

THE BEST AUDIO SOLUTIONS

Touch People's Hearts!

Cmedia is Your Truthful Partner!

Founded in 1991, Cmedia is the global leading IC/software solution provider. C-Media's goal has remained consistent over the years: to create and sustain mutually beneficial relationships with customers by providing innovative solutions that address their needs.

Cmedia's Solutions:

- USB2.0 Full-Speed Audio Chips(UAC1.0)
- USB2.0 High-Speed Audio Chips (UAC2.0)
- Consumer Audio/Voice DSP Processors
- PCI/PCI Express Sound Chips
- Xear[™] Sound Processing Algorithms/Technologies
- Software Audio Drivers and Applications

Applications:

- PC/GameConsole USB Gaming Headset/Box
- USB MS Lync/UC VOIP Headset
- USB Gaming/Pro Microphone/Guitar Cable
- Notebook/Tablet/iDevice/Android Docking Stations
- Wi-Fi Audio/Speakers/Boom box
- Speakerphone/Smart TV/IP Camera/Home Appliances (with AEC/LDR)
- Mobile Phone/DECT Phone (with ENC/etc.)
- USB Multimedia/Hi-Fi Speakers
- USB Audio Box/Hi-Fi DAC/Amplifier
 PCI/PCI Express Sound Card

USB Headset Solutions

	Fea	ature	HS-100B	CM108B	CM118B	CM119BN	CM6206/LX
	USB2.	0 Compliant	Full Speed				
	Codec	S	•	•	•	•	•
	HID B	uttons	•	•	•	•	•
		Channel	2	2	2	2	8/6
	DAC	SNR	≥93dB	≥93dB	≥93dB	≥93dB	≥95dB
	DAC	THD+N@1KHz	≤-70dB ≤0.0316%	≤-70dB ≤0.0316%	≤-70dB ≤0.0316%	≤-70dB ≤0.0316%	≤-85dB ≤0.0056%
		Channel	1	1	2	1	2
	400	SNR	≥90dB	≥90dB	≥90dB	≥90dB	≥95dB
	ADC THD+N@1KHz		≤-84dB ≤0.006%	≤-84dB ≤0.006%	≤-84dB ≤0.006%	≤-84dB ≤0.006%	≤-82dB ≤0.008%
	I2S/HI	DA Interface		•/	•/		
	SPDIF	In/Out		/●	/●	/●	•/•
	Sampl @bit c	ing Rate depth	44.1/48K@16bits	44.1/48K@16bits	44.1/48K@16bits	44.1/48K@16bits	44.1/48K@16bits
Hardware	Firmw	are Customization	EEPROM 93C46	EEPROM 93C46	EEPROM 93C46	EEPROM 93C46	EEPROM 93C46
	SPI/I2	C Interface	•/	•/	•/•	•/•	•/
	GPIO I	PINs		3	3	8	1
	Mic Pr	eamp	•	•	•	•	
	Headp	ohone Amp(32Ω)	•	•	•	•	•
		Consumption /Suspend	37.25mA/ 1.58mA	37.25mA/ 1.58mA	37.25mA/ 1.58mA	37.25mA/ 1.58mA	155mA/ 250uA
	MCU	·					
	Micros Compa	soft® Lync atible					
		ge Type de Pin Dimension)	LQFP-48(9x9mm)	LQFP-48(9x9mm)	LQFP-48(9x9mm)	QFN-48(5x5mm)	LQFP-48(9x9mm)
	Audio/	/Voice Processing					
	Mic AC	GC					
	Mic Cli	ipping LED					
	Line Ir	nput					•
	Xear™	' Features		•			•
Software	Dolby	® Options					• (CM6208/6209)
	DTS® Connect						• (CM6208/6209)

