

Go-Scan

by CM

# **GO-SCAN** Portable Digital X-Ray Solution for NDT



# **GET THE BEST OF BOTH WORLDS!**

Merge the highest resolution x-ray detector with the most state-of-the-art portable generator

## Get ready!

For the first time ever, Teledyne ICM & Teledyne DALSA, two of the most advanced x-ray solution providers in the world, unite forces and reveal the first Integrated Portable Digital X-Ray Solution for Non-Destructive Testing... ever!



By focusing on the end-user as the starting point of this incredible collaboration, we created a high-tech digital x-ray solution entirely designed around you!



# **One-Stop Digital X-Ray Solution!**



Featuring Teledyne DALSA's high-resolution CMOS detector together with Teledyne ICM's CPSERIES - the lightest x-ray generator on the market - the Go-Scan system is without a doubt the all-around digital NDT solution when it comes to image quality, ease of use, handiness, and reliability.

#### GO-SCAN 1510 FEATURES

#### **CP**SERIES **FEATURES**

- GO-SCAN SOFTWARE FEATURES
- ·15x10 cm Digital CMOS X-ray Detector · Portable Generators up to 225 kV
- · High Resolution down to 49.5 µm
- · Robust Mechanical Design
- · Constant Potential
- · Best Weight-to-Power Ratio
- · Small Focal Spot

- · Real-time Image Acquisition
- · Automatic IQI Recognition
- · Exposure Time Calculator
- · Image Editing and Stitching
- · Video Recording
- · DICONDE saving option

The entire **Go**-Scan system is backed by a tablet-supported software platform specially developed to meet the needs of every NDT operator out there!



### Our challenge

"Integrating the CMOS technology, primarily developed for controlled environments such as medical imaging applications, into a shock-absorbing, compact, and light-weight detector, surely represented one of the toughest challenges both our engineering teams had to face in a while."

Being able to integrate Teledyne DALSA's ultra-high-definition imaging know-how with Teledyne ICM's Constant Potential expertise and adapt them to everyday NDT problems required extensive customer inputs, repeated testing, and end-user approvals. The outcome is ensuring effortless, reliable and straight-forward inspections wherever you might be!



Using the **Go**-Scan in harsh environments such as deserts and artic regions will never diminish the quality of your inspections. Indeed, the whole system has been specially built to operate throughout a very wide temperature range, and sustain mechanical abuses of every kind.







Oil & Gas, Aerospace, Custom welding, Composites, Military, and Art & Archeology, are amongst the countless applications in which you can benefit from the power of the state-of-the-art **Go**-Scan system!

DETECTOR SPECIFICATIONS	UNIT	GO-SCAN 1510 HR	GO-SCAN 1510 XR	
GENERAL				
TECHNOLOGY	[-]	CMOS ACTIVE PIXEL		
PIXEL PITCH	[µm]	99	49.5	
PIXEL CAPACITY MODE	[#]	2	1	
ACTIVE AREA	[mm]	102 x 153 / 4 x 6	114 x 145 / 4.5 x 5.7	
ACTIVE RESOLUTION	[pxl]	1032 x 1548	2304 x 2934	
BANDWITH				
DATA INTERFACE	[-]	GigE & Wi-Fi		
ADC CONVERSION	[bits]	14		
FRAME RATE – 1x1 (GigE)	[fps]	30	9	
POWER CONSUMPTION				
POWER SUPPLY	[-]	BATTERY		
POWER CONSUMPTION	[W]	15		
BATTERY PERFORMANCE	[-]	APPROX. 7 HOURS OF CONTINUOUS OPERATION		
ACTIVE COOLING	[y/n]	NO		
INTEGRATION				
DIMENSION DETECTOR HEAD	[mm] / [inch]	238 x 154 x 25 / 9.4 x 6.0 x 1.0		
OVERALL DIMENSION (CONTROL BOX INCLUDED)	[mm] / [inch]	238 x 154 x 80 / 9.4 x 6.0 x 3.1		
DETECTOR HEAD WEIGHT	[kg] / [lb]	1.6 / 3.5		
OVERALL WEIGHT (CONTROL BOX INCLUDED)	[kg] / [lb]	3.5 / 7.7		
ENVIRONMENTAL				
OPERATING TEMPERATURE	[°C] / [°F]	-20, +50°C / -4, +122°F		
STORAGETEMPERATURE	[°C] / [°F]	-20, +60°C / -4, +140°F		
HUMIDITY	[% R.H.]	20 to 80		
X-RAY ENERGY RANGE	[kV]	10225		
IP RANGE	/	IP	65	





