

Panasonic
ideas for life

**Infrared Wireless
Microphone System**

Capture the Sound of Student Achievement
Enhance Instruction and Get Results with Panasonic's

Infrared Wireless Microphone System

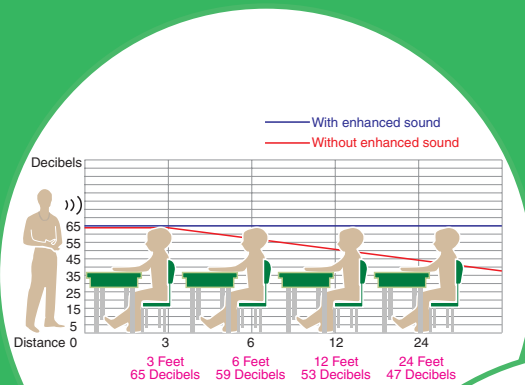


Using a microphone in the classroom benefits students and teachers

Students Benefit

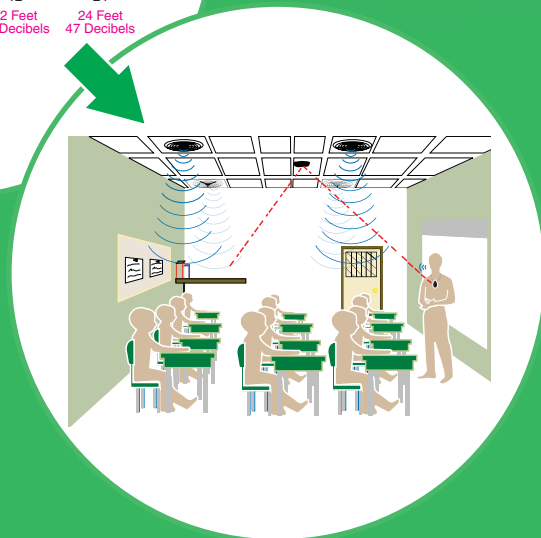
Improve student achievement and experience fewer distractions with enhanced sound in the classroom

"I can hear my teacher from anywhere in the room."



Students can hear the teacher clearly

Students in the back of the room or in noisy environments can hear and understand clearly when the teacher is using a microphone.



Students love to participate as well

Increase student participation, improve peer to peer learning, and build confidence in soft-spoken students by using the infrared handheld microphone.



Teachers Benefit

Save instructional time and increase student attention and participation

Research has shown that the addition of a sound enhancement system in the classroom provides better classroom management and fewer discipline issues

"I don't have to repeat instructions."

Hearing is believing

With sound enhancement in the classroom, everyone can participate and hear what the teacher is saying. Microphones provide access to the teacher from anywhere in the classroom, without shouting or disrupting instruction.



The benefits are clear

When teachers use a microphone system during instruction, they have less voice fatigue, more energy, and students feel more included. Teachers can speak in a normal tone and everyone in the classroom hears what is stated.



Instruction within reach

With the pendant microphone, teachers can be heard and control audio from anywhere in the classroom. Both hands remain free for writing and sharing lesson details.

Panasonic infrared wireless microphones offer a new level of performance

The pendant microphone provides convenient hands-free functionality

The pendant microphone integrates the infrared emitters, microphone and processor into an all-in-one, easy to use unit, for cable free operation.

Easy to wear, easy to use

In contrast to conventional lapel microphones, the WX-LT350 has a built in microphone thus eliminating the need for a hard wired microphone. The WX-LT350 is suspended around the neck with a lanyard, allowing for a comfortable, almost un-noticeable wireless transmitter.

The handheld microphone is lightweight and easy to use

The innovative design of the handheld microphone provides for trouble free operation by placing the emitting diodes just below the microphone, preventing them from being blocked by the users hand.



Light, comfortable design prevents speaker fatigue

The sleek design of the handheld microphone, weighing only 105 grams (0.23 lbs.), utilizes a single 'AA' NiMH rechargeable battery, and is easy to use for presenters, audience members, and the small hands of students.