	Featu	re	CM6210	CM6533(N)	CM6533DH	CM6533X1	CM6536N
	USB2.0 C	Compliant	High Speed (Audio Class 1.0)	Full Speed	Full Speed	Full Speed	Full Speed
	Codecs			•	•	•	•
	HID Butto	ons	•	•	•	•	•
		Channel	3	2	2	2	2
	DAC	SNR	≥101dB(CM710x)	≥92dB	≥92dB	≥92dB	≥100dB
		THD+N@1KHz	≤-93dB ≤0.0022%(CM710x)	≤-87dB ≤0.0045%	≤-87dB ≤0.0045%	≤-87dB ≤0.0045%	≤-86dB ≤0.005%
		Channel	2	2	2	2	2
	ADC	SNR	≥102dB(CM7100)	≥87dB	≥87dB	≥87dB	≥94dB
	ADC	TUD - N@1KU-	≤-95dB	≤-83dB	≤-83dB	≤-83dB	≤-83dB
		THD+N@1KHz	≤0.0018%(CM710x)	≤0.0079%	≤0.0079%	≤0.0079%	≤0.007%
	I2S/HDA	Interface	●/● (8CH I2S Out, 2CH I2S In)				•/
	SPDIF In,	/Out	/●	/●	/●	/●	
	Sampling	Pate	44.1/48K	8/11.025/16/22.05/3	8/11.025/16/22.05/3	8/11.025/16/22.05/3	8/11.025/16/22.05/3
				2/44.1/48/88.2/	2/44.1/48/88.2/	2/44.1/48/88.2/	2/44.1/48/88.2/
	@bit depth		@10bits	96K@24bits	96K@24bits	96K@24bits	96K@24bits
Hardware	Firmware	: Customization	Parallel Flash	Embedded Flash 32K Byte	Embedded Flash 32K Byte	Embedded Flash 32K Byte	Embedded Flash 512K Byte
	SPI/I2C I	nterface	/●	●/●	●/●	•/•	•/•
	GPIO PIN	ls	7	12 (3 PWM LED Control)	12 (3 PWM LED Control)	12 (3 PWM LED Control)	16 (3 PWM LED Control)
	Mic Prear	np					•
	Headpho	ne Amp(32Ω)		•	•	•	•
	Power Co Active/Su	onsumption Ispend	79.42mA/ 1.91mA	73mA/ 2mA	73mA/ 2mA	73mA/ 2mA	30mA/ 2mA
	MCU		•	•	•	•	•
	Microsoft Compatib	·		•			
	Package ¹		LQFP-80	CM6533 LQFP-48(9x9mm) CM6533N	LQFP-48	LQFP-48(9x9mm)	AQFN-104
	(Include	Pin Dimension)	(12x12mm)	QFN-48(7x7mm)	(9x9mm)		(5.5x7mm)
	Audio/Voice Processing Mic AGC			5-band Parametric EQ	5-band Parametric EQ	5-band Parametric EQ	5-band Parametric EQ
				•	•	•	•
	Mic Clippi	ing LED		•	•	•	
	Line Inpu	it					•
	Xear™ Fe	eatures			•	•	
Software	Dolby® (Options			•		
	DTS® Co	onnect					

	Feat	ure	CM6571	CM6610A	CM6640	CM6642	CM6645X1
	USB2.	0 Compliant	Full Speed	High Speed	High Speed (Audio Class 1.0/2.0)	High Speed (Audio Class 1.0/2.0)	High Speed (Audio Class 1.0/2.0)
	Codec	S	•		•	•	•
	HID B	uttons	•	•	•	•	•
		Channel	2	2	2	2	2
	DAC	SNR	≥94dB	≥100dB (CM9822A)	≥100dB	≥100dB	≥100dB
	DAC	THD+N@1KHz	≤-82dB	≤-93dB	≤-85dB	≤-85dB	≤-85dB
		I UD+N@IKUZ	≤0.0079%	≤0.0022%	≤0.005%	≤0.005%	≤0.005%
		Channel	2	2	3	3	3
	ADC	SNR	≥91dB	≥90dB(CM9822A)	≥94dB	≥94dB	≥94dB
	ADC	THD+N@1KHz	≤-82dB	≤-84dB	≤-84dB	≤-84dB	≤-84dB
		THD+N@IKHZ	≤0.0079%	≤0.0063%	≤0.006%	≤0.006%	≤0.006%
	I2S/HI	OA Interface	●/	/●			●/
	SPDIF	In/Out	/●	•/•		/●	/●
	Sampli	ing Rate	8/11.025/16/22.05/3 2/44.1/48/88.2/	44.1/48/96/	44.1/48/88.2/96/	44.1/48/88.2/96/	44.1/48/88.2/96/
	@bit d	epth	96K@24bits	192K@24bits	192K@24bits	192K@24bits	192K@24bits
	Firmwa Custor	are nization	EEPROM 24C02	Parallel Flash	Embedded OTP 16K Byte	Embedded OTP 16K Byte	Embedded OTP 16K Byte
Hardware	SPI/I2	C Interface	/●	/•(Slave)	/●	•/•	•/•
	GPIO I	PINs	15	6	2 (1 PWM LED Control)	12 (1 PWM LED Control)	12 (1 PWM LED Control)
	Mic Pr	eamp			•	•	•
	Headp	hone Amp(32Ω)	•		•	•	•
		Consumption /Suspend	76mA/ 1.65mA	69.52mA/ 0.449mA	33mA/ 0.45uA	33mA/ 0.45uA	33mA/ 0.45uA
	MCU		•		•	•	•
	Micros Lync C	oft® Compatible	•				
	Packag (Includ	ge Type de Pin	VQFP-88	LQFP-64	WLCSP-30	QFN-48	QFN-48
	Dimen		(10x10mm)	(12x12mm)	(2.3x3.5mm)	(5x6.5mm)	(5x6.5mm)
	Audio/ Proces	sina	Xear™ Surround HP Xear™ Sound Expander Xear™ Sonic ENC, AEC, LDR, Array MIC				
	Mic AG	GC	•				
	Mic Cli	pping LED	•				
	Line Ir	nput	•	•	• (share with ANC Mic in)	• (share with ANC Mic in)	• (share with ANC Mic in)
	Xear™	Features		•			•
Software		® Options					
		Connect					
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USB Sound Station Solutions

