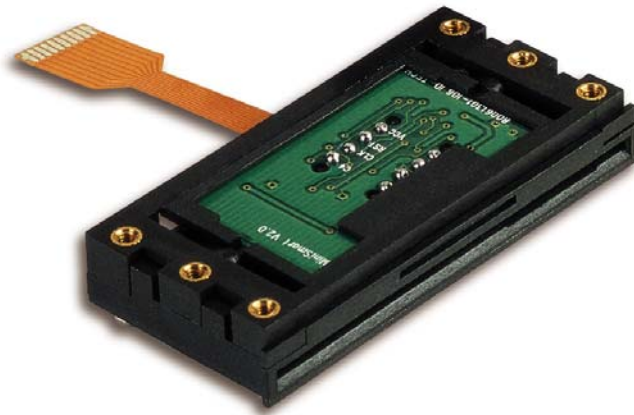


Product Evaluation Guide

MiniSmart™ Card Reader TTL Only



80061511-001
Rev. A R08/05
#471

IDTECH[®]
Value through Innovation

Product Evaluation Guide, MiniSmart™, TTL Only

The MiniSmart™ TTL Evaluation Kit includes (P/N# 80061005-001):

- Cover Letter
- MiniSmart™, TTL Only Product Evaluation Guide (P/N# 80061511-001)
- MiniSmart™ TTL User's Manual (P/N# 80061506-001)
- A MiniSmart™ reader (without bezel), mounted to an evaluation board

EVALUATION GUIDE CONTENTS

I. Introduction	3
II. Description	3
III. Confirming Reader Operations	5
IV. How to Contact Us	5

Product Evaluation Guide, MiniSmart™, TTL Only

I. Introduction

This document describes a MiniSmart™ TTL reader connected to an evaluation board. The board provides a convenient means for electrically connecting to the MiniSmart™ reader. The evaluation board has several functions, which include evaluation of a sister product, the MiniSmart™ Intelligent reader. The evaluation board has only one function when used with the TTL only MiniSmart™ reader. Only that function is described in this document.

II. Description

Because of its small size and flex cable connection, the reader supplied with this Kit is mounted on a PCA that facilitates a direct connection between the ICC connector in the MiniSmart™ reader and the customer's application test assembly (Host). This evaluation PCA is not part of the MiniSmart™ reader and would not be necessary in an OEM application environment. A bezel (with or without a gate) is available upon request.

