

# Proposal

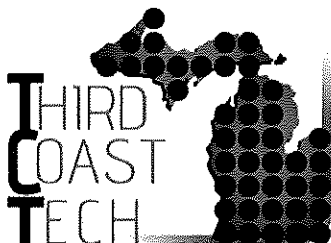
## Educational Services Center

### Hillsdale County ISD

310 W Bacon Street  
Hillsdale, Michigan 49242 United States  
517-768-5299



Presented By:



Third Coast Tech, LLC.  
4514 Pontiac Lake Rd.  
Waterford, Michigan 48328  
800-828-9517  
[www.thirdcoasttech.com](http://www.thirdcoasttech.com)

Modified: 3/23/2018  
Revision: 0

## Sound System

### Scope of Work:

Replace existing PA speakers with 8" two-way ceiling system using existing wiring. The speakers will be powered by a JBL 300-watt energy efficient amplifier that features a sleep mode disable function, no on/off switch needed. JBL mixer will manage the audio system.

Microphone system will consist of a wireless handheld and lapel.

The amplifier, mixer, and wireless microphone receiver will be housed in a 12U wall mounted equipment cabinet.

Using existing raceway, Third Coast Tech will run cables for input plate.

New raceway and cables will run down pillar to an input plate that will consist of: RCA and HDMI that will come from projector.

1	<b>Audio Technica ATW-1312/L</b> ATW-RC13 Rack-mount receiver chassis, ATW-RU13x2 receiver unit, ATW-T1002 handheld dynamic unidirectional microphone/transmitter and ATW-T1001 UniPak® transmitter with MT830cW lavalier microphone.	\$768.82
1	<b>Crimson AV RC12U</b> Wall Mounted Rack Enclosure With Hinged Back Door (19") (12U)	\$334.60
12	<b>ElectroVoice C8.2LP</b> EVID Series 8" Two-Way Ceiling System	\$1,950.48
1	<b>JBL CSA1300Z</b> 1 channel X 300W output 70V Amplifier	\$488.60
1	<b>Jbl Pro CSM 14</b> 4 Input Audio Mixer	\$348.94
1	<b>TCT Freight/Shipping</b>	\$325.00
1	<b>TCT Installation</b>	\$1,974.00
1	<b>TCT Lot - Wire &amp; Materials</b> Cabling/Hardware/Input Plate/Raceway	\$650.00

\* Price Includes Accessories

Presented By: Third Coast Tech, LLC.

Project Name: Educational Services Center

Project No.: TCT-0183

3/23/2018

Page 2 of 4

## Third Coast Tech, LLC.

Sound System	Equipment Total:	\$4,866.44
	Labor Total:	\$1,974.00
	Total:	\$6,840.44
Project Equipment Subtotal:		\$4,866.44
Project Labor Subtotal:		\$1,974.00
Project Subtotal:		\$6,840.44

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\* Price Includes Accessories

Presented By: Third Coast Tech, LLC.

Project Name: Educational Services Center

Project No.: TCT-0183

3/23/2018

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# Third Coast Tech, LLC.

## Project Summary

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**Equipment:** \$4,866.44

**Labor:** \$1,974.00

**Grand Total:** \$6,840.44

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**Client:** Jeremy Adams

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**Date**

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**Contractor:** Third Coast Tech, LLC.

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**Date**

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\* Price Includes Accessories

Presented By: Third Coast Tech, LLC.

