Inventek Systems
Embedding Connectivity Everywhere

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ISM14585-L35

5.0 BLE + Cortex M0 + PMU + PA + RTC + Flash

Product Brief

The Inventek Systems **ISM14585-L35** SiP (System in Package), is the smallest, lowest power and most integrated Bluetooth® 5.0 solution available. The **ISM14585-L35** platform is the first BLE module from Inventek's ***FLEXiBLE*** product family. The **ISM14585-L35** SiP is an embedded wireless Bluetooth Low Energy (BLE) IoT radio, based on the Dialog Semiconductor DA14585 radio SoC (System on Chip). The **ISM14585-L35** offers designers all the benefits of the industry-leading DA14580 technology but with even greater flexibility to create more advanced

• ***FLEXiBLE*** configuration options (Flash, PA, Clk, Antenna)	• Integrated Audio Unit (AU)
• Frequency Band: 2.4GHz	* Pulse-Density Modulation (PDM)
• Complies to the Bluetooth 5 core specification	* PDM interface connects to up to 2 input/output devices (MEMS, Mics).
• Supports up to 8 Bluetooth LE connections	* Pulse Code modulation (PCM) controller
• Network Standard: Bluetooth Low Energy	* 24-bit Sample Rate Converting unit (SRC)
• Longest battery life	* Integrated DMA controller
• Low operating voltage (1.8 V to 3.6 V)	• Processing power
• MSL level 3	* 16 MHz 32 bit ARM Cortex-M0 with SWD interface
• Low system Bill of Materials	* Dedicated Link Layer Processor
• Power Management	* AES-128 bit encryption Processor
* Integrated Buck/Boost DCDC converter	• Memory Resources
* P0, P1 and P2 ports with 3.3 V tolerance	* Large memory to build complex applications
* Easy decoupling of only 4 supply pins	* Integrated 64 kB (OTP)
* Coin (typ. 3.0 V) &Alkaline (typ. 1.5 V) cells	* 96 kB Data/Retention SRAM
* 1.8 V cold boot support	*128 kB ROM
* 10-bit ADC for battery voltage meas.	* 8Mb Flash as the standard configuration option
* Integrated Power Amplifier	* 4Mb or 16Mb Flash configuration option
• Digital controlled oscillators	• Package LGA 35, 6.0mm x 8.6mm x 1.2mm
* 16 MHz clk (±20 ppm max) and RC osc	• Digital interfaces
* 32 kHz clk(±50 ppm, ±500 ppm max) & RCX osc	* Gen. Purpose I/Os: 14
* Configuration option to remove the 32 kHz clk.	* 2 x UARTs with hardware flow control up to 1 MBd
	* SPI+™ interface
	* I2C bus at 100 kHz, 400 kHz

Ordering Information:

Standard MODULE Ordering Number: **ISM14585-L35-P8**

ISM14585-L35-XX

Integrated Flash Memory:
- Blank = No Flash
- 4 = 4Mb Flash
- 8 = 8Mb of Flash

Integrated Power Amplifier:
- Blank = No PA
- P = Power Amplifier

Note:
- Dialog CodeLess AT Commands also supported.
- Module ordering option for no 32KHz clock also available.

EVALUATION BOARD Ordering Number:

ISM14585-L35-P8-EVB

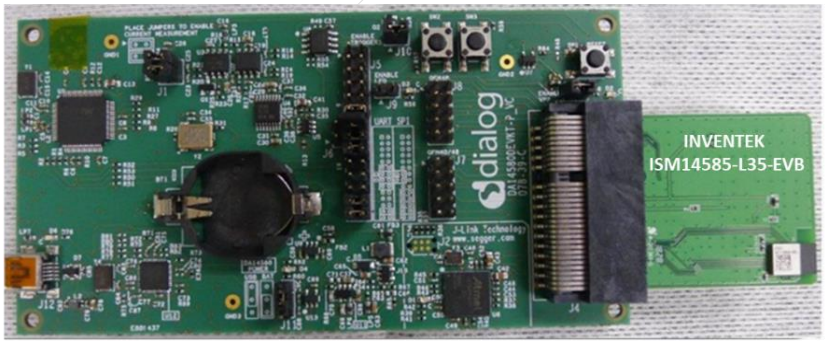
TOP VIEW

34.3 x 42.38 mm
1.35 x 1.67 inches

BOTTOM VIEW

34.3 x 42.38 mm
1.35 x 1.67 inches

ISM14585-L35-EVB + Dialog Dev Kit Pro Motherboard



The **ISM14585-L35-EVB** Daughter Card Evaluation Board is a pin to pin compatible evaluation board that seamlessly interfaces to the Dialog DA14585 Development Kit-Pro Mother Board including application support via Dialog's SDK SmartSnippets Studio and downloaded via USB (USB to UART transfer IC) to the **ISM14585-L35-EVB**.

PLEASE REFERENCE THE INVENTEK ISM14585-L35 COMPLETE DATA SHEET FOR DETAILS

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