



# PRODUCT SELECTION GUIDE

OCTOBER 2013 **DISTRIBUTOR VERSION**

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Low power CODECs with integrated video buffer

Part number	Typical Application	Description	DACs / ADCs	Headphone driver	BTL speaker output	DAC SNR/THD+N (dB)	ADC SNR/THD+N (dB)	Clocking	DSP functions	Video buffer	Analogue supply (V)	Digital supply (V)	Package
<b>WM8941</b>	Smartphones, Mobile Phones and Headsets, Gaming, Digital Cameras, Home Entertainment, Media Players	Mono CODEC with speaker driver and video buffer	1/1	Yes, 40mW into 16 ohms	Yes, 400mW, mono	98 / -80	91 / -83	External MCLK, PLL	HPF, Notch Filters, ALC	Yes	2.5 to 3.6	1.7 to 3.6	QFN-28 CSP-28
<b>WM8980</b>	Smartphones, Mobile Phones and Headsets, Gaming, Digital Cameras, Home Entertainment, Media Players	Stereo CODEC	2/2	Yes, 40mW into 16 ohms	Yes, 1.0W 8Ω BTL	98 / -84	95 / -80	External MCLK, PLL	EQ, 3D, DSP filters, HPF	Yes	2.5 to 5.5	1.7 to 3.6	QFN-40
<b>WM8944</b>	Smartphones, Mobile Phones and Headsets, Gaming, Digital Cameras, Home Entertainment, Media Players	Mono CODEC with video buffer	1/1	Yes	Yes, 400mW, mono	98 / -80	94 / -83	External MCLK, FLL	ReTune™, EQ, DSP filters	Yes	2.4 to 3.6	1.7 to 3.6	W-CSP-36
<b>WM8945</b>	Smartphones, Mobile Phones and Headsets, Gaming, Digital Cameras, Home Entertainment, Media Players	Mono CODEC with video buffer and touchpanel controller	1/1	Yes	Yes, 400mW, mono	98 / -80	94 / -83	External MCLK, FLL	ReTune™, EQ, DSP filters	Yes	2.4 to 3.6	1.7 to 3.6	W-CSP-36
<b>WM8946</b>	Smartphones, Mobile Phones and Headsets, Gaming, Digital Cameras, Home Entertainment, Media Players	Stereo CODEC with video buffer	2/2	Yes	Yes, 400mW, mono	98 / -80	94 / -83	External MCLK, FLL	ReTune™, EQ, DSP filters, 3D	Yes	2.4 to 3.6	1.7 to 3.6	W-CSP-36
<b>WM8948</b>	Smartphones, Mobile Phones and Headsets, Gaming, Digital Cameras, Home Entertainment, Media Players	Stereo CODEC with video buffer and touchpanel controller	2/2	Yes	Yes, 400mW, mono	98 / -80	94 / -83	External MCLK, FLL	ReTune™, EQ, DSP filters, 3D	Yes	2.4 to 3.6	1.7 to 3.6	W-CSP-36

Mono CODECs

Part number	Typical Application	Description	Channels	DAC SNR/THD+N (dB)	ADC SNR/THD+N (dB)	Sample rate max (kHz)	Data formats	Control (SW/HW)	Clocking	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8510</b>	Smartphones, Mobile Phones and Headsets, Gaming, Home Entertainment	CODEC with speaker driver	1 in 1 out	93 / -84	90 / -80	48	I2S, RJ, LJ, DSP	2/3-wire SW	External MCLK, PLL	ALC, DSP filters	2.5 to 5.5	1.7 to 3.6	SSOP-28

### Mono low power CODECs

Part number	Typical Application	Description	DACs / ADCs	Headphone driver	BTL speaker output	DAC SNR/THD+N (dB)	ADC SNR/THD+N (dB)	Clocking	Advanced DSP features	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8940</b>	Gaming, Digital Cameras, Home Entertainment	Mono CODEC with Speaker Driver	1/1	Yes, 40mW into 16 ohms	Yes, 0.4W 8Ω BTL	98 / -84	94 / -80	External MCLK, PLL	4 notch filters, HPF	ALC	2.5 to 3.6	1.7 to 3.6	QFN-24
<b>WM8974</b>	Smartphones, Mobile Phones and Headsets, Gaming, Digital Cameras, Home Entertainment	Mono CODEC with speaker driver	1/1	No	Yes, 0.9W 8Ω BTL	98 / -84	94 / -83	External MCLK, PLL	EQ, DSP filters, HPF, Notch Filters	ALC	2.5 to 5.5	1.7 to 3.6	QFN-24

