Mitutoyo

U-WAVE BLUETOOTH®

MEASUREMENT DATA WIRELESS COMMUNICATION SYSTEM
U-WAVE NOW AVAILABLE WITH BLUETOOTH® WIRELESS TECHNOLOGY

SMALL TOOL INSTRUMENTS
AND DATA MANAGEMENT

Easy to Connect

Receiver-less Measurement Data Wireless Communication System

Allows direct measurement data transmission to smartphones, tablets and PCs.

Bluetooth®

U-WAVEPAK-BM (English version only), the communication software for transferring measurement data to smartphones and tablets is available at app stores for free download.

Get from Google Play

Download from App Store

U-WAVEPAK-BW, the computer communication software for transferring measurement data to computer software, is available for download from our company's website.

Available for download
https://www.mitutoyo.eu/en_us/downloads/software-and-updates

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Note1: This application operates with Windows Terminal for Windows 10 equipped with the Bluetooth wireless technology function. If your Windows Terminal does not have this function, please purchase a commercially available Bluetooth® receiver.
Note2: We cannot guarantee the operation of this application and U-WAVE TCB/TMB with all Bluetooth equipped devices.

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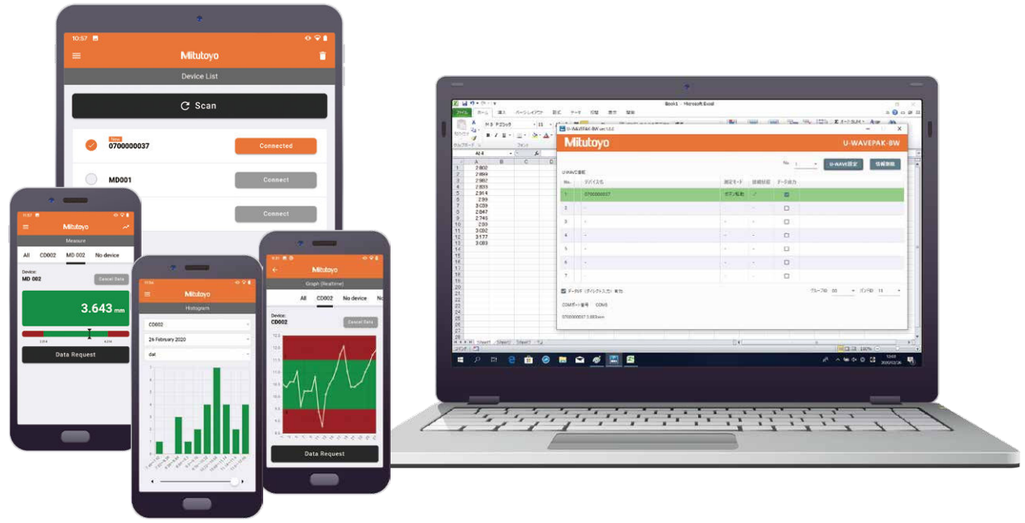
Manage Measurement Data Centrally and Wirelessly on a Smartphone, Tablet or PC

Mitutoyo *Bluetooth*® U-WAVE

U-WAVE-TMB / TCB

More compact and thinner for a better fit with Digimatic gages, and featuring improved operability and performance inherited from its predecessor, U-WAVE-TMB / TCB is now available with Bluetooth® wireless technology. No receiver is required, and one PC can conect up to seven units of Mitutoyo *Bluetooth*® U-WAVE. Dust/water-proof models are also available for arduous shop floor usage.

IP67



For Digimatic micrometers
U-WAVE-TMB

For Digimatic calipers
U-WAVE-TCB

Major Advantages of Introducing U-WAVE incorporating Bluetooth® wireless technology

Does Not Require a Receiver

Measurement data can be transmitted to PCs, tablets and smartphones without a receiver if they are equipped with Bluetooth® wireless technology!

Cost Reduction Effect

System can be configured at reduced cost, just by connecting to an existing Digimatic gage!

Higher Efficiency

Data can be input by single button operation! Since there is no need for manual input misinput does not occur. Efficiency is greatly improved!

Centralized Data Management

Measurement data can be managed centrally!
"Visualization of quality" helps prevent the generation of defective products!

Easy Data Saving

Measurement data can be saved to smartphones and tablets independently of the measurement site!

You can use with confidence since it is labeled with the wireless certification number acquired in the country of purchase.

With Bluetooth® wireless technology for Easy Pairing with Your Digimatic Micrometer or Caliper

U-WAVE-TMB/TCB is compatible with most Digimatic micrometers and calipers.
Refer to our company's website for details on product compatibility.
https://mitutoyo.eu/application/files/5615/5888/7972/PRE1494_U-WAVE-TM-TC.pdf

Digimatic micrometers

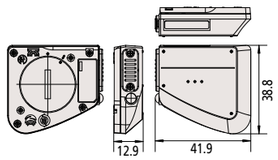
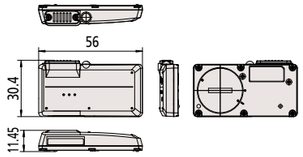
Digimatic calipers

Digimatic gage, connecting unit and transmitter combinations

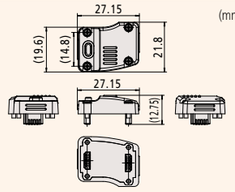
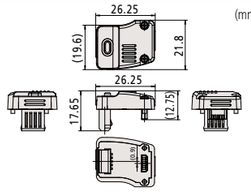
		Assembled appearance	Connecting unit	Transmitter
For micrometers	Standard		02AZF310	U-WAVE-TMB buzzer type 264-627
For micrometers	Water-proof type			U-WAVE-TMB IP67 type dust/water-proof 264-626 IP67
For calipers	Standard		02AZF300	U-WAVE-TCB buzzer type 264-625
For calipers	Coolant-proof type		02AZF310	U-WAVE-TCB IP67 type dust/water-proof 264-624 IP67

Specifications

Transmitter (Refer to page 5 for combinations.)

