IPA Extensions

Range: 0250-02AF

The Unicode Standard, Version 15.1

This file contains a excerpt from the character code tables and list of character names for *The Unicode Standard, Version 15.1*

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See https://www.unicode.org/charts/ for access to a complete list of the latest character code charts.
See https://www.unicode.org/charts/PDF/Unicode-15.1/ for charts showing only the characters added in Unicode 15.1.
See https://www.unicode.org/Public/15.1.0/charts/ for a complete archived file of character code charts for Unicode 15.1.
See https://www.unicode.org/charts/About.html#Conventions for conventions used in these code charts, and other general information.

Disclaimer

These charts are provided as the online reference to the character contents of the Unicode Standard, Version 15.1 but do not provide all the information needed to fully support individual scripts using the Unicode Standard. For a complete understanding of the use of the characters contained in this file, please consult the appropriate sections of The Unicode Standard, Version 15.1, online at https://www.unicode.org/versions/Unicode15.1.0/, as well as Unicode Standard Annexes #9, #11, #14, #15, #24, #29, #31, #34, #38, #41, #42, #44, #45, and #50, the other Unicode Technical Reports and Standards, and the Unicode Character Database, which are available online.

See https://www.unicode.org/ucd/ and http://www.unicode.org/reports/

A thorough understanding of the information contained in these additional sources is required for a successful implementation.

Copying characters from the character code tables or list of character names is not recommended, because for production reasons the PDF files for the code charts cannot guarantee that the correct character codes will always be copied.

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See https://www.unicode.org/charts/fonts.html for a list.

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See https://www.unicode.org/pending/pending.html and http://www.unicode.org/alloc/Pipeline.html.

See https://www.unicode.org/charts/About.html for more information concerning the conventions and symbols used in these code charts.

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	025	026	027	028	029	02A
0	e	g	Щ	R	Z ₀₂₉₀	q
1	Q	g	m	K	Z	2
2	D	G	<u>n</u>	S 0282	3	£
3	6	Y 0263	n	S 0283	3 0293	dz
4	3	%	N	J 0284	? 0294	d _{02A4}
5	C	U 0265	O	Q	S	d Z 02A5
6	<u>d</u>	f	Œ 0276	S	5	ts
7	d 0257	f	O	1	C	t f
8	9	1 0268	Ф	t 0288	0298	tc
9	ə	1	J 0279	U	B	\inf_{02A9}
Α	∂ ^ 025A	I	J 027A	U	8	ls 02AA
В	E	1	J 027B	U	G	½
С	3	1	1	1	H	W W 02AC
D	3 ∿ _{025D}	1 026D	t	M 028D	j 029D	C CO2AD
Ε	B	1 5	1	ત	X	¥ 02AE
F	J 025F	U 026F	1	Y	L 029F	U _{02AF}