### Multi-Channel CODECs

Part number	Typical Application	Description	Channels	DAC SNR/THD+N (dB)	ADC SNR/THD+N (dB)	Sample rate max (kHz)	Data formats	Control (SW/HW)	Clocking	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8580</b>	Smartphones, Mobile Phones and Headsets, Tablets, PC and Laptops, Televisions	Multi channel CODEC with S/PDIF transceiver	2 in 6 out	103 / -90	100 / -87	192	I2S, RJ, LJ, DSP	2/3-wire SW, HW	External MCLKs, PLLs	Two independent audio interfaces	2.7 to 5.5	2.7 to 3.6	TQFP-48
<b>WM8581</b>	Smartphones, Mobile Phones and Headsets, Tablets, PC and Laptops, Televisions	Multi channel CODEC with S/PDIF transceiver	2 in 8 out	103 / -90	100 / -90	192	I2S, RJ, LJ, DSP	2/3-wire SW, HW	External MCLKs, PLLs	Two independent audio interfaces	2.7 to 5.5	2.7 to 3.6	TQFP-48
<b>WM8594</b>	Smartphones, Mobile Phones and Headsets, Tablets, PC and Laptops, Televisions	CODEC with multi-channel analogue and digital routing	10 in 6 out	100 / -87	96 / -80	192	I2S, RJ, LJ, DSP	2/3-wire SW	External MCLKs	2Vrms line drivers, headphone driver	8.1 to 9.9	2.7 to 3.6	TQFP-48
<b>WM8595</b>	Televisions, Home Entertainment	CODEC with multi-channel analogue and digital routing	12 in 4 out	100 / -87	96 / -80	192	I2S, RJ, LJ, DSP	2/3-wire SW	External MCLKs	Integrated 2Vrms line drivers, digital multiplexer	8.1 to 9.9	2.7 to 3.6	QFN-48
<b>WM8770</b>	Smartphones, Mobile Phones and Headsets, Tablets, PC and Laptops, Televisions	CODEC	16 in 8 out	106 / -96	102 / -94	192	I2S, RJ, LJ, DSP	3-wire SW	External MCLKs	Analogue and digital volume control	2.7 to 5.5	2.7 to 3.6	TQFP-64

### HDA CODECS

Part number	Typical Application	Description	Channels	DAC SNR/THD+N (dB)	ADC SNR/THD+N (dB)	Sample rate max (kHz)	Data formats	Control (SW/HW)	Clocking	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8850</b>	PC and Laptops	Multi Channel HDA CODEC with S/PDIF Transceiver	4 in 6 out	108/-96	105/-95	192	HDA	HDA SW	HDA	S/PDIF transceiver	4.5 to 5.5	1.62 to 3.63	QFN-48
<b>WM8860</b>	PC and Laptops	Multi Channel HDA CODEC with S/PDIF Transmitter	4 in 4 out	108/-96	105/-95	192	HDA	HDA SW	HDA	S/PDIF transmitter	4.5 to 5.5	1.62 to 3.63	QFN-48

### Stereo CODECs

Part number	Typical Application	Description	Channels	DAC SNR/THD+N (dB)	ADC SNR/THD+N (dB)	Sample rate max (kHz)	Data formats	Control (SW/HW)	Clocking	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8569</b>	Home Entertainment	Stereo CODEC with volume control	2 in 2 out	103 / -95	100 / -80	192	I2S, RJ, LJ, DSP	3-wire SW	External MCLKs	ALC volume control	2.7 to 5.5	2.7 to 3.6	SSOP-28
<b>WM8776</b>	Home Entertainment	CODEC with 5 input selector	10 in 2 out	108 / -97	102 / -95	192	I2S, RJ, LJ, DSP	2/3-wire SW	External MCLKs	H/P amplifier ALC	2.7 to 5.5	2.7 to 3.6	TQFP-48
<b>WM8778</b>	Home Entertainment	CODEC	2 in 2 out	108 / -97	102 / -95	192	I2S, RJ, LJ, DSP	2/3-wire SW	External MCLKs	ALC volume control	2.7 to 5.5	2.7 to 3.6	SSOP-28
<b>WM9707</b>	Home Entertainment	CODEC	2 in 2 out	95 / -90	90 / -85	48k	AC97	AC97	-	ALC volume control	2.7 to 5.5	2.7 to 3.6	TQFP-48

### Stereo low power CODECs

Part number	Typical Application	Description	DACs / ADCs	Headphone driver	BTL speaker output	DAC SNR/THD+N (dB)	ADC SNR/THD+N (dB)	Clocking	Advanced DSP features	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8904</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	Ultra low power CODEC with headphone driver	2/2	Yes, Class W	No	96 / -86	92 / -80	External MCLK, FLL	High pass filters, EQ	Digital microphone interface	1.7 to 2.0	0.95 to 3.6	QFN-32 WLCSP-36
<b>WM8731</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	CODEC with headphone driver	2/2	Yes, Class AB	No	100 / -86	90 / -84	External MCLK, OSC	High pass filters	MIC input	1.8 to 3.6	1.4 to 3.6	SSOP-28 QFN-28

