

# scintacor

THE CENTRE OF SCINTILLATION

## for Dental Imaging

Advanced CsI scintillation technology  
customised for high performance and  
superior digital imaging



# brighter scintillation at the core of your digital imaging system

**Lower X-ray dose with maximised resolution and enhanced image quality are key advantages of using a Scintacor customised scintillation solution.**

In response to the growing demand for high quality digital images in dental radiography, we have applied our extensive experience in component technology, to create a range of custom caesium iodide (CsI) based scintillators.

Our flexible manufacturing capabilities allow us to customise our products to meet the high performance demands of this market. The resulting scintillation products allow you to choose the right level of performance that best suits your requirements and system application.

## **the market advantage of CsI**

The capture and storage of digital images greatly simplifies patient record administration, improving efficiency of data handling, retrieval and transfer, allowing improved long term care plans and 'one visit' patient strategies.

CsI based scintillators allow for instant image display and higher resolution images.

## **patient benefits**

Compared to film, digital imaging requires a much lower X-ray dose minimising patient exposure. With the advantage of instant image display it provides immediate results, eliminating film processing time and leading to faster patient diagnosis.

Patient confidence and understanding is greatly enhanced by enabling the dental practitioner to offer pictorial patient treatment plans via the digital images.

## **intelligent technology**

As an established authority in caesium iodide deposition, we have developed custom application techniques for superior to-the-edge coatings. These provide a best in class image area from the fibre optic plate (FOP).

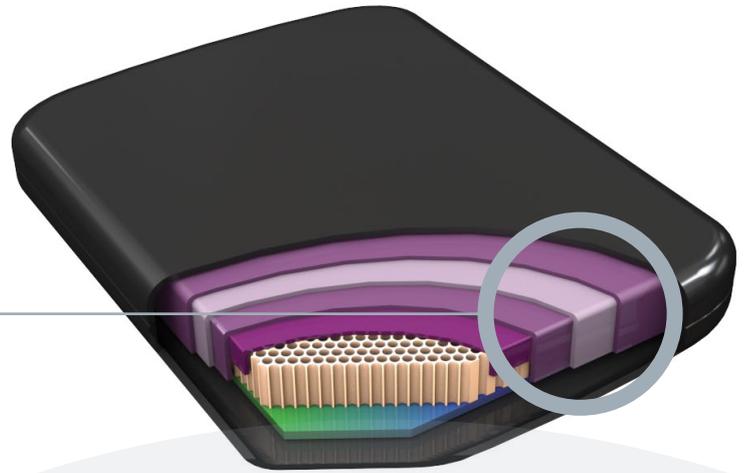
**Our unique application techniques also offer a flexible sizing advantage, allowing us to produce components bespoke to the dimensions required by our customers systems.**

With flexible manufacturing facilities, we provide our customers with consistent quality for small and large production volumes.

*flexibility to deliver clever  
and custom scintillation  
components*

## Caesium Iodide Coatings

- Coated fibre optic plates
- Structured columnar CsI
- Custom reflector / absorber layers
- To-the-edge coating application
- Bespoke dimensions



*superior to-the-edge  
coatings for best in class  
image area*



# clever scintillation for dental applications

## CsI Intra-Oral

Caesium iodide coated fibre optic plates

- Intra-oral applications
- Customisable sizes
- Class leading edge-to-edge image area
- Excellent uniformity
- Ultra-high resolution imaging

The excellent sensitivity of our caesium iodide coated fibre optic plates, in combination with CCD and CMOS devices, enables reliable diagnosis and full mouth series imaging.

Customisable to your requirements, our leading CsI Intra-Oral product for dental applications offers:

### **a high performance, robust scintillator for ultra-high resolution intra-oral imaging**

Constructed using a caesium iodide based X-ray scintillator coating, grown directly on to a high quality fibre optic plate. Subsequently bonded to a CCD or CMOS device providing high X-ray attenuation and superior light output.

Our custom to-the-edge application of the CsI coating provides class leading maximum image area from the sensor.

Fully customisable size and shape profiles, with a range of coating thicknesses and optional absorber / reflector layers.

## CsI Panoramic

Caesium iodide coated fibre optic plates

- Full jaw applications
- Customisable sizes
- Low patient dose
- Dynamic image capture
- High resolution imaging

Designed for dental X-ray of the upper and lower jaw, this product provides fast X-ray response to eliminate potential image blur caused by patient movement during imaging.

