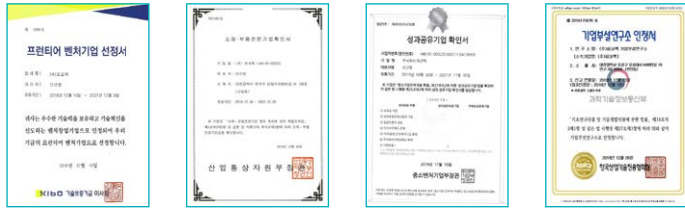


# UNRIVALED PACKAGING TECHNOLOGY

## WE WILL REPAY YOU WITH PICOPACK'S KNOW-HOW

### Certificates



# SEMICONDUCTOR SYSTEM SPECIAL PACKAGING SOLUTION

www.picopack.co.kr

PICOPACK was established in 2016. We are manufacturing the innovative X-ray image acquisition devices (Intra-Oral dental X-ray sensor / digital operating CNT X-ray sourcetube) for comfortable & safe dental check-up. We've been found several problems in dentistry area currently. First, people are exposed by radiation when they do dental X-ray inspection. Second, delay of acquiring dental X-ray image. Third, misdiagnosis are caused by low resolution dental X-ray image acquiring devices. Our solutions / products are Intra-Oral X-ray sensor (OEM / ODM) and digital CNT X-ray source tube (Component Supply) for hand-held portable X-ray generator. For now, our domestic partners and cooperatives are Genoray, Vieworks, Dentium, Ray, Osstem, Digimed. Also, our overseas contractors are Polaroid Dental Imaging(US) and Planmeca (Finland). These are make our company competitive in many way and we can share our benefits and values with global community.



- **Patents** US PCT patent application / 7 domestic patents
- **Awards** 2 Minister's Awards
- **Certification** Selection as a Frontier Venture Company  
Family-Friendly / Corporate Attached Research Center  
Performance Sharing Company  
Parts and Materials Company



### Past Performance

**Recipient** | GENORAY (Korea)  
**Offering** | Semiconductor packaging system

**Recipient** | Osstem Implant (Korea)  
**Offering** | Oral sensor for dental care

**Recipient** | Dentium (Korea)  
**Offering** | Oral sensor for dental care



91, Sinilseo-ro 85beon-gil, Daedeok-gu, Daejeon, Republic of Korea

Tel 042-362-5050  
Fax 042-362-5055  
Email gyoh@picopack.co.kr  
Homepage www.picopack.co.kr



## Intra-Oral sensor for Dental check-up



## CNT X-ray Tube



「The Intra-Oral sensor for dental care」 is a dental X-ray image acquiring devices. These sensors emit X-ray to acquire full high-definition (FHD) images to examine such as tooth tissues, nerves and roots, or to perform implants.

「CNT(Carbon Nano Tube) X-ray Tube」 is a key part of next-generation x-ray examination equipment for digitalization, with highly small size and weight, and It can reduce radiation by 70%. Because it is based on one electronics emitting method by using carbon nano tubes.

Item	Intra-Oral Sensor	
Model	XDP-F350A	XDP-G350A
External Dimensions Detector	43.4 x 33.7 x 5.4(#2.0)	43.4 x 33.7 x 4.2 (#2.0)
Active surface in Size	26.2mm x 34.4mm	
Pixel Size	20um	
Theoretical Detector Resolution	25 lp/mm	16 lp/mm
Scintillator Technology	FOS	GOS
Gray Levels	16,384(@14bits)	
Dynamic Range	60dB	
Full Well Capacity	600,000 Electrons	
Frame Rate	0.6fps	
Connection	Standard USB 2.0	

Item	Digital CNT X-ray Tube	
Tube Voltage	65kV (Medical / Dental)	80~120kV (Industrial)
Tube Current	3mA	0~100mA
Anode Angle	12.5	12.5
Focal Spot	0.4mm	0.1~0.4mm
Exposure Time	0.01~0.5s	0.1~1s
Operation Time	100K[shot]	Conditional
Life Time	15,000h / 2year	15,000h / 2year
Size	54.5 x 15(mm)	75mm x 30mm
Weight	40g	70g

## Features

### ● We have technological competitiveness and superiority

#### Oral sensor

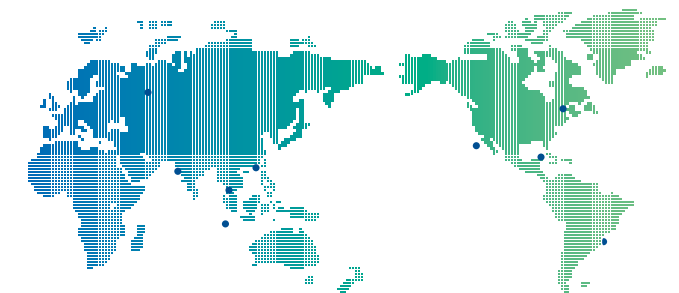
- We have significant experiences in developing and mass-producing various packaged modules such as cephalo, panorama, CT, etc.
- We have reliable technologies for mass-production of low-price X-ray detector modules.

#### CNT X-ray Tube

- We have ETRI's frontier technology and proprietary packaging technologies to produce CNT-based digital x-ray tubes.
- Other companies produce the tube differently. So those make the price of CNT much expensive
- By applying our own technologies, it makes possible to get efficiency. Comparing to existing production processes, our technologies can secure price competitiveness (60% compared to existing level), as well as safety and reliability.

### ● Global market competitiveness

- International PCT is applied.
- We have extended our sales channel by signing the MOU, NDA with P Company (USA-MOU), P Company (Finland-NDA). Also, we get supply contracts with T Company (Thailand) and B Company (Vietnam).
- Picopack has global partnership with many countries



USA | New York, New York

USA | Atlanta, Georgia

Branch Office of PICOPACK | Silicon Valley, California

Finland | Asentajankatu, Helsinki No.1 Medical Instruments Company

Brasil | Brasilia Medical/Dental Design & Manufacturing Company

India | New Dehli

China | Shanghai

Vietnam | Hanoi

Indonesia | Jakarta