<b>WM8734</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	CODEC	2/2	Yes, Class AB	No	100 / -86	90 / -84	External MCLK, OSC	High pass filters	MIC input	1.8 to 3.6	1.4 to 3.6	SSOP-28
<b>WM8750</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	CODEC with speaker driver	2/2	Yes, 40mW into 16 ohms	Yes, 400mW	98 / -84	95 / -82	External MCLK	EQ, 3D	MIC interface ALC	1.8 to 3.6	1.4 to 3.6	QFN-32
<b>WM8903</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	Ultra low power CODEC for portable audio applications	2/2	Yes, Class W	No, 2x differential line out	96 / -86	93 / -80	External MCLK	Dynamic range control, digital sidetone	Digital microphone interface	1.7 to 2.0	1.1 to 1.9	QFN-40
<b>WM8960</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	CODEC with Class D speaker driver	2/2	Yes, 40mW into 16 ohms	Up to 1.4W per channel	98 / -84	95 / -82	External MCLK, PLL	3D	MIC interface ALC	2.5 to 3.6	1.7 to 3.6	QFN-32
<b>WM8962</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players, Digital Cameras	CODEC with Class D Speaker Driver	2/2	Yes, Class W 22mW into 16 ohms	Yes, 1W 8Ω BTL Class D	98/-79	94/-86	Two integrated PLLs	VSS, HDBASS, ReTune™, 3D, EQ, DRC	Programmable ALC and Noise Gate	1.7 - 2V	1.6 to 2.0	CSP-49
<b>WM8973</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	CODEC with speaker driver	2/2	Yes, 40mW into 16 ohms	Yes, 400mW	98 / -84	95 / -82	External MCLK	EQ, 3D	MIC interface ALC	1.8 to 3.6	1.4 to 3.6	QFN-32
<b>WM8976</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	CODEC with speaker driver	2/1	Yes, 40mW into 16 ohms	Yes, 1W 8Ω BTL	98 / -84	95 / -84	External MCLK, PLL	EQ, 3D, DSP filters	MIC interface ALC	2.5 to 5.5	1.7 to 3.6	QFN-32
<b>WM8978</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	CODEC with speaker driver	2/2	Yes, 40mW into 16 ohms	Yes, 1W 8Ω BTL	98 / -84	95 / -84	External MCLK, PLL	EQ, 3D, DSP filters	MIC interface ALC	2.5 to 5.5	1.7 to 3.6	QFN-32
<b>WM8983</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	CODEC with 1W Speaker driver	2/2	Yes, 40mW into 16 ohms	Yes, 1W 8Ω BTL	98 / -84	95 / -84	External MCLK, PLL	EQ, 3D, DSP filters	MIC interface ALC	2.5 to 5.5	1.7 to 3.6	QFN-32
<b>WM8985</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	CODEC with Class D headphone driver	2/2	Yes, Class D 40mW into 16 ohms	No	98 / -86	92.5 / -75	External MCLK, PLL	EQ, 3D, DSP filters	MIC interface ALC	2.5 to 3.6	1.7 to 3.6	QFN-32

<b>WM8987</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	CODEC with BTL headset driver	2/2	Yes, 40mW into 16 ohms	No	98 / -80	90 / -80	External MCLK	EQ, 3D	MIC interface ALC	1.8 to 3.6	1.4 to 3.6	COL-28
<b>WM8988</b>	Smartphones, Mobile Phones and Headsets, Gaming, PC and Laptops, Media Players	Stereo CODEC	1/1	Yes, 40mW into 16 ohms	No	100 / -90	93 / -81	External MCLK	EQ, 3D	MIC interface	1.8 to 3.6	1.42 to 3.6	4x4mm COL

#### Stereo low power CODECs with touchscreen controller

Part number	Typical Application	Description	DACs / ADCs	Headphone driver	BTL speaker output	Control + data interface	Touch panel digitiser	Clocking	DSP functions	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM9705</b>	Smartphones, Mobile Phones and Headsets, Media Players	CODEC with touchpanel controller	2/2	Yes	No	AC'97	4-wire or 5-wire control	External MCLK, OSC	3D	AUX ADC, battery monitor	3.0 to 5.0	3.0 to 5.0	QFN-48 TQFP-48
<b>WM9712</b>	Smartphones, Mobile Phones and Headsets, Media Players	CODEC with touchpanel controller	3/3	Yes, 45mW into 16 ohms	Yes, 400mW	AC'97	4-wire or 5-wire control	External MCLK, OSC	3D	AUX ADC, battery monitor	1.8 to 3.6	1.5 to 3.6	QFN-48
<b>WM9713</b>	Smartphones, Mobile Phones and Headsets, Media Players	Voice and audio CODEC with touchpanel controller	4/3	Yes, 45mW into 16 ohms	Yes, 400mW	AC'97 PCM, I2S	4-wire or 5-wire control	External MCLK, PLL	3D	AUX ADC, battery monitor	1.8 to 3.6	1.8 to 3.6	QFN-48
<b>WM9715</b>	Smartphones, Mobile Phones and Headsets, Media Players	CODEC with touchpanel controller	3/3	Yes, 45mW into 16 ohms	Yes, 400mW	AC'97	4-wire or 5-wire control	External, MCLK, OSC	3D	AUX, ADC, battery monitor	1.8 to 3.6	1.5 to 3.6	QFN-48

#### Mono low power ADCs

Part number	Typical Application	Description	ADCs	Input PGA	Master / slave	ADC SNR/THD+N (dB)	Clocking	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8950</b>	Gaming, Media Players	Mono ADC with microphone input	1	Yes	Yes / Yes	94 / -83	External MCLK, PLL	EQ, HPF, DSP filters	2.7 to 3.6	1.7 to 3.6	QFN-24
<b>WM8952</b>	Gaming, Media Players	Mono ADC with microphone input	1	Yes	Yes / Yes	94 / -80	External MCLK, PLL	HPF, DSP Filters, Notch Filters	2.5 to 3.6	1.7 to 3.6	QFN-24 CSP-28

