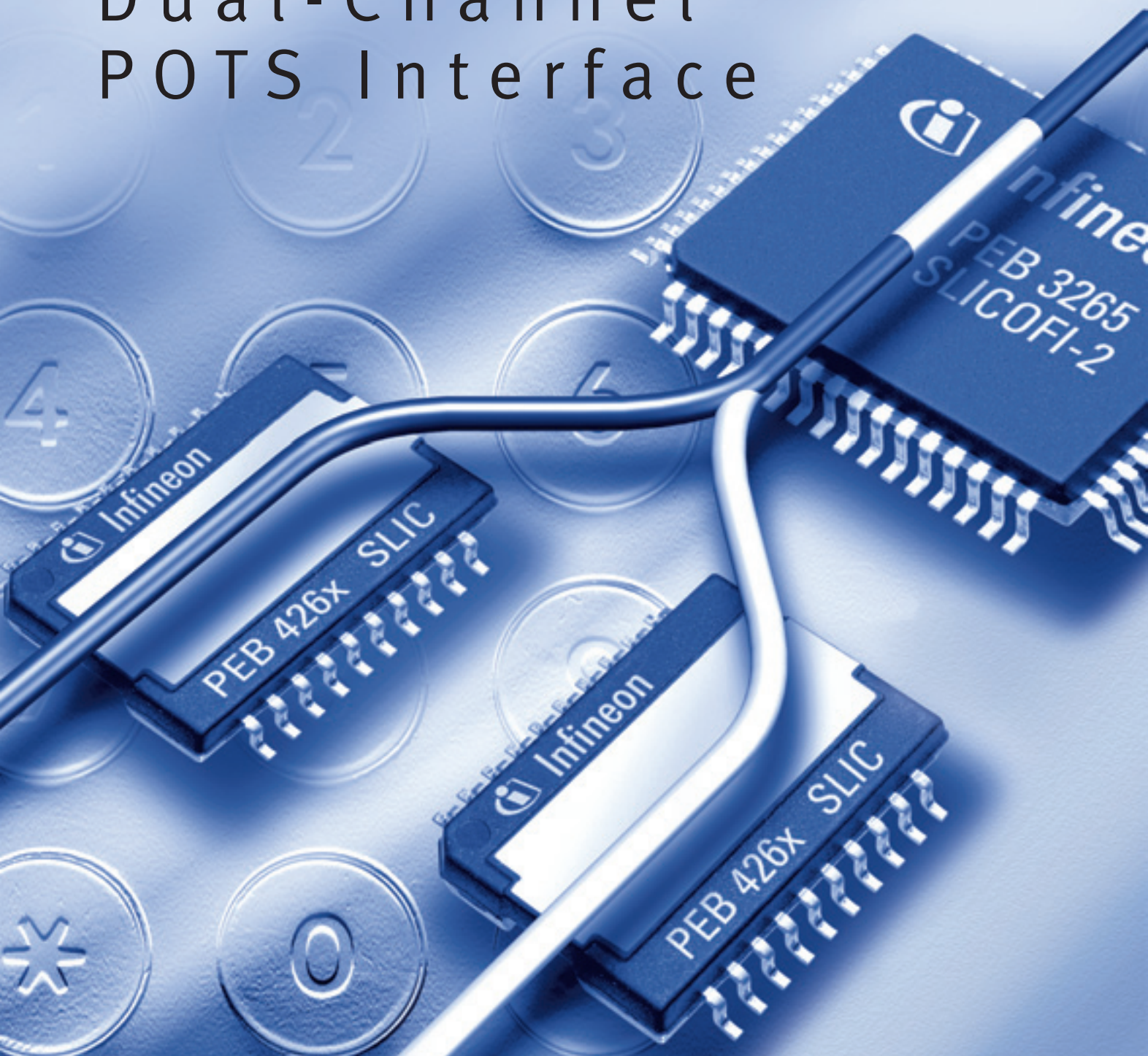


DuSLIC Dual-Channel POTS Interface



www.infineon.com/duslic



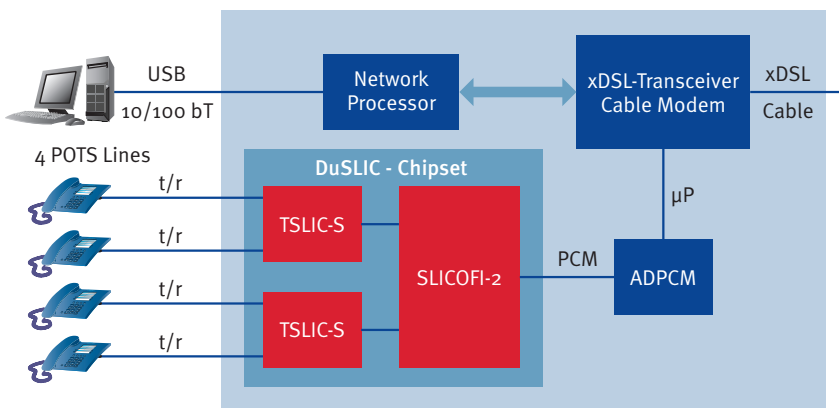
Never stop thinking.

DuSLIC FAMILY

A COMPLETE SOLUTION FOR ANALOG TELEPHONY APPLICATIONS

INFINEON'S DuSLIC (Dual Channel Subscriber Line Interface Concept) chipset provides a two-channel POTS interface optimized for Customer Premise Equipment and Access Network applications, both in standard telephony and in Voice over Packet technology.

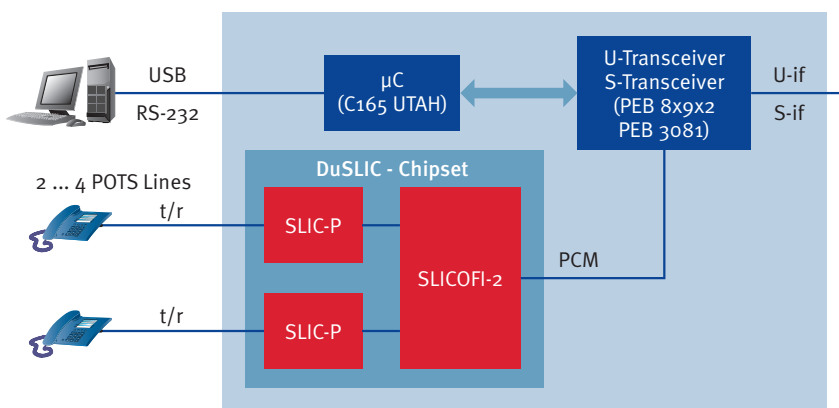
THE FULLY PROGRAMMABLE DuSLIC chipset provides optimum voice and modem transmission performance, extremely low power consumption, and a comprehensive set of new system features such as DTMF, echo cancellation, integrated ringing and line testing. It consists of a two-channel codec-filter with enhanced functionality (with or without enhanced feature set) and either two single-channel SLICs or one dual-channel TSLIC.



IAD/Cable Modem Applications

MAIN ADVANTAGES FOR IAD/CABLE MODEM

- Optimized for VoDSL, VoIP, VoATM and VoCable
- Integrated DTMF receiver, CLIP generation, metering pulses, etc.
- Integrated line echo cancellation (8 ms)
- Ring generation (balanced and unbalanced) integrated



ISDN Applications, e.g. intelligent NT

MAIN ADVANTAGES FOR ISDN APPLICATIONS

