

Design-In Guide for SAM

07/97

Siemens Answering Machine (SAM) Chipset PSB 2168 /PSB 4860 with Analog Front End PSB 4851

The SAM Chipset with world-class echo cancellation and voice processing technology and the analog front end PSB 4851 provide a flexible and modular approach for the design of digital answering machines with state-of-the-art features.

1. Potential application

Standalone digital answering machines Analog feature phones Cordless phone base station Small office/Home office (SoHo) FAX/TAM machines ISDN Terminals Customers

manufacturers of analog phones and answering machines manufacturers of digital terminals PBX and communications gear manufacturers

2. Features and benefits:

- Selectable (3.3 kbit/s, 10.3 kbit/s) compression rates (provides 20 min of storage with 4 Mbit of memory)
- Recompression of stored messages to free up memory space Endcustomer gets superb recording quality with HQ-mode
- support of **emergency power operation** in conjunction with PSB 4851 Analog Front End *you can make phonecalls even in case* of power failure
- Flexible memory interface supports DRAM, ARAM, Flash manufacturer can easily react to memory market fluctuations
- unique modular concept through building blocks very easy to write Software for the SAM
- IOM-2 Interface provides access to industry-renowned portfolio of Telecom-Cs easy connection to industry-standard ISAC-S
- Detection and generation of DTMF;Call progress, **calling number** signals *calling-number ID usually requires an extra chip*
- Real time clock with extremely low power, tailcut,AGC
- support for DECT Base Stations one-stop shopping even for the DECT Wireless solution
- PSB 2168 downward compatible with PSB 4860 family design
- interface to Analog Front End PSB 4851+ Acoustic Echo Cancellation integrated in PSB 4860

Features of analog front end PSB 4851:

- supports low power emergency operation
- Dual-channel codec perfect for DECT application with one channel for T/R and the other for basestation handset
- direct connection of handset, µ-phone, loudspeaker no glue-logic required
- serial control interface for programming requires no parallel port on microprocessor

3. Packaging

Туре	Ordering Code	Package
2168H V 2.1	Q67223-H1017 P-MQFP-80	
3 4860H V 2.1	Q67223-H1028 P-MQFP-80	
3 4851T V 1.1	Q67101-H6770 P-DSO-28	
3 4851T V 1.1	Q67101-H6770 P-DSO-28	

4. Product status

Produkt	Step	Status	Changes	
PSB 2168, 4850, 4860	V2.1	available		
PSB 4851	V1.1	available		



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Documentation SAM Flyer "ICs for digital answering machines"	Date of issue/version 07/97	<u>Type of material</u> Color brochure		
 7. Development and support tools SAM Evaluation Board SIPB 4850 SAM Reference Package SIPB 4870 SAM Reference Software SIPB 4830 8. Applications 	<u>Availability</u> available available available	<u>Ordering Number</u> Q67220-H1012 Q67220-H1045 Q67220-H1055		
Analog feature phone Tip/ Speech Tip/ Speech Circuit ISDN S-Terr Source Arcorf Source Source Source ISAC-S Source ISAC-S Source ISAC-S	e with hands-free or echo cance ARAM, AFE SAM-SP PSB 4850 or SAM-EC PSB 4860 Uoice Prompt EPROM HBA IOM-2 SAM-EC PSB 4860 Voice PSB 4860 ARAM, DRAM Voice PSB 4860 Voice PSB 4860 Voice Prompt EPROM	ellation support		
Image: parallel parall				
SAM-AFE PSB 4851 Circuit Circuit	AFE Interf. SAM-SP PSB 4850 or SAM-EC PSB4860 Serial serial parallel	Antenna DECT HF PMB 2220 PMB 2420 PMB 2307		