### Multi-channel ADCs

Part number	Typical Application	Description	Channels	Sample rate max (kHz)	Data formats	Control (SW/HW)	Clocking	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8775</b>	Gaming, Home Entertainment, Televisions	Stereo ADC with 4 input selector	8	96	I2S, RJ, LJ, DSP	2/3-wire SW	External MCLK	ALC 2.0 Vrms inputs	2.7 to 5.5	2.7 to 3.6	SSOP-28

### Stereo ADCs

Part number	Typical Application	Description	Channels	SNR / THD+N (dB)	Sample rate max (kHz)	Data formats	Control (SW/HW)	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8738</b>	Gaming, Home Entertainment, Televisions	Stereo ADC	2	90 / -87	96	I2S, LJ	HW	Slave	3.0 to 5.5	3.0 to 3.6	SOIC-14
<b>WM8781</b>	Gaming, Home Entertainment, Televisions	Stereo ADC	2	102 / -90	192	I2S,RJ,LJ	HW	Master/slave	2.7 to 5.5	2.7 to 3.6	SSOP-20
<b>WM8782</b>	Gaming, Home Entertainment, Televisions	Stereo ADC	2	102 / -90	192	I2S, RJ, LJ	HW	Master/slave	2.7 to 5.5	2.7 to 3.6	SSOP-20
<b>WM8783</b>	Gaming, Home Entertainment, Televisions	Stereo ADC	2	96 / -83	96	I2S	HW	Slave	3.0 to 3.6	3.0 to 3.6	SOIC-8
<b>WM8786</b>	Gaming, Home Entertainment, Televisions	Stereo ADC	2	111 / -102	192	I2S, RJ, LJ, DSP	HW	Master/slave	4.5 to 5.5	2.7 to 3.6	SSOP-20

### Stereo low power ADCs

Part number	Typical Application	Description	ADCs	Input PGA	Master / slave	ADC SNR/THD+N (dB)	Clocking	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8737</b>	Gaming, Home Entertainment, Televisions	Stereo ADC with microphone preamp	2	Yes	Yes / Yes	97 / -86	External MCLK	ALC	1.8 to 3.6	1.4 to 3.6	QFN-32



<b>WM8953</b>	Gaming, Home Entertainment, Televisions	Stereo ADC with PLL and TDM Interface	2	Yes	Yes / Yes	94 / -82	External MCLK, PLL	Boost Stages for each PGA, TDM Interface	2.7 to 3.6	1.7 to 3.6	CSP-42
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### Multi channel DACs

Part number	Typical Application	Description	Channels	SNR / THD+N (dB)	Output level (Vrms)	Sample rate max (kHz)	Data formats	Control (SW/HW)	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8766</b>	Gaming, Home Entertainment, Televisions	6-channel DAC with volume control	6	103 / -90	1	192	I2S, RJ, LJ, DSP	HW, 3-wire SW	Digital volume control	2.7 to 5.5	2.7 to 3.6	SSOP-28
<b>WM8768</b>	Gaming, Home Entertainment, Televisions	8-channel DAC with volume control	8	103 / -90	1	192	I2S, RJ, LJ, DSP	HW, 3-wire SW	Digital volume control	2.7 to 5.5	2.7 to 3.6	SSOP-28

### Stereo DACs

Part number	Typical Application	Description	Channels	SNR / THD+N (dB)	Output level (Vrms)	Sample rate max (kHz)	Data formats	Control (SW/HW)	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8501</b>	Gaming , Home Entertainment	Stereo DAC with 1.7rms line driver	2	100 / -88	1.7	192	I2S,RJ, DSP	HW	-	4.5 to 5.5	2.7 to 5.5	SOIC-14
<b>WM8521</b>	Gaming , Home Entertainment	Stereo DAC with 2Vrms line driver	2	98 / -81	2	192	I2S, RJ, DSP	HW	-	"8.2 to 13.2	2.7 to 3.6	SOIC-14
<b>WM8523</b>	Gaming , Home Entertainment	Stereo charge pump DAC with ground ref 2Vrms line driver	2	106 / -93	2.1	192	LR, RJ, I2S, DSP	SW 2-wire, HW, 2/3-wire SW	Digital volume control, integrated charge pump	3.0 to 3.6	3.0 to 3.6	TSSOP-20
<b>WM8524</b>	Gaming , Home Entertainment	Stereo charge pump DAC with ground ref 2Vrms line driver	2	106 / -93	2.1	192	LJ, RJ, I2S	HW	Integrated charge pump	3.0 to 3.6	3.0 to 3.6	TSSOP-16
<b>WM8533</b>	Gaming, Home Entertainment, Televisions	Stereo charge pump DAC with ground Ref 2.1Vrms line driver	2	106 / -89	2.1	192	LJ, RJ, I2S, DSP	HW, 2 and 3-wire SW	-	2.97-3.63 (Typ 3.3)	1.62-3.63 (Typ 1.8)	W-CSP-20