CsI Panoramic is optimised for dynamic image capture, making it ideal for use with time delay integration (TDI) devices.

Customisable to your requirements, our leading CsI Panoramic product for dental applications offers:

### **a high light output, fast response scintillator for high resolution upper and lower jaw imaging**

Constructed using columnar CsI grown directly on to a fibre optic plate, that is subsequently bonded to a CCD or CMOS device.

Our custom to-the-edge application of the CsI coating provides class leading maximum image area from the sensor.

Fully customisable size and shape profiles, with a range of coating thicknesses and optional absorber / reflector layers.



## CsI Cephalometric

Caesium iodide coated fibre optic plates

- Full skull applications
- Customisable sizes
- Low patient dose
- Dynamic image capture
- High resolution imaging

Designed for dental X-ray of the cranio-maxillofacial regions, this product provides fast X-ray response to eliminate potential image blur caused by patient movement during imaging.

CsI Cephalometric is optimised for dynamic image capture, making it ideal for use with time delay integration (TDI) devices.

Customisable to your requirements, our leading CsI Cephalometric product for dental applications offers:

### **a high light output, fast response scintillator for high resolution cranio-maxillofacial imaging**

Constructed using columnar CsI grown directly on to a fibre optic plate, that is subsequently bonded to a CCD or CMOS device.

Our custom to-the-edge application of the CsI coating provides class leading maximum image area from the sensor.

Fully customisable size and shape profiles, with a range of coating thicknesses and optional absorber / reflector layers.

## CsI Cone Beam CT

Caesium iodide coated fibre optic plates

- Orthodontic applications
- Customisable sizes
- Fast response for sharper imaging
- Dynamic image capture
- Real time 3D imaging

The Cone Beam Computed Tomography (CBCT) product is optimised for real time 3D imaging of the teeth and head.

Optimised for dynamic image capture, CsI CBCT allows for high resolution, uniform imaging to aid in the placement of dental implants, wisdom teeth extraction and other orthodontic and surgical procedures.

Customisable to your requirements, our leading CsI CBCT product for dental applications offers:

### **a high light output, fast response scintillator for orthodontic applications**

Constructed using columnar CsI grown directly on to a fibre optic plate, that is subsequently bonded to a CCD or CMOS device.

Our custom to-the-edge application of the CsI coating provides class leading maximum image area from the sensor.

Fully customisable size and shape profiles, with a range of coating thicknesses and optional absorber / reflector layers.

# customised at the core

## Customer Support

Your scintillation partner

- Continued product development
- Dedicated technology specialists
- Highly knowledgeable sales team
- Quality Assurance systems
- Customer defined delivery schedules

Scintacor's flexible production capabilities and exemplary customer service allow for a collaborative approach to the design, manufacture and delivery of bespoke scintillation solutions.

We believe that ongoing collaboration allows us to adapt and improve our product offering in line with customers requirements. We are committed to continued product improvement and further understanding of our customers future, as well as current requirements.

As a BS EN ISO 9001:2008 accredited company our quality procedures allow for full product traceability. Our commitment to quality has led to a high level of confidence among our customer base in the integrity of our products.

## Custom Components

Designed and manufactured for you

- Designed to meet your requirements
- Dedicated development programme
- Product development process including prototyping and design reviews
- Quality Assurance guaranteed

Scintacor has the knowledge and expertise, based on years of experience, to partner you in the development of custom products for imaging technologies.

Resolution, sensitivity, and speed of response, are a few of the parameters that can be influenced in the production of a customised product that more clearly relates to your customers' needs.

Our experience with multiple FOP materials and configurations, together with Csl and over layer optimisation will provide product differentiation and a unique product positioning.

Talk to our expert team to see how together we can deliver clever scintillation components customised for your needs.

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# excellence of your system



## Company Overview

**Scintacor** (the new name for Applied Scintillation Technologies) is a world leader in phosphor and scintillation technology. Our products allow the conversion of many different radiations into light for imaging and detection.

Our extensive caesium iodide production facilities are backed up by full in house testing and characterisation laboratories; all housed within our clean rooms.

A comprehensive product range provides the interface for the detection of neutrons, alpha and beta particles, gamma rays, electrons, ions, X-rays, and UV/Visible and infra-red radiation. The diverse range of applications for these are listed opposite.

