



## F3D

### High Speed Intraoral Sensor Low Dose X-Ray Exposure, Anatomical Design, Wide Dynamic Range, Low Noise

Image performance: The F3D combines the low dose x-ray feature with a wide dynamic range and 99% pixel linearity. These features enable safe image acquisition at 10 FPS for intraoral tomography.

This sensor provides 2.4 MP resolution via the 19.5 µm pixel with 16-bits of grey-scale data. Our multi-transitor pixel with patented low-noise technology provides crisp, clear images, displaying extreme detail for 3D subject analysis.

With several trigger, shutter and hig-speed modes, we enable a variety of use cases from single shot to programmed sequences.

Ease of use: The anatomically shaped F3D accommodates easy patient positioning. Packed into a 36mm x 26mm active area, this agile form factor uses USB connectivity for plug-and-play integration and high-performance imaging right where you need it.

Trusted excellence: Building upon decades of field proven designs, Fairchild Imaging provides highly reliable sensors for the rugged use in a clinical environment. F3D sensors are designed and manufactured in the United States of America. Contact your sales representative for more information.

### **KEY FEATURES**

| Image Performance          | 3D Tomography                 |
|----------------------------|-------------------------------|
| 2.4 MP resolution          | High speed frame rate         |
| $19.5\mu m$ pixel          | Anatomical form factor        |
| 25.6 lp/mm MTF             | Dual gain modes               |
| 99% pixel linearity        | Multiple trigger modes        |
| High signal to noise ratio | Wide x-ray exposure range     |
| 16-bit grey scale          | USB plug and play             |
| 4 transistor pixel         | Onboard storage for 30 images |
|                            |                               |



# Ideal for capturing images in versatile environments

### Specifications

### Sensor

| Detector              | CMOS                  |
|-----------------------|-----------------------|
| Total resolution      | 2.4 MP                |
| Active area dimension | 36 mm x 25 mm         |
| Active area pixels    | 1842 x 1306 pixels    |
| Scintillator          | Tunable FOP with Csl  |
| Frame rate            | 10 fps                |
| Digital output        | 16 bits               |
| Data protocol         | USB 2.0               |
| Image processing      | Onboard image storage |
| Operating systems     | Windows, Mac          |
|                       |                       |

#### Pixel

| Pixel size        | 19.5 μm x 19.5 μm     |
|-------------------|-----------------------|
| Shutter types     | Rolling, Global Reset |
| Trigger           | Auto-detect           |
|                   | Software programmable |
| Programmable gain | LG: 1x   HG: 10x      |
| Pixel linearity   | 99% in HG             |
| LP/MM             | 25.6 lp/mm            |
| Mechanical        |                       |
| USB cable         | Factory replaceable   |
| Waterproof        | IPX8                  |





(F3D, shown in actual size.)



For more information contact: Fairchild Imaging, Inc. 1841 Zanker Rd., Ste. 50 San Jose, CA 95112 USA

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