<b>WM8716</b>	Gaming , Home Entertainment	High performance stereo DAC	2	112 / -97	1.1	192	I2S, RJ, LJ	HW, 3-wire SW	Selectable digital filter response	3.0 to 5.5	3.0 to 5.5	SSOP-28
<b>WM8718</b>	Gaming , Home Entertainment	Differential O/P stereo DAC with volume control	2	111 / -100	2	192	I2S, RJ, LJ, DSP	3-wire SW	Digital volume control	3.0 to 5.5	3.0 to 5.5	"SSOP-20
<b>WM8725</b>	Gaming , Home Entertainment	Low cost stereo DAC	2	99 / -80	1	96	I2S, RJ	HW	-	2.7 to 5.5	2.7 to 5.5	SOIC-14
<b>WM8726</b>	Gaming , Home Entertainment	Low cost stereo DAC	2	99 / -80	1	96	I2S, RJ	HW	-	2.7 to 5.5	2.7 to 5.5	SOIC-14
<b>WM8727</b>	Gaming , Home Entertainment	Low cost stereo DAC	2	98 / -84	1.2	192	I2S	HW	-	2.7 to 5.5	2.7 to 5.5	SOIC-8
<b>WM8728</b>	Gaming , Home Entertainment	Stereo DAC and volume control	2	106 / -97	1.1	192	I2S, RJ, LJ, DSP	HW, 2/3-wire SW	Digital volume control	3.0 to 5.5	3.0 to 5.5	SSOP-20
<b>WM8740</b>	Gaming , Home Entertainment	High performance stereo DAC	2	120 / -104	2	192	I2S, RJ, LJ	HW, 3-wire SW	Selectable digital filter response	3.0 to 5.5	3.0 to 5.5	SSOP-28
<b>WM8741</b>	Gaming , Home Entertainment	High Performance Stereo DAC	2	128 / -100	2	192	I2S, RJ, LJ, DSP, DSD	HW, 2/3-wire SW	Selectable advanced digital filter responses	4.5 to 5.5	3.0 to 3.6	SSOP-28
<b>WM8742</b>	Gaming , Home Entertainment	Stereo DAC with DSD Support	2	126 / -100	2	192	I2S, RJ, LJ, DSP, DSD	HW, 2/3-wire SW	Selectable advanced digital filter responses	4.5 to 5.5	3.0 to 3.6	SSOP-28
<b>WM8762</b>	Gaming , Home Entertainment	Low cost stereo DAC	2	98 / -84	1.2	192	LJ	HW	-	2.7 to 5.5	2.7 to 5.5	SOIC-8

### Stereo low power DACs

Part number	Typical Application	Description	DACs	Headphone driver	Speaker drivers	DAC SNR/THD+N (dB)	Line-in to mixer	Clocking	Other features	Analogue supply (V)	Digital supply (V)	Package
<b>WM8711L</b>	PC and Laptops, Home Entertainment, Media Players	Stereo DAC with headphone driver	2	Yes	No	90 / -86	Yes	External MCLK OSC	Output volume and mute control	1.8 to 3.6	1.4 to 3.6	SSOP-28 QFN-28
<b>WM8711B</b>	PC and Laptops, Home Entertainment, Media Players	Stereo DAC with headphone driver	2	Yes	No	90 / -86	Yes	External, MCLK, OSC	Output volume and mute control	1.8 to 3.6	1.4 to 3.6	QFN-24
<b>WM8955</b>	PC and Laptops, Home Entertainment, Media Players	Stereo DAC with H/P and speaker driver	2	Yes	Yes, 400mW	98 / -86	Yes	External MCLK, PLL	Tone control and bass boost	1.8 to 3.6	1.4 to 3.6	QFN-32 QFN-28
<b>WM8956</b>	PC and Laptops, Home Entertainment, Media Players	Stereo DAC with Class D Speaker Driver	2	Yes	Yes	99 / -87	Yes	External MCLK, PLL	Direct battery connection, 3D	2.7 to 5.5	1.7 to 3.6	QFN-32
<b>WM8912</b>	PC and Laptops, Home Entertainment, Media Players	Ultra low power stereo DAC with headphone driver	2	Yes	No	96 / -86	No	External MCLK, FLL	Control write sequencer, dynamic range controller	1.7 to 2.0	0.95 to 3.6	QFN -32
<b>WM8918</b>	Smartphone and Mobile Phones, PC and Laptops, Digital Cameras	High Performance Ultra low power stereo DAC	2	Yes	No	96 / -86	No	External MCLK, FLL	Control write sequencer, dynamic range controller	2.4	3.8	QFN -32 (4x4mm, 0.4mm pitch)

### Ambient Noise Cancellation (ANC)

Part number	Typical Application	Description	Output Channels	Output Power	SNR / THD+N (dB)	Control (SW/HW)	Supply Modes (V)	Ambient noise reduction (dB)	Noise cancellation bandwidth (Hz)	Input	Mic input	Package
<b>WM2000</b>	Smartphones, Mobile Phones and Headsets, Tablets, PC and Laptops, Media Players	Handset receiver speaker driver with Wolfson ambient noise cancellation	1 x mono differential	80mW, 16Ω BTL	94/-70 (ANC off) 87 /-67 (ANC on)	2-wire SW	Speaker: 2.7 to 3.6 Digital: 1.71 to 1.89	up to 20	300 to 2500	Single-ended/ differential	Differential	W-CSP-25
<b>WM2002</b>	Smartphones, Mobile Phones and Headsets, Tablets, PC and Laptops, Media Players	Low power, stereo headphone driver with Wolfson ambient noise cancellation	Stereo, single ended or differential	45mW per channel into a 16Ω load 22mW per channel into a 32 ohm load	92/-80 (ANC Off) 83/-81 (ANC On)	Standalone with the option of 2-wire SW	1.5V AAA battery using internal boost: 0.9 to 1.6 or 2.5V direct supply: 2.0 to 3.3	up to 30	40 to 4000	Single-ended/ Differential	Single ended / Differential	QFN-48

