

IA8251

Advanced Information Sheet

Programmable Communication Interface

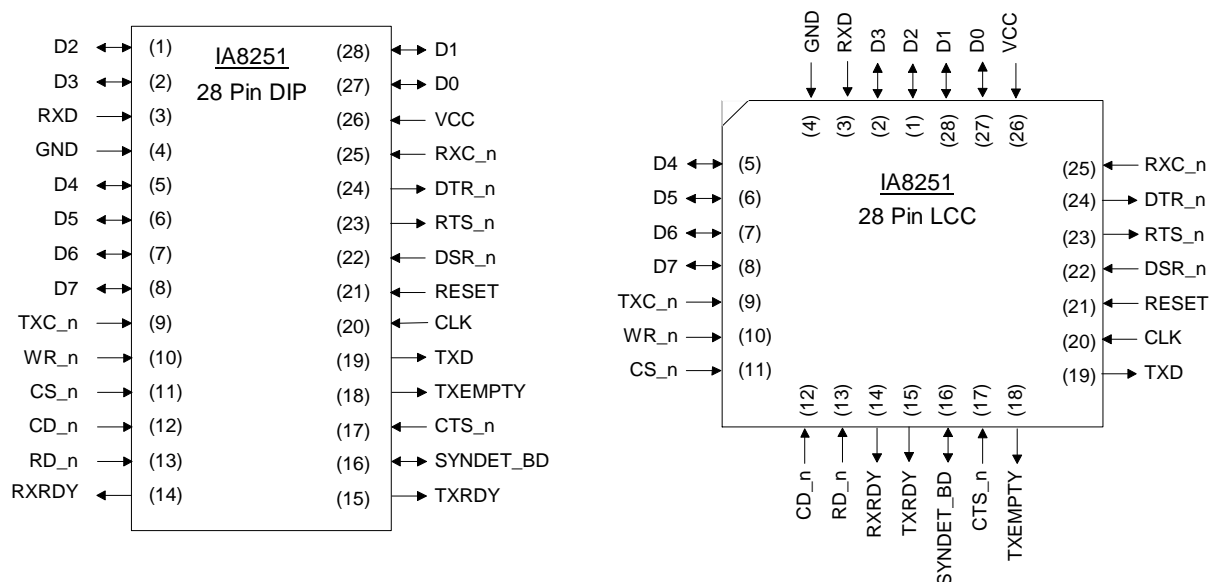
FEATURES

- **Form, Fit, and Function Compatible with the Intel[®] 8251A**
- **Packaging options available: 28 Pin Plastic Dip or 28 Pin Plastic Leaded Chip Carrier**
- **Synchronous and Asynchronous Operation**
- **Full Duplex, Double-Buffered Transmitter and Receiver**
- **Programmable Word Length, Stop Bits, and Parity**
- **Offers Divide-by-1, -16, or -64 Mode**
- **Includes:**
 - **Error Detection**
 - **False Start Detection**
 - **Automatic Break Detection and Handling**
 - **Internal and External Sync Character Detection**

The IA8251 uses **innovASIC**'s innovative new **f³ Program** to provide industry with parts that other vendors have declared obsolete. By specifying parts through this program a customer is assured of never having a component become obsolete again. This advanced information sheet assumes the original part has been designed in, and so provides a summary of capabilities only. For new designs contact **innovASIC** for more detailed information.

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Package Pinout



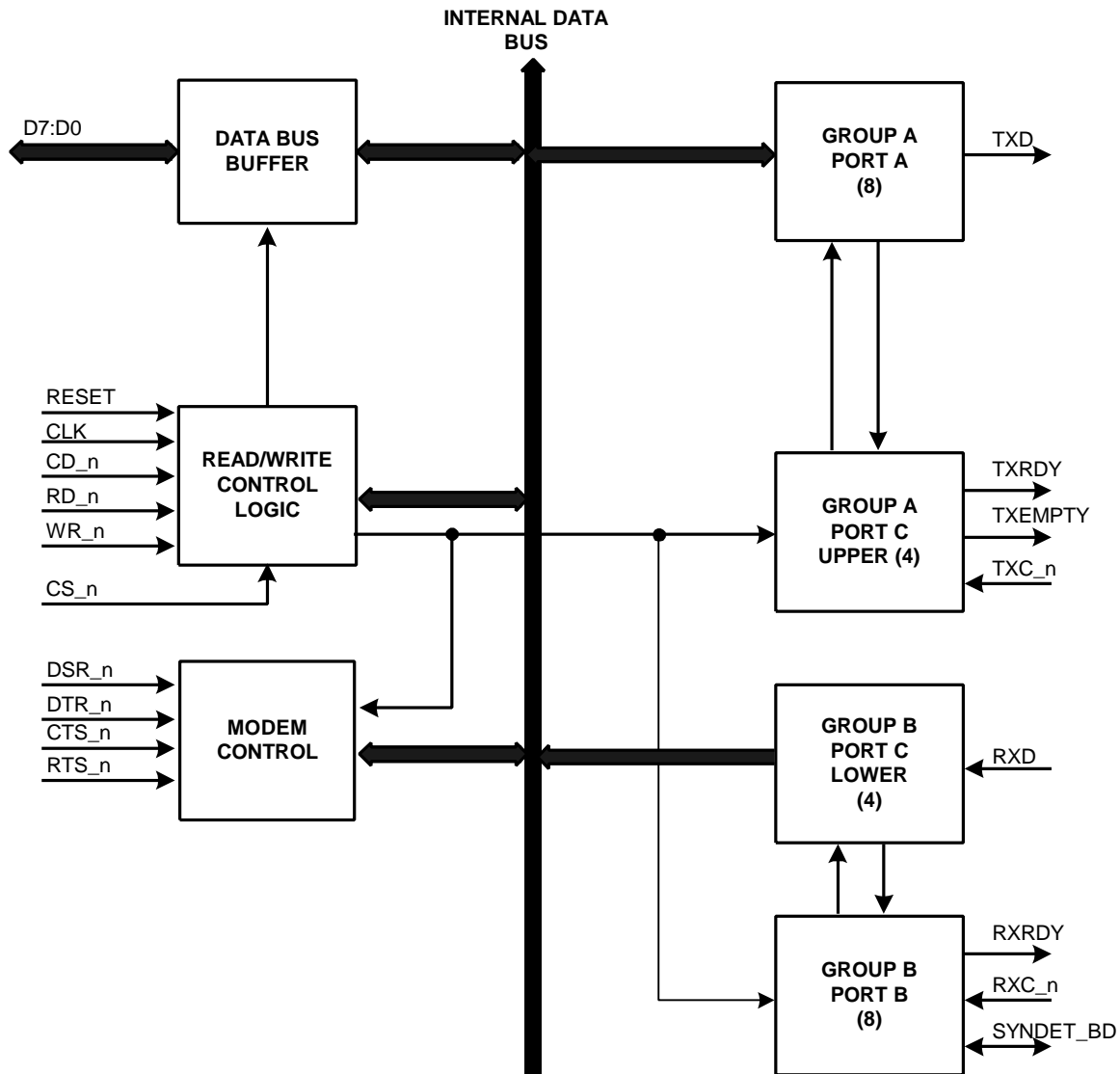
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Programmable Communication Interface