Project Name: Educational Services Center

Project No.: TCT-0183

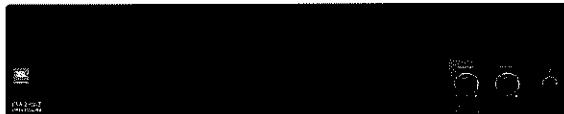
3/23/2018

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# CSA-1300Z CSA-2300Z

Amplifiers For  
JBL CS Commercial Solution Series  
Public Address System



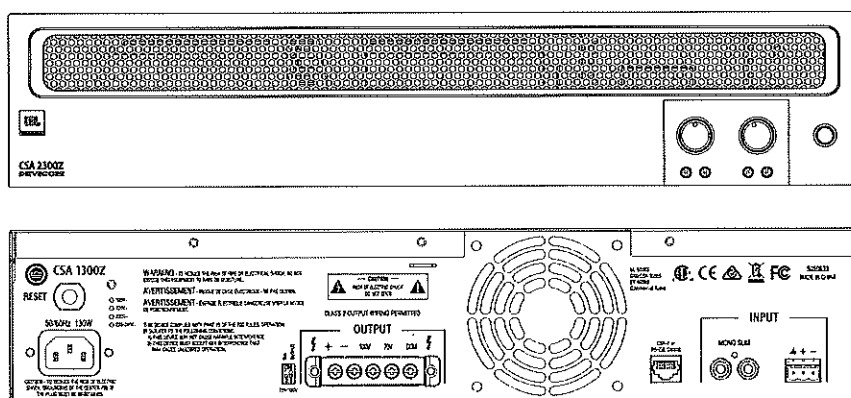
The JBL® Commercial Series of Amplifiers are a professional tool designed and built for Installed sound applications. There are both single channel and two channel models. They provide amplification with a choice of low impedance, 70V or 100V outputs.

The product includes a rack mounting kit for installations to a cabinet. The system can be easily expanded with additional JBL Commercial Series products. Provisions are included for a remote volume control using the JBL CSR-V control module.

## Features

- 1 or 2 channels X 300W output
- Built-in 70V and 100V
- Space-saving 2 RU design
- Sleep mode disable function
- Energy-efficient amplifier
- Sleek industrial look with illuminated rings making knobs easy to see and use
- Supports JBL CSR-V wall controller via CAT5 cable with RJ45 connectors
- Euro-block style input connectors, barrier strip output connectors
- Independent Bass and Treble controls for each output channel
- Capable of RS232 control of volume, mute and sleep mode

## Line drawing (CSA-2300Z example)





# CSA-1300Z CSA-2300Z

Amplifiers For  
JBL CS Commercial Solution Series  
Public Address System

## CSA-1300Z / CSA-2300Z Specifications

Performance	CSA 1300Z	CSA 2300Z
Rated Power into 4 Ω or 8 Ω; 1kHz, ≤ 0.5% THD	300W	300W
Number of Output Channels	1	2
Insertion Loss (70V & 100V outputs)	1 dB maximum	
Input Sensitivity (8 Ω Load)	Balanced line input: 775mV <sub>RMS</sub> ; RCA Mono Sum Input: 300mV <sub>RMS</sub>	
Frequency Response (8Ω, 20Hz - 20kHz, tone controls set to flat response)	+/- 1.0 dB	
Total Harmonic Distortion (THD) (@ Full rated power, 20Hz-20kHz)	<0.5%	
Signal-to-Noise Ratio (Ref. rated output, 22KHz BW, A-weighted)	>97dB	
Input Impedance (nominal)	Euro Block: 20 kΩ (balanced); RCA: 10 kΩ	
Maximum Input Level	+22dBu (Nominal)	
Crosstalk (Ref. rated power, A-weighted, 1kHz)	<-70 dB	
Tone Controls (Bass and Treble non-detented potentiometers on each channel)	Bass +/-12dB @100Hz Treble +/-12dB @10kHz	
Nominal AC Line Voltages	100V, 120V, 220V, 230-240V, 50/60 Hz	
Minimum Load Impedance Low-Z Output 70V Output 100V Output	4 Ω 12 Ω 24 Ω	4 Ω 12 Ω 24 Ω
Operating Temperature/Humidity	0°C to 35°C @ 95% R.H. (non-condensing)	
Storage Temperature	-20°C to 85°C	
Dimensions & Weight		
Net Weight (preliminary estimate)	13.1 lb (5.95 kg)	17.8 lb (8.05 kg)
Dimensions	Width: 17.0 in. (432 mm) Depth: 10.8 in. (274 mm) Height: 3.5 in. (89 mm)	
Shipping Weight	16.4 lb (7.45 kg)	20.6 lb (9.35 kg)

### Contact Information

#### On The World Wide Web:

[www.jblcommercialproducts.com](http://www.jblcommercialproducts.com)

#### Professional Contacts, Outside the USA:

Contact the JBL Professional Distributor in your area.