IPA extensions			0259	อ	LATIN SMALL LETTER SCHWA
IPA includes basic Latin letters and a number of Latin or Greek			0200	O	• mid-central unrounded vowel
letters from other blocks.					• uppercase is 018F \Im
	\rightarrow 00E6 α latin small letter ae				• variant uppercase form 018E B is associated
\rightarrow 00E7 $\hat{\mathbf{c}}$ latin small letter $\hat{\mathbf{c}}$ with cedilla					with 01DD \mathfrak{g}
		ð latin small letter eth			→ 01DD ə latin small letter turned e
\rightarrow (0F8	ø latin small letter o with stroke	0054		→ 04D9 ⊋ cyrillic small letter schwa
\rightarrow (127	\hbar latin small letter h with stroke	025A	ď	LATIN SMALL LETTER SCHWA WITH HOOK • rhotacized schwa
\rightarrow ()14B	ŋ latin small letter eng	025B	ε	LATIN SMALL LETTER OPEN E
\rightarrow (153	lpha latin small ligature oe	0230	č	= epsilon
\rightarrow ()3B2	$oldsymbol{eta}$ greek small letter beta			lower-mid front unrounded vowel
		heta greek small letter theta			• uppercase is 0190 E
		λ greek small letter lamda			$ ightarrow$ 03B5 $oldsymbol{\epsilon}$ greek small letter epsilon
		χ greek small letter chi			$ ightarrow$ 0511 ϵ cyrillic small letter reversed ze
		e IPA characters in this block are also used in	025C	3	LATIN SMALL LETTER REVERSED OPEN E
		orthographies, such as those for African			= reversed epsilon
langu					 lower-mid central unrounded vowel uppercase is A7AB 3
0250	B	LATIN SMALL LETTER TURNED A			→ 0437 3 cyrillic small letter ze
		 low central unrounded vowel uppercase is 2C6F V 			→ 1D08 3 latin small letter turned open e
0251	α	LATIN SMALL LETTER ALPHA	025D	3∿	LATIN SMALL LETTER REVERSED OPEN E WITH
0201	u	= latin small letter script a (1.0)			HOOK
		• low back unrounded vowel			 rhotacized lower-mid central vowel
		• the representative glyph appears like an	025E	в	LATIN SMALL LETTER CLOSED REVERSED
		allograph of Latin "a", but sometimes the			OPEN E = closed reversed epsilon
		character is rendered more like a Greek " α "			lower-mid central rounded vowel
		 uppercase is 2C6D Ω → 03B1 α greek small letter alpha 			→ 029A 9 latin small letter closed open e
0252	p	LATIN SMALL LETTER TURNED ALPHA	025F	Ŧ	LATIN SMALL LETTER DOTLESS J WITH STROKE
V-V-	~	• low back rounded vowel		Ü	• voiced palatal stop
		• uppercase is 2C70 D			• typographically a turned f, but better thought
		$ ightarrow$ AB64 σ latin small letter inverted alpha			of as a form of j
0253	6	LATIN SMALL LETTER B WITH HOOK			 "gy" in Hungarian orthography also archaic phonetic for palatoalveolar affricate
		• implosive bilabial stop			02A4 cts
		• uppercase is 0181 B → 0431 6 cyrillic small letter be	0260	g	LATIN SMALL LETTER G WITH HOOK
0254	э	LATIN SMALL LETTER OPEN O		J	• implosive velar stop
0204	3	• typographically a turned c			$ullet$ uppercase is 0193 ${f G}$
		• lower-mid back rounded vowel	0261	g	LATIN SMALL LETTER SCRIPT G
		• in older Danish usage "a:" stands for "that is"			• voiced velar stop
		• uppercase is 0186 3			 uppercase is A7AC Q → 0067 g latin small letter q
		→ 1D10 ⊃ latin letter small capital open o			\rightarrow 0007 g ratiff small etter g \rightarrow 210A g script small g
0055		→ 2184 o latin small letter reversed c	0262	G	LATIN LETTER SMALL CAPITAL G
0255	Ç	LATIN SMALL LETTER C WITH CURL	0_0_	•	• voiced uvular stop
		voiceless alveolo-palatal laminal fricativeused in transcription of Mandarin Chinese	0263	Y	LATIN SMALL LETTER GAMMA
		• sound spelled with 015B $\dot{\mathbf{s}}$ in Polish			 voiced velar fricative
0256	d	LATIN SMALL LETTER D WITH TAIL			ullet uppercase is 0194 V
	٠.	= d retroflex hook			$ ightarrow$ 03B3 γ greek small letter gamma
		 voiced retroflex stop 	0264	γ	LATIN SMALL LETTER RAMS HORN
		• uppercase is 0189 Đ			= latin small letter baby gamma (1.0)• upper-mid back unrounded vowel
0257	ď	LATIN SMALL LETTER D WITH HOOK	0265	Ч	LATIN SMALL LETTER TURNED H
		• implosive dental or alveolar stop	0200	٦	voiced rounded palatal approximant
		 Ewe, Pan-Nigerian alphabet uppercase is 018A D 			• uppercase is A78D H
0258	е	LATIN SMALL LETTER REVERSED E	0266	ĥ	LATIN SMALL LETTER H WITH HOOK
	-	upper-mid central unrounded vowel			breathy-voiced glottal fricative
		•			• uppercase is A7AA H
					 uppercase in Nawdm is 0124 H → 02B1 fi modifier letter small h with hook
					→ UZDT " ITTOUITIELTER SMAIL IT WITH HOOK