	Feat	ure	CM118B	CM6206/LX	CM6531N	CM6533(N)	CM6535	CM6571
	USB2.) Compliant	Full Speed	Full Speed	Full Speed	Full Speed	Full Speed	Full Speed
	Codec	5	•	•		•	•	•
	HID B	uttons	•	•	•	•	•	•
		Channel	2	8/6	2	2	2	2
	DAC	SNR	≥93dB	≥95dB	≥100dB (CM9600)	≥92dB	≥92dB	≥94dB
	DAC	THD+N@1KHz	≤-70dB ≤0.0316%	≤-85dB ≤0.0056%	≤-86dB ≤0.005%(CM960 0)	≤-87dB ≤0.0045%	≤-87dB ≤0.0045%	≤-82dB ≤0.0079%
		Channel	2	2	2	2	2	2
	ADC	SNR	≥90dB	≥88dB	≥94dB (CM9600)	≥87dB	≥87dB	≥91dB
	ADC	THD+N@1KHz	≤-84dB ≤0.006%	≤-82dB ≤0.008%	≤-83dB ≤0.007% (CM9600)	≤-83dB ≤0.0079%	≤-83dB ≤0.0079%	≤-82dB ≤0.0079%
	I2S/HI	DA Interface	•/		•/		•/	•/
	SPDIF	In/Out	/●	•/•	•/•	/●	•/•	/●
Hardware	Sampli @bit d	ing Rate epth	44.1/48K@16bits	44.1/48K @16bbits	8/11.025/16/22.0 5/32/44.1/48/ 88.2/96K @24bits	8/11.025/16/22.0 5/32/44.1/48/ 88.2/96K @24bits	8/11.025/16/22.0 5/32/44.1/48/ 88.2/96K @24bits	8/11.025/16/22.0 5/32/44.1/48/ 88.2/96K@24bits
	MCU				•	•	•	•
	Firmw	are	EEPROM	EEPROM	Embedded Flash	Embedded Flash	Embedded Flash	EEPROM
	Custor	nization	93C46	93C46	512K Byte	32K Byte	512K Byte	24C02
	SPI/I2	C Interface	•/•	•/	•/•	•/•	•/•	/●
	GPIO I	PINs	3	1	12 (3 PWM LED Control)	12 (3 PWM LED Control)	12 (3 PWM LED Control)	15
	Mic Pr	eamp	•					
	Headp	hone Amp(32Ω)	•	•		•	•	•
		Consumption	37.25mA/	155mA/250uA	30mA/	73mA/	73mA/	76mA/
		'Suspend	1.58mA	120mA/250uA	2mA	2mA CM6533	2mA	1.65mA
	(Includ	ge Type de mension)	LQFP-48 (9x9mm)	LQFP-48 (9x9mm)	QFN-48 (7x7mm)	LQFP-48(9x9mm) CM6533N QFN-48(7x7mm)	LQFP-64 (9x9mm)	VQFP-88 (10x10mm)
	Line Ir	nput		•	●(CM9600)		•	•
	Apple	MFi			•			
	Xear™	Features		•				•
Software	Dolby(® Options		•(CM6208/6209)				
	DTS®	Connect		•(CM6208/6209)				