A complete list of JBL Professional international

distributors is provided at our U.S.A. website:

### Ordering Information

#### CSA-1300Z

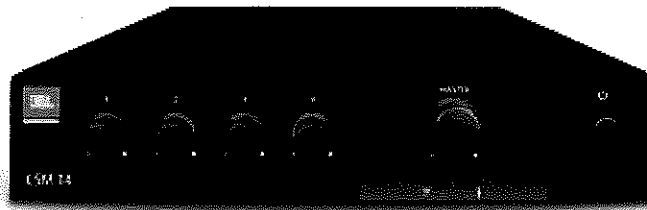
Amplifier

#### CSA-2300Z

Amplifier

**JBL****COMMERCIAL**  
by HARMAN**YOGA/DANCE STUDIO**

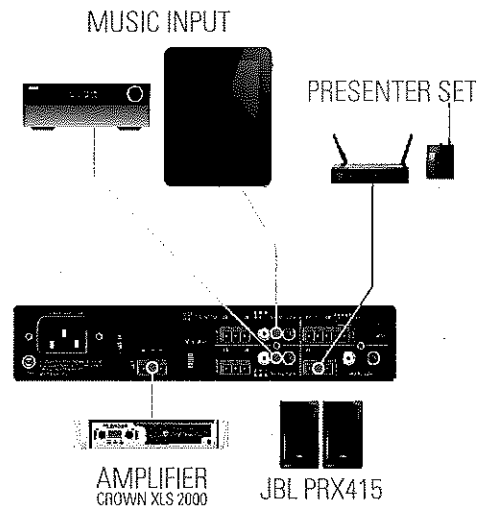
## JBL CSM 14



Backed by the combined technological prowess of multiple HARMAN brands, the JBL® Commercial Series Mixers (CSM) deliver unsurpassed quality in commercial sound. Easily configured for a range of applications, such as background music, security, and paging, CSM units are designed for everything from schools and hospitals to restaurants and fitness facilities.

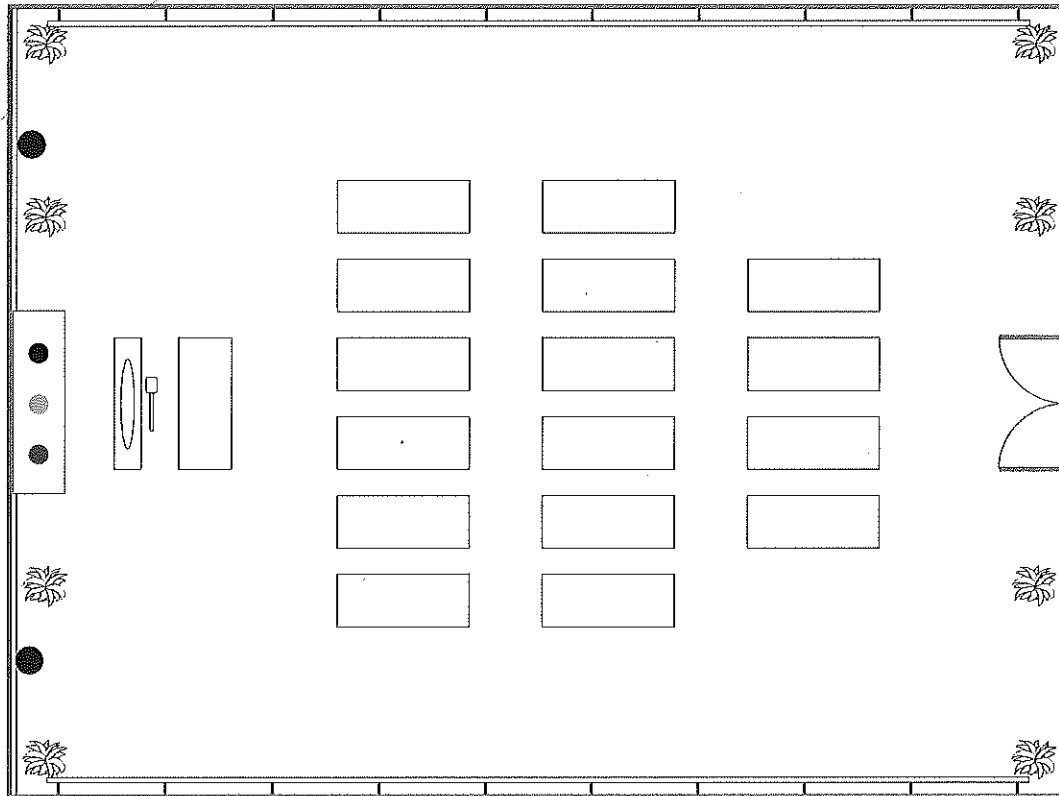
### STANDARD FEATURES

- 4 input sources with 1 channel output
- Fanless, space-saving 1U design
- Configurable output routing (2 channel models only)
- Independent bass/treble controls
- Euro-block type mic/line input and output connectors, and unbalanced RCA inputs for consumer connection
- Supports JBL CSR-V wall controller via Ethernet cable
- Priority muting, VOX ducking, and phantom power for all models
- Three-year, no-fault fully transferable warranty