Power Management

Part number	Typical Application	Description	Switching Frequency	DVS	GPIOs	DC-DC Step-Down	DC-DC Step-Up	LDO	LED Drivers	Battery Charger	Other features	Package
WM8310	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, Televisions, Digital Cameras, Home Entertainment, Media Players	Integrated Power Management Subsystem	Selectable up to 4MHz	Yes	12	3	1	10	2	Yes, 1A	Programmable bootstrap configuration, Aux ADC, low power 32kHz RTC, I2C or SPI interface	BGA-169
WM8321	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, Televisions, Digital Cameras, Home Entertainment, Media Players	Integrated Power Management Subsystem	Selectable up to 4MHz	Yes	12	4	No	11	2	No	Unique BuckWise™ technology, customizable with programmable InstantConfig™EEPROM bootstrap configuration, secure RTC, Aux ADC, low-power 32kHz RTC crystal oscillator, I2C or SPI interface, DVS interface	QFN-81, 8x8 mm
WM8325	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, Televisions, Digital Cameras, Home Entertainment, Media Players	Integrated Power Management Subsystem	Selectable up to 4MHz	Yes	12	4	No	11	2	No	Unique 2.5A BuckWise™ technology, customizable with programmable InstantConfig™ EEPROM bootstrap configuration, secure RTC, Aux ADC, low-power 32kHz RTC crystal oscillator, I2C or SPI interface, DVS interface	QFN-81, 8x8 mm
WM8326	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, Televisions, Digital Cameras, Home Entertainment, Media Players	Integrated Power Management Subsystem	Selectable up to 4MHz	Yes	12	4	No	11	2	No	2 X 2.5A BuckWise™ technology DC-DCs, customizable with programmable InstantConfig™ EEPROM bootstrap configuration, secure RTC, Aux ADC, low-power 32kHz RTC crystal oscillator, I2C or SPI interface, DVS interface	QFN-81, 8x8 mm

### Power Management with Audio

Part number	Typical Application	Description	DACs / ADCs	Headphone driver	BTL speaker output	DC-DC Step-Down	DC-DC Step-Up	LDO	LED Drivers	Battery Charger	Other features	Package
<b>WM8350</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, Televisions, Digital Cameras, Home Entertainment, Media Players	Stereo CODEC with Integrated Power Management	2/2	Yes	None	2 x 500mA 2 x 1A	2 x 20V @ 40mA	4 x 150mA	5	Yes, Li-Ion	RTC, Watchdog Timer, Interrupt Controller, 13 GPIOs	BGA-129
<b>WM8351</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, Televisions, Digital Cameras, Home Entertainment, Media Players	Stereo CODEC with Integrated Power Management	2/2	Yes	None	1 x 1A, 2 x 500mA	1 x 20V @ 40mA	4 x 150mA	4	Yes, Li-Ion	RTC, Watchdog Timer, Interrupt Controller, 13 GPIOs	BGA-129

### S/PDIF Transceivers

Part number	Typical Application	Description	Channels	Clocking	Non-audio Data Detection	Sample rate (kHz)	Period jitter (ps RMS)	IEC - 60958	Control (SW/HW)	Supply	Package
<b>WM8804</b>	Gaming , Home Entertainment, Televisions	S/PDIF Digital Interface Transceiver	1 in 1 out	Crystal OSC, PLL	Yes	32, 44.1 to 48, 88.2 to 96, 192	50	Yes	2/3-wire SW or HW	2.7 to 3.6	SSOP-20
<b>WM8805</b>	Gaming , Home Entertainment, Televisions	S/PDIF Digital Interface Transceiver	8 in 1 out	Crystal OSC, PLL	Yes	32, 44.1 to 48, 88.2 to 96, 192	50	Yes	2/3-wire SW or HW	2.7 to 3.6	SSOP-28

### Audio Amplifiers

Part number	Typical Application	Description	Output Channels	Output Power	SNR / THD+N (dB)	Control (SW/HW)	Supply Modes	Input	Package
<b>WM9081</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, PC and Laptops, Televisions, Digital Cameras, Home Entertainment, Media Players	Mono DAC with Integrated 2.6W Class AB/D Amplifier	1 x mono differential, 1 x line out	2.6W into 4Ω BTL	92 / 72	2,3,4 wire and hardware only	Analogue: 2.7 to 3.6 Speaker: 2.7 to 5.5 Digital 1.7 to 3.6	I2S inputs, analogue inputs	COL-28
<b>WM9082</b>	Smartphones, Mobile Phones and Headsets, PC and Laptops, Televisions, Media Players	PDM Input Mono 3W Class D Speaker Driver	Speaker Driver Mono Class D	3W into 3Ω 2.5W into 4Ω 625mW into 8Ω	100 / -70	Hardware	Speaker 3.2 - 5.5 Digital 1.35 - 2.0		CSP-9 ball
<b>WM9010</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, PC and Laptops, Televisions, Digital Cameras, Home Entertainment, Media Players	Low power Class G stereo headphone driver	Single -ended stereo outputs	28mW into 32Ω	104 / -88	Hardware	Analogue: 2.7 to 3.6 Speaker: 2.7 to 5.5 Digital 1.7 to 3.6	analogue inputs	CSP-12

