



Cross Applications Guide

Market	End Product	Application	Value	Part Number
Mobile Phones	Handsets	Voice memo	Simple voice annotation in the handset	ISD25xx, ISD5116, ISD5216, ISD400x, ISD5008 ChipCorder Series, W24xxx, W26xxx SRAM
		Text to Speech	Enables speech output	WTS701
	Car Kit	Voice memo	Simple voice annotations while driving	ISD400x, ISD5008, ISD5116, ISD5216 ChipCorder Series
		Text to Speech	Enables speech output	WTS701
	Base Stations			W24xxx SRAM
Cordless Phones	Base Stations	Voice memo, TA machine		ISD5216, ISD5116, ISD5008, ISD4xx ChipCorder Series
		Text to Speech	Enables speech output	WTS701
	Handsets	Text to Speech	Enables speech output	WTS701
Storage Systems	Hard Drives			W49xxx Flash, W981616 DRAM
	RAID Systems	Network Attached RAID Server Appliance	ISA and IDE bus for I/O and allow processor to handle DMA and interrupts	W83C553F, W83C554F, W24xxx SRAM, W49xxx Flash, W98xxxx DRAM
	SAN (Storage Area Network)	IP based storage network	ISA and IDE bus for I/O and allow processor to handle DMA and interrupts	W83C553F, W83C554F
Car Entertainment	Car Stereo System	TIM (Traffic Information Management)	Audio storage and playback on demand	ISD400x, ISD5116, ISD5216* ChipCorder Series
		MP3 Player	In-System Programmable/Large flash size	W78E516B, W77E532
	Overhead Console	Voice memo	Information storage	ISD25xx, ISD4xxx, ISD5008 ChipCorder Series
		Text to Speech	Enables speech output	WTS701
Personal Digital Assistant (PDA)	Palm	PDA accessories	Memory Stick and Secure Digital card reader	W86L387D, W86L388D, 16M Flash, W98xxxx DRAM
		Text to Speech	Enables speech output	WTS701

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	HandSpring	PDA accessories	Memory Stick and Secure Digital card reader	W86L387D, W86L388D, W98xxxx DRAM
		Text to Speech	Enables speech output	WTS701
	PocketPC	PDA accessories	Voice memos	ISD5116, ISD5008, ISD400x ChipCorder Series
		Text to Speech	Enables speech output	WTS701
	RIM	PDA		W98xxxx DRAM
		Text to Speech	Enables speech output	WTS701
Networking	Routers	Edge router	ISA and IDE bud for I/O and allow processor to handle DMA and interrupts	W83C553F-G, W83C554F, W98xxxx DRAM, W49xxxx Flash
	Switches	8+1G switching hub	8 10/100Mbps+1G upstream port	W89C700*
		2 port switching hub for power line networks to 10BaseT networks	Links to collision domain with different physical layers	W89C871F
	Hubs			W24xxx SRAM, W98xxxx DRAM
	DSL Modem			W98xxxx DRAM
	Cable Modem			W98xxxx DRAM
	Network Interface Card (NIC)	NIC with customer selected PHY	PCI to MII Fast Ethernet Controller	W89C840AF, W49xxxx Flash
		Single chip 10/100 Fast Ethernet Controller	Integrated MAC-PHY	W89C841F*
PC	Desktop PC	Motherboard	LPC I/O (UART, EPP/ECP, FDC, IR, GPIO)	W83697XX, W98xxxx DRAM, W49xxxx
			Memory	W98xxxx DRAM, W49xxxx Flash, W24xxx SRAM
		LPC I/O + Keyboard Controller + Hardware Monitor	W83627F/W83627HF	
		LPC I/O (UART, EPP/ECP, FDC, IR, GPIO)	W83697	



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Set Top Boxes (STB)	HDTV		ISA I/O + Keyboard Controller	W83977xx
			ISA I/O	W83877
		USB 1.1 Four port hub	Expand number of USB ports	W81181D/AD
		Clock generators for CPU, MCH, ICH, I/O, AGP, USB, and PCI	Precision multi-frequency clock outputs from one 14.318Mhz crystal	W83193/194/195
		PCI-ISA Bridge	Provide ISA bus from PCI only system	W83628-629
		LPC-ISA Bridge	Provide ISA bus from LPC only system	W83626
		IPMI BMC (Baseboard Management Controller) with hardware monitor	OS-absent system management with voltage/temp/fan speed monitor and control	W83910F, W98xxx DRAM, W49xxx Flash
			Alternative ChipCorder voice failure announcement	ISD25xx, ISD400x ChipCorder Series
		I2C to GPIO Expander	15 GPIO from two wire I2C with interrupt capability	W83601R
		I/O functions	Low power, small package LPC I/O	W83601R
		Thermal Management	Small footprint voltage/temp/fan speed monitor and control	W83L784R
		Thermal Management	Small footprint voltage/temp/fan speed monitor and control	W83L785R
		Memory system		W98xxx DRAM, W49xxx Flash
		Set Top Box		W98xxx DRAM
Set Top Boxes (STB)	HDTV	Thermal Management	I2C small footprint voltage/temp/fan speed monitor and control	W83783S, W98xxx DRAM
		Text to Speech	Enables speech output	WTS701
	DSS/DirectTV	Text to Speech	Enables speech output	WTS701
White Goods	Refrigerator, Microwave Oven	Voice memo	Voice memo	ISD5008, ISD25xx, ISD400x ChipCorder Series