Adjust volume from the microphone itself

The WX-LT350 is equipped with remote volume control of the teacher/pendant microphone and the student/handheld microphone which prevents the teacher from having to adjust volumes at the amplifier thus not having to stop instruction. Multimedia levels can be controlled with a compatible receiver.



Broadcast sound from PCs or other audio sources

When the microphone is connected to a PC or other audio source, the sound can be broadcast via the infrared wireless system.









Easy to install

The dome infrared sensor covers 360 horizontal degrees

A single WX-LS100 Infrared Sensor provides 360 horizontal degrees of coverage, more than sufficient for standard classroom areas. Using the Infrared Sensor Coupler WX-LC10, up to four sensors can be used to support expanded educational spaces.



A breakthrough in sound. Choose from the following components.

<p>Infrared Wireless Microphone (Pendant Type) WX-LT350</p> <p>Hands-free pendant-style microphone. Equipped with remote volume controls. Ideal for teacher or presenter use.</p> 	<p>Infrared Wireless Microphone (Handheld Type) WX-LT150</p> <p>Lightweight, simple design. Ideal for student, teacher or audience use.</p> 	<p>Battery Charger WX-LZ150</p> <p>Direct connection. Allows simultaneous charging of 2 microphones.</p> 	<p>Infrared Sensor WX-LS100</p> <p>A single sensor covers 360 horizontal degrees.</p>  <p>* Attachment included</p>	<p>Infrared Sensor Coupler WX-LC10</p> <p>Allows addition of up to 4 Infrared Sensors.</p> 	<p>Bass-Reflex Ceiling Type Speaker WS-EC10</p> <ul style="list-style-type: none"> This classroom optimized speaker is designed to be installed in a ceiling and assures speech intelligibility of sound. 12 cm (4-3/4") cone speaker 
<p>Infrared Receiver/Amplifier WX-LA50</p> <p>2ch tuner built-in type 50 W amplifier. 4 line input and 8 speaker connections. Connection with WX-LR100 allows simultaneous 4 microphone use.</p> 		<p>Infrared Receiver/Amplifier WX-LA20</p> <p>2ch tuner built-in type 20 W amplifier. 2 line input and 4 speaker connections. Connection with WX-LR100 allows simultaneous 4 microphone use.</p> 		<p>Infrared Receiver WX-LR100/A (1ch, 2ch) WX-LR100/B (3ch, 4ch)</p> <p>Built-in 2ch tuner. 2 receivers connection allows simultaneous 4 microphone use.</p>  <p>* Shown: WX-LR100/A</p>	

All-in-one portable sound system

The portable infrared sound system incorporates the 2-channel receiver, sensor, amplifier and speaker into one compact unit. It provides high quality voice and multimedia capability for a variety of teaching and learning environments.

Infrared Wireless Powered Speaker **WX-LP100**



SPECIFICATIONS

Infrared Wireless Microphone: WX-LT350, WX-LT150

Infrared Ray Wavelength	850 nm		
Number of Transmission Channel	4 channels (Sub carrier frequencies) (1ch: 2.3 MHz, 2ch: 2.8 MHz, 3ch: 3.2 MHz, 4ch: 3.8 MHz)		
Oscillation System	PLL Frequency Synthesizer Method		
Reception Range	approx. 8 m from Dome Sensor		
Microphone Type	Unidirectional ECM		
Frequency Response	100 Hz ~ 10 kHz		
Required Battery	AA type x1, alkaline dry element battery or Nickel metal hydride rechargeable battery		
Battery Capacity Alarm Indication (at Power LED with ON)	Green	Normal	
	Red	Battery Warning (Required to change or charge battery)	
Operation Time (at 25 °C, continuous use)	Alkaline Battery	approx. 5 hours	
	Rechargeable Battery	approx. 6 hours	
Dimensions	WX-LT350	50 mm (W) x 85 mm (H) x 25 mm (D) (1-15/16"(W) x 3-3/8"(H) x 1"(D))	
	WX-LT150	41 mm (W) x 207 mm (H) x 37 mm (D) (1-5/8"(W) x 8-1/8"(H) x 1-7/16"(D))	
Weight	WX-LT350	approx. 55 g (0.12 lbs.) (excluding Battery)	
	WX-LT150	approx. 105 g (0.23 lbs.) (excluding Battery)	

