

TELEPHONY MICROCONTROLLERS for SMS APPLICATIONS for PSTN

Part No.	Version	Program Memory ROM	User Memory RAM	Data ROM	I/O Pins	LCD (C x S)	FSK/DTMF transceiver	Call Waiting	Special Functions	Package	Availability
EM78P808	OTP	32K x 13bit	8K x 8bit	256K x 8bit	51	24 x 72	yes	yes	SPI, key scan, current D/A	QFP128, die	ready
EM78808	Mask	32K x 13bit	8K x 8bit	256K x 8bit	51	24 x 72	yes	yes	SPI, key scan, current D/A	QFP128, die	ready
EM78871	Mask	32K x 13bit	4K x 8bit	-	51	24 x 72	yes	yes	SPI, key scan, current D/A	QFP128, die	Q2.2004
EM78P813	OTP	64K x 13 bit + 64K x 13 bit ext.	4K x 8bit	256K x 8bit	56	32 x 98	yes	yes	SPI, key scan, current D/A	QFP208, die	ready
EM78813	Mask	64K x 13bit	8K x 8bit	64K x 8bit	56	32 x 72	yes	yes	SPI, key scan, current D/A	QFP160, die	Q4.2004
EM78P815	OTP	64K x 13 bit + 64K x 13 bit ext.	4K x 8bit	256K x 8bit	56	-	yes	yes	SPI, key scan, current D/A	QFP128, die	ready
EM78815	Mask	64K x 13bit + 64K x 13 bit ext.	4K x 8bit	256K x 8bit	56	-	yes	-	SPI, key scan, current D/A	QFP128, die	ready

TELEPHONY MICROCONTROLLERS for CALLER IDENTIFICATION for PSTN

Part No.	Version	Program Memory ROM	User Memory RAM	I/O Pins	LCD (C x S)	FSK	DTMF	Call Waiting	Special Functions	Package	Availability
EM78(P)911A	OTP, mask	16K x 13bit	2.8K x 8bit	36	16 x 60	Decoder	Generator	yes	TCC, key scan, SDT, MEI/RTF	QFP100, die	ready
EM78(P)811	OTP, mask	16K x 13bit	2.8K x 8bit	32	16 x 60	Decoder	Generator	-	TCC, key scan	QFP100, die	ready
EM78(P)806A	OTP, mask	8K x 13bit	1.1K x 8bit	36	16 x 40	Decoder	Transceiver	-	TCC, key scan	QFP100, die	ready
EM78910A	mask	16K x 13bit	4K x 8bit	28	-	Decoder	Generator	yes	TCC, key scan, SDT, MEI/RTF	die	ready

PERIPHERAL ICs for ANALOG TELEPHONES

Part No.	Description	Remark	Refer to
EPLxxxx	Monochrome Graphic STN LCD Drivers for SMS applications	102 x 43 and 132 x 65 resolutions	Display Driver Family
EM65xxxx	Multicolor Graphic STN LCD Drivers	Different packages available	Display Driver family
EM61xxxx	Polyphonic ringer ICs with up to 8 channel melody	SSOP24, controlled through I2C bus	Speech and Sound Synthesis ICS
AG8888	CAS - Call Waiting Decoder	455 KHz oscillator, 14DIP / 16SOP	

COMMUNICATION MICROCONTROLLERS for Featured Phones, Access Control, Walkie-Talkie and Intercom