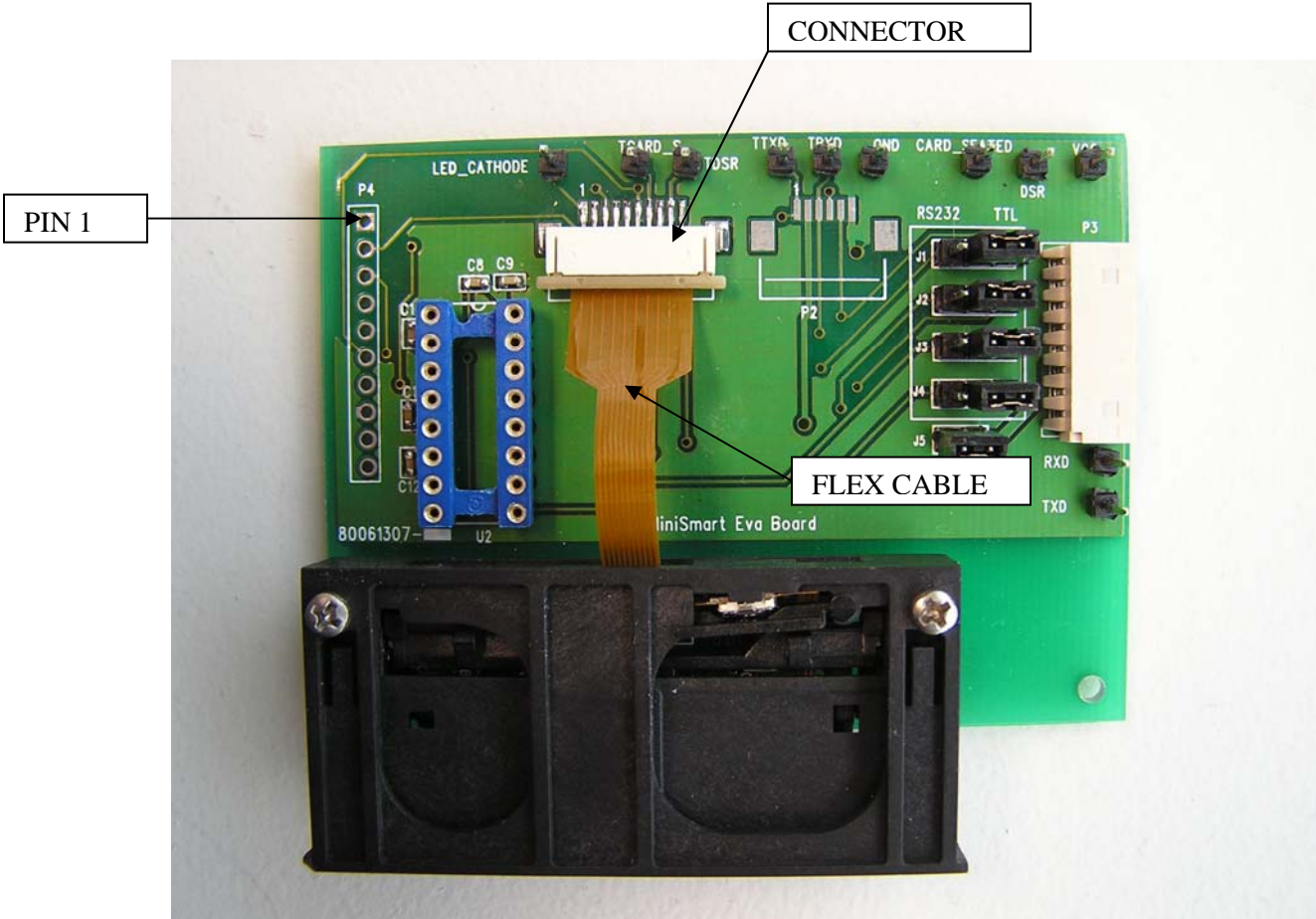
The MiniSmart™ is mounted top-side-down on the evaluation PCA so that the bottom chassis openings face up. In usage, the unit would properly be mounted with these openings facing downward to allow dust and debris to fall through. This orientation of the evaluation PCA & reader causes the MiniSmart™ connector contacts to be on the bottom side of the reader throat. The Smart Card (ICC) contacts must face down when inserting the card into the reader. Reader orientation does not effect reader operation.

The reader's flex cable is mated with a Molex 52271-1090 connector mounted on the board. The pins of the connector terminate at solder pads in the rectangular box (labeled P4) at the left side of the board (as shown in the photo). Pin 1 is identified by the square solder pad. See the pin-out table for further connection information. The socket, jumpers and other connections are not used for evaluating the TTL Only reader.

An appropriate cable or connector and cable must be soldered to the evaluation board P4 solder pads and terminated as needed to the Host for evaluation operations. Some electrical de-coupling capacitors are provided on the evaluation board; however, the length and inductance of the PCA traces and interconnect cable may cause signal reflections and errors at the higher data transfer rates.

Please see the MiniSmart™ user manual for additional specifications and details.

Product Evaluation Guide, MiniSmart™, TTL Only



Pin-outs for the MiniSmart™ are as follows:

CABLE	SIGNAL
1	C1, VCC
2	C5, GND
3	C2, RST
4	C6, NC/VPP
5	C3, CLK
6	C7, I/O
7	C4, NC/FUSE
8	C8, NC/PROG
9	SW
10	SW-GND (C5)

Product Evaluation Guide, MiniSmart™, TTL Only

III. Confirming Reader Operations

The two SW signal lines are connections to the poles of the reader's card seated switch. SW-GND is connected to signal C5 (GND). The signal lines are "closed" when a card is fully inserted.

The other signal lines are direct connections to the Smart card when it is fully inserted. The ICC application and host hardware will determine the use of these signals based on the ICC type and evaluation requirements.

IV. How to Contact Us

Please contact us for any reason. We are available during our normal business hours from 8AM to 5PM Pacific Time, Monday through Friday.

Please contact us:

**10721 Walker Street
Cypress, California 90630**

PH +800 984 1010

PH +714 761 6368

FAX +714 761 8880

**www.id-tech.net
sales@id-tech.net**