Bass-Reflex Ceiling Type Speaker: WS-EC10

Type	Full-range bass reflex
Input Impedance	8 Ω
Power Capacity	60 W (RMS), 120 W (music program input)
Sound Pressure Level	87 dB (1 W, 1 m (3.3 ft))
Frequency Response	90 Hz ~ 20,000 Hz (-10 dB, Typical)
Input Terminal	Push terminal Applicable wire is AWG16 ~ AWG22 (1.4 mm ² ~ 0.35 mm ²)
Ceiling Hole Diameter	ø225 mm ± 5 mm (ø8-7/8" ± 0.2")
Speaker	12 cm (4-3/4") cone speaker
Operating Temperature	-10 °C ~ +50 °C (14 °F ~ 122 °F)
Dimensions	ø256 mm x 146.5 mm (D) (ø10-1/16" x 5-25/32"(D))
Speaker Panel	ø275 mm x 12.5 mm (D) (ø10-13/16" x 1/2"(D))
Weight	1.8 kg (4 lbs.) (including the speaker panel)
Finish	Speaker: Plastic-molded, black (approx. Munsell N2) Speaker panel: Plastic-molded, sail white (approx. Munsell N9)

Battery Charger: WX-LZ150

Type of Battery	Nickel- hydrogen rechargeable battery
Charging Time	approx. 7 hours
Dimensions	75 mm (W) x 26.5 mm (H) x 47.5 mm (D) (2-15/16"(W) x 1-1/16"(H) x 1-7/8"(D)) (excluding power cable)
Weight	approx. 135 g (0.3 lbs.)

Infrared Receiver/Amplifier: WX-LA50, WX-LA20

Infrared Receiver: WX-LR100/A (1ch, 2ch), WX-LR100/B (3ch, 4ch)

