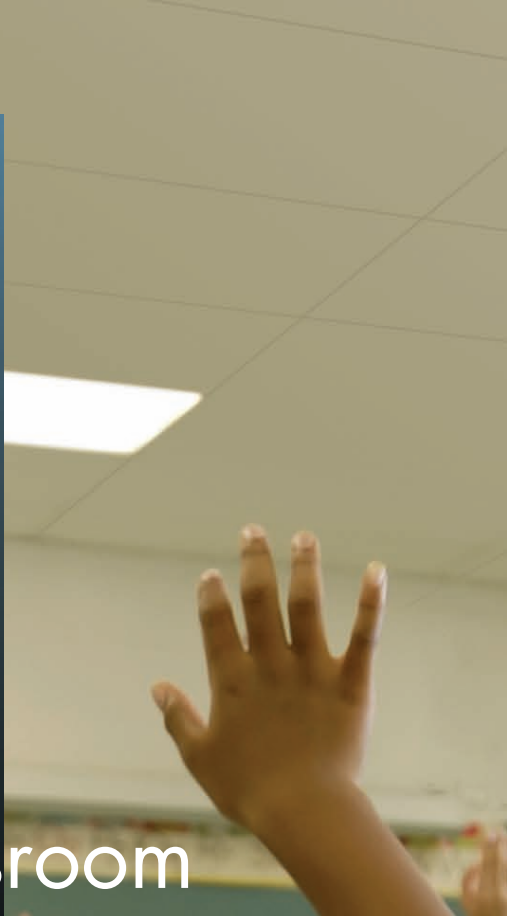




AZDEN INFRA RED  
In the classroom



## CLASSROOM PROVEN

For the past decade, probably no company has had more of their wireless microphone systems installed in classrooms across the country than Azden. Working with the engineering departments of the leading classroom amplification names, Azden has been at the forefront of the drive to improve the quality and reliability of sound available in classrooms. Azden has been selected by these companies because of our long experience in producing reliable RF and infrared products, not for the "stage" but for everyday applications, especially classrooms and conference rooms. Now, in addition to our continued partnerships, Azden is proud to introduce its own lineup of products, engineered specifically for the classroom.

## THE ADVANTAGES OF INFRARED

Infrared wireless microphone systems are the best solution for classrooms. In today's RF saturated world a regular (VHF or UHF) microphone system risks interference from a variety of other devices and sources. Cell phones, radios, TV, PA systems, police and emergency service systems, etc., can all interfere with VHF and UHF, but not with IR. Furthermore, infrared is perfect for classroom audio, since, unlike the other systems, IR is short-range, cannot penetrate walls, and is line-of-sight. This means that a school can have as many classrooms as desired with individual audio systems, without fear of interference. Since the Azden system is dual-channel, the teacher can have one microphone and a second person can also have a microphone. In addition, since each classroom system is on the same pair of channels, teachers can go from room to room without having to switch microphones.



## COMPLETE CLASSROOM SYSTEM

Although you can purchase components separately to customize your own system, Azden provides two complete systems (IR-CS and IR-WS) which include: an IR receiver with ample power for 4 ceiling or 4 wall-mounted speakers and a built-in sensor array (IRR-30P), a small, lightweight chest-worn microphone/transmitter (IRN-10), a pass-around handheld microphone/transmitter (IRH-15c), an external ceiling-mounted sensor (IRD-60), and 4 high-quality in-ceiling speakers (ACS-6.5) or 4 compact wall-mounted speakers (AWS-4.5). All you need to complete the installation is the wiring for the speakers and sensor.

## COMPONENTS

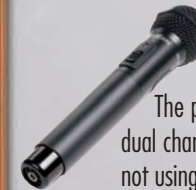
### IRR-30P RECEIVER

The heart of the Azden infrared system is the IRR-30P powered, dual-channel receiver. It allows you to use and control the volume of 2 wireless microphones simultaneously, either for "team-teaching, or to use the handheld microphone for student pass-around. The receiver also has 2 stereo auxiliary inputs so that other line-level devices (CD players, MP3 players, VCRs, etc.) can be attached and played through the system. The teacher can also send the audio to a recorder or video camera, using the line-level preamp-level jack. For bigger rooms or odd-shaped rooms up to 3 additional external sensors can be attached. With all 4 of the ceiling speakers attached to the IRR-30P, sound is spread equally throughout the room, allowing all students to hear equally.

### IRN-10 MICROPHONE



A lightweight, chest worn, microphone/transmitter, it comes with an adjustable lanyard. It is both a microphone and infrared transmitter which wirelessly "links" the teacher to the IRR-30P receiver. It has a specially designed internal microphone array which provides great sound pick-up. With two switchable channels, a teacher can go from classroom to classroom with the same microphone! With just two "AA" batteries (alkaline or rechargeable) the microphone can be used the entire school day without recharging or changing batteries.



### IRH-15c HANDHELD MICROPHONE

The perfect handheld "pass-around" microphone for student participation, this dual channel microphone/transmitter, operates on the channel that the teacher is not using. It is powered by two "AA" batteries (alkaline or rechargeable) and is compatible with all Azden infrared models.

