

数字PET/CT

Digital PET specifications

System Overview		
PET platform	Digital-PET	
CT platform	/	
Patient Port	720mm PET/CT	
Gantry Cooling	Air-cooled	
Attenuation correction	CT	
Patient handling system		
Maximum patient weight	200kg	
Vertical travel	550mm	
Patient scan range	210mm	
Horizontal speed	0~150mm/s	
Minimum table height	500mm	
PET detector design		
	Standard	High-Perf.
Detector design	LYSO/SiPM 1 : 1	
Number of crystals	19008	31680
Crystal size	3.9*3.9*20mm	
Crystal material	LYSO	
Number of detector ring	36	60
PD tpype	SiPM	
Number of PDs	19008	31680
Ring diameter	743mm	
Transaxial FOV	700mm	
Axial FOV	160mm	260mm
Coincidence window size	~3ns	
Energy window	~400keV	

CT specifications

Scanner	
Slices	64 or more
Coverage	40mm
Max scannable range	190cm
Bore Size	190cm
Generator	
Power rating	80kW
Effective power	105kW
kVp setting	80,100,120,140
mA range(step size)	20~650 (1mA)
X-ray tube	
Anode heat capacity	8 MHU

Performance specifications	
system sensitivity	0.90%
Trans. spatial reso. @1cm	2.5mm
Transs spatial reso. @10cm	2.5mm
Axial spatial reso. @10cm	2.5mm
Axial spatial reso. @1cm	2.5mm
NECR	120kcps
Max trues	400kcps
Scatter fraction	/
system energy resolution	0.14
system timing resolution	500ps

Detector	
Material	/
Number of elements	/
Dynamic range	1000000 : 1
Slip ring	>5Gbps
Data sampling rate	>4000 views/element
Rotation times	0.5s
Slice specifications	
scan FOV	250mm,500mm
scan angles	360
Image quality	
spatial resolution	>13.0 lp/cm

Max anode cooling rate	1600kHU/min
Focal spot size	0.5mm*1mm
Anode diameter	~200mm
Anode rotation speed	100Hz
Focus-detector distance	~1000mm
Focus-isocenter distance	~500mm