USB Sound Station Solutions

	Fe	ature	CM6610A	CM6620A	CM6631A	CM6632A	CM6642	CM6645
	USB2.	0 Compliant	High Speed	High Speed	High Speed	High Speed	High Speed (Audio Class 1.0/2.0)	High Speed (Audio Class 1.0/2.0)
	Codecs						•	•
	HID Buttons		•	•	•	•	•	•
		Channel	2	8	2	8+2	2	2
		SNR	≥100dB	≥106dB	≥120dB	≥120dB	≥100dB	≥100dB
	DAC	Sitio	(CM9822A)	(CM9882A)	External DAC	External DAC	_10005	_10005
		THD+N@1KHz	≤-93dB	≤-87dB	≤-105dB	≤-105dB	≤-85dB	≤-85dB
		1110111@11112	≤0.0022%	≤0.0045%	≤0.0005%	≤0.0005%	≤0.005%	≤0.005%
		Channel	2	2	2	2+2	3	3
		SNR	≥90dB	≥101dB	≥118dB	≥118dB	≥94dB	≥94dB
	ADC	July	(CM9822A)	(CM9882A)	External ADC	External ADC	<u> </u>	_5 lub
		THD+N@1KHz	≤-84dB	≤-96dB	≤-105dB	≤-105dB	≤-84dB	≤-84dB
		THETNWIKIZ	≤0.0063%	≤0.0016%	≤0.0005%	≤0.0005%	≤0.006%	≤0.006%
	DSD b	it stream output				•		
	I2S/HI	DA Interface	/●	/●	•/•	•/•		•/
	SPDIF	In/Out	•/•	•/•	•/•	•/•	/●	/●
Hard ware	Sampli @bit d	ing Rate lepth	44.1/48/96/192K @24bits	44.1/48/96/192K @24bits	44.1/48/88.2/96/ 176.4/192/352.8/ 384K@32bits	44.1/48/88.2/96/ 176.4/192/352.8/ 384K@32bits,DSD	44.1/48/88.2/96/ 192K@24bits	44.1/48/88.2/96/ 192K@24bits
	MCU		•	•	•	•	•	•
	Firmw	are	Parallel	Parallel	Parallel	Parallel	Embedded OTP	Embedded OTP
	Custor	mization	Flash	Flash	Flash	Flash	16K Byte	16K Byte
	SPI/I2	C Interface	/•(Slave)	/•(Slave)	/●(Master, Slave)	/●(Master, Slave)	•/•	•/•
	GPIO I	PINs	6	6	9	9	12 (1 PWM LED Control)	12 (1 PWM LED Control)
	Mic Pr	eamp					•	•
	Headp	hone Amp(32Ω)					•	•
	Power	Consumption	69.52mA/	70.08mA/	79.8mA/	86.7mA/	33mA/	33mA/
	Active,	/Suspend	0.449mA	0.452mA	1.91mA	1.91mA	0.45uA	0.45uA
		ge Type	LQFP-64	LQFP-64	LQFP-100	LQFP-100	QFN-48	QFN-48
	(Includ Dimen		(12x12mm)	(12x12mm)	(16x16mm)	(16x16mm)	(5x6.5mm)	(5x6.5mm)
	IR Remote Control							
	IR Rer	note Control						
	IR Rer Line Ir		•	•			•	(share with
		nput	•	•		 (external power)	•	(share with
	Line Ir Apple	nput	 •	•	 	 (external power)	• • 	(share with ANC Mic in)
Soft	Line Ir Apple Xear™	nput MFi				external power)	 	(share with ANC Mic in)
Soft	Line Ir Apple Xear™ Dolby(mput MFi Features		• 	 		 	(share with ANC Mic in)
	Line Ir Apple Xear™ Dolby(DTS®	MFi Features Options	• •	• •	 			(share with ANC Mic in)

USB Microphone Solutions

	Feature		CM118B	CM6317A	CM6327A	CM6400
	USB2.0 C	Compliant	Full Speed	Full Speed	Full Speed	Full Speed
	Codecs		•	•	•	•
	HID Butt	ons	•	•	•	•
		Channel	2			2
	DAC	SNR	≥93dB			≥96dB
	DAC	THD+N@1KHz	≤-70dB ≤0.0316%			≤-86dB/ ≤0.005% (@1K Hz)
		Channel	2	2	1	2
	ADC	SNR	≥90dB	≥95dB	≥95dB	≥96dB
	ADC	THD+N@1KHz	≤-84dB ≤0.006%	-92dB 0.0025%	-92dB 0.0025%	-85dB/ 0.005%(@1K Hz)
	I2S/HDA Interface		•/			
Hardware	Sampling @bit dep		44.1/48K @16bits	8/11.025/16/ 22.05/32/44.1/48K @16bits	8/11.025/16/ 22.05/32/44.1/48K @16bits	8/11.025/16/ 22.05/32/44.1/48K @16bit
	Embedde	ed MCU				
	Firmware	e Customization	EEPROM 93C46	EEPROM 24C02	EEPROM 24C02	EEPROM 24C02
	SPI/I2C	Interface	•/•	/●	/●	/●
	GPIO PIN	V s	3	8	8	8
	Power Co Active/ Suspend	onsumption	37.25mA/ 1.58mA	33mA/ 410uA	33mA/ 410uA	68mA/ 800uA
	Package (Include	Type Pin Dimension)	LQFP-48(9x9mm)	LQFP-48(9x9mm)	LQFP-48(9x9mm)	LQFP-48
	Apple MF	i				
Software	ASIO 2.2	Driver				
Hardware Technology	Xear™ V	oClear BF				