# YOGA/DANCE STUDIO

2500sq ft



- Speaker
- Mixer
- Presenter Set
- Tablet

	QUANTITY	MODEL	BRAND
MIXER	1	CSM 14	JBL COMMERCIAL/JBL
SPEAKERS	2	PRX415	JBL COMMERCIAL/JBL
AMPLIFIER	1	XLS 2000	CROWN
PRESENTER SET	1	PERCEPTION 45 PRESENTER SET	AKG





**EV** Innovative Design

**EVID C8.2LP Ceiling**  
**8" Two-Way**  
**Coaxial Ceiling**  
**Loudspeaker System**



### Key Features:

- Low Profile 8" coaxial two-way
- Waveguide coupled Ti Tweeter
- Full bandwidth overload protection
- Front baffle wattage tap adjustment
- Integrated low loss matching transformer allows for either 70v/100v or 8-ohm operation
- Includes tile bridge and mounting ring for easy installation
- Integrated ported enclosure for extended bass response
- Ideal for ceiling spaces with tight clearance
- UL and CE listed



### General Description:

The Electro-Voice ® EVID C8.2LP loudspeaker system is a complete two-way ceiling loudspeaker in a low profile package. The package consists of a bezel assembly, grille, rear enclosure, 8-inch coax two-way loudspeaker and internal line-matching transformer. The loudspeaker features a waveguide coupled titanium coated dome tweeter. The EVID C8.2LP loudspeaker utilizes a 2<sup>nd</sup> order crossover network at 2.5 kHz, with a comprehensive protection circuit to protect the network, woofer, and tweeter drivers from excessive power levels. The C8.2LP utilizes a transformer that offers a selection of 1.88 (70-V only), 3.75, 7.5, 15 or 30 watts delivered to the loudspeaker system using either 70-V or 100-V lines, or 8 ohm bypass. Selection is via a convenient switch on the front baffle. The perforated grille is finished in semi-gloss white powder-coated enamel. The baffle and bezel are constructed from UL 94V-0 rated ABS. The rear enclosure is constructed from zinc-plated, heavy gauge steel. The low profile enclosure makes it easy to mount in tight spaces. A rear cover, with provisions for a junction box fitting, provides access to a 4-pin terminal block that allows direct connection to the speaker with 12 gauge wire and provides pass through to additional speakers. A tile bridge is included for safe suspension of the C8.2LP ceiling systems in a drop ceiling that uses mineral wool, or other fiber-based ceiling tiles. The EVID line of ceiling speakers has been designed to work together as a complete system in a wide range of different ceiling constructions. They provide wide dispersion, high-efficiency, high-maximum output, ease of installation, and wide-range reproduction of music or voice.

### Technical Specifications:

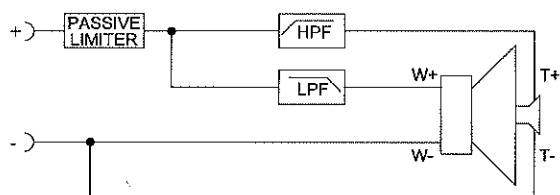
Freq. Response (-10 dB):	50 Hz - 20 kHz
Coverage (Conical):	110°
Power Handling:	75 W Cont. / 300 W Peak
Sensitivity (SPL 1W/1m):	91 dB
Max Calculated SPL:	110 dB Cont. / 116 dB Peak
Impedance:	8 Ohms nominal (transformer bypass)
Network:	Network and transducers protected, 12 dB/oct 2.6 kHz
LF Transducer:	8 in. (200 mm) Polypropylene cone
HF Transducer:	1 in (25 mm) Ti Mylar laminate
Transformer Taps:	70V: 1.88, 3.75, 7.5, 15 or 30W 100V: 3.75, 7.5, 15 or 30W Bypass: 8 Ohms
Connectors:	Phoenix type removable, with screw terminals and "loop-thru", accepts 12 ga wire
Enclosure Material:	Baffle- UL 94V-0 rated ABS Backcan-Zinc plated steel
Grille:	Perforated powder coated steel with safety tether
Support Hardware:	Tile bridge, backing plate support, cutout template, paint shield
Dim (H x Dia.):	7.0" x 10.6" (178mm x 270mm)
Cutout Size:	10.75" (272mm)
Net Weight (each):	11.0 lbs (5.0 kg)
Shipping Weight (pair):	24.0 lbs (11.0 kg)
Safety Agency Ratings:	UL 1480. Safe for use in air handling spaces per UL 2043.