Product name	U-WAVE-TMB (for Digimatic micrometers)		U-WAVE-TCB (for Digimatic calipers)	
Model	U-WAVE-TMB (IP67 type dust/water-proof)	U-WAVE-TMB (buzzer type)	U-WAVE-TCB (IP67 type dust/water-proof)	U-WAVE-TCB (buzzer type)
Order No.	**264-626**	**264-627**	**264-624**	**264-625**
Protection level	IP67	N/A	IP67	N/A
Data reception indication	LED	LED, buzzer	LED	LED, buzzer
Power supply	Lithium battery CR2032×1			
Battery life	Approx. 1 year under normal conditions of use, but varies according to usage.			
Mass	18 g			
Appearance				
External dimensions	 (mm)		 (mm)	

Connecting unit (Refer to page 5 for combinations.)

Product name	Order No.	Protection level	Mass	Appearance	External dimensions
Connecting unit (for dust/water-proof type)	**02AZF310**	IP67	6 g		 (mm)
Connecting unit (for standard type)	**02AZF300**	N/A	6 g		 (mm)

Wireless Communication Specifications

Wireless communication	Bluetooth 4.2 Low Energy
Wireless communication distance	Approx. 16 m (line of sight) Approx. 10 m (in a factory environment)
Transmission output	3.2 mW (5 dBm) or less (Class2)
Modulation method	FH-SS (Frequency-hopping spread spectrum)
Communication frequency	2.4 GHz band

Note 1: To use U-WAVE-TMB/TCB, conformity to the radio law of each country is required. Please contact your dealer or nearest Mitutoyo sales office.
Note 2: U-WAVE-TMB/TCB is not compatible with U-WAVE fit, for which communication specifications are different.

Refer to the U-WAVE fit Brochure (PRE 1493) for more details.
https://mitutoyo.eu/application/files/3115/5888/7972/PRE1493_U-WAVE_WEB.pdf

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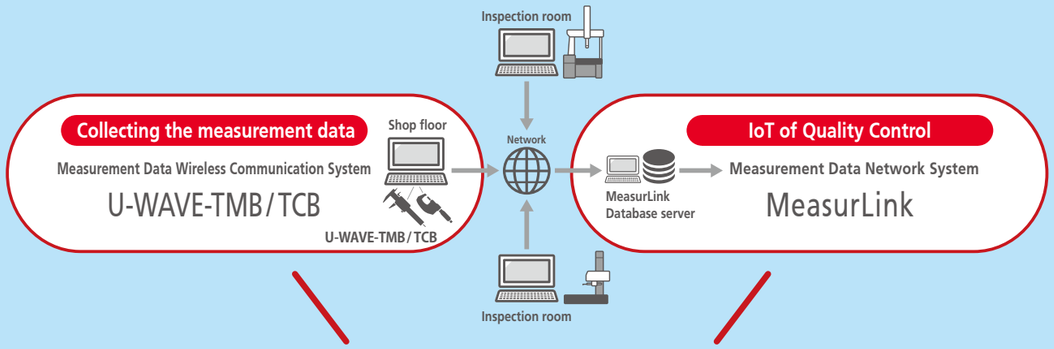
Optional Products

Application system for a PC

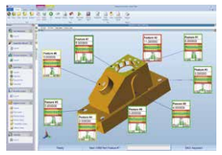
Product name	Model No.	Compatible OS: Windows	Compatible Excel version	Part No.	Appearance
USB-ITPAK	**USB-ITPAK V2.1**	10 (64 bit)	2016 (The operation with Excel for MAC OS is not guaranteed.)	**06AFM386**	

A USB dongle must be connected to the PC running the software.

Configuring the measurement network system MeasurLink based on U-WAVE-TMB/TCB



Achieve "Visualization of Quality"



With MeasurLink®

MeasurLink is an IoT platform for quality management that realizes "Visualization of Quality" by enabling real-time data collection from networked Digimatic gages and global control and analysis. U-WAVE supports MeasurLink as an infrastructure that collects and controls data.

Preventing defectives

Collects data from Digimatic gages on the network and performs statistical process control (SPC) to warn of possible generation of defectives.

Diagnosis by data analysis

Checking measurement results by accessing the data base and performing various analyses helps investigate and resolve process performance concerns.

Simply start achieving IoT

In addition to conventional data storage, the network can be configured in steps to simply start IoT of Quality Control.

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Coordinate Measuring Machines

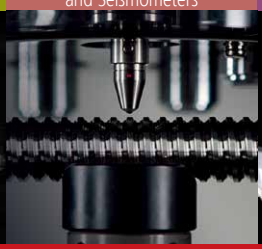
Vision Measuring Systems

Form Measurement

Optical Measuring

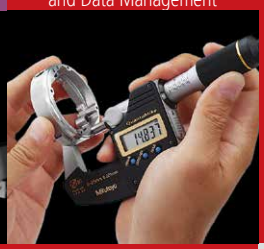
Sensor Systems

Test Equipment and Seismometers



Digital Scale and DRO Systems

Small Tool Instruments and Data Management



Whatever your challenges are, Mitutoyo supports you from start to finish.

Mitutoyo is not only a manufacturer of top quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed up by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver bespoke measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.

Find additional product literature and our copmplete catalog here.

www.mitutoyo.eu

Mitutoyo

Mitutoyo Europe GmbH

Borsigstraße 8-10
41469 Neuss

Tel. +49 (0) 2137-102-0
Fax +49 (0) 2137-102-351

info@mitutoyo.eu
www.mitutoyo.eu

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