0267	Ŋ	LATIN SMALL LETTER HENG WITH HOOK	0273	η	LATIN SMALL LETTER N WITH RETROFLEX
		 voiceless coarticulated velar and palatoalveolar 			HOOK
		fricative			 voiced retroflex nasal
		• "sj" in some Swedish dialects	0274	N	LATIN LETTER SMALL CAPITAL N
		$ ightarrow$ A727 ${\mathfrak h}$ latin small letter heng			 voiced uvular nasal
0268	i	LATIN SMALL LETTER I WITH STROKE	0275	Θ	LATIN SMALL LETTER BARRED O
		= barred i, i bar			= o bar
		 high central unrounded vowel 			 rounded mid-central vowel, i.e. rounded schwa
		• uppercase is 0197 I			ullet uppercase is 019F $ullet$
		ullet ISO 6438 gives lowercase of 0197 $f H$ as 026A $f I$,			ightarrow 03B8 $ heta$ greek small letter theta
		not 0268 i			\rightarrow 0473 Θ cyrillic small letter fita
		\rightarrow 1D7B $_{ m I\!\!I}$ latin small capital letter i with stroke			\rightarrow 04E9 Θ cyrillic small letter barred o
0269	ι	LATIN SMALL LETTER IOTA	0276	Œ	LATIN LETTER SMALL CAPITAL OE
		 semi-high front unrounded vowel 			 low front rounded vowel
		 obsoleted by IPA in 1989 			ightarrow 0153 $lpha$ latin small ligature oe
		• preferred use is 026A I latin letter small capital i	0277	ω	LATIN SMALL LETTER CLOSED OMEGA
		$ullet$ uppercase is 0196 $oldsymbol{l}$			 near-close near-back rounded vowel
		→ 0131 1 latin small letter dotless i			 obsoleted by IPA in 1989
		$ ightarrow$ 03B9 ι greek small letter iota			$ullet$ preferred use is 028A $oldsymbol{\sigma}$ latin small letter upsilon
		$ ightarrow$ A647 ι cyrillic small letter iota			ightarrow A7B7 $ m arpi$ latin small letter omega
		$ ightarrow$ 1D6A4 ι mathematical italic small dotless i			$ ightarrow$ AB65 $ m \Omega$ greek letter small capital omega
026A	I	LATIN LETTER SMALL CAPITAL I	0278	ф	LATIN SMALL LETTER PHI
		 semi-high front unrounded vowel 			 voiceless bilabial fricative
		• preferred IPA alternate for 0269 ι			• this is a non-casing letter
		$ullet$ uppercase is A7AE ${f T}$			$ ightarrow$ 03C6 ϕ greek small letter phi
		\bullet ISO 6438 gives this as lowercase of 0197 ${ m I}$			$ ightarrow$ 03D5 ϕ greek phi symbol
		instead of 0268 i			$ ightarrow$ 2C77 σ latin small letter tailless phi
		• glyph should have top and bottom serifs even	0279	Ţ	LATIN SMALL LETTER TURNED R
		in sans serif IPA font designs, to avoid confusion with lowercase I			 voiced alveolar approximant
		→ 0131 1 latin small letter dotless i			\rightarrow 02B4 $^{\text{I}}$ modifier letter small turned r
026B	ł	LATIN SMALL LETTER L WITH MIDDLE TILDE	027A	Ţ	LATIN SMALL LETTER TURNED R WITH LONG
0200	1	• velarized voiced alveolar lateral approximant			LEG
		• uppercase is 2C62 Ł			• voiced lateral flap
		\rightarrow 0142 $\frac{1}{4}$ latin small letter I with stroke	027B	ŀ	LATIN SMALL LETTER TURNED R WITH HOOK
		→ AB37 ½ latin small letter I with inverted lazy s			• voiced retroflex approximant
		→ AB38 ‡ latin small letter I with double middle			→ 02B5 ^I modifier letter small turned r with
		tilde	0270		hook
026C	ł	LATIN SMALL LETTER L WITH BELT	027C	r	LATIN SMALL LETTER R WITH LONG LEG
		 voiceless alveolar lateral fricative 			• voiced strident apico-alveolar trill
		$ullet$ uppercase is A7AD ${f L}$			• obsoleted by IPA in 1989
		→ 019A 1 latin small letter I with bar			• this sound is spelled with 0159 ř in Czech
026D	1	LATIN SMALL LETTER L WITH RETROFLEX			• preferred phonetic representation for Czech is 0072 ${f r}$ 031D ${f \circ}$
		HOOK			• in current use in Gaelic types (as glyph variant
		 voiced retroflex lateral 			of 0072 r)
		\rightarrow A78E \P latin small letter I with retroflex hook			\rightarrow A783 η latin small letter insular r
		and belt			\rightarrow A785 \mathbf{r} latin small letter insular s
026E	ß	LATIN SMALL LETTER LEZH	027D	r	LATIN SMALL LETTER R WITH TAIL
		 voiced lateral fricative 	02.5	L	• voiced retroflex flap
		• "dhl" in Zulu orthography			• uppercase is 2C64 R
026F	ш	LATIN SMALL LETTER TURNED M			\rightarrow 2C79 1 latin small letter turned r with tail
		• high back unrounded vowel	027E	ſ	LATIN SMALL LETTER R WITH FISHHOOK
		• uppercase is 019C W			• voiced alveolar flap or tap
		$ ightarrow$ A7FA $ m extbf{ iny III}$ latin letter small capital turned m			\rightarrow 017F f latin small letter long s
0270	щ	LATIN SMALL LETTER TURNED M WITH LONG	027F	า	LATIN SMALL LETTER REVERSED R WITH
		LEG		1	FISHHOOK
0074		• voiced velar approximant			= long leg turned iota (a misnomer)
0271	ŋ	LATIN SMALL LETTER M WITH HOOK			• apical dental vowel
		• voiced labiodental nasal			• used by linguists working on Chinese and other
		• uppercase is 2C6E M			Sino-Tibetan languages
0272	n	→ 1D86 mg latin small letter m with palatal hook LATIN SMALL LETTER N WITH LEFT HOOK			• IPA spelling - 007A z 0329 o
UZIZ	ŋ				• preferred presentation is with a descender
		• voiced palatal nasal			

