

X-Tile



Tileable medical CT detector module



- Scalable from 32- to 256-slices and beyond
- Standard module speeding up time-to-market and lowering total costs
- Best-in-class image quality
- Fast scanning speed
- Well-proven platform
- Reduced radiation dose

X-Tile X-Tile sets a new industry standard as the world's first off-the-shelf, tileable CT detector module. The 4-sides buttable module easily scales up from 32- to 256-slices, enabling 160-millimeter coverage at the isocenter and beyond.

X-Tile lowers the total cost, risks and entry barrier to introduce multi-slice solutions to the highly competitive CT market. The standard solution enables the instant start of detector system development halving the time-to-market and delivering remarkable cost savings.

X-Tile meets the most stringent performance requirements of the highest tier volumetric CT systems. The well-proven platform provides high X-ray image quality with fast scanning speed, and reduces the radiation dose for patient safety.

State-of-the-art performance is enabled by a pixelated, ultra-fast ceramic scintillator, coupled on a high-performance BSI photodiode. The scintillator is made of high-light-output, ultrafast and the finest medical grade GOS (Gadolinium oxysulfide) compound. The characteristics of the most sensitive and ultra-low dark current photodiode are achieved through a unique BSI photodiode manufacturing process.

The active area size is 32 x 16 pixels, providing 512 channels that support simultaneous sampling up to a speed of 17 kSPS. X-Tile comes with a 24-bit ADC providing fast, low noise and high-resolution analog-to-digital conversion. Furthermore, the module features an adjustable full-scale range. The solution is compatible with digital LVDS and CMOS interfaces.

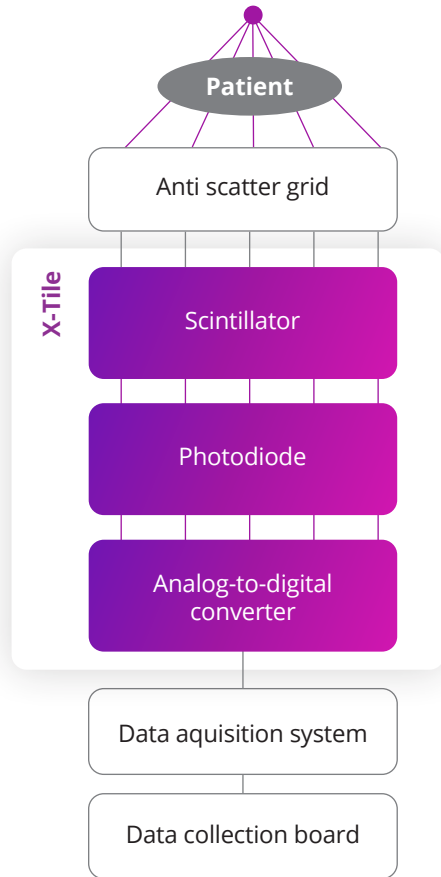
Key features

- 4-sides tileable
- 32 x 16 pixel matrix
- Pixelated, ultra-fast ceramic GOS scintillator
- High-performance BSI photodiode
- 512 channels supporting simultaneous sampling up to 17 kSPS speed
- 24-bit ADC
 - Fast, low noise and high-resolution conversion
 - Adjustable full-scale range
- Compatible with digital LVDS and CMOS interfaces

Applications

- Medical CT
- Ultra-fast industrial real-time scanning

Functional block diagram



Key mechanical dimensions

