PBA 310 03/4
Dual Subscriber Interface Circuit (DSIC)

Description

The Ericsson module, DSIC (Dual Subscriber Interface Circuit) PBA 310 03/4, provides a low cost complete line interface between two separate analogue subscriber lines and a PCM highway.
PBA 310 03/4 is a member of the DSIC family, manufactured on an epoxy glass carrier, built up around two Ericsson FlexiSLIC™ circuits and an Ericsson dual CODEC/filter.
The DSIC family, a generic component with a fixed Single In Line pin-out, is easily accommodated for markets with various requirements.
The DSIC members provide Battery-, Ring relay-, Supervision-, Coding-, and market specific Hybrid- functions for two channels with only a minimum of external components.

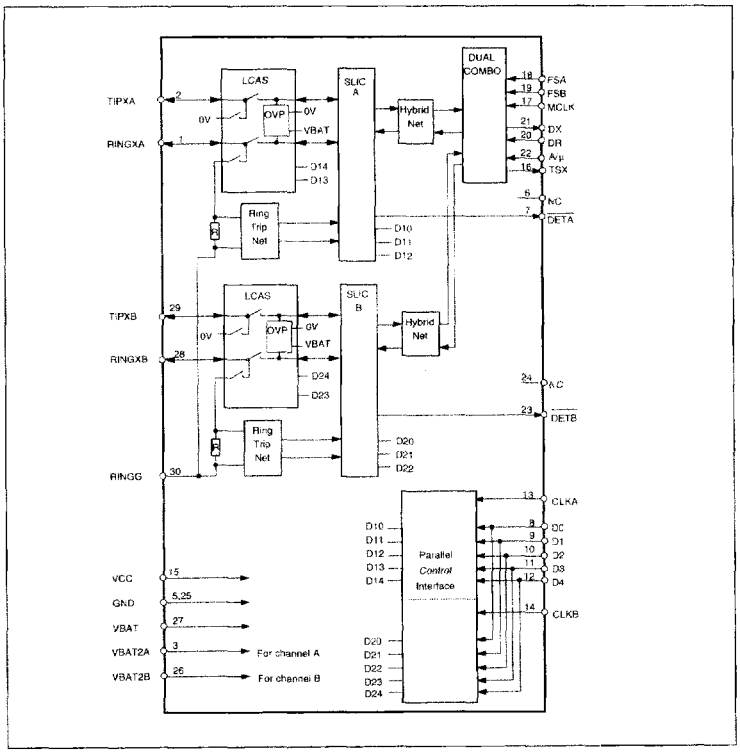

Figure 1. Block diagram.

Key Features

- Optimised for short line applications.
- SIL (Single in Line) low profile module.
- Generic component with a fixed pin-out.
- On hook transmission.
- Polarity reversal.
- Full longitudinal current capability during on-hook state.
- High and low battery feed with automatic switching (V_{BAT} and V_{BAT2}).
- Simple parallel control interface, 5 bit.
- Pin selectable A-law or μ-law companding.
- Integrated ring relays.
- Ring Trip net included.

Key Data

- 600Ω+2,16μF nominal impedance (Z_N)
- 600Ω+2,16μF balance impedance (Z_B)
- L_i = +2 dBr, L_o = -4 dBr.
- Constant current feed 23,5mA.
- Only +5V required in addition to battery voltages.
- 190 mW total power dissipation, both channels active on hook @ V_{BAT} = -48V.
- 43V open loop voltage @ -48V battery feed.

Suggested Applications

- ADSL CPE
- HFC CPE
- WLL Line Cards
- Terminal Adapters
- CTI

(Refer to the last page regarding abbreviations)

Typical Dimensions

Length	3.0"	76.2 mm
Height (from PCB)	0.95"	24.0 mm
Pin spacing	0.1"	2.54 mm
Stand-off	0.03	0.8 mm
Building width:		
Primary side	0.12"	3.1 mm
Secondary side	0.09"	2.3 mm

The pins are intended for through-hole mounting with 1.1±0.1 mm hole diameter.

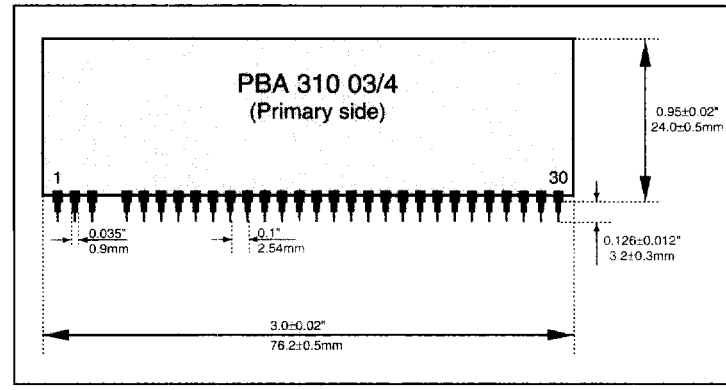

Figure 2. DSIC package, 30-pin SIL (Single In Line).

Pin Description

Pin	Symbol	Description
1	RINGXA	Channel A - RING lead from the subscriber line (two-wire)
2	TIPXA	Channel A -TIP lead from the subscriber line (two-wire)
3	VBAT2A	Second battery voltage for channel A – between GND and V_{BAT}
4		Omitted pin
5	GND	Ground - connected to pin 25 on the printed board
6	NC	
7	DET A	Loop/Ring detector output from channel A – active low
8	D0	Digital control input 0 for both channels. (SLIC control input C1)
9	D1	Digital control input 1 for both channels. (SLIC control input C2)
10	D2	Digital control input 2 for both channels. (SLIC control input C3)
11	D3	Digital control input 3 for both channels. (LCAS control input TSD)
12	D4	Digital control input 4 for both channels. (LCAS control input INPUT)
13	CLKA	Latch clock A - State of digital control inputs are latched to channel A
14	CLKB	Latch clock B - State of digital control inputs are latched to channel B
15	VCC	+5V power supply
16	TSX	Output indicating time slot transmission – low during transmission
17	MCLK	Master clock for PCM interface
18	FSA	Frame sync input for channel A
19	FSB	Frame sync input for channel B
20	DR	PCM receive data input for both channels
21	DX	PCM transmit data output for both channels
22	A/μ	Companding scheme selection - Logic '1' selects μ-law
23	DET B	Loop/Ring detector output from channel B – active low
24	NC	
25	GND	Ground - connected to pin 5 on the printed board
26	VBAT2B	Second battery voltage for channel B – between GND and V_{BAT}
27	VBAT	Battery supply voltage for both channels
28	RINGXB	Channel B - RING lead from the subscriber line (two-wire)
29	TIPXB	Channel B -TIP lead from the subscriber line (two-wire)
30	RINGG	Input from ringing generator for both channels

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