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	Air Conditioner	Voice prompts	Spoken instructions	ISD5008, ISD25xx, ISD400x ChipCorder Series	
		Text to Speech	Enables speech output	WTS701	
		Playback in remote control unit	Simple voice playback circuitry	ISD5008, ISD25xx, ISD400x ChipCorder Series	
		Remote control unit with display	uP with LCD / IR	W541xxx	
Graphic/Game Consoles	nVIDIA / ATI Graphic Accelerators	Thermal Management	Small footprint voltage/temp/fan speed monitor and control	W83L785R*	
			Memory	W98xxx DRAM, W49xxx Flash	
	Microsoft X-Box			W98xxx DRAM	
	Nintendo			W24xxx SRAM	
Security Alarm System	Home Systems	Voice announcement	Spoken Instructions	ISD5216, ISD5116, ISD5008, ISD25xx, ISD4xxx ChipCorder Series	
		Text to Speech	Enables speech output	WTS701	
Toys	Remote Control (R/C)		RF transceiver	W55RF027X	
	Souvenirs	Novelty	Low cost play-back only	W528xxx, W523xxx	
	Booktronics	e-Book, Story teller	Serial Voice Flash/ROM interface, small footprint, cartridge	W536xxx, W566xx*, W551Cxxx*, W55Fxx	
	Talking Dolls/Robots	Parrot		Simple record/playback for a "parrot" toy	ISD1810, ISD11xx, ISD12xx, ISD14xx, ISD125xx ChipCorder Series
		Sound morphing toy		Simple record/playback for a "parrot" toy, but with extra voice features	ISD5008 ChipCorder, W541xxx
		Talking toys		Simple playback permits variety of verbal responses to children's input	ISD111x, ISD12xx, ISD14xx, ISD1810, ISD25xx, ISD400x, ISD5008, ISD5116 ChipCorder Series
		Text to Speech		Enables speech output	WTS701
	Interactive Toys	Interactivity		Available in mask ROM or go with flash	W528Sxx, W523x, W523Sxx, W5283Sxx,

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	Musical Toys		memory for playback, with programmable feature to fit wide range of applications	W529xx
		Text to Speech	Enables speech output	WTS701
		Music	uC based for playback melody and voice	W561xxx, W562xxx, W566xxxx
	LCD Toys	Educational toys	uC based with LCD driver, speech melody	W536xxx
		Hand held games	uC based with LCD driver, speech melody	W536xxx
		Talking clock	Main controller/dual clock/speech	W536xxx
	Wireless Toys	Wireless communicable toys	IR, RF	W583Sxx, W562xx, W536xxx, W55CF027X
		Text to Speech	Enables speech output	WTS701
	Downloadable Toys	Download	Download through PC serial or parallel port to change toy content	W55CFxxx
Text to Speech		Enables speech output	WTS701	
Stationary	Greeting Cards	Talking card	PWM output	W523Sxx, W583Sxx
		Recordable card	Choice of pre-recorded or "empty"	ISD1810, ISD11xx, ISD14xx, ISD12xx, ISD25xx ChipCorder Series
Consumer Electronic	Time Piece		Controller/LCD display/dual clock	W541xxx
	Remote Controller		Main controller/LCD driver	W541xxx, W49xxx Flash
	Ear Thermometer, Manometer	Control, with or without display	uP with LCD, 3/2/1 battery solution	W541xxx, W49xxx Flash
	FSR, 2-way radio	Control, with or without display	Low cost uP with LCD	W541xxx
	Treadmill	Control, with LCD or LED	Major vendor, Masking / Flash version	W541xxx
	Toaster	Control, with or without display	Low cost uP, Masking / Flash version	W541xxx
	Calculator	uP control	Low cost uP, 1 battery solution	W541xxx
	Weight Scale	uP, display & low voltage / current	uP with LCD, 3/2/1 battery solution	W541xxx
	Sport Meter		Main controller/LCD driver	W541xxx