- Integrated DTMF receiver, CLIP generation, metering pulses, etc.
- Integrated ring generation (balanced and unbalanced)
- Lowest power for lifeline support

SYSTEM REQUIREMENTS

NEW VoX TECHNOLOGIES

- Echo Cancellation needed to avoid bad voice quality in packet based networks
- Easy-to-use and available solutions necessary to speed time-to-market; SW and HW available
- Modem-performance at V.90 transmission for maximum speed
- Compatibility to existing POTS solutions
- Strong price/performance ratio



WORLDWIDE MARKET—“ONE DESIGN FOR ALL MARKETS”

- Voice (AC) impedances and levels programmable
- Feeding current, ring-trip, loop length programmable
- Ring voltage, offset, balanced/unbalanced programmable; ringing integrated, no relays
- DTMF receiver and transmitter (touchtone), tone generation, metering (TTX), CLIP as DTMF/FSK integrated and programmable



LIFELINE SUPPORT

- Low power consumption. At least one phone line working from remote feeding to cover emergency situations
- Power management offering full performance in normal situation, and full control in lifeline mode



INTEGRATED TESTING—ENABLING FULL QUALITY OF SERVICE (QoS)

- Remote line testing of short-circuits, foreign-voltage, capacitance, resistance, etc. to eliminate service visits to individual sites
- No extensive final factory testing necessary due to self-test capability