GENERATOR SPECIFICATIONS	UNIT	SITEX CP160D	SITEX CP200D	SITEX CP225D	CP120B	CP160B
RADIATION GEOMETRY	-	Directional	Directional	Directional	Directional	Directional
CONSTANT POTENTIAL	-	Yes	Yes	Yes	Yes	Yes
OUTPUT VOLTAGE SELECTION STEPS	kV	1	1	1	1	1
TUBE CURRENT RANGE	mA	1 to 10	1 to 10	1 to 10	0.1 to 1.0	0.1 to 0.5
TUBE CURRENT AT FULL OUTPUT	mA	5.6	4.5	4.0	1.0	0.5
MAX POWER AT THE ANODE	W	900	900	900	120	80
OUTY CYCLE AT 30°C (*)	%	100	100	100	/	/
STEEL PENETRATION AT MAX POWER 700MMFFD/AA400/D=2/T=10MIN)	mm / inch FE	29 / 1.1	42 / 1.7	47 / 1.9	10	21
ALUMINUM PENETRATION AT MAX POWER (700MMFFD/AA400/D=2/ T=10MIN)	mm / inch AL				60 / 2.4	100 / 3.9
WEIGHT (excluding guard rings)	kg / Ib	11.9 / 26.2	12 / 26.5	12.1 / 26.7	7.0 / 15.4	9.2 / 20.3
OVERALL DIMENSIONS	mm	Ø 140 x 695	Ø 140 x 715	Ø 140 x 725	Ø 124 x 440	Ø 124 x 490
	inch	Ø 5.5x27.4	Ø 5.5x28.1	Ø 5.5x28.5	Ø 4.9x17.3	Ø 4.9x19.3
FOCAL SPOT according to EN12543	mm	3.0 (~1.5 IEC 336)	3.0 (~1.5 IEC 336)	3.0 (~1.5 IEC 336)	0.8 x 0.5	0.8 x 0.5
	inch	0.1	0.1	0.1	0.03 x 0.02	0.03 x 0.02
MAX USEFUL ANGLE	٥	60 x 40 elliptical	60 x 40 elliptical	60 x 40 elliptical	50 x 50	60 × 60
INHERENT FILTRATION	mm Be	0.8 (Be window)	0.8 (Be window)	0.8 (Be window)	Equiv. 3.5 (Al)	Equiv. 3.5 (AI)
	inch	0.3 (Be window)	0.3 (Be window)	0.3 (Be window)	Equiv. 0.14 (AI)	Equiv. 0.14 (AI)
P LEVEL	-	IP65	IP65	IP65	IP54	IP54
OPERATING TEMPERATURE	°C	-30 to +60	-30 to +60	-30 to +60	-25 to +50	-25 to +50
	°F	-22 to +140	-22 to +140	-22 to +140	-13 to 122	-13 to 122
STORAGE TEMPERATURE	°C	-40 to +70	-40 to +70	-40 to +70	-40 to +80	-40 to +80
	°F	-40 to +158	-40 to +158	-40 to +158	-40 to +176	-40 to +176
BUILT-IN CARROUSEL FEATURINBG FIVE OUTPUTS	-	Yes	Yes	Yes	No	No
GUARD RINGS		2	2	2	0	0
POWER SUPPLY		230 VAC	230 VAC	230 VAC	LI-ION BATTERY	LI-ION BATTERY

### Design, Engineering and Manufacture

#### World-Class Capability...

Since its acquisition by Teledyne Technology in June 2015, ICM X-RAY (now Teledyne ICM) has seen tremendous opportunities to push its craft to the maximum, tackling the new trends and needs currently developing within the quality inspection world.

Like the visible light and infrared camera before it, the x-ray world is, without a doubt, entering a shifting phase. Inspectors across the board are, now more than ever before, looking for lighter, quicker, and higher resolution x-ray solutions.

In an ever increasing effort to listen to technicians working in the field, Teledyne ICM has reached out to its newly acquainted company, Teledyne DALSA, to tailor solutions developed for and by the people using it every day.

Compactness, reliability, toughness, quickness, power, and image quality are all paramount features that formed the blue print of this joint venture undertaken by the two Teledyne companies.

Welcome Go-Scan to your world!



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