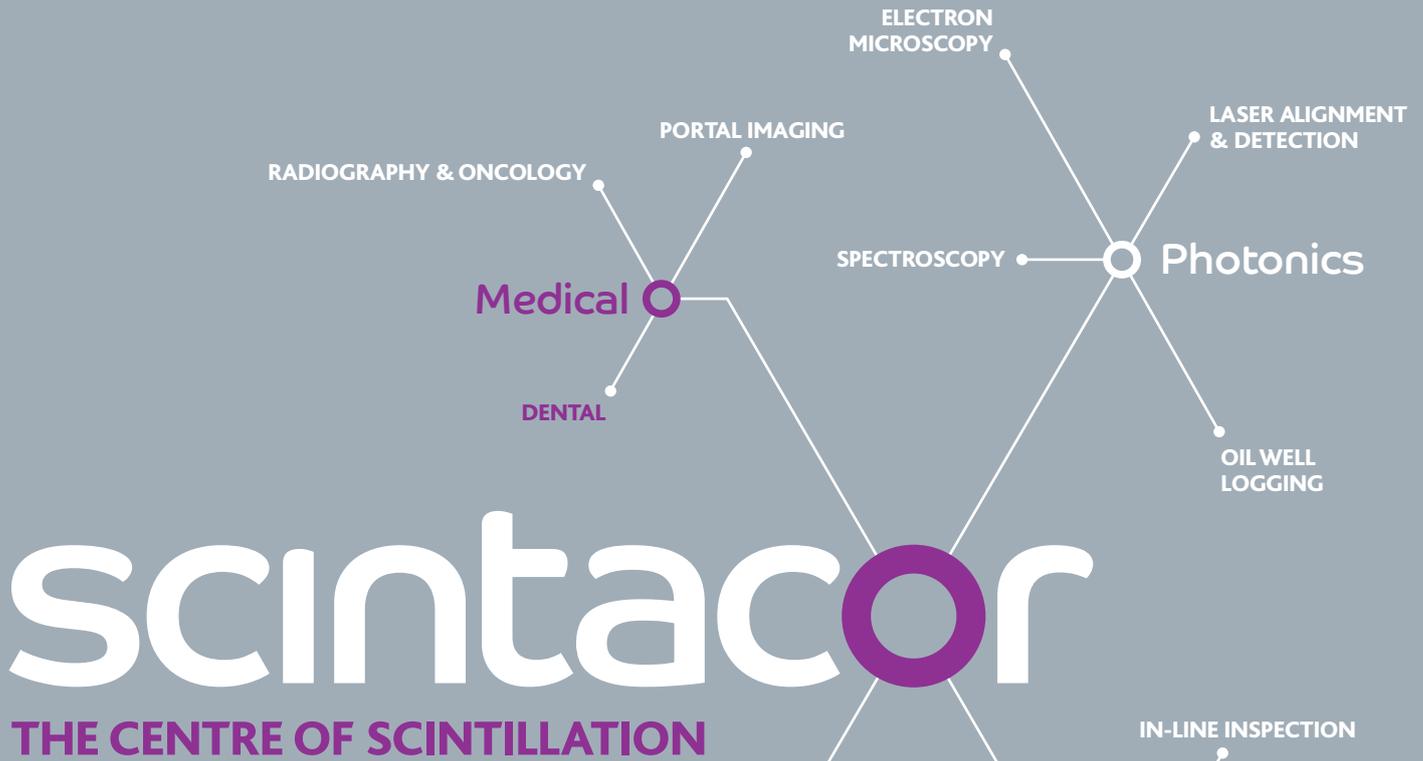
In addition to our standard product range, we are always delighted to discuss the development and manufacture of customised scintillation products for specific applications.

We also offer a range of complete products, patented infra-red digital cameras and adaptive optics, and laser alignment devices.

Continuing to build upon our 80 years of innovative product development and technological advances, Scintacor is committed to delivering flexible and timely customer-focused solutions to meet the future requirements of our key markets.

Dental X-ray Imaging  
Radiography and Oncology  
Portal Imaging  
Industrial NDT  
In-line Inspection  
Health and Safety  
Nuclear Decommissioning  
Mail, Parcel and Cargo Inspection  
Baggage Check  
Radiation Portal Monitoring  
Spectroscopy and Electron Microscopy  
Laser Alignment and Detection  
Oil Well Logging  
Space Exploration

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