 \bullet uppercase is 019D N

0280	R	LATIN LETTER SMALL CAPITAL R • voiced uvular trill	028C	Λ	LATIN SMALL LETTER TURNED V = caret, wedge
0281	R	 Germanic, Old Norse uppercase is 01A6 R LATIN LETTER SMALL CAPITAL INVERTED R 			 lower-mid back unrounded vowel uppercase is 0245 Λ → 039B Λ greek capital letter lamda
		 voiced uvular fricative or approximant → 02B6 ^B modifier letter small capital inverted r 	0000		→ 1D27 A greek letter small capital lamda → 2227 A logical and
0282	8	LATIN SMALL LETTER S WITH HOOK • voiceless retroflex fricative • upperson is AZCE S	028D	M	• voiceless rounded labiovelar approximant → AB69 * modifier letter small turned w
0283	ſ	• uppercase is A7C5 \$ LATIN SMALL LETTER ESH	028E	λ	LATIN SMALL LETTER TURNED Y
		• voiceless postalveolar fricative • uppercase is 01A9 Σ	028F	Y	voiced lateral approximant LATIN LETTER SMALL CAPITAL Y
		\rightarrow 222B \int integral	0201	•	• semi-high front rounded vowel
		$ ightarrow$ AB4D $\overset{\checkmark}{\mathbf{J}}$ latin small letter baseline esh	0290	Z,	LATIN SMALL LETTER Z WITH RETROFLEX
0284	Ţ	LATIN SMALL LETTER DOTLESS J WITH STROKE			voiced retroflex fricative
		• implosive palatal stop	0291	Z	LATIN SMALL LETTER Z WITH CURL
		• typographically based on 025F \mathfrak{z} , not on		_	• voiced alveolo-palatal laminal fricative
		0283∫			$ullet$ sound spelled with 017A $\dot{\mathbf{z}}$ in Polish
0285	ſ	LATIN SMALL LETTER SQUAT REVERSED ESH	0292	3	LATIN SMALL LETTER EZH = dram sign
		apical retroflex vowelused by linguists working on Chinese and other			• voiced postalveolar fricative
		Sino-Tibetan languages			• mistakenly named yogh in Unicode 1.0
		• IPA spelling - 0290 z 0329			• uppercase is 01B7 3
		 in origin 027F η plus the retroflex hook 0322 q, despite its name 			• Skolt Sami → 021D 3 latin small letter yogh
		• preferred presentation is with a descender			→ 04E1 3 cyrillic small letter abkhasian dze
0286	Ţ	LATIN SMALL LETTER ESH WITH CURL			\rightarrow 2125 $\frac{3}{3}$ ounce sign
		 palatalized voiceless postalveolar fricative suggested spelling - 0283 ∫ 02B2 ^j 			→ 1F772 3 alchemical symbol for half dram
0287	1	LATIN SMALL LETTER TURNED T	0293	3	→ 2CF01 ′3 LATIN SMALL LETTER EZH WITH CURL
		dental click (sound of "tsk tsk")	0200	⊲!	• palatalized voiced postalveolar fricative
		• uppercase is A7B1 L	0294	3	LATIN LETTER GLOTTAL STOP
0288	t	→ 01C0 l latin letter dental click LATIN SMALL LETTER T WITH RETROFLEX			• this is a caseless letter
0200	ι	HOOK			 used in IPA, other phonetic notations, and those orthographies which use a caseless
		• voiceless retroflex stop			glottal stop
		 uppercase is 01AE T → 01AD f latin small letter t with hook 			→ 0241 ? latin capital letter glottal stop → 02C0 [?] modifier letter glottal stop
		\rightarrow 1DF09 f latin small letter t with hook and	0295	ç	LATIN LETTER PHARYNGEAL VOICED FRICATIVE
		retroflex hook	0200	•	= reversed glottal stop
0289	u	LATIN SMALL LETTER U BAR			• voiced pharyngeal fricative
		 high central rounded vowel uppercase is 0244 U 			• ain → 01B9 ₹ latin small letter ezh reversed
		→ 1D7E ₩ latin small capital letter u with stroke			→ 02C1 ° modifier letter reversed glottal stop
028A	Ω	LATIN SMALL LETTER UPSILON	0296	3	LATIN LETTER INVERTED GLOTTAL STOP
		near-close near-back rounded voweltypographically, a turned Greek small capital			lateral click 10161 latin latter lateral click
		omega AB65 Ω	0297	С	→ 01C1 latin letter lateral click LATIN LETTER STRETCHED C
		$ullet$ preferred IPA alternate to 0277 ω	0_0.	C	• palatal (or alveolar) click
		• uppercase is 01B1 U			→ 01C3 ! latin letter retroflex click
028B	υ	→ 03C5 v greek small letter upsilon LATIN SMALL LETTER V WITH HOOK	0298	0	→ 2201 C complement LATIN LETTER BILABIAL CLICK
OZOB	U	= latin small letter script v (1.0)	0290	O	= bullseye
		 voiced labiodental approximant 			• this is a non-casing letter
		• uppercase is 01B2 U			→ 2299 ⊙ circled dot operator
		$ ightarrow$ 03C5 υ greek small letter upsilon	0299	В	→ A668 O cyrillic capital letter monocular o LATIN LETTER SMALL CAPITAL B
			0200	D	• bilabial trill
					$ ightarrow$ 0432 $_{ m B}$ cyrillic small letter ve