Both the IRN-10 and IRH-15c can recharge internal NiMH batteries when a BC-29 wall-charger is used. There's no need to remove the batteries to recharge.



### IRD-60 SENSOR

In most classroom situations, a single well-positioned IRD-60 external IR sensor provides complete classroom coverage. Mounting is easy, and the sensor is connected to the IRR-30P receiver with standard coaxial wire.

## SPEAKERS



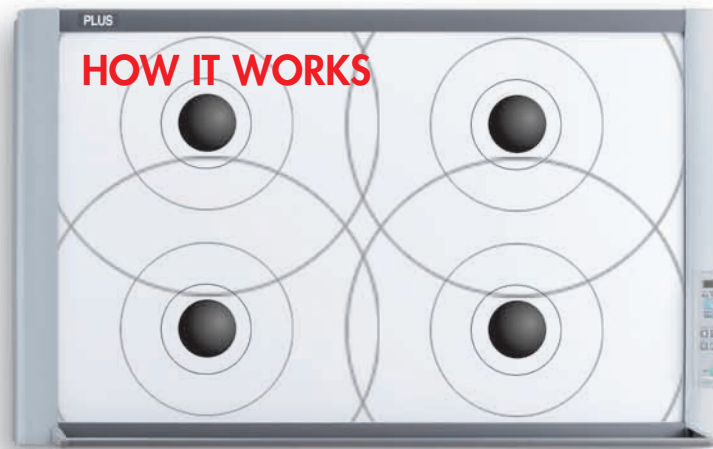
### ACS-6.5 IN-CEILING SPEAKER

The ceiling speaker was designed to provide optimum performance for the teacher's voice in addition to audio from other sources (CD/MP3 player, VCR, etc.). Each speaker features a sealed-back enclosure and 6.5" polypropylene midrange/woofer to produce natural bass response, while the coaxially-mounted 1" polycarbonate tweeter provides superior high frequency response. Easily flush-mounted in any drop-ceiling, four of these speakers provide smooth, evenly distributed sound throughout the classroom. All students can enjoy enhanced audio equally.

### AWS-4.5 WALL-MOUNT SPEAKERS

In those classrooms that don't have drop-in ceiling tile, using four of these wall-mount speakers provides evenly distributed sound throughout the room. Easily mounted to the wall using the included brackets, each speaker features a small, high-impact polycarbonate cabinet fitted with a 4.5" midrange/woofer, a 1" soft dome tweeter and a .5" super tweeter — producing well-balanced, smooth audio.





By placing 4 ceiling-mounted (or wall-mounted) speakers evenly spaced throughout the room, each student can hear quality audio equally — wherever seated. Distributed sound (or soundfield) assures that there isn't a bad seat in the room.

PLUS

## SPECIFICATIONS

<b>IRR-30P 2-channel receiver w/power amplifier</b>		<b>IRN-10 2-channel chest-worn transmitter</b>	
Sub-carrier frequencies	2.06MHz & 2.56MHz	Sub-carrier frequencies	2.06MHz & 2.56MHz switchable
Type	Super heterodyne — crystal controlled	Modulation	FM
Modulation	FM	Microphone element type	Uni-directional electret x 2
Signal-to-Noise	>75dB A weighted	Frequency response	50-9kHz ±3dB
Reception sensitivity	>25dBV	Ext. Mic input impedance	2.2k ohms
Line Input impedance	32k ohms ±15%	Ext. Mic input jack	Ø 3.5mm
Line Output adjustment	∞ ~ +10dBu	Ext. Mic Voltage/Current	3.5VDC @ 1mA (to power electret mic element)
Audio Output	5W x 4 @ 4 ohms	Mic gain adjustment	+6dB ~ -10dB
Power requirement	15VDC @ 2.7A (use model BC-30)	Battery type	2-"AA" alkaline (1.5V x 2) 2-"AA" rechargeable NiMH (1.2V x 2)
Size	8.03" W x 9.19" D x 1.73" H (204 x 233 x 44mm)	Battery life	> 8 hours w/alkaline batteries
Weight	2.86lb (1.3kg)	Size	3.15" H x 2.75" W x 1.06" D (80 x 70 x 27mm)
		Weight	4.3oz (120g) w/alkaline batteries
<b>IRH-15C 2-channel handheld transmitter</b>		<b>IRD-60 Dome sensor</b>	
Sub-carrier frequencies	2.06MHz & 2.56MHz switchable	Output	F Connector
Modulation	FM	Power	powered by receiver (24V @ 15mA)
Microphone element type	Uni-directional dynamic	Cable requirement	RG59 - 75 ohm coaxial
Frequency Response	50-8kHz ±3dB	Size	3.94" x 1.18" (100 x 30mm)
Battery type	2-"AA" alkaline ( 1.5V x 2 ) 2-"AA" rechargeable NiMH (1.2V x 2 )	Weight	6.00oz (170g) w/mounting bracket
Battery life	> 6 hours w/alkaline batteries		
Size	9.65" x ~1.375" (245 x ~35mm)		
Weight	9.1oz (258g) w/alkaline batteries		



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