The IA8251 provides an interface between a microprocessor and a serial communications channel. The IA8251 receives and transmits data in a variety of configurations including 7- or 8-bit data words, with odd, even, or no parity, and 1 or 2 stop bits. The transmitter and receiver can be designed for synchronous or asynchronous operation.

A block diagram is shown in Figure 1.

Functional Block Diagram Figure 1



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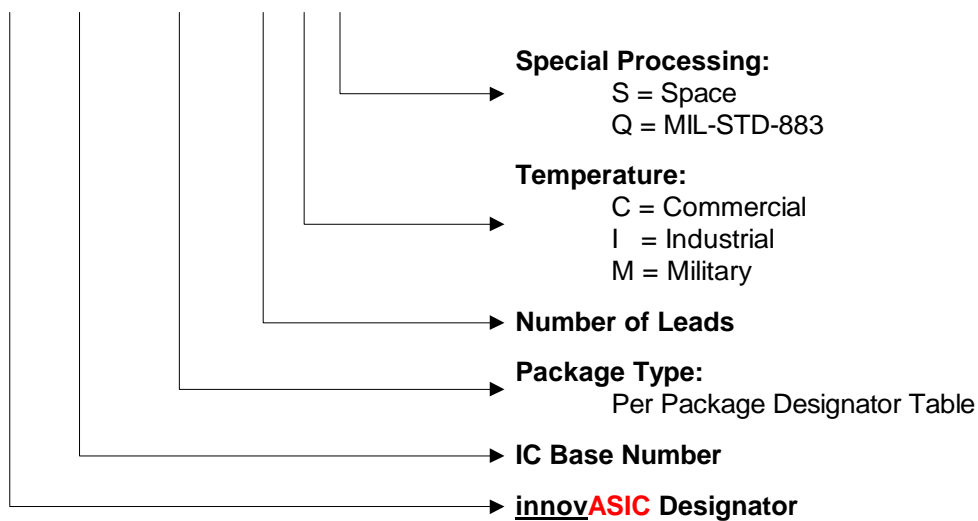
Qualification Levels

Table 1

| Part Number | Environmental/ Qual Level |
|---------------|---------------------------|
| IA8251-PDW28C | Commercial |
| IA8251-PLC28C | Commercial |
| IA8251-PDW28I | Industrial |
| IA8251-PLC28I | Industrial |

The following diagram depicts the **innovASIC** Product Identification Number.

IAXXXXX-PPPPNNNT/SP



Programmable Communication Interface

Package Designator Table

| Package Type | innovASIC Designator |
|--|--------------------------------|
| Ceramic side brazed Dual In-line | CDB |
| Cerdip with window | CDW |
| Ceramic leaded chip carrier | CLC |
| Cerdip without window | CD |
| Ceramic leadless chip carrier | CLL |
| PLCC | PLC |
| Plastic DIP standard (300 mil) | PD |
| Plastic DIP standard (600 mil) | PDW |
| Plastic metric quad flat pack | PQF |
| Plastic thin quad flat pack | PTQ |
| Skinny Cerdip | CDS |
| Small outline plastic gull-wing(150 mil body) | PSO |
| Small outline medium plastic gull-wing (207 mil body) | PSM |
| Small outline narrow plastic gull wing (150 mil body) | PSN |
| Small outline wide plastic gull wing (300 mil body) | PSW |
| Skinny Plastic Dip | PDS |
| Shrink small outline plastic (5.3mm .208 body) | PS |
| Thin shrink small outline plastic | PTS |
| Small outline large plastic gull wing (330 mil body) | PSL |
| Thin small outline plastic gull-wing (8 x 20mm) [TSOP] | PST |
| | |
| PGA | CPGA |
| BGA | CBGA |

Contact **innovASIC** for other package and processing options.