USB Microphone Solutions

	Fe	ature	CM6531N	CM6533(N)	CM6535	CM6536N
	USB2.	0 Compliant	Full Speed	Full Speed	Full Speed	Full Speed
	Codec	S		•		•
	HID Buttons		•	•	•	•
		Channel	2	2	2	2
	DAC	SNR	≥100dB (CM9600)	≥92dB	≥100dB (CM9600)	≥100dB
		THD+N@1KHz	≤-86dB ≤0.005%(CM9600)	≤-87dB ≤0.0045%	≤-86dB ≤0.005%(CM9600)	≤-86dB ≤0.005%
		Channel	2	2	2	2
	ADC	SNR	≥94dB (CM9600)	≥87dB	≥94dB (CM9600)	≥94dB
		THD+N@1KHz	≤-83dB ≤0.007%(CM9600)	≤-83dB ≤0.0079%	≤-83dB ≤0.007%(CM9600)	≤-83dB ≤0.007%
	I2S/H	DA Interface	•/		•/	•/
Hardware	Sampl @bit o	ing Rate depth	8/11.025/16/22.05/32/4 4.1/48/88.2/96K @24bits	8/11.025/16/22.05/32/4 4.1/48/88.2/96K @24bits	8/11.025/16/22.05/32/4 4.1/48/88.2/96K @24bits	8/11.025/16/22.05/32/4 4.1/48/88.2/96K @24bits
	Embe	dded MCU	•	•	•	•
	Firmw	are Customization	Embedded Flash 512K Byte	Embedded Flash 32K Byte	Embedded Flash 512K Byte	Embedded Flash 512K Byte
	SPI/I2	C Interface	•/•	•/•	•/•	•/•
	GPIO	PINs	12	12	12 (3 PWM LED Control)	16 (3 PWM LED Control)
	Power Active Suspe		30mA/ 2mA	73mA/ 2mA	73mA/ 2mA	30mA/ 2mA
		ge Type de Pin Dimension)	QFN-48(7x7mm)	CM6533 LQFP-48(9x9mm) CM6533N QFN-48(7x7mm)	LQFP-64(9x9mm)	AQFN-104(5.5x7mm)
	Apple	MFi	•			
Software	ASIO	2.2 Driver				
Hardware Technology	Xear™	¹ VoClear BF				

USB Microphone Solutions

	Feat	ture	CM6571	CM6610A	CM6631A	CM6642
	USB2.0) Compliant	Full Speed	High Speed	High Speed	High Speed (Audio Class 1.0/2.0)
	Codecs		•			•
	HID B	uttons	•	•	•	•
		Channel	2	2	2	2
	DAC	SNR	94dB	≥106dB (CM9882A)	≥120dB External DAC	≥100dB
		THD+N@1KHz	≤-82dB ≤0.0079%	≤-87dB ≤0.0045%(CM9882A)	≤-105dB ≤0.0005%	≤-85dB ≤0.005%
		Channel	2	2	2	3
	ADC	SNR	≥91dB	≥101dB (CM9882A)	≥118dB External ADC	≥94dB
		THD+N@1KHz	≤-82dB ≤0.0079%	≤-86dB ≤0.0005%(CM9882A)	≤-105dB ≤0.0005%	≤-84dB ≤0.006%
	I2S/HI	DA Interface	•/	/•	•/•	
Hardware	Sampli @bit d	ing Rate epth	8/11.025/16/22.05/32/4 4.1/48/88.2/96K @24bits	44.1/48/96/192K @24bits	44.1/48/88.2/96/ 176.4/192/352.8/ 384K@32bits	44.1/48/88.2/96/192K @24bits
	Embed	lded MCU	•	•	•	•
	Firmwa	are Customization	EEPROM 24C02	Parallel Flash	Parallel Flash	Embedded OTP 16K Byte
	SPI/I2	C Interface	/●	/●	•/•	•/•
	GPIO I	PINs	15	6	9	12 (1 PWM LED Control)
	Power Active, Susper		76mA/ 1.65mA	69.52mA/ 0.449mA	79.8mA/ 1.91mA	33mA/ 0.45uA
	1	ge Type de Pin Dimension)	VQFP-88(10x10mm)	LQFP-64(12x12mm)	LQFP-100(16x16mm)	QFN-48(5x6.5mm)
	Apple	MFi			• (external power)	
Software	ASIO 2	2.2 Driver		•	•	
Hardware Technology	Xear™	VoClear BF	•			