02AF

પ

LATIN SMALL LETTER TURNED H WITH

FISHHOOK AND TAIL

029A В LATIN SMALL LETTER CLOSED OPEN E = closed epsilon lower-mid front rounded vowel \bullet non-IPA alternate for the preferred 0153 α \rightarrow 025E α latin small letter closed reversed open e 029B LATIN LETTER SMALL CAPITAL G WITH HOOK voiced uvular implosive 029C LATIN LETTER SMALL CAPITAL H voiceless epiglottal fricative → 043D H cyrillic small letter en \rightarrow 1D34 ^H modifier letter capital h \rightarrow A7F8 $^{\rm H}$ modifier letter capital h with stroke LATIN SMALL LETTER J WITH CROSSED-TAIL 029D • voiced palatal fricative • uppercase is A7B2 **J** 029E ⋊ LATIN SMALL LETTER TURNED K proposed for velar click • uppercase is A7B0 X • withdrawn by IPA in 1970 → 1DF10 x latin letter small capital turned k 029F LATIN LETTER SMALL CAPITAL L velar lateral approximant 02A0 LATIN SMALL LETTER Q WITH HOOK voiceless uvular implosive 02A1 3 LATIN LETTER GLOTTAL STOP WITH STROKE voiced epiglottal stop 02A2 ç LATIN LETTER REVERSED GLOTTAL STOP WITH **STROKE** voiced epiglottal fricative 02A3 dz LATIN SMALL LETTER DZ DIGRAPH • voiced dental affricate → AB66 dz latin small letter dz digraph with retroflex hook **齿 LATIN SMALL LETTER DEZH DIGRAPH** 02A4 voiced postalveolar affricate dz LATIN SMALL LETTER DZ DIGRAPH WITH CURL 02A5 • voiced alveolo-palatal affricate 02A6 LATIN SMALL LETTER TS DIGRAPH ts • voiceless dental affricate → 01BE \$ latin letter inverted glottal stop with stroke → AB67 ts latin small letter ts digraph with retroflex hook 02A7 LATIN SMALL LETTER TESH DIGRAPH • voiceless postalveolar affricate → A729 t3 latin small letter tz 02A8 tc LATIN SMALL LETTER TC DIGRAPH WITH CURL • voiceless alveolo-palatal affricate IPA characters for disordered speech 02A9 fn LATIN SMALL LETTER FENG DIGRAPH velopharyngeal fricative 02AA LATIN SMALL LETTER LS DIGRAPH • lateral alveolar fricative (lisp) 02AB **LATIN SMALL LETTER LZ DIGRAPH** • voiced lateral alveolar fricative LATIN LETTER BILABIAL PERCUSSIVE • audible lip smack 02AD = LATIN LETTER BIDENTAL PERCUSSIVE

Additions for Sinology

02AE $\,\eta\,$ LATIN SMALL LETTER TURNED H WITH FISHHOOK

• audible teeth gnashing