All Specifications based on Half Space Environment in ceiling.

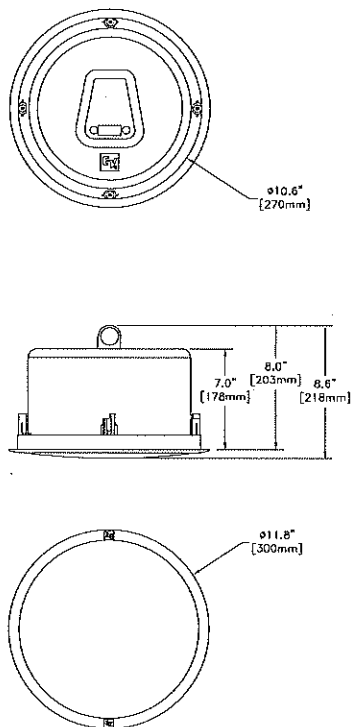
## Architects' & Engineers' Specifications:

The EVID C8.2LP loudspeaker system shall be comprised of a UL 94V-0 fire rated ABS baffle/bezel assembly, zinc plated steel rear enclosure, powder coated grille with safety tether, transformer with 8 ohm bypass, and 8-inch polypropylene low frequency transducer with coaxially-mounted waveguide coupled 1 inch titanium coated dome tweeter. The loudspeaker shall meet the following criteria: power rating shall be 75 watts of EIA RS-426A pink noise (6 dB crest factor). Frequency response, uniform from 50 Hz to 20 kHz. Pressure sensitivity, 91dB SPL at 1 meter (3.3 feet) on axis with one watt of pink noise (ref. 20 $\mu$ Pa). Minimum impedance, 6.0 ohms. The loudspeaker shall be 178 mm (7.0 in.) deep and 270 mm (10.6 in.) in diameter. Weight shall be 5.0 kg. (11.0 lb) The coaxial ceiling loudspeaker shall be the Electro-Voice® model EVID C8.2LP.

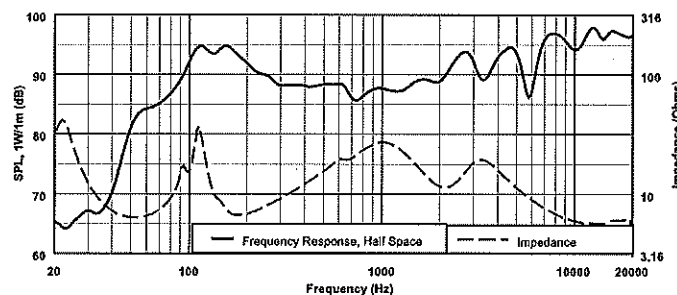
## Block Diagram:



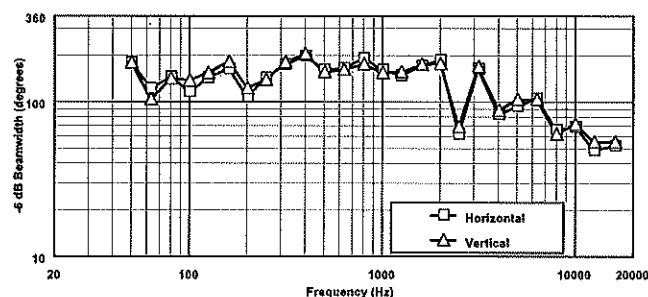
## Dimension Drawings:



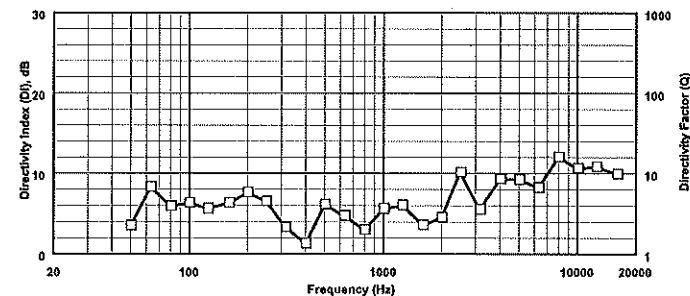
## Frequency Response:



