

Long vowels		Short vowels		Consonants	
SAMPA	IPA	SAMPA	IPA	SAMPA	IPA
a:	aː	æ	æ	b	b
e:	eː	E	ɛ	d	d
i:	iː	I	ɪ	g	g
o:	oː	O	ɔ	l	l
u:	uː	U	ʊ	x	x
E:	ɛː	Y	ɤ	r	ʒ, ʁ
2:	øː	9	œ	m	m
y:	yː	@	ə	n	n
		6	ɐ	s	s

Vowel Formants

	ee	i	e	ae	ah	aw	u	oo	A	er
	First Formant Frequency									
Male:	270	390	530	660	730	570	440	300	640	490
Female:	310	430	610	860	850	590	470	370	760	500
	Second Formant Frequency									
Male:	2290	1990	1840	1720	1090	840	1020	870	1190	1350
Female:	2790	2480	2330	2050	1220	920	1160	950	1400	1640
	Third Formant Frequency									
Male:	3010	2550	2480	2410	2440	2410	2240	2240	2390	1690
Female:	3310	3070	2990	2850	2810	2710	2610	2670	2780	1960

Average formant frequency values of 10 English pure vowels as pronounced by a number of different speakers.