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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Description

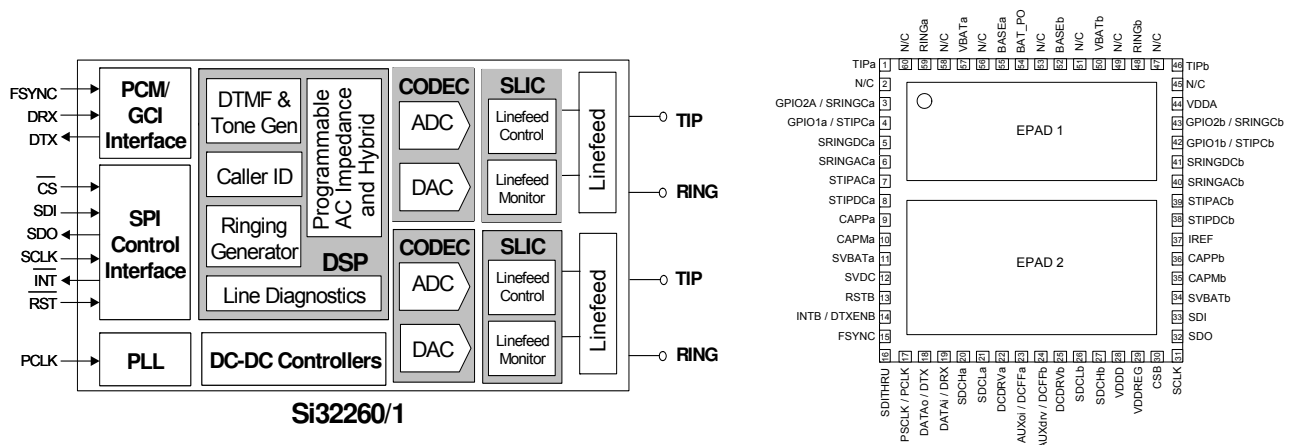
The Si32260/1 Dual ProSLIC® devices, in a single package, implement two complete foreign exchange station (FXS) telephony interfaces. The Si32260/1 devices operate from a 3.3 V supply and have standard PCM/SPI or GCI bus digital interfaces. A pair of built-in dc-dc converter controllers can be used to automatically generate the optimal battery voltage required for each line-state, optimizing efficiency and minimizing heat generation. The Si32260/1 devices are designed to operate not only with a tracking battery supply for each channel for lowest power consumption, but also with shared battery supplies, for lowest cost. When used with shared battery supplies, the internal dc-dc controller operates in Tracking Shared Supply (TSS) mode to deliver power consumption lower than typical fixed voltage shared rail designs. Self-testing and metallic loop testing (MLT) (e.g., GR-909) is facilitated by the built-in DSP, monitor ADC, and test load. The devices are available with linefeed voltage ratings of -110 V (Si32260) or -140 V (Si32261) to support high voltage ringing, and both devices support wideband audio for better-than-PSTN voice quality. The Si32260/1 devices are available in a 8 x 8 mm 60-pin QFN package.

Applications

- VoIP gateways and routers
- xDSL IADs
- Optical Network Terminals/Units (ONT/U)
- Analog Terminal Adapters (ATA)
- Cable eMTA
- Wireless Fixed Terminals (WFT)
- Wireless Local Loop (WLL)
- WiMAX CPE
- Private Branch Exchange (PBX)
- VoIP MDU gateways

Si32260/61 Features

- Two complete FXS channels in 8 x 8 mm
- Performs all BORSCHT functions
- Ideal for short- or long-loop applications
- Ultra low power consumption
- Internal balanced or unbalanced ringing
- Patented low power ringing
- Adaptive ringing
- Simplified configuration and diagnostics
 - Supported by ProSLIC API
 - GR-909 loop diagnostics
 - Audio diagnostics with loopback
 - Integrated test load
- Wideband voice support
- On-hook transmission
- Loop or ground start operation
- Smooth polarity reversal
- Pulse metering
- PCM and SPI bus digital interfaces with programmable interrupts
- Software-programmable parameters:
 - Ringing frequency, amplitude, cadence, and waveshape
 - Two-wire ac impedance
 - Transhybrid balance
 - DC current loop feed (10–45 mA)
 - Loop closure and ring trip thresholds
 - Ground key detect threshold
- Integrated dc-dc controllers with direct connection to MOSFET
- Three high voltage supply options
 - Full tracking
 - Tracking shared supplies
 - Fixed rail
- DTMF generator/decoder
- A-Law/ μ -Law companding, linear PCM
- GCI/IOM-2 mode support
- 3.3 V operation
- Pb-free/RoHS-compliant packaging