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Feature Phone			Telephone dialer/Main controller	W921xxx, W742xxxx
		Text to Speech	Enables speech output	WTS701
Electronic Chess	Electronic Chess	System Controller	Controller for chess piece movement and interface	W77E58-40, W541xxx, W536xxx, W561xxx, W562xxx
		Text to Speech	Enables speech output	WTS701
Card Reader	USB Card Reader for Compact Flash, ATA, Multimedia Memory	Four-in-one card reader	USB SIE, firmware, memory card interfaces	W78E727
Instrumentation	Chart Recorder	System Controller	Main controller for charting and sensing 64K In-system programmable FLASH	W78E516, W78LE58, W77E58, W77C32
		Text to Speech	Enables speech output	WTS701
	Handheld Multimeters	Meter says the reading, ability to add voice annotation to saved readings	Simple spoken readouts and simple voice annotation for applications that require both hands and/or eyes	ISD400x, ISD5116, ISD5008 ChipCorder Series
		Text to Speech	Enables speech output	WTS701
	Lab Equipment	Scope says the reading, ability to add voice annotation to saved readings	Simple spoken readouts and simple voice annotation for applications that require both hands and/or eyes	ISD400x, ISD5116, ISD5008 ChipCorder Series
		Text to Speech	Enables speech output	WTS701
	Avionics	Spoken warnings, prompts	Tells you when you've hit bingo, need more fuel, ect.	ISD400x, ISD25xx ChipCorder Series
		Text to Speech	Enables speech output	WTS701
Digital Camera	Low-end Digital Still Camera	Voice annotation	Simple voice annotation capability for quick time-to-market	ISD5116, ISD5216 ChipCorder Series
		UI control with LCD	uP with LCD, 3/2/1 battery solution	W541xxx
Digital Audio	MP3 Player	System Controller	Controller for user interface and storage access. Complement MP3 decoder	W78E516, W24xxx SRAM, W98xxx DRAM, W49xxx Flash
Printer	High-End Wide	PowerPC based printer	ISA and IDE bus for I/O and allow processor	W83C553F, W83C554F, W98xxx DRAM

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	Cartridge Printer	controller	to handle DMA and interrupts	
		Text to Speech	Enables speech output	WTS701
Electronic Weighing Systems	Electronic Scales	System Controller	Controller for user interface, strain gauge and calculation / display	W78E58, W77E58, W541xxx, W536xxx
ISDN Equipment	ISD Terminal Adapter (TA)	USB TA	HDLC and framer, USB interface	W6694
	PCI ISDN Adapter	PCI ISDN Adapter for PC	HDLC and framer, PCI interface	W6692A
Industrial	Fire Alarm	Spoken announcement to accompany alarm	Simple voice playback gives instructions to user about how to exit the building, ect.	ISD25xx, ISD400x ChipCorder Series
		Text to Speech	Enables speech output	WTS701
	Alerts	Spoken warnings	Simple voice playback gives warning notices explaining what (not) to do.	ISD25xx, ISD400x, ISD5008 ChipCorder Series
		Text to Speech	Enables speech output	WTS701
	Thermostat	Voice prompts	Gives voice prompts, instructions	ISD5008, ISD400x, ISD25xx ChipCorder Series
	Elevators	Voice prompts	Tells you what floor you're on	ISD14xx, ISD25xx, ISD400x ChipCorder Series
Medical	Medical Instrument	Blood pressure measurement	Controller/LCD/Counter	W541xxx, W49xxx Flash
	Defibrillator	Spoken instructions/prompts	Simple voice playback for high-stress situations that require both hands and eyes, also gives instructions in foreign languages	ISD25xx, ISD400x, ISD5008, ISD5116 ChipCorder Series
		Text to Speech	Enables speech output	WTS701
	First Aid Box	First Aid instructions	Voice instructions for first aide proceed.	ISD25xx, ISD400x, ISD5008, ISD5116 ChipCorder Series
		Text to Speech	Enables speech output	WTS701
	Portable Monitoring Equipment	Spoken alerts/reminders while monitoring vital signs	Simple voice playback gives feedback to user, where a GUI doesn't make a lot of sense	ISD14xx, ISD25xx, ISD400x, ISD5008, ISD5116, ISD5216 ChipCorder Series

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		Text to Speech	Enables speech output	WTS701
	Recording Stethoscope	Low-cost recording stethoscope	Records heartbeats	ISD5008 ChipCorder