## Beamwidth:



## Directivity:



## Performance Match:

- EVID C10.1 Subwoofer
- CPS-1 Power Amplifier
- CPS-2 Power Amplifier
- CPS-2T Power Amplifier
- MA-1206 Mixer Amplifier
- MA-1212 Mixer Amplifier

## EVID C8.2LP Part Number

- 301318-000



12000 Portland Avenue South, Burnsville, MN 55337  
Phone: 952/884-4051, Fax: 952/884-0043

[www.electrovoice.com](http://www.electrovoice.com)

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Part Number 38110-169 Rev B

U.S.A. and Canada only. For customer orders, contact Customer Service at:  
800/392-3497 Fax: 800/955-6831

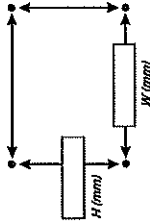
Europe, Africa, and Middle East only. For customer orders, contact Customer Service at:  
+ 49 9421-706 0 Fax: + 49 9421-706 265

Other International locations. For customer orders, contact Customer Service at:  
+ 1 952 884-4051 Fax: + 1 952 736-4212

For warranty repair or service information, contact the Service Repair department at:  
800/685-2606

For technical assistance, contact Technical Support at: 866/78AUDIO

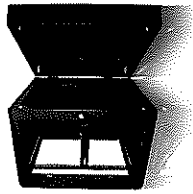
Specifications subject to change without notice.



TV Weight (LB)

Search

## RC12U



Wall Mounted Rack Enclosure With Hinged Back Door (19") (12U)  
Durable wall mounted cabinet features a reversible tempered glass front door with a lock and removable side panels. The hinged back wall plate allows for easy access to components from the back even after the enclosure is mounted to the wall. The RC12U is made of high grade cold rolled steel and rated to 130 lbs.

- Ships fully assembled
- Works with all standard 19" rack components
- Reversible and removable tempered glass front door
- Removable side panels
- Vented top and bottom
- Adjustable front and rear rails
- Hinged back panel
- Top and bottom cable routing knockouts
- Cutouts for optional dual fans



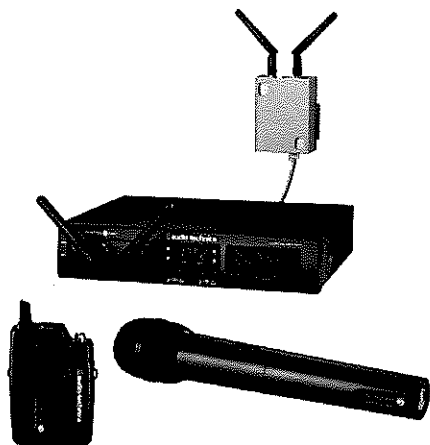
Model #	Color	Size	Ship Weight
RC12U	Black	25"	62.81

# System 10 PRO

audio-technica

## Rack-Mount Digital Wireless System

wireless systems



### Features

- **Digital 24-bit/48 kHz wireless operation for ultimate sound quality and dependable performance**
- **Operates in the 2.4 GHz range – completely free from TV interference**
- **Receiver units can be docked in the chassis or mounted remotely (up to 328 feet away) via UTP cable for added versatility**
- **Up to five chassis (ten receiver units) can be linked and used simultaneously**
- **Each receiver unit can be paired with up to 10 transmitters, allowing users to instantly switch between different transmitter configurations**
- **Chassis' System ID Display shows RF signal level, system ID, transmitter battery level, and system link status**
- **Automatic frequency selection for seamless, interference-free operation**
- **Extremely easy operation with instantaneous channel selection, sync, and setup**
- **Three levels of diversity assurance: frequency, time & space**
- **Ground-lift switch helps eliminate audible hum caused by ground loops**

### Description

System 10 PRO Rack-Mount brings new versatility to the System 10 family of 2.4 GHz digital wireless products. With remote-mountable receiver units and the simultaneous use of up to 10 channels, System 10 PRO combines innovation with rock-solid performance, easy setup and clear, natural sound quality.

