-B)
Thai	Either	00xxb	EBU UTF-16 UTF-8	00xxb	Complete EBU Latin-based repertoire (see annex C) U+0E00 to U+0E7F (Thai)
NOTE 1: FIG type 1 labels can only use the EBU charset.					
NOTE 2: FIG type 2 labels and dynamic labels with charsets UTF-8 and UTF-16 can use all permitted codepoints unless the text control field settings preclude it (e.g. character type L codepoints in an RTL label).					
NOTE 3: An 'x' in the text control field settings indicates that either 0 or 1 may be used.					
NOTE 4: Ensemble labels are optional; if provided they may be coded as FIG type 1 and/or FIG type 2.					

E.4.2   Additional information

E.4.2.1   Arab States Broadcasting Union profile

The basis of the profile is language coverage for the members of the ASBU. Arabic is the core requirement, but some countries in this region also provide services in European languages.

Receivers shall provide either the Minimum RTL implementation (see ETSI TS 103 176 [13], clause 8.5.2), or the Unicode bidirectional algorithm [28]. It is recommended that receivers that implement the minimum RTL implementation also implement the simplified bidirectional algorithm (see ETSI TS 103 176 [13], clause 8.5.3).

Although Arabic script has contextual characters, presentation code points are specified to allow simple receiver types.

SI labels will be either in Arabic script using FIG type 2 or in Latin script using FIG type 1. No SI label will contain both Arabic and Latin letters. The FIG type 2 labels will set the base direction flag to 1 (RTL) and all other flags to 0.

Dynamic labels will usually be in either Arabic or Latin script, not both: these labels have the bidi flag set to 0. Any dynamic labels that have both Arabic and Latin scripts will have the bidi flag set to 1.

  NOTE: As receivers may support the minimum RTL implementation rather than the Unicode bidirectional algorithm, bidirectional dynamic labels will not be displayed by all receivers.

When converting input text to output labels, particular care is needed to deal with input Arabic contextual characters. Bidirectional SI labels shall not be accepted for transmission. Where possible, input text for dynamic labels should be divided into unidirectional text sequences sent as separate dynamic labels.

Since Arabic Presentation code points lie above U+07FF, it is recommended to use UTF-16 encoding for labels with predominantly Arabic code points.

E.4.2.2   Thai profile

The basis of the profile is language coverage needed for Thailand, therefore Thai and Latin scripts are included. These scripts are LTR and so the base direction flag shall be set to 0 and the bidi flag shall be set to 0.

In general, receivers will need to be able to combine glyphs and will have to be capable of reordering glyphs for proper presentation. Labels which include Thai characters shall have the combining flag set to 1 except in the rare cases when the label does not require glyph combination.

Contextual characters are rare in Thai text, but they do exist; the contextual flag shall be set to 1 only for labels that use contextual characters.

When converting input text to output labels, particular care is needed to deal with input Thai characters to ensure that the combining flag and contextual flag are set correctly.

Since Thai code points lie above U+07FF, it is recommended to use UTF-16 encoding for labels with predominantly Thai code points.

Annex F (normative):
Text Labels - All Europe regional profile

This annex contains presentation on 14-segment starburst displays for each character in the All Europe regional profile which are not in the complete EBU Latin based repertoire (see table C.3).

Table F.1: Display of Greek and Cyrillic characters on 14-segment starburst display

	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-A	-B	-C	-D	-E	-F
038-					0384 ´	0385 ¨	0386 Ά	0387 ·	0388 Έ	0389 Ή	038A Ί		038C Ό		038E Ύ	038F Ώ
039-	0390 ΐ	0391 Α	0392 Β	0393 Γ	0394 Δ	0395 Ε	0396 Ζ	0397 Η	0398 Θ	0399 Ι	039A Κ	039B Λ	039C Μ	039D Ν	039E Ξ	039F Ο
03A-	03A0 Π	03A1 Ρ		03A3 Σ	03A4 Τ	03A5 Υ	03A6 Φ	03A7 Χ	03A8 Ψ	03A9 Ω	03AA Ϊ	03AB Ϋ	03AC ά	03AD έ	03AE ή	03AF ί
03B-	03B0 ΰ	03B1 α	03B2 β	03B3 γ	03B4 δ	03B5 ε	03B6 ζ	03B7 η	03B8 θ	03B9 ι	03BA κ	03BB λ	03BC μ	03BD ν	03BE ξ	03BF ο
03C-	03C0 π	03C1 ρ	03C2 ς	03C3 σ	03C4 τ	03C5 υ	03C6 φ	03C7 χ	03C8 ψ	03C9 ω	03CA ϊ	03CB ϋ	03CC ό	03CD ύ	03CE ώ	
040-	0400 Ѐ	0401 Ё	0402 Ђ	0403 Ѓ	0404 Є	0405 Ѕ	0406 І	0407 Ї	0408 Ј	0409 Љ	040A Њ	040B Ћ	040C Ќ	040D Ѝ	040E Ў	040F Џ
041-	0410 А	0411 Б	0412 В	0413 Г	0414 Д	0415 Е	0416 Ж	0417 З	0418 И	0419 Й	041A К	041B Л	041C М	041D Н	041E О	041F П
042-	0420 Р	0421 С	0422 Т	0423 У	0424 Ф	0425 Х	0426 Ц	0427 Ч	0428 Ш	0429 Щ	042A Ъ	042B Ы	042C Ь	042D Э	042E Ю	042F Я
043-	0430 а	0431 б	0432 в	0433 г	0434 д	0435 е	0436 ж	0437 з	0438 и	0439 й	043A к	043B л	043C м	043D н	043E о	043F п
044-	0440 р	0441 с	0442 т	0443 у	0444 ф	0445 х	0446 ц	0447 ч	0448 ш	0449 щ	044A ъ	044B ы	044C ь	044D э	044E ю	044F я
045-	0450 ѐ	0451 ё	0452 ђ	0453 ѓ	0454 є	0455 ѕ	0456 і	0457 ї	0458 ј	0459 љ	045A њ	045B ћ	045C ќ	045D ѝ	045E ў	045F џ

History

Document history		
V1.1.1	October 2000	Publication
V1.2.1	January 2005	Publication
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