Part No.	Mask	OTP	Voltage	Program ROM	Data RAM	LCD (C x S)	I/O	Timer/Counter	INT (E/I)	Special Functions	Package
EM78563A	yes	EM78P567	2.2 ~ 3.6V	4K x 13bit	512 x 8bit	-	24	8-bit x 3	12(8/4)	DTMF Gen.	SOP28, SOP32, QFP44
EM78564A	yes	EM78P567	2.2 ~ 3.6V	8K x 13bit	512 x 8bit	-	36	8-bit x 3	12(8/4)	DTMF Gen.	SOP28, SOP32, QFP44
EM78565	yes	EM78P567	2.5 ~ 5.5V	4K x 13bit	512 x 8bit	-	24	8-bit x 3	12(8/4)	A/D, D/A,DTMF Gen.	SOP28, SOP32
EM78(P)567	yes	yes	2.5 ~ 5.5V	16K x 13bit	512 x 8bit	-	36	8-bit x 3	12(8/4)	A/D, D/A,DTMF Gen.	SDIP42, QFP44, SSOP48
EM78(P)568	yes	yes	2.5 ~ 5.5V	16K x 13bit	512 x 8bit	4 x 20	36	8-bit x 3	8(4/4)	Comparator, D/A, OP Amp, DTMF Gen.	QFP100
EM78(P)569	yes	yes	2.2 ~ 5.5V	16K x 13bit	1K x 8bit	4 x 32	51	8-bit x 3	10(4/6)	10 bit A/D and D/A, SPI, PWM	QFP100
EM78800	yes	EM78P811	2.2 ~ 3.6V	16K x 13bit	2.3K x 8bit	8 x 28	28	8-bit x 3	8(4/4)	FSK decoder, DTMF Gen.	QFP100
EM78804A	yes	EM78P806A	2.2 ~ 3.6V	8K x 13bit	0.6K x 8bit	16 x 32	28	8-bit x 3	7(4/3)	DTMF Gen.	QFP64
EM78805A	yes	EM78P806A	2.2 ~ 3.6V	8K x 13bit	1.1K x 8bit	16 x 32	28	8-bit x 3	7(4/3)	DTMF Gen.	QFP64
EM78(P)860	yes	yes	2.5 ~ 5.5V	16K x 13bit	2.8K x 8bit	16 x 60	32	8-bit x 3	7(4/3)	-	QFP100
EM78(P)870	yes	yes	2.5 ~ 5.5V	32K x 13bit	2.5K x 8bit	24 x 72	51	8-bit x 3	12(8/4)	Dual tone Gen., SPI, Comparator, Key scan	QFP128

SINGLE CHIP DIALER	Memory	Speech Network	Volume Control	Speaker Driver	Lock	LCD Interface	Hand-Free / Held	I.P.P.	Pin No.	Package
EM91886	14	yes	4-step	yes	0 or 9	yes	yes	yes	40/42	PDIP40, SDIP42, die

TELEPHONE DIALERS	Memory	Volume Control	Key Tone	Lock	Hand-Held	Hand-Free	LCD	I.P.P.	Pin No.	Package
EM91465A/B/D	13	-	yes	yes	yes	yes	yes	yes	18/20/22/24	PDIP, SDIP, die
EM91450A/B/C/D	Re-Dial	-	yes	yes	yes	yes	yes	yes	16/18/20/22	PDIP, SDIP, die
EM91415A/B/C/D	13	-	yes	yes	yes	yes	yes	-	18/20/22/24	PDIP, SDIP, die
EM91410A/B/C/D	10	-	yes	yes	yes	yes	yes	-	18/20/22/24	PDIP, SDIP, die
EM91403A/B/C/D	3	-	yes	yes	yes	yes	yes	-	18/20/22/24	PDIP, SDIP, die
EM91401A/B/C/D	Re-Dial	-	yes	yes	yes	yes	yes	-	16/18/20/22	PDIP, SDIP, die
EM91865A/B	14	2 Step	-	-	yes	yes	-	-	16/18	DIP18, DIP16, die
EM91850	SAVE	2 Step	-	-	yes	yes	-	-	16	DIP16, die
HM91710A/B	Re-Dial	-	yes	-	-	yes	-	-	16/18	DIP18, DIP16, die

LCD DRIVER FOR DIALERS	Memory	RTC	Check Time	Digits/Icon	Calculator	Pre-Dial	A.R.D.	Pin No.	Package
EM32117H	-	yes	yes	16/12	-	-	-	55	QFP80, die, LCM

Development Tools

- Integrated development environment (WICE) with debugger
- High level assembly EMC++
- C-compiler for several products available from Q2.2004
- In-circuit emulator (ICE)
- OTP writer

Demonstration Tools and Software

- Various demonstration boards for CID and SMS applications
- CID and SMS software according to ETSI standards
- Various software modules (I2C, LCD routines, Memory Management)