<b>WM9094</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, Media players. Digital Cameras	Ultra low power audio subsystem including class A/B headphone driver and Class D speaker driver.	Headphone Driver Single -ended stereo output Speaker Driver Mono Class D	Headphone Output 34mW into 16Ω headphone load Speaker Output Up to 2W	Headphone Driver 96 /- 80 Speaker Driver	I <sup>2</sup> C 2-wire software control interface	Speaker: 2.7 to 5.5 Digital 1.8 to 2.7	Single ended/ differential	20 bump CSP package
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Imaging ADCs											
Part number	Typical Application	Description	Resolution (bits)	Speed (MSPS)	Input PGA	Offset (bits)	Output format	Control interface	Supply	Power (mW)	Package
<b>WM8152</b>	Printers and Scanners	Single channel CCD/CIS ADC	16	12	8	8	CMOS: 4x4	Serial	4.8 to 5.2	225	SSOP-20
<b>WM8196</b>	Printers and Scanners	3-channel CCD/ CIS ADC	16	12	8	8	CMOS: 8+8, 4x4	Serial	4.8 to 5.2	300	SSOP-28
<b>WM8199</b>	Printers and Scanners	3-channel high speed CCD/CIS ADC	16	20	8	8	CMOS: 8+8, 4x4	Serial	4.8 to 5.2	360	SSOP-28
<b>WM8213</b>	Printers and Scanners	3-channel CCD/ CIS ADC	16	24	9	8	CMOS: 8+8, 4x4	Serial	3.0 to 3.6	350	SSOP-28
<b>WM8214</b>	Printers and Scanners	3-channel high speed CCD/CIS ADC	16	40	9	8	CMOS: 8+8, 4x4	Serial	3.0 to 3.6	390	SSOP-28
<b>WM8215</b>	Printers and Scanners	3-channel high speed CCD/CIS ADC	10	60	9	8	CMOS: 10-bit	Serial	3.0 to 3.6	360	QFN-32
<b>WM8224</b>	Printers and Scanners	3-Channel High Speed CCD/CIS ADC - Multiple Device Operation and automatic black level cal	10 & 16	40 & 60	9	8	CMOS 10 (10 bit), 8+8 (16 bit)	Serial	3.0 to 3.6	360	QFN-32
<b>WM8232</b>	Printers and Scanners	3-channel high speed CCD/CIS ADC	16	70	12-bit	8	LVDS 10-bit 5 pair LVDS 16-bit 5 pair CMOS 10-bit	Serial	3.3V	-	56-lead QFN package 8mm x 8mm
<b>WM8233</b>	Printers and Scanners	6-channel high speed CCD/CIS ADC	16	70	12-bit	8	LVDS 10-bit 5 pair LVDS 16-bit 5 pair CMOS 10-bit	Serial	3.3V	-	56-lead QFN package 8mm x 8mm
<b>WM8234</b>	Printers and Scanners	6-channel high speed CCD/CIS ADC	16	70	12-bit	8	LVDS 10-bit 5 pair LVDS 16-bit 5 pair CMOS 10-bit	Serial	3.3V	-	56-lead QFN package 7mm x 7mm
<b>WM8235</b>	Printers and Scanners	9-channel high speed CCD/CIS ADC	16	70	12-bit	8	LVDS 10-bit 5 pair LVDS 16-bit 5 pair CMOS 10-bit	Serial	3.3V	-	56-lead QFN package 7mm x 7mm
<b>WM8253</b>	Digital Cameras, Printers and Scanners	Single Channel CCD/CIS ADC	16	6	8	8	CMOS: 4x4	Serial	3.0 to 3.6	132	SSOP-20
<b>WM8255</b>	Digital Cameras, Printers and Scanners	Single Channel CCD/CIS ADC	16	12	8	8	CMOS: 4x4, 2x8	Serial	3.3 to 5.75	250	QFN-28

<b>WM8259</b>	Printers and Scanners	Single Channel CCD/CIS ADC	16	3	8	8	CMOS: 4x4	Serial	2.97 to 3.63	132	SSOP-20
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### MEMS Microphones - Analogue Silicon Microphone

Part number	Typical Application	Description	SNR (dB)	THD @104dB SPL (%)	Sensitivity (dBV/Pa)	Sensitivity Tolerance (dB)	Supply (V)	Supply current (uA)	Package
<b>WM7121</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming , PCs and Laptops, Televisions, Digital Cameras	Top Port Analogue Silicon Microphone	65	0.25	-38	±3	1.5 to 3.7	200	3.76 x 2.95 x 1.10mm
<b>WM7130A</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming , PCs and Laptops, Televisions, Digital Cameras, Media Players	Bottom Port Analogue Silicon Microphone	61	0.25	-38	±3	1.5 to 3.7	140	3.76 x 3.00 x 1.10mm
<b>WM7130AE</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming , PCs and Laptops, Televisions, Digital Cameras, Media Players	Bottom Port Analogue Silicon Microphone	61	0.25	-38	±1	1.5 to 3.7	140	3.76 x 3.00 x 1.10mm
<b>WM7132</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming , PCs and Laptops, Televisions, Digital Cameras	Bottom Port Analogue Silicon Microphone	65	0.25	-38	±3	1.5 to 3.7	200	3.76 x 2.95 x 1.10mm
<b>WM7133L</b>	Smartphones, Mobile phones and Headsets, Tablet Computers, Handheld and Console Gaming Products, PCs and Notebooks, Televisions, Digital Camera (still and video), Portable Media Players	Bottom Port Analogue Silicon Microphone	65	0.25	-38	±3	1.5 to 3.7	200	3.35 x 2.50 x 0.98mm

