

DYNAMIC FORCE BOARD

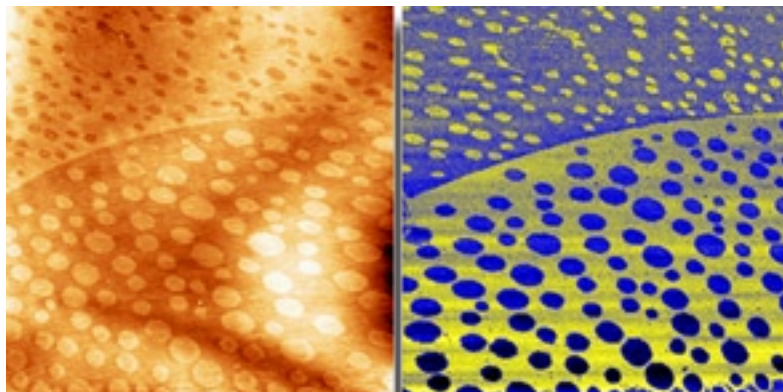


DFM Board

Nanotec's® Dynamic Force Board is an optional add-on to the Dulcinea Controller. The Dynamic Force Board greatly expands the capabilities of the Dulcinea Controller in specific scanning techniques. It arrives integrated into the Dulcinea Controller.

This board is a software programmable two channel lock-in amplifier. This add-on board extends the capabilities of the Dulcinea Controller to allow for non-contact SFM operation, electrostatic studies, Magnetic Force Microscopy (MFM), Scanning Near Optical Microscopy (SNOM), and much more.

QUICK SPECIFICATIONS**	
FREQUENCY GENERATION RANGE:	0 - 1 MHz <i>(CUSTOMIZABLE UPON CLIENTS REQUEST)</i>
FREQUENCY GENERATION ACCURACY:	1 PART IN 2^{32} (~0.2 mHz IN 1 MHz)
CHANNEL OUTPUT:	2 INDEPENDENT CHANNELS (TYPICALLY AMPLITUDE [X], PHASE [Y])
TYPICAL OPERATING MODES:	FREQUENCY MODULATION MODE; FIXED FREQUENCY OR PHASE LOCK LOOP (PLL)
SOFTWARE BENEFITS:	AUTOMATIC TUNING OF RESONANT FREQUENCY (MANUAL AVAILABLE)



Lipid monolayer - Topography [left] and Adhesion Map [right]
Jumping Mode in air
[Marisela Velez]

