

- Ability to connect two outputs to one coil with full 2A peak current capability
- Ability to drive two coils with 1A peak each at the same time
- Internal current measurement mode without external measurement resistor (R1 in application schematic) to increase isolation between coils

Immobilizer Base Station Features

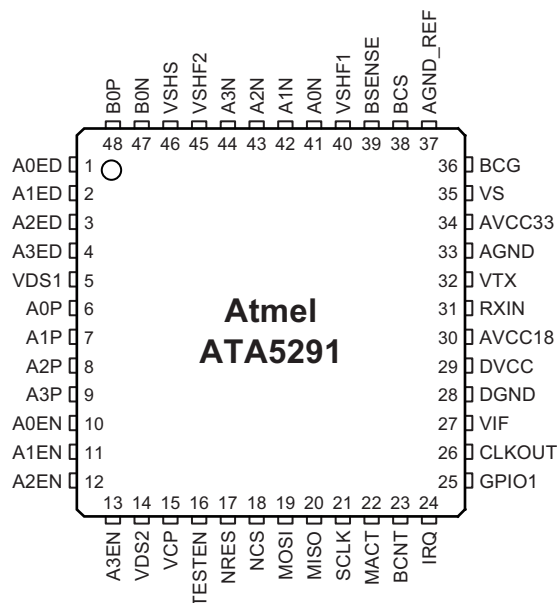
- High in-band receiver sensitivity of 7mVpp at tap point with tap voltage of 100Vpp
- Immobilizer driver with sinusoidal output signal for low harmonics
- Narrowband direct conversion digitized receiver for high noise immunity
- 64-byte immobilizer RX buffer to relieve real-time load from host
- Ability to operate with a separated immobilizer coil or with a coil shared between immobilizer and PEPS driver
- Immobilizer antenna current of up to 290mA peak
- Support of uplink/downlink of full duplex transponders (load modulation, physical layer)

1. General Description

The Atmel® ATA5291 is an integrated circuit combining a LF coil driver for passive entry/passive start (PEPS) and a base station. It can drive up to eight low-frequency antennas (i.e., coils) to provide a wake-up and initialization channel to the key fob. The immobilizer base station block can share one antenna coil with the LF coil driver block thus reducing the total antenna count and related overall system cost.

2. Pinning

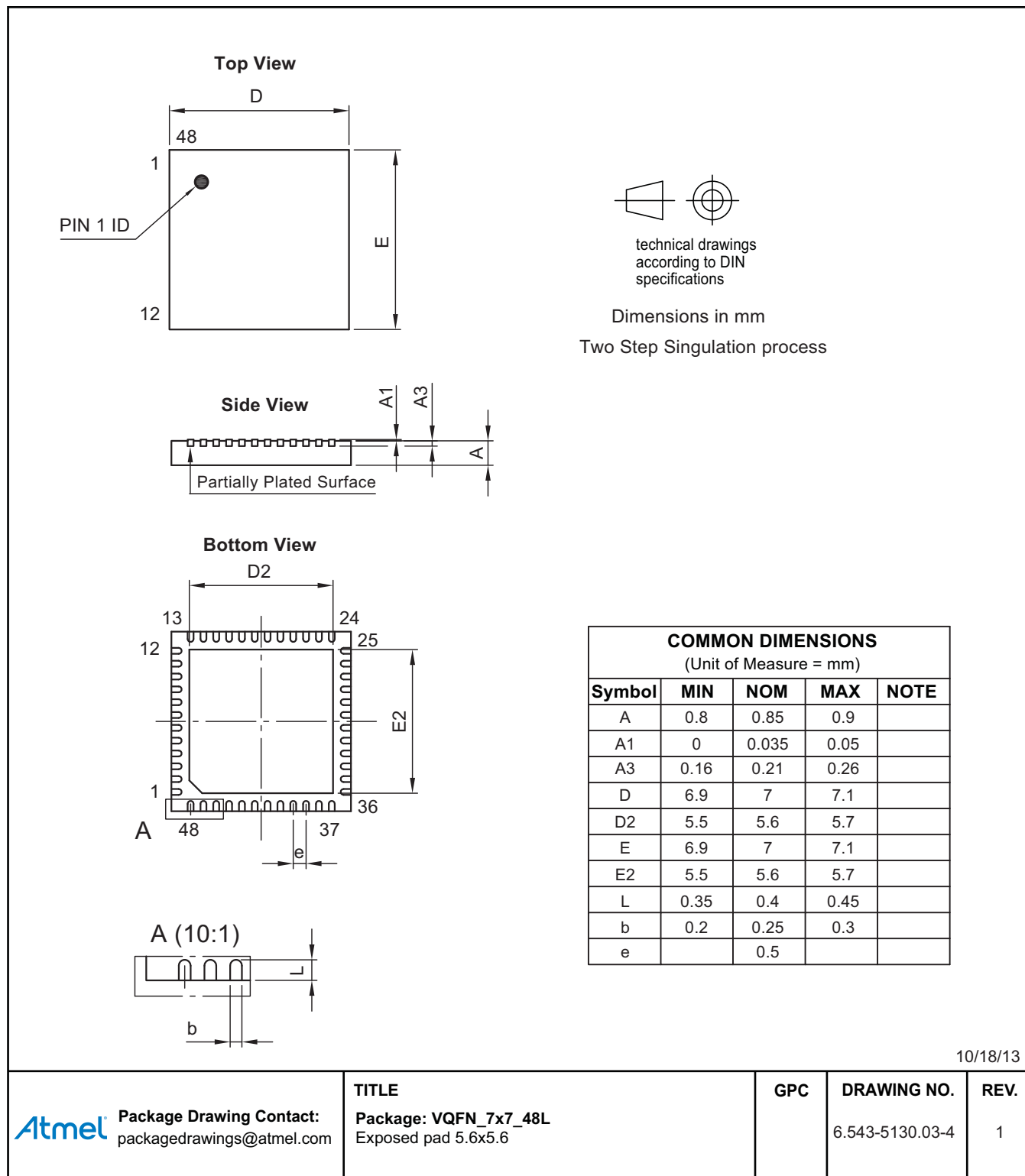
Figure 2-1. Pinning, QFN48 Package



3. Ordering Information

Extended Type Number	Package	Remarks
ATA5291-GJQW	QFN48	7mm × 7mm, Pb-free, 4k, taped and reeled, wettable flanks

4. Packaging Information



5. Appendix A: Acronyms and Abbreviations

BPLM – Binary pulse length modulation

NRZ – Non-return-to-zero modulation

OOK – On-off keying

PEPS – Passive entry/passive start

WUP – Wake-up pattern

6. Revision History

Please note that the following page numbers referred to in this section refer to the specific revision mentioned, not to this document.

Revision No.	History
9374AS-RKE-11/15	• Initial release

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