

**Application:** MFP - Multifunction printer  
**Pericom Device:** PI90LV017A, PI90LV027A

### MFP - Multifunction printer

The small office/home office (SOHO) is becoming a more attractive alternative for many people, particularly with recent advances in home automation equipment. The need for a copier, document scanner, printer and fax machine is an expensive and space-intensive problem.

A multifunction printer (MFP) can provide these office functions in a single compact unit. In addition to the space savings there are other clear advantages: documents are scanned once, then printed many times; copy quality is much better than standard office copiers; more interfacing capabilities with networking, DSC or mobile devices; greater flexibility is provided by having all the functions in a single unit.

The internal circuitry of the MFP is more complex than a standalone scanner or printer, but many of the blocks common to both functions are combined to achieve a compact solution product. The principal part for image capture is the image sensor. Most image scanning devices used today are CCD (Charged-Coupled Device) or CIS (Contact Image Sensor); usually CCD shows higher resolution quality than CIS and is used in middle-end to high-end models. The basic building blocks of MFP are shown in Fig. 1.

### The Pericom Solution

For middle-end to high-end MFP models, image resolution, quality, and printing speed have become product features and are also used as a performance index. To achieve higher resolution, the image-scanning module will need to scan-in more pixels per line; to achieve higher processing speeds, the image-scanning module will also need to speed up the scanning speed. The traditional way of using TTL signals between the image-scanning module and the image process unit board is no longer capable of providing the density data transmission at high speed and provide good signal integrity.

LVDS transmission has become the best way for the signal link with high-speed, good signal integrity, and low EMI.

Pericom PI90LV017A acts as a LVDS driver supporting transmission data rates exceeding 400Mbps. Because the same 8-pin SOIC, TSSOP and MSOP packages support Pericom's PI90LV027A, designers can easily alternate the layout if there is a need for LVDS dual-driver transmission among various models.

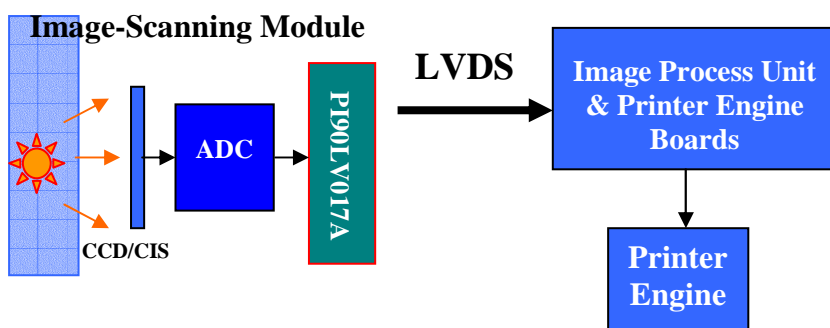


Figure 1: Basic building blocks of MFP

## Key Features & Specifications

- ❑ Typical signal rate: 500 Mbps
- ❑ Maximum propagation delay time: 2ns
- ❑ ESD rating > 6kV
- ❑ Industrial temperature range -40°C to +85°C
- ❑ Meets or exceeds TIA/EIA-644 standard
- ❑ 8-pin SOIC, MSOP and TSSOP Package
  - [Package Outline Drawings](#)  
<http://www.pericom.com/products/packaging/mechanicals.php>

## Competitive Offerings

| Pericom   | PI90LV017A | PI90LV027A |
|-----------|------------|------------|
| National  | DS90LV017A | DS90LV027A |
| Fairchild | FIN1017    | FIN1027    |
| Maxim     | MAX9110    | MAX9112    |

## Budgetary Pricing

- ❑ PI90LV017A: 100 units @ \$0.94
- ❑ PI90LV027A: 100 units @ \$2.01
- ❑

## Product Status

- ❑ Samples: NOW
- ❑ Production: NOW
- ❑ Lead Time: 4 Weeks

## Additional Information

- ❑ Datasheets, Product Presentations, IBIS, Application Notes, Quality & Package data  
<http://www.pericom.com/pdf/datasheets/PI90LV017A.pdf>
- ❑ Web Presentation - Customer Friendly  
[http://www.pericom.com/pdf/presentations/lvds\\_ow.pdf](http://www.pericom.com/pdf/presentations/lvds_ow.pdf)
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## Contact Information

Please contact your local Pericom Sales Representative or franchised distributor. Contact list provided on the web:  
<http://www.pericom.com/contact/index.php>

Product Marketing - Scott Wu  
 Pericom Semiconductor  
<mailto:swu@pericom.com>