USB Speaker Solutions

	Featur	е	CM102A+/S+	CM6571
	USB2.0	Compliant	Full Speed	Full Speed
	Codecs		•	•
	HID But	tons	•	•
		Channel	2	2
	DAC	SNR	≥97dB	≥94dB
	DAC		≤-53dB	≤-82dB
		THD+N@1KHz	≤0.224%	≤0.0079%
	I2S/HDA	\ Interface		•/
	SPDIF O)ut	•	•
	Camplin	g Rate@bit depth	44.1/48K	8/11.025/16/22.05/32/44.1/48/88.2/96K
	Sampling	у касешыс иерин	@16 bits	@24 bits
	Firmware Customization		_	EEPROM
Hardware				24C02
lialuwaie	SPI/I2C Interface		/	/•
	GPIO PI	Ns	1	15
	High Eff	iciency Amp	Class AB 0.5W/ch	External
	riigir Ein	iciency / unp	@4Ω	Exernal
	Power C	onsumption	500mA/	76mA/
	Active/S	uspend	320uA	1.65mA
	Package	Туре	PDIP-18/SOIC-18	VQFP-88(10x10mm)
	(Include	Pin Dimension)	15/1-15/30IC-10	VQIT-00(10X10Hill)
	IR Remo	ote Control	-	•
	Play/Sto	p/Prev/Next HID	-	•
	Line Inp	ut	-	•
	Audio Dr	ocessing		Xear™ Sound Expander
	Audio Pi	occosing		Xear™ Sonic
Software	Xear™ Features		•	

Audio Processor

	Feature		CM7001/CM7001N	CM7100	CM7104	CM7105
	Xear™ VoClea	r ENC	•	Option	Option	
	Xear™ VoClea	r AEC	•	Option	Option	
	Xear™ VoClea	ır NR	•	Option	Option	
	FW Upgradab	le	•	•	•	•
	Xear™ Surrou	nd Headphone	•	•	•	
	Xear™ Surrou	nd Max		Option	Option	
	Xear™ Sound	Expander	•	Option	Option	
Technologies/	Xear™ Paramo	etric EQ	•	•	•	•
Algorithms		Dynamic Bass	•	•	•	Option
		Voice Clarity		Option	Option	Option
	Xear™ Sonic	Audio Brilliant	•	Option	Option	Option
		Smart Volume	•	Option	Option	Option
	Dolby® Digita	l Decoder				
	Dolby® Head Dolby® Prolog			-	-	•
	DTS® Headphone: X					
	32-bit DSP		•	•	•	•
	DAC	Channel	1	3	2	3
		SNR	90dB	101dB	101dB	101dB
		THD+N@1KHz	-67.5dB	-93dB	-93dB	-93dB
		Channel	2	2	2	2
	ADC	SNR	90 dB	102 dB	102 dB	102 dB
		THD+N@1KHz	-60dB	-95dB	-95dB	-95dB
	Mic Bias/Pre-a	ımp	●/PGA Gain(0~31dB)	●/20~52dB	•/20~52dB	•/20~52dB
	Differential Ar	nalog I/O	•	•	•	•
	DMIC		1 stereo	3 stereo	2 stereo	3 stereo
	I2S I/O		2/2	4 stereo/4 stereo	2 stereo/2 stereo	4 stereo/4 stereo
Hardware	DAC/ADC Sam	npling Rate	16KHz@16bits	44.1~192KHz@16,	44.1~192KHz@16,	44.1~192KHz@16,
	@bit depth		TOWNIZMIODICS	24bits	24bits	24bits
	Firmware Cus	tomization	EEPROM(24C32 or above)	SPI Interface	SPI Interface	SPI Interface
	HW Mode_ Se	elect Pins	•	Programmable	Programmable	Programmable
	I ² C/UART/SPI	Interface	●/●/	•//SPI	•//SPI	●//SPI
	GPIO PINs		Max. 8 (shared pins)	Max. 4 (shared pins)	1	Max. 4 (shared pins)
	Power consumption	DSP: mW/MIPS codec: mW	1.378mW 13mW	0.36mW 6mW	0.36mW 6mW	0.36mW 6mW
	Power Supply	Voltage	1.75-3.6V for DVDD	1.71-3.63V for DVDD	1.71-3.63V for DVDD	1.71-3.63V for DVDD
	rower Supply	voitage	2.4-3.6V for AVDD	1.71-3.63V for AVDD	1.71-3.63V for AVDD	1.71-3.63V for AVDD
	Package Type (Include Pin D		CM7001: WLCSP-30(3x2.6mm) CM7001N: QFN-32(5x5mm)	LQFP-80(12x12mm)	LQFP-48(9x9mm)	LQFP-80(12x12mm)