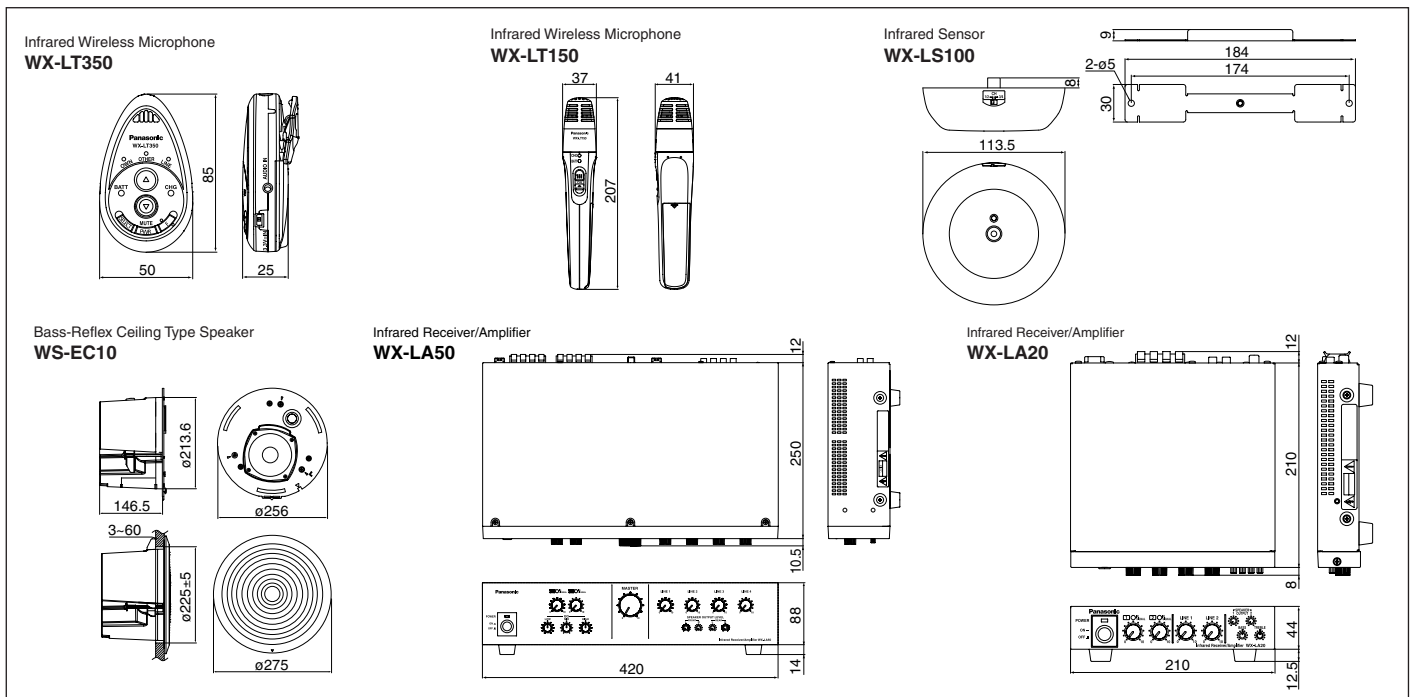
Model No.	WX-LA50	WX-LA20	WX-LR100/A	WX-LR100/B
Audio Power	50 W / 8 Ω	20 W / 8 Ω	—	—
Stereo	2-Channel Stereo Sound	—	—	—
Frequency	Microphone 100 Hz ~ 10 kHz	—	—	—
Response	Line 50 Hz ~ 15 kHz	—	—	—
Power Source	24 V DC (Using the attached AC adaptor unit)			
Current Consumption	1.2 A	750 mA	250 mA	
Sensor Input	75 Ω F-type connector (adjusted infrared sensor: WX-LS100) Power output for WX-LS100 (22 V DC 100 mA (Max.))			
Receiving System	T.R.F. (Tuned Radio Frequency)			
Receiving	Mic 1 2.3 MHz	—	2.3 MHz	3.2 MHz
Frequencies	Mic 2 2.8 MHz	—	2.8 MHz	3.8 MHz
S/N	More than 60 dB			
Local Controls	2 Mic Volume Controls 3-Band Equalizer 4 Speaker Volume Controls 1 Power Switch 4 Line Input Volume Controls Voice Mute On/Off	2 Mic Volume Controls 2-Band Equalizer 2 Speaker Volume Controls 1 Power Switch 2 Line Input Volume Controls	2 Mic Volume Controls 1 Power Switch	
Remote Control - From WX-LT350 (Microphone)	Mic 1 Level Mic 2 Level Line Input Level	Mic 1 Level Mic 2 Level	—	
Connections	4 Stereo Line Inputs Dedicated Line Output 8 Speaker Connections Infrared Level Control Voice Mute	2 Line Inputs Dedicated Line Output 4 Speaker Connections	Line Input Mixing Output	
Dimensions	420 mm (W) x 88 mm (H) x 250 mm (D) (16-3/4"(W) x 3-15/32"(H) x 9-13/16"(D))	210 mm (W) x 44 mm (H) x 210 mm (D) (8-1/4"(W) x 1-23/32"(H) x 8-1/4"(D))	—	
Weight	approx. 3.6 kg (7.95 lbs.)	approx. 1.25 kg (2.76 lbs.)	approx. 1.1 kg (2.42 lbs.)	

Infrared Sensor: WX-LS100

Power	22 V DC
Current Consumption	20 mA
Infrared Ray Wavelength	850 nm
Sensor Output	75 Ω F-type connector
Receiving Channel (Sub Carrier Frequencies)	Ch1: 2.3 MHz, Ch2: 2.8 MHz, Ch3: 3.2 MHz, Ch4: 3.8 MHz
Dimensions	Max. ø113.5 mm x 34.5 mm (H) (ø4-7/16" x 1-3/8"(H)) (excluding a projection for F type connector)
Weight	approx. 0.2 kg (0.44 lbs.)
Finish	Black color / Infrared ray transmission acrylic resin

APPEARANCE

(Unit: mm)



Trademarks and registered trademarks

— ENERGY STAR and the ENERGY STAR mark are registered U.S. marks.

Important

— Safety Precaution: carefully read the operating instructions and installation manual before using this product.

- All TV pictures are simulated.
- Weights and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.

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