



Figure 1- Ref Design Example: VFS101 Peripheral.

Validity VFS101

2D Swipe Sensor™

The Most Reliable and Flexible Fingerprint Sensor on the Market

The Validity VFS101 **2D Swipe Sensor™** has the highest reliability of any low cost fingerprint sensor

The finger swipes over an extremely robust plastic film, not fragile silicon

The sensor is highly resistant to static discharge, finger abrasion, excessive impact and harsh environments

Low risk product integration - the VFS101 has the feature flexibility to deal with market changes

Advanced image reconstruction, with no additional components

The image is acquired deep below the skin's surface, external skin conditions have little or no effect

The VFS101 auto-adjusts the scan as the finger is swiped producing the highest quality image in the market

Highest Reliability

The VFS101 sensor is etched onto a thin and flexible circuit of extremely durable plastic (Kapton). The finger only comes into contact with plastic, not the active electronics. This minimizes the human effects of Electro-Static Discharge (ESD) and finger abrasion. Kapton has a much higher resistance to wear from finger swiping than common touch pads. Impact, such as from finger rings and pen drops do not cause damage to the Kapton film. The silicon of the VFS101 never comes into contact with the outside world.

Lowest Risk Product Adoption

A powerful on-board programmable microprocessor with a choice of high speed communications ports and general purpose IO ports provides the highest level of flexibility and lowest risk of product adoption bar none. There is no other sensor on the market that will grow with your product plans like the VFS101.

Advanced, Low Cost Image Reconstruction

Unique, patented technology solves the image reconstruction issues introduced by the advent of swipe sensors. Our superior technology measures the location and speed of the finger, permitting a picture perfect image reconstruction without extra components or complex software. This is the 2D swipe advantage.

Reads Below the Skin Surface

The VFS101 uses the next generation of high quality Radio Frequency signal-processing to image deep into the living tissue of the finger. This ensures that we capture only the true fingerprint, not the dirt, grime or marks on the surface.

Highest Quality Image

While the finger is being swiped, the sensor will adjust the signal quality and strength line by line. We are able to dynamically adapt to different finger types with ease.

Product Options

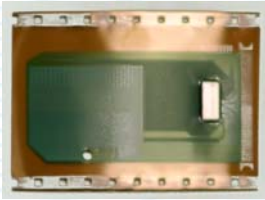


Fig 2- 35mm Chip-On-Film

VFS101 35mm Flex in Reels

35mm Chip-on-Film delivered in reels, available to mount into custom packaging.

Ultimate cost effective configuration

35mm Flex on Module

Flex circuits cingulated and mounted to PCB for quick turn.

14 pin connector, 3.3V USB and GPIO

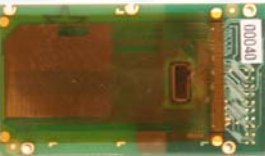


Fig 3- 35mm Flex on Module

VFS101 USB Interface Board

The USB interface board provides the necessary hardware to connect a 35mm module to standard USB interface. A quick turn reference for standalone peripheral applications

5-pin Mini-B connector, 3.3v to 5v for power and USB
12MHz clock



Fig 4- USB Interface Board

Technical Evaluation Kit (VFS101 TEK)

Evaluate our technology

USB Peripheral based on the VFS101
Demonstration software and full documentation
Engineering samples of Flex and Module

Software Development Kit (VFS101 SDK)

Build your own applications around our technology

VFS101 TEK
Class libraries and DLLs for software development



Fig 5- VFS101 TEK

VFS101 PC Peripheral Reference Design

A complete development kit which includes:

VFS101 TEK
Working Modules and Flex
Engineering drawings and support to develop your application

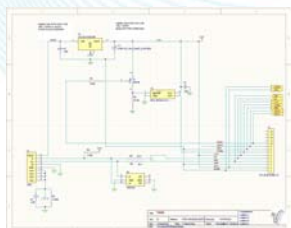


Fig 6- VFS101 PC Peripheral Ref Design.

For more detailed electrical and mechanical information please see the Data Sheet