# AH-280 Specifications

# AH-280
## Automated Programming Equipment
Complies with SEMI S22 Safety Standard

| | | |
|---|---|---|
| **Operation** | U.P.H. | 3K(programming time < 8s) |
| | Repeatability | X Axis ±0.02mm<br>R Axis ±0.067 °<br>Z Axis ±0.02mm |
| | Max. Stroke | X axis 590mm<br>R axis 340º<br>Z axes 28mm |
| | IC Pick & Place | Vacuum Nozzles |
| | Device Detection | Vacuum Sensor |
| | Dimension(Main Unit) | 1280x600x1210(W/D/H)mm |
| | Dimension with LED Alarm & Packing Modules | 2100x600x1720(W/D/H)mm |
| | Weight | 200kg |
| **Position System** | Positioning | Mechanical Offset Correction |
| | Device Size | 30 x 30mm (Max) |
| **Programming System** | Built-in Programmer | Leaper-56 Universal Programmer |
| | Adapter No. | 1~36 |
| | PIN Driver | 48 Universal |
| | IC Type Packages | MCU, NAND Flash, NOR Flash, SPI, EEPROM, EPROM, FPGA... |
| | IC Packages | WLCSP, BGA, u-BGA, QFN, LQFP, MLP, SNT, WSON, TSSOP, SSOP, SOP... |
| | File Format | INTEL HEX, MOTOROLA HEX, TEK HEX, ASCII HEX, BINARY.... |
| | Communication | USB 2.0 |
| **Input Media** | Tube Input | 150mil, 207mil, 300mil, 330mil |
| | Tube Output | 150mil, 207mil, 300mil, 330mil |
| | Tape Input | Tape Width 8~32mm |
| | Tape Output | Tape Width 8~32mm (Pressure self-sealing) |
| **Control System** | OS | Windows XP embed |
| | Display | 17" LCD |
| | Data Input | Keyboard/Mouse |
| **Power** | AC Input | AC 200V~245V, Single Phase 3-Wire |
| | Frequency | 50/60Hz |
| | Power Consumption | 450W |
| | Air Pressure | 0.6MPa (~6.0kg/cm$^2$) |
| | Air Input | 32 L/Min. |



**Leaptronix**®

**Patent**

*No. M306360 in Taiwan*

*No. ZL2006-2-0137588.6 in China*

*No. 3129604 in Japan*

*No. US7830776 B2 in US*

# AH-280 Series

## Introduction

AH-280 Automated IC Programming Equipment follows the success of the mechatronic design of Leaptronix AH-480 Series and is greatly improved with an upgraded rotary robotic arm and two horizontal arms with four vertical axes equipped with specially designed nozzles at both ends for device pick & place. In addition, the programming system is loaded on the linear axis, which offers an even faster programming process of perfect precision. The aim of this model is simply to provide the most cost-effective solution to device programming and lower the production costs while offering the highest efficiency.

## Modules


ATM-32


STI-3-xxxkit


ATF-1


STO-3-xxxkit


SVS-10


MK-2

## Features

**Highest Cost Efficiency**
AH-280 utilizes advanced mechatronic design offering a fully automated system of high efficiency and precision while remaining at a rather low cost out of any other programming equipment on the global market.

**Upgraded Robotic Arms**
AH-280 offers an upgraded rotary robotic arm and two horizontal arms with four vertical axes equipped with specially designed nozzles at both ends for device pick & place. The repeatability is ensured by the precise motors of each axis.

**Universal IC Programmers**
The built-in 6~12 units of Leaptronix ultra speed universal IC programmers provide a wide range of supported devices including MCU, Flash, Nand, SPI, EEPROM...etc.

**HDCP Programming Function(Optional)**
AH-280 meets the requirements of various file formats and also offers an optional HDCP serial programming function.

**CCD Position Module(Optional)**
CCD position modules of high pixels for faster coordinates adjusting come as an option.
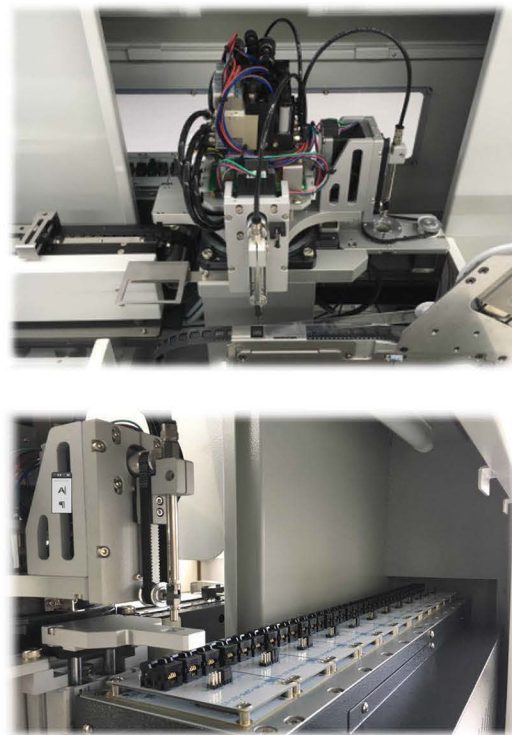
**Supporting Various IC Packages**
Various optional adapters are provided for IC packages such as WLCSP, LQFP, BGA, QFN, TSOP, SOP...etc.

**Absolute Coordinates**
Every operation site from the tiniest to the largest is based on absolute coordinates throughout the whole designing, production, and assembly process. This provides the easiest operation with little configuration requirement.

**Marking:**
Marking modules capable of marking in dot, digits, and letters can be equipped for reel/tape out-put media.

## Standard Accessories

AH-280 Main Unit.................................................x1
ATF-2 Electrical Reel Feeder.............................x1
ATM-32 Reel Packing Machine..........................x1
ATR-1 Recycler......................................................x1
Leaper-56 Universal Programmer...................x6
USB Drive with manual & software.................x1

## Optional Accessories

Please contact Leaptronix sale representatives for correct part numbers of optional accessories.

*Tape Feeder*
ATF-1-XX (XX: Tape Width) pneumatic tape feeder.
ATF-2-XX (XX: Tape Width) electric tape feeder.
*Tube Feeder*
STI-3-XXX (XXX mil: IC Width) semi-automatic tube feeder.
*Marker*
MK-2 Ink Marking Module for dot, digit, and letter.
*Smart Vision System*
SVS-10 Mark Recognition Module for recognizing normal and polarity marks.
*IC Socket*
AH-280-XXXXXX (XXXXXX: IC package, pins, body size.)
*Press Bar*
AH-280-XXXXXX-XX*XX (IC package, pins, body size.)
*IC Preprocessor*
AH-480-XXXXXX-XX*XX (IC package, pins, body size.)
*Nozzle*



| | | |
|---|---|---|
| **ATM-32**<br>Taping Machine | **STO-3-xxxkit**<br>Tube Unloader | **SVS-10**<br>Smart Vision System |
| **ATF-1**<br>Reel Feeder | **STI-3-xxxkit**<br>Tube Loader | **MK-2**<br>Automatic Marking Module |

# AH-280 Series

*Automated IC Programming Equipment*