

Mammography phantoms described in EFOMP document

	ACR	CDMAM	CIRS 011A	QUART	TORMAM	TORMAS TORMAX
Phantom design						
Reproducibility (low inter-phantom variab.)				x		
Designed for screen/film	x	x	x	x	x	x
Designed for digital				x		
Specific tests for tomosynthesis				x		
Test objects						
High contrast objects			1 line pair pattern	1 square		22 details + 1(2) pattern
Medium contrast				72 Landolt rings		
Low contrast (description below)	16	205 cells	24	9	18	12 details + 1 pattern
Anatomically relevant structures	x		x	x	x	
MTF calculation possible				x		
Direct SDNR calculation				x		
Steps in wedge			5	12 x 2		10
Tests included in wedge				x		
Image evaluation						
Intuitive scoring method (sensitive)	x	x	x	x (S)	x	x
Software-based scoring (sensitive)		x		x (S)		x
Ease of use	x		x	x	x	
International limiting value(s)	x	x		x		

Others						
Below average price	x		x	x		
Global distribution	x	x				
Innovative aspects at the time of production	Very simple method	First attempt to have a sensitive, rigorous, dedicated test for quality control in mammography		Links technical and clinical image quality Considers anatomical variations Dosimeter slot to test dose reproducibility Landolt test is valid also on processed images	First attempt to combine technical and clinical image quality	Attempt to have several tests in one shot

N° and type of details in each phantom:

ACR: 6 fibres + 5 speck groups + 5 circles

CDMAM: 205 cells with two gold discs each

CIRS: 12 specks + 7 hemispheric circles + 5 fibres + 5 steps + 1 line pair target

QUART: 72 Landolt rings + 9 low-contrast digits + 12x2 steps + 1 edge object for MTF + 1 strip for SDNR

TORMAM: 6 filament groups +6 microcalcs groups +6 groups of low-contrast details + anthropomorphic part with microcalcs

TORMAX/TORMAS: 10 steps + 22 high contrast details + 1(2) high resolution pattern(s) +12 low-contrast details + 1 low-contrast resolution pattern + 1step wedge with microparticles