Selected Electrical Specifications

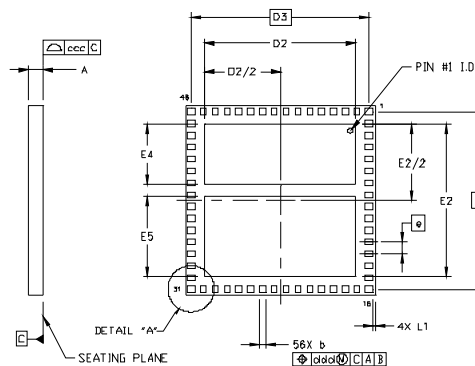
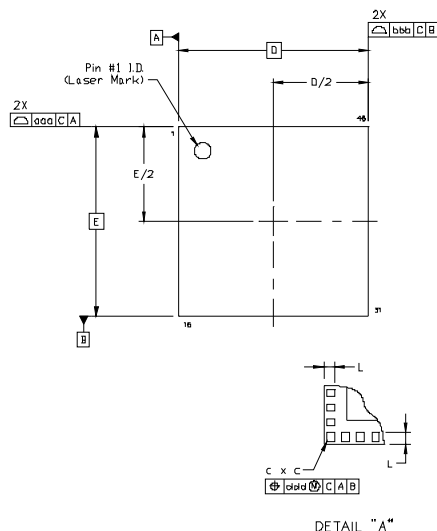
Parameter	Symbol	Test Condition	Min	Typical	Max	Unit
Ambient Temperature	T_A	F-Grade	0	25	70	°C
		G-Grade	-40	25	85	°C
Supply Voltage	V_{DD}		3.13	3.3	3.47	V
Battery Voltage	V_{BAT}		-15	—	-110/-140	V
Maximum Loop Resistance (loop + load)	R_{LOOP}	$I_{LOOP}=18\text{ mA}$, $V_{BAT} = -52\text{ V}$	—	—	2000	Ω
DC Differential Output Resistance	R_{DO}	$I_{LOOP} < I_{LIM}$	160	—	640	Ω
Idle Channel Noise		C-Message weighted	—	8	12	dBmC
PSRR from V_{DD}		RX and TX, dc to 3.4 kHz	—	55	—	dB
Longitudinal to Metallic/PCM Balance (forward or reverse)		200 Hz to 1 kHz	58	60	—	dB
		1 kHz to 3.4 kHz	53	58	—	dB
Metallic/PCM to Longitudinal Balance		200 Hz to 3.4 kHz	40	—	—	dB
Longitudinal Impedance		200 Hz to 3.4 kHz at TIP or RING	—	50	—	Ω
Longitudinal Current per Pin		Active off-hook 200 Hz to 3.4 kHz	—	25	—	mA
DC Feed Current			—	—	45	mA
2-Wire Return Loss		200 Hz to 3.4 kHz	26	30	—	dB
Transhybrid Balance		300 Hz to 3.4 kHz	26	30	—	dB
Thermal Resistance (QFN-60)	θ_{JA}		—	42	—	°C/W

Ordering Guide

FXS Pin	Description	Max Vbat	Temperature
Si32260-C-FM	Dual FXS, wideband capable	-110 V	0 to 70 °C
Si32260-C-GM	Dual FXS, wideband capable	-110 V	-40 to 85 °C
Si32261-C-FM	Dual FXS, wideband capable	-140 V	0 to 70 °C
Si32261-C-GM	Dual FXS, wideband capable	-140 V	-40 to 85 °C

***Note:** Adding the suffix "R" to the part number (e.g., Si32261-C-FMR) denotes tape and ree

Package Information 60-pin QFN



	MM		
	Min	Typ	Max
A	0.60	0.65	0.70
b	0.20	0.25	0.30
c	0.25	0.30	0.35
D	8.00 BSC		
D2	6.35	6.40	6.45
D3	7.50 BSC		
e	0.50 BSC		
E	8.00 BSC		
E2	6.35	6.40	6.45
E3	7.50 BSC		
E4	2.46	2.51	2.56
E5	3.34	3.39	3.44
L	0.35	0.40	0.45
L1	0.05	0.10	0.15
aaa	—	—	0.15
bbb	—	—	0.15
ccc	—	—	0.10
ddd	—	—	0.10