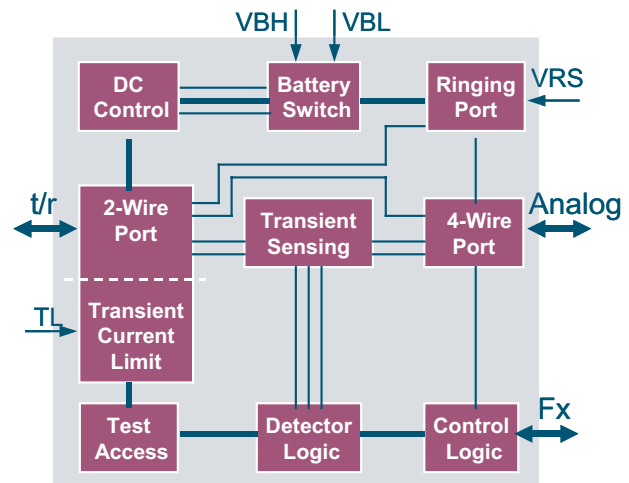


Winbond W671500 Series

5V Ringing SLIC Family

The 5V family of Ringing Subscriber Line Interface Circuits (RSLIC), collected under the W671500 series, support interfacing to analog Plain Old Telephone Service (POTS) lines. On board ringing generation supports short and medium loop lengths, up to 5,000 ft at the highest operating voltage of -100V. This makes the devices ideal for emerging customer premises equipment applications such as VoIP gateways, VoIP enabled DSL or Cable Modems as well as Analog Telephone Adapters. Furthermore the family contains seven different product variations, offering the flexibility to match performance to individual system requirements. All variations, however, are distinguished by low power consumption, particularly in standby modes.

The W671500 series allow extensive parameters to be programmed, including the loop current limit, the transient loop current limit, Ring Trip and Switch Hook Detect thresholds.



W671500 Series Block Diagram

Integrated test and diagnostic features are also offered on selected products to support loopback testing as well as line measurement tests.

To complete the chipset Winbond also offers a series of 5V A-Law/ μ -Law CODEC solutions (e.g. W6810). Using a CODEC in conjunction with the W671500 series completes the termination of the analog POTS line and provides a cost-effective chipset solution supporting the complete BORSCHT feature requirements.

Features

- Designed to operate with Winbond's 5V CODEC solutions
- 5V Operation
- Onboard Ringing Generation
- Low Standby Power Consumption (75V, 65mW)
- Programmable Transient Current Limit
- Low Idle Channel noise
- Low External Component Count
- Integrated MTU DC Characteristics
- Silent Polarity Reversal
- Balanced and Unbalanced Ringing
- Thermal Shutdown with Alarm Indicator
- Smooth Off Hook Performance
- Pulse Metering and On-hook Transmission
- Tip Open Ground Start Operation
- Package Options: PLCC and reduced footprint QFN

RSLIC Applications

- Voice Over Internet Protocol (VoIP) Equipment
- Cable Modems
- Voice Over DSL (VoDSL) Modems
- Short Loop Access Platforms
- IP PBX
- Analog Terminal Adapters
- Fiber to the Home (FTTH)
- Remote Subscriber Units



PART NUMBER	HIGH BATTERY (VBH)			LONGITUDINAL BALANCE		FULL TEST	TEMP. RANGE °C	PACKAGE
	100V	85V	75V	58dB	53dB			
W671510P	x			x		x	-40 to 85	PLCC 28
W671520P		x		x		x	-40 to 85	PLCC 28
W671530P	x				x	x	-40 to 85	PLCC 28
W671540P		x			x	x	-40 to 85	PLCC 28
W671552P			x		x		0 to 75	PLCC 28
W671552Y			x		x		0 to 75	QFN 32
W671561P			x		x	x	0 to 85	PLCC 28
W671561Y			x		x	x	0 to 85	QFN 32
W671570P	x				x		-40 to 85	PLCC 28
W671571P	x				x	x	0 to 85	PLCC 28
W671571Y	x				x	x	0 to 85	QFN 32

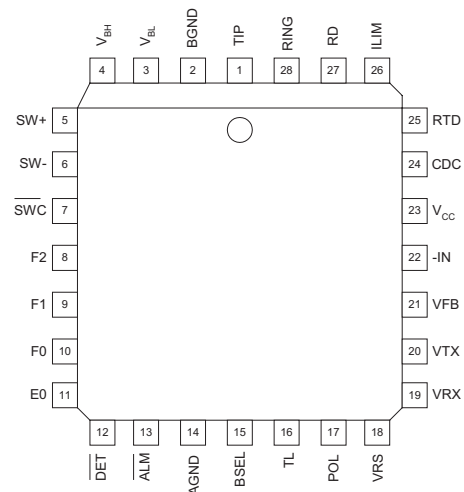
Benefits

- Low power consumption ideal for Customer Premises Equipment (CPE) applications
- Onboard Ringing ideal for low and medium port density systems
- Programmability allows tailoring of thresholds to different application
- Broad product family allows a precise match of performance to system requirements

RSLIC Development System

- The W671500-EVAL evaluation platform allows the complete CODEC/RSLIC chipset to be evaluated. A standard Winbond 5V A-Law / μ -Law CODEC (W6810) can be combined with any device from the W671500 series.
- The evaluation system has been designed with many test modes including a back-to-back operation mode, which provides test capability across the complete signal path of the solution.

Pin # plcc	Pin # QFN	Pin Name	Functionality
1	29	TIP	Tip power amplifier output.
2	30	BGND	Battery Ground
3	31	VBH	Low Battery supply
4	32	VBH	High Battery supply
5	1	SW+	Uncommitted Switch positive terminal
6	2	SW-	Uncommitted Switch negative terminal
7	3	SWC	Switch Control Input
8	4	F2	Mode Control Input
9	5	F1	Mode Control Input
10	6	F0	Mode Control Input
11	7	E0	Detector Output Selection Input
12	9	DET	Detector Output
13	10	ALM	Thermal Shutdown Alarm
14	11	AGND	Analog Ground Reference
15	12	BSEL	Battery Select
16	13	TL	Transient Current Limit program resistor
17	14	POL	Polarity Reversal Time program capacitor
18	15	VRS	Ringing Signal Input
19	17	VRX	Analog Receive Voltage
20	18	VTX	Transmit Output Voltage
21	19	VFB	Feedback voltage for impedance matching
22	20	-IN	Impedance matching amplifier summing node
23	21	VCC	Positive voltage power supply +5V
24	22	CDC	DC Biasing Filter Capacitor
25	23	RTD	Ring Trip filter network
26	24	ILIM	Loop Current Limit programming resistor
27	25	RD	Switch hook detection threshold program resistor.
28	27	RING	Ring power amplifier output



PLCC Package shown



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