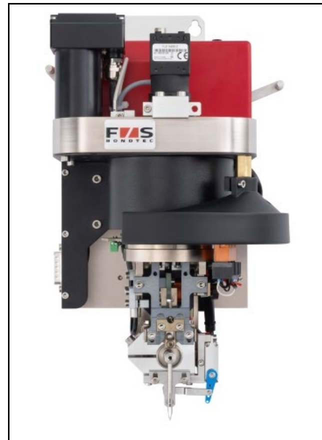

BAMFIT Bonder / Tester 5600

Test System

Test Head	The proprietary clamping tool grips the bond foot from the sides and at a defined height; a touchdown system automatically compensates height variations in the substrate
Test Tool	for Al heavy wires from 125 to 400 µm; user-exchangeable within minutes
Test Time	1 test < 1 minute
Test Force	Pull force in Z direction, typically 20 to 50 cN
Test Frequency	60 and 80 kHz, programmable Ultrasonic Generator
Test Amplitude	Corresponds to temperature swing in PC test; programmable between 0 and 1 µm
Test Data	Tool position, ultrasonic data,... are registered continuously and stored in a database for subsequent evaluation. Statistics and analysis can easily be done with the CSR (Corporate Standard Report) software.

BAMFIT-Tester

The revolutionary **BAMFIT test** can easily be imple-mented on every base unit of the 56XX series by installing a dedicated test head.

The software is closely re-lated to the standard ver-sions for bonders and testers. It is capable of fully automatic testing of any number of bonds, employing automatic adjustments by pattern recognition.

Test results are recorded in a database. Statistics and analysis can easily be done with the CSR (Corporate Standard Report) Software

BAMFIT Reliability Test

BAMFIT (Bond Accelerated Mechanical Fatigue Interconnection Test) is an entirely novel test method for assessing the reliability of heavy-wire wedge bonds. It is the perfect extension of the classic power cycling test (PC): the cyclic stress imparted to the wire bond by temperature changes is emulated by mechanical stress loading, but at a significantly higher cycle rate. This allows PC tests that can take weeks or months to be simulated within minutes.

The patent-pending BAMFIT tester thus permits a qualitative estimate of the lifetime and reliability of wire bonds, either as process diagnostics or for optimizing bond process parameters.

Machine Base

Work Area	X/Y axes 100x100 mm / Z axis 60 mm
Axes	Step resolution 0,25 µm; Repeatability <2 µm
Test Head	User-exchangeable bond and test heads with automatic identification
Hardware	Dual-Core PC with Windows OS Ethernet,
	USB 2.0/3.0, LCD Color display 22”
	GigE-CMOS-Color camera
	Network compatible with program archiving
Software	Manual or automatic measurements of any number of bonds CAD data import for easier programming
Dimensions	B x T x H – 70 x 65 x 70 cm, weight ca. 80 kg
Connections	100-240 VAC, single phase, 50/60 Hz, max. 500 VA Standard vacuum tube Ø 6 mm