The ATW-RC13 half-rack receiver chassis features two receiver unit docks, each designed to house an ATW-RU13 receiver unit. Two RJ45 connectors on the rear of the chassis allow each receiver unit to be released from the chassis and mounted up to 100 m (328 ft.) away via standard UTP cable. The chassis is also equipped with IN/OUT RJ12 connectors that can be used to link the chassis to another chassis (up to five chassis – 10 receiver units – can be linked together) allowing for simultaneous use of all receivers and increased stability of a multichannel system. The front of the chassis is equipped with a System ID Display that indicates the RF signal strength, System ID number and battery level for the transmitter currently engaged with each receiver unit. The display also shows if the chassis is currently linked to another chassis. Additionally, the chassis features an AF level control, ground lift switch, unbalanced ¼" output connection and balanced XLRM-type output connection for each receiver unit.

The ATW-RU13 receiver unit features two detachable antennas that screw onto the face of the unit via SMA connectors. The rear of the unit is equipped with a ¼"-20 thread socket for mounting the receiver unit remotely to a tripod or other device with a ¼" screw. An RJ45 connector, also on the rear of the unit, allows a remotely mounted receiver unit to be connected to the chassis with UTP cable. An LED status indicator, located between the mounting

socket and the RJ45 connector, blinks slowly when the receiver unit is not paired with a transmitter, blinks quickly during the pairing process, and illuminates solidly green once the receiver unit is paired with a transmitter. An AT8690 RU13 Holder is supplied for each receiver unit, providing a convenient means to mount the unit remotely.

The ATW-T1001 UniPak® body-pack transmitter is powered by two AA batteries and features a sliding battery compartment cover that also protects the internal controls from being accidentally activated. The transmitter is equipped with a recessed 4-pin HRS-type locking input connector that helps to increase the life of the microphone or guitar cable and a microphone/instrument level control that provides trim adjustment. The transmitter supplies DC bias voltage to power condenser microphones. A power/mute button on the top of the unit allows for the transmitter to be easily muted or turned on and off. A pairing switch in the battery compartment works to pair the transmitter with a receiver unit. The transmitter also features a dual-color LED power/battery/mute indicator that glows green when the transmitter is turned on and the batteries are in good operating condition. The LED flashes green when batteries are low and turns red when the mute function has been activated. A System ID display on the front of the transmitter indicates the transmitter's System ID number.

The ATW-T1002 handheld transmitter uses a specially designed dynamic cardioid capsule to maintain sonic consistency with wired counterparts, while an adjustable trim control helps match the microphone to the audio source. The ergonomically designed handle unscrews and slides off to reveal the battery compartment and controls. The power/mute button is placed at the end of the microphone to maintain a clean, uncluttered appearance. A rugged steel head case protects the capsule while providing relief from wind-induced noise. Like the body-pack transmitter, the handheld transmitter is equipped with a dual-color power/battery/mute indicator, a System ID display, input level control and a pairing switch, and operates on two AA batteries.

### Architect's and Engineer's Specifications

The 2.4 GHz wireless microphone system shall operate in the ISM band: 2.4000 GHz to 2.4835 GHz. The transmission shall be 24-bit digital audio with a total system latency of 3.8 ms. The system shall support a 24-bit/48k digital audio stream without analog audio companding. The wireless microphone system shall be capable of automatic frequency selection and assign transmitter operating frequencies without user intervention and actively avoid interference without interrupting the audio signal. The system shall transmit and receive two frequencies, one as a primary transmission with the digital audio data and the second a transmission with the same digital audio data but on a separate, time-shifted frequency for error correction. The system shall also utilize two antennas on each receiver unit and transmitter, thus achieving three levels of wireless diversity in frequency, time and space.

The receiver chassis shall be all-metal and capable of housing two removable receiver units. The chassis shall have on its front panel an LED Audio Indicator for each receiver unit that shows when audio is received from a transmitter, when audio is nearing peak level and when it reaches peak level. The receiver chassis shall also have a System ID Display that indicates (for each receiver unit) the RF signal level received from the transmitter, System ID number, transmitter battery level and chassis link status. The receiver chassis shall have a rear panel selector to lift the ground connection from pin 1 of the XLR-type output connector to prevent ground loops. The rear panel shall also have Link IN/OUT connectors that accept RJ12 cable (included with each system) to link one receiver chassis to another (up to five chassis total). When using more than one chassis they are to be linked with the RJ12 cable for optimum frequency coordination and system timing. The receiver chassis shall be able to be powered by 120V AC 60 Hz or 12-18V DC at 500 mA. Two half-wave antennas per receiver unit shall be located on the front of the unit and shall incorporate SMA-type connectors. To facilitate

# System 10 PRO

extending the antennas, the receiver unit may be removed from the chassis and mounted on a tripod or other device with a ¼"-20 threaded bolt or slipped into the included AT8590 holder for mounting on a wall or other structure. The receiver unit shall be connected with standard Category 5e or better structured cable via a RJ45 with a maximum cable length of 100 m (328 ft). Each receiver unit shall require a separate cable home run to the receiver chassis to carry proprietary digital audio information and power. The receiver chassis can be rack-mounted alone or with another chassis in a single rack space. The receiver's design shall provide totally silent audio output mute when the wireless transmitter is turned off or signal is lost. The wireless receiver chassis and supplied metal rack-mounting brackets and metal joining plate shall be industrial black.