MEETING THE REQUIREMENTS WITH DuSLIC



ENHANCED FEATURE SET

DTMF receiver, tone generator, CLIP generator, echo-cancellation integrated in codec device without external components offers:

- High integration
- Cost effective solutions
- Optimum performance



PROGRAMMABILITY

All AC, DC and ring parameters SW programmable on same HW platform with optimized filter structures allowing for:

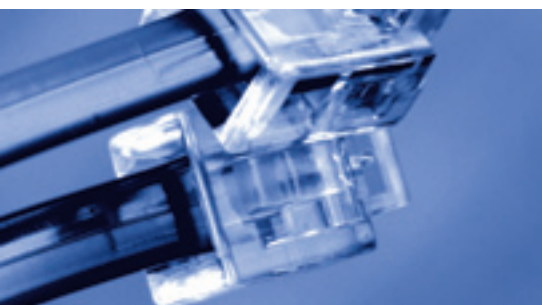
- No need for external RAM, ring generator, relays etc.
- Worldwide standard requirements
- Optimized voice and V.90 performance



OPTIMIZED POWER CONSUMPTION

Lowest drop voltages available in the market along with enhanced power management supply:

- Lifeline supported
- 3.3 V SLICs allow for complete 3.3 V power supply designs

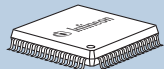






INTEGRATED LINE TESTING

Calculating line behavior through integrated measurement of voltages, currents, and tones help to enable:

- Enhanced QoS
- No additional costs
- More safety and comfort for customers

DuSLIC FAMILY OVERVIEW

Features			SLICOFI-2	SLICOFI-2S	SLICOFI-2S2
Number of voice channels			2	2	2
DTMF detection			Yes	No	No
Line echo cancellation (up to 8 ms)			Yes	No	No
Caller-ID generation			Yes	No	No
Integrated test and diagnosis (linetesting)			Yes	No	No
Modem (V.90) transmission			Yes	Yes	Yes
Modem tone detection			Yes	No	No
Metering pulses (TTX)			Up to 2.5 Vrms	Up to 1.2 Vrms	No
PCM/IOM interface			Yes	Yes	Yes
Serial controller interface			Yes	Yes	Yes
Internal ring support			Yes	Yes	No
External ringing support			Yes	Yes	Yes
Supply voltage			3.3 V	3.3 V	3.3 V
Package	Figure	Dimensions			
P-MQFP-64-1		17.2 x 17.2 mm	PEB 3265H v1.3	PEB 3264H v1.4	PEB 3264-2H v1.4
P-TQFP-64-1		12 x 12 mm	PEB 3265F v1.3	PEB 3264F v1.4	PEB 3264-2F v1.4

Features			SLIC-S	SLIC-S2	SLIC-E	SLIC-E2	SLIC-P
Maximum DC feeding			32 mA	50 mA	32 mA	50 mA	32 mA
Maximum ringing voltage (balanced)			45 Vrms	45 Vrms	85 Vrms	85 Vrms	85 Vrms
Maximum ringing voltage (unbalanced)			–	–	–	–	50 Vrms
Longitudinal balance			53 dB	60 dB	53 dB	60 dB	53 dB
Supply voltages (negative/positive)			2/1	2/1	2/1	2/1	3/0
Supply voltage			3.3 V ... 5.0 V ¹⁾	3.3 V ... 5.0 V ¹⁾	5.0 V	5.0 V	3.3 V ... 5.0 V
External ringing support			Yes	Yes	Yes	Yes	Yes
Technology			90 V	90 V	170 V	170 V	170 V
On-hook transmission capability			Yes	Yes	Yes	Yes	Yes
Target application			Low cost CPE	Linecard	CPE	Linecard	Low power CPE
Package	Figure	Dimensions					
P-DSO-20-5 (single channel)		15.9 x 14.2 mm	PEB 4264T v1.1 ¹⁾	PEB 4264-2T v1.1 ¹⁾	PEB 4265T v1.1	PEB 4265-2T Tv1.1	PEB 4266T v1.1
P-DSO-36-10 (dual channel)		15.9 x 14.2 mm	PEB 4364T v1.2 (2 channels) TSLIC-S	–	PEB 4365T v1.1 (2 channels) TSLIC-E	–	–
P-VQFN-48 (single channel)		7 x 7 mm	PEB 4264V v1.2	PEB 4264-2V v1.2	PEB 4265V v1.1	PEB 4265-2V v1.1	PEB 4266V v1.1

¹⁾ PEB 4264T in P-DSO-20 only available in v1.1

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