



HIGH-POWER AUTOMATED TUNERS

0.25 TO 8.0 GHz

Features

- *Optimized for GSM/EDGE, WCDMA, WiFi, and WiMax In-Fixture and On-Wafer Applications*
- *High Matching Range for GaN, GaAs, LDMOS, and Si Characterization*
- *Simultaneous High-Matching and Low Vibration for On-Wafer Applications*
- *USB Interface for Simple, Fast and Reliable Control*
- *DLL Environment for Automated Applications*
- *Industry's Highest Accuracy Means Your Designs Work Right the First Time*
- *Industry's Best Calibration Frees Your Time for Design*



MT981BU10
7mm High-Power Automated Tuner

Applications and Benefits Overview

The MT981 series automated tuners are optimized for high power in-fixture and on-wafer applications requiring low impedance and low vibration simultaneously. Based on Maury's proven non-contacting probe technology, these high-performance tuners evolve beyond outdated contacting probe technology to deliver high VSWR with superb accuracy and reliability.

An integral component of Maury Device Characterization Solutions, these USB-interfaced automated tuners are controlled using one of three Maury Software Solutions; Maury's MT930 series IVCAD Advanced Measurement and Modeling Software; Maury's Device Characterization Software suite (ATS version 5 or later); or Maury's DLL environment.

The MT930 IVCAD software suite is the most advanced measurement and modeling software in the industry, with support for multiple load pull techniques including traditional load pull using external instrumentation, VNA-based load pull, active load pull and hybrid load pull.

The ATS software is an integrated device characterization suite providing front-end and back-end

device characterization tools for power and noise characterization.

The DLL environment enables direct interface with common programming tools such as Agilent VEE™, NI LabVIEW™, MS Visual Basic & C/C++, and Mathworks MATLAB™.

With a tuning resolution in excess of a million impedance points and accuracy better than -50 dB over the entire Smith chart, Maury automated tuners give you the device characterization answers you need with the accuracy necessary to make engineering decisions with confidence. Typical applications include load pull using CW, GSM/EDGE, CDMA, WCDMA, WiMax, and WiFi stimulus for mobile and infrastructure terminal design, RADAR design, and Sat-Com design.

Controller

For optimum performance, the MT1020B ATS Power Distribution Hub can be used to control up to four (4) MT981xU series tuners. Additionally, the MT1020D Desktop Switching Power Supply can be used to provide power to a single MT981xU series tuner.

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Specifications

Frequency Range See **Available Models** Table
 VSWR Matching Range See **Available Models** Table
 Step Size (Probes)62.5 microinches¹
 Step Size (Carriage) 786 microinches¹
 Connectors: Precision 7mm²

Recommended Accessories

2698C2 7mm (3/4-in. hex) torque wrench
 A028D 7mm connector gage kit
 8022S 7mm to 3.5mm (female) precision adapter
 8022T 7mm to 3.5mm (male) precision adapter

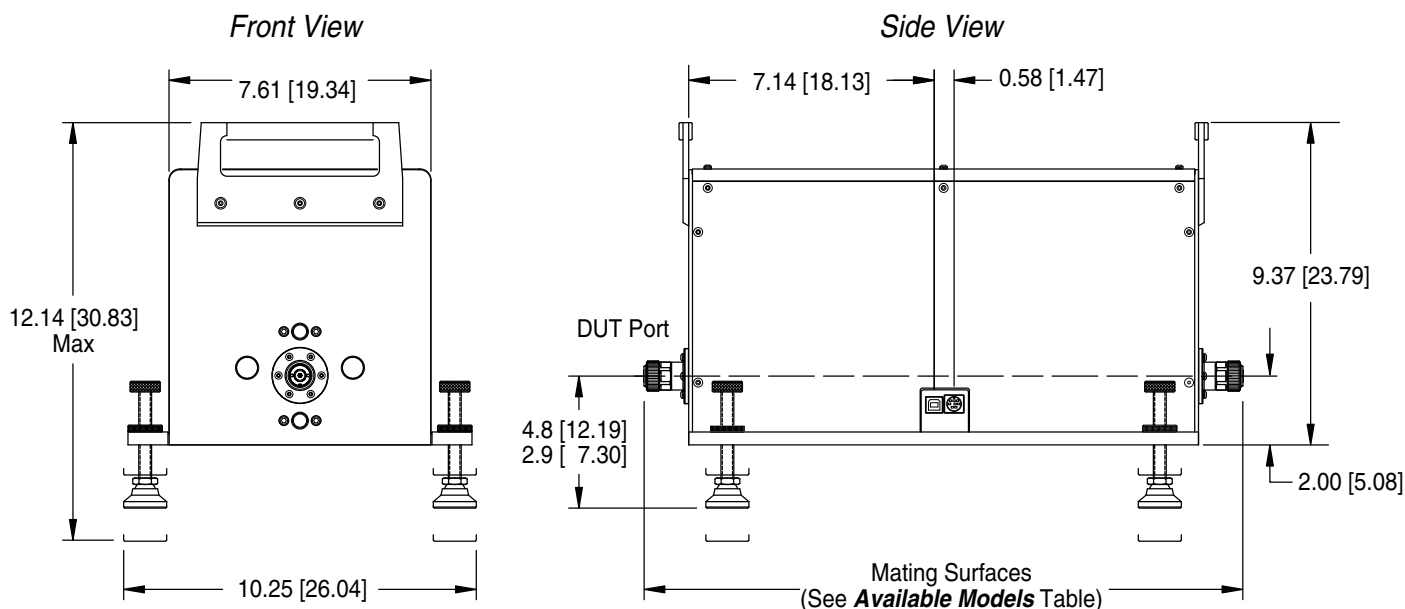
Accessories Provided

One (1) MT1020D controller, one (1) USB cable and one (1) operating manual.

Available Models

Model	Frequency Range (GHz)	Matching Range		Power Capability ⁴	Vector Repeatability (Minimum)	VSWR ⁵	Insertion Loss ⁵	Dimensions
		Minimum	Typical ³					12.0" [30.5 cm] 10.0" [25.4 cm]
MT981AU11	0.25 – 2.5	15:1	25:1	250 W CW 2.5 kW PEP	-50 dB	1.05:1	0.3 dB	36.9" [93.5 cm]
MT981BU15	0.40 – 2.5	30:1	45:1					-40 dB
MT981BU10	0.40 – 4.0	15:1	25:1		-50 dB			15.9" [40.3 cm]
MT981BU18	0.40 – 8.0	10:1	25:1					
MT981WU10	0.60 – 6.0	15:1	25:1					
MT981EU10	0.80 – 8.0	15:1	30:1					

Dimensions – Inches and [cm]



¹ Based on 1/2 stepping the drive motors.
² Precision 7mm per Maury data sheet 5E-060.
³ Defined as the minimum VSWR within 70% of the frequency range.

⁴ Power rated at maximum VSWR.
⁵ With probes fully retracted.