Audio Processor

	Feature	:	CM7106	CM7107	CM7108
	Xear™ VoC	lear ENC			
	Xear™ VoC	lear AEC			
	Xear™ VoC	lear NR			
	FW Upgradable		•	•	•
	Xear™ Surround Headphone				
	Xear™ Surr	ound Max			
	Xear™ Sou	nd Expander			
Technologies	Xear™ Para	ametric EQ	•	•	•
/Algorithms	Dynamic Bass		Option	Option	Option
	Xear™	Voice Clarity	Option	Option	Option
	-	Audio Brilliant	Option	Option	Option
		Smart Volume	Option	Option	Option
	Dolby® Dig	gital Decoder		•	•
	Dolby® He Dolby® Pro			•	
	DTS® Headphone: X		•		•
	32-bit DSP		•	•	•
		Channel	3	3	3
	DAC	SNR	101dB	101dB	101dB
		THD+N@1KHz	-93dB	-93dB	-93dB
	Channel		2	2	2
	ADC	SNR	102 dB	102 dB	102 dB
	THD+N@1KHz		-95dB	-95dB	-95dB
	Mic Bias/Pro	e-amp	●/20~52dB	•/20~52dB	●/20~52dB
	Differential	Analog I/O	•	•	•
	DMIC		3 stereo	3 stereo	3 stereo
	I2S I/O		4 stereo/4 stereo	4 stereo/4 stereo	4 stereo/4 stereo
Hardware	DAC/ADC S @bit depth	ampling Rate	44.1~192KHz@16, 24bits	44.1~192KHz@16, 24bits	44.1~192KHz@16, 24bits
	Firmware C	Customization	SPI Interface	SPI Interface	SPI Interface
	HW Mode_S	Select Pins	Programmable	Programmable	Programmable
	I ² C/UART/S	SPI Interface	•//SPI	•//SPI	•//SPI
	GPIO PINs		Max. 4 (shared pins)	Max. 4 (shared pins)	Max. 4 (shared pins)
	Power consumptio	DSP: mW/MIPS codec: mW	0.36mW 6mW	0.36mW 6mW	0.36mW 6mW
	Douge Com		1.71-3.63V for DVDD	1.71-3.63V for DVDD	1.71-3.63V for DVDD
	Power Supp	oly voltage	1.71-3.63V for AVDD	1.71-3.63V for AVDD	1.71-3.63V for AVDD
	Package Ty (Include Pir	rpe n Dimension)	LQFP-80(12x12mm)	LQFP-80(12x12mm)	LQFP-80(12x12mm)

Audio Processor

Feature	CM7072	СМ7077
ANC Topology	Feed-Forward or Feed-back	Hybrid
Microphone Gain Range	-9~9dB, 0.33dB/step	-9~9dB, 0.33dB/step
Line in Gain Range	0~-45dB, -1dB/step	0~-45dB, -1dB/step
HP Driver	Cap-less	Cap-less
Driving Capability	34 mW, 0.1% THD + N	34 mW, 0.1% THD + N
опуну Саравшку	@32Ω, 4.3 V	@32Ω, 4.3 V
SNR	0dB gain, 94dB	0dB gain, 94dB
EQ	2 OP stage	2 OP stage
Manikasia a Mada	•	•
Monitoring Mode	Share with 1 EQ path	Share with 1 EQ path
Build DC-DC	•	•
Operating Voltage Range	3.3~4.3V	3.3~4.3V
OTP Programming	3 times	3 times
Differential Input	•	•
ANC Mode	2 Modes	2 Modes
Power Consumption	< 8mA @ 4.3V, FF/FB	< 12mA @4.3V, hybrid
Package Type (Include Pin Dimension)	QFN-48(5x5mm)	QFN-48(5x5mm)