### MEMS Microphones - Digital Silicon Microphones

Part number	Typical Application	Description	SNR (dB)	THD @100dB SPL (%)	Sensitivity (dBFS/Pa)	Sensitivity Tolerance (dB)	Supply (V)	Supply current (uA)	Package
<b>WM7210</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming , PCs and Laptops, Televisions, Digital Cameras, Media Players	Top Port Digital Silicon Microphone	58	0.1	-26	±3	1.64 to 3.7	650	4.0 x 3.0 x 1.0 mm
<b>WM7210E</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming , PCs and Laptops, Televisions, Digital Cameras, Media Players	Top Port Digital Silicon Microphone	58	0.1	-26	±1	1.64 to 3.7	650	4.0 x 3.0 x 1.0 mm
<b>WM7220</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming , PCs and Laptops, Televisions, Digital Cameras, Media Players	Top Port Digital Silicon Microphone	58	0.1	-26	±3	1.64 to 3.7	650	4.72 x 3.76 x 1.22 mm

<b>WM7220E</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming , PCs and Laptops, Televisions, Digital Cameras, Media Players	Bottom Port Digital Silicon Microphone	61	0.1	-26	±3	1.64 to 3.7	650	4.0 x 3.0 x 1.0 mm
<b>WM7230</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming , PCs and Laptops, Televisions, Digital Cameras, Media Players	Bottom Port Digital Silicon Microphone	61	0.1	-26	±3	1.64 to 3.7	650	4.0 x 3.0 x 1.0 mm
<b>WM7230E</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming , PCs and Laptops, Televisions, Digital Cameras, Media Players	Bottom Port Digital Silicon Microphone	61	0.1	-26	±1	1.64 to 3.7	700	4.0 x 3.0 x 1.0 mm

Audio Hubs													
Part number	Typical Application	Description	DACs / ADCs	Headphone driver	BTL speaker output	DAC SNR/THD (dB)	ADC SNR/THD (dB)	Clocking	Advanced DSP features	Other Features	Analogue Supply (V)	Digital Supply (V)	Package
<b>WM1811</b>	Smartphones, Mobile Phones and Headsets, Tablets, Media Players	Stereo CODEC with 3 digital audio interfaced	2/2	Yes	Yes, up to 2W stereo	100 / -83	94 / -84	External MCLK, dual FLL	ReTune™ parametric equalizer, dynamic range controller, digital noise gate	Asynchronous sample rate conversion, integrated LDOs, 2x digital mic interface	1.71 to 5.5	1.0 to 3.6	W-CSP-80
<b>WM8753</b>	Smartphones, Mobile Phones and Headsets, Gaming , Digital Cameras, Home Entertainment	Voice and audio CODEC	3/2	Yes	Yes, 500mW	98 / -84	95 / -82	PCM, I²S	External MCLK, PLLs	Differential MIC inputs	1.8 to 3.6	1.4 to 3.6	QFN-48 7x7mm BGA-55 5x5mm
<b>WM8958</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, Media Players	Multi-channel CODEC with 3 digital audio interfaces and speaker-enhancement DSP	4/2	Yes	Yes, up to 2W stereo	100 / -83	94 / -84	External MCLK dual FLL	MBC, parametric equalizer, dynamic range controller, powerful mixer	Asynchronous sample rate conversion, integrated LDOs, 4x digital mic interface	1.71 to 5.5	1.0 to 3.6	W-CSP-72
<b>WM8993</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, Media Players	CODEC with stereo speaker drivers and Class W headphone driver	2/2	Yes	Yes, 1W per channel x2 or 2W per channel x1	100 / -86	94 / -87	External MCLK, FLL	ReTune™ parametric equalizer, dynamic range controller	Active noise reduction, fully differential low noise paths	2.2 to 3.3	1.1 to 2.0	W-CSP-48
<b>WM8994</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, Media Players	Multi-channel CODEC with 3 digital audio interfaces	4/2	Yes	Yes, up to 2W stereo	100 / -83	94 / -84	External MCLK dual FLL	Parametric equalizer, dynamic range controller, powerful mixing	Asynchronous sample rate conversion, integrated LDOs	1.7 to 5.5	1.0 to 3.6	W-CSP-72
<b>WM8996</b>	Smartphones, Mobile Phones and Headsets, Tablets, Gaming, Media Players	Multi-channel CODEC with 2 digital audio interfaces	4/2	Yes	Stereo PDM speaker amplifier interface	99 / -81	94 / -81	External MCLK, FLL	ReTune™ parametric equalizer, dynamic range controller	ISRC, 4x digital microphone interface, 2x PDM speaker amplifier interface	1.71 to 3.6	0.95 to 2.0	W-CSP-54



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