

NE1412

Introduction:

NE1412 series, the CMOS-based flat-panel detectors, apply to digital X-ray imaging in dental CBCT, Orthopedics, Veterinary and industrial NDT areas. Designed with $100\mu\text{m} \times 100\mu\text{m}$ pixel size and a large photosensitive area of $14\text{cm} \times 12\text{cm}$, coupled with different thickness FOP for choice as needed to improve the image resolution and to prevent the X ray radiation on the CMOS chip and peripheral circuit so as to prolong the product life. Integrated scintillator is to enable image output with high sensitivity and high resolution. Combined with USB3.0 readout circuit and GigE is for optional, its CMOS chip has been embedded with 14bit ADC circuit. Available for backend readout circuit design as required.

The SDK could be provided for customer's further development. A variety of OEM/ODM customization options are available.

Pictures:



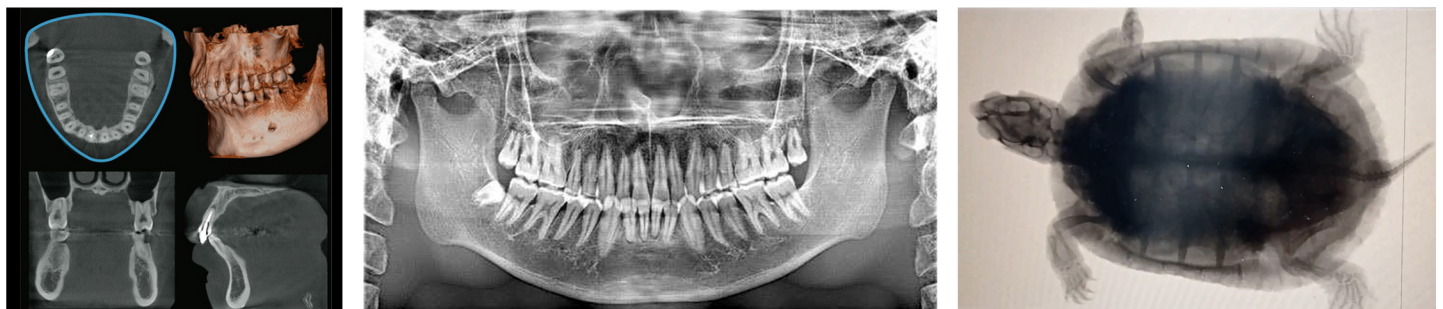
Features:

- APS CMOS design with $100\mu\text{m} \times 100\mu\text{m}$ pixel size
- Low readout noise
- Frame Rate: Max 30fps
- USB3.0 connectivity, GigE for optional (customized)
- Cross-platform Drivers: Windows, MAC/Linux for optional
- Customized application software for different fields

Applications:

- 3D Dental CBCT
- Orthopedics
- Veterinary
- Industrial inspection

Image Samples:



CMOS Image Sensor For X-Ray



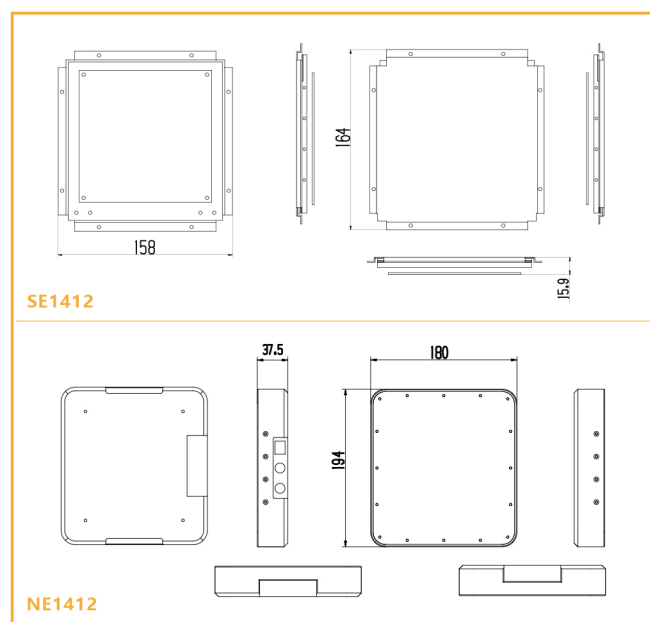
Specifications:

Items	Value	Unit
Pixel size	100*100	μm
Pixels	1200*1400	pixels
Active Pixels	1200*1400	pixels
Active Area	120.0*140.1	mm
ADC	14	bit
Spatial Resolution	4	lp/mm
Shutter Type	Rolling Shutter	
External Trigger	YES	
Dynamic Range	74 @LFW 80.5 @HFW	dB
Dark Current @25°C	4500 @LFW 6200 @HFW	e-/sec
Full Well	365 @LFW 3100 @HFW	ke-
Interface*	USB3.0, GigE	
Frame Rate	30	fps
Power Supply	3.3, 3.5	V
Power	3.3	W
ESD	8	kV
Substrate	Al-alloy	
Operating Temperature	0~40	°C

Remarks:

1. Interface: USB3.0 is for NE1412, customized GigE is for optional

Dimension (unit:mm):



Optional Models:

Model	Scintillator	Remarks
NE1412-G	GOS / High-resolution	Image Sensor
NE1412-C	Csl-HL / High-light-output	Image Sensor
NE1412-H	Csl-HR / High-resolution	Image Sensor