PCI Sound Chip

	Feature	CMI8786	CMI8787	CMI8788
Hardware	Interface	PCI	PCI	PCI
	I2S Output	X4	X4	X4
		(up to 96K/24bits)	(up to 192K/32bits)	(up to 192K/32bits)
	I2S Input	X4	X4	X4
		(up to 96K/24bits)	(up to 192K/32bits)	(up to 192K/32bits)
	SPDIF In	up to 96K/24bits	up to 192K/24bits	up to 192K/24bits
	SPDIF Out	up to 96K/24bits	up to 192K/24bits	up to 192K/24bits
	AC97/intel® HDA Controller	AC97	AC97	AC97
	Firmware Customization	EEPROM	EEPROM	EEPROM
		93C46	93C46	93C46
	I2C Master/Slave	•/•	•/•	•/•
	SPI Master	•	•	•
	MIDI I/O	•/•	•/•	•/•
	GPI	6	6	6
	GPIO PINs	9	9	9
	Mic Preamp	External	External	External
	Headphone Amp(32Ω)	External	External	External
	Power Consumption	40mA/	40mA/	40mA/
	Active/Suspend	10uA	10uA	10uA
	Package Type	LQFP-128(22x16mm)	LQFP-128(22x16mm)	LQFP-128(22x16mm)
	(Include Pin Dimension)			
Software	Xear™ Features	•	•	•
	Dolby® Options	•		•
	DTS® Connect			•
	ASIO2.2 Driver			

^{*}Drivers Support Windows® 7/8/8.1/10

PCIe Audio Controller

Feature		CM8826	CM8828	CM8888/DMS/DHT
Hardware	Interface	PCIe	PCIe	PCIe
	I2S Output			X4 (up to 192k/32bit)
	I2S Input			X4 (up to 192k/32bit)
	SPDIF In	up to 96k/24bits	up to 192k/24bits	up to 192k/24bits
	SPDIF Out	up to 96k/24bits	up to 192k/24bits	up to 192k/24bits
	AC97/intel® HDA Controller	HDA	HDA	HDA
	Firmware Customization	EEPROM	EEPROM	EEPROM
		24C64	24C64	24C64
	I2C Master/Slave	•/•	•/•	•/•
	SPI Master	•	•	•
	MIDI I/O			
	GPI			8
	GPIO PINs	9	9	16
	Mic Preamp	CM9862A	CM9882A	External
	Headphone Amp(32Ω)	CM9862A	CM9882A	External
	Power Consumption	203mA/	203mA/	203mA/
	Active/Suspend	0.2uA	0.2uA	0.2uA
	Package Type (Include Pin Dimension)	LQFP-80(12x12mm)	LQFP-80(12x12mm)	LQFP-128(22x16mm)
Software	Xear™ Features	•	•	•
	Dolby® Options			/•/•
	DTS® Connect			/•/•
	ASIO2.2 Driver		•	•

^{*}Drivers Support Windows® 7/8/8.1/10

Xear™ Sound Technology



Xear[™] Living 1.1

- Environmental Effects
- ◆ Equalizer (EQ)
- ◆ 7.1 Virtual Speaker Shifter
- ◆ Smart Volume Normalizer (SVN)
- ◆ FlexBass II (Bass Management and Enhancement)

Xear™ SingFx

- Pitch Shifting
- Singing Echo
- Vocal Fading
- Magic Voice

Xear[™] 3D (EX)

- ◆ EAX 2.0/3D support on Win XP
- ◆ EAX 2.0/support on Win 7/8 (EX)

Xear[™] Audio Center New Driver/GUI

- ◆ Matching 7/8 APO driver architecture
- User profile setting
- ◆ Customizable graphics and layout

Xear™ VoClear

- ◆ Environmental Noise Cancellation (ENC)
- Mic Array (Broad-Side)
- Mic Array (End-Fire)
- ◆ Acoustic Echo Cancellation (AEC) /Noise Reduction (NR)/Long Distance Recording (LDR)

Xear[™] Surround

- ◆ Surround Max (transform 2 CH into 7.1 surround sound, enrich full range surround sound)
- ◆ Surround Headphone (virtual 5.1 surround and 3D positional sounds, natural stereo music out-of-head to reduce fatique)
- ◆ Surround Speaker (virtual 5.1 surround and 3D positional sounds, widening stereo 3D sound stage)

Xear™ Pro

◆ ASIO 2.2 w/ultra low latency/bit-perfect streaming

Xear™ Sonic

- Dynamic Bass
- Audio Brilliant
- Voice Clarity
- Smart Volume II (Adaptive Volume)

• 3rd –party Technologies

- ◆ Dolby® Options (Dolby Digital Live, Dolby Headphone, Dolby Virtual Speaker, Dolby Pro-Logic IIx, Dolby PCEEv4)
- ◆ DTS® Options (DTS Connect, DTS Ultra PC II)

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