The frequency-agile 2.4 GHz wireless body-pack transmitter shall have microphone and line level inputs, and transmit in the 2.4000 GHz to 2.4835 GHz ISM frequency band. The transmitting frequency shall be determined by the paired receiver and automatically changed based on the monitoring of the spectrum by the receiver. The body-pack shall provide DC voltage to power microphones requiring DC bias. The body-pack transmitter shall have a reversible clothing clip allowing for up or down cable entry. The transmitter shall have a recessed 4-pin locking input connector. A dual-color LED indicator shall illuminate green when the transmitter is turned on, shall illuminate red when the transmitter is muted, and shall blink when the battery power is low. An LED System ID Display shall show the pairing number of the associated receiver unit. There shall be an adjustment to allow input gain changes with a range of 18 dB. The body-pack transmitter shall support a 24-bit/48 KHz digital audio stream without analog audio companding. The body-pack shall pair with a receiver unit using a unique identification number. Up to 10 transmitters (body-pack or handheld) shall pair with a single receiver unit and the active body-pack shall be that which was turned on first (among all body-packs currently on). Each body-pack transmitter shall have two antennas that both transmit and receive signals. The transmitter shall operate on two AA batteries.

The frequency-agile 2.4 GHz wireless handheld transmitter shall utilize a dynamic cardioid element and transmit in the 2.4000 GHz to 2.4835 GHz ISM frequency band. The transmitting frequency shall be determined by the paired receiver and automatically changed based on the monitoring of the spectrum by the receiver. The transmitter shall support a 24-bit/48 KHz digital audio stream without analog audio companding. The capsule shall incorporate internal shock mounting and have a two-stage integral pop filter. It shall have a durable plastic housing. A dual-color LED indicator shall illuminate green when the transmitter is turned on, shall illuminate red when the transmitter is muted, and shall blink when the battery power is low. An LED System ID Display shall be provided to show transmitter pairing number. The transmitter shall have an audio input level adjustment range of 18 dB. The handheld transmitter shall pair with a receiver unit using a unique identification number. Up to 10 transmitters (handheld or body-pack) shall pair with a single receiver unit and the active handheld shall be that which was turned on first (among all handheld transmitters currently on). Each handheld transmitter shall have two antennas that both transmit and receive signals. The transmitter shall operate on two AA batteries. The transmitter shall be supplied with a heavy-duty stand clamp.

The wireless system shall be an Audio-Technica (note to specifier: choose one):

- ATW-1301 – Single Body-Pack System
- ATW-1301/L – Single Body-Pack System with Lavalier Microphone
- ATW-1302 – Single Dynamic Handheld System
- ATW-1311 – Dual Body-Pack System
- ATW-1311/L – Dual Body-Pack System with Lavalier Microphones
- ATW-1312 – Dual System: One Handheld, One Body-Pack
- ATW-1312/L – Dual System: One Handheld, One Body-Pack with Lavalier Microphone
- ATW-1322 – Dual Dynamic Handheld System

## Specifications

Operating Frequencies	2.4 GHz ISM band
Dynamic Range	>109 dB (A-weighted), typical
Total Harmonic Distortion	<0.05% typical
Operating Range	60 m (200') <i>Open range environment with no interfering signals</i>
Operating Temperature Range	0° C to +40° C (32° F to 104° F) <i>Battery performance may be reduced at very low temperatures</i>
Frequency Response	20 Hz to 20 kHz <i>Depending on microphone type</i>
Audio Sampling	24 bit / 48 kHz
Latency	3.8 mS

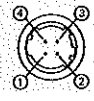
## ATW-RU13 Receiver UNIT

Receiving System	Diversity (frequency/time/space)
Dimensions	57 mm (2.24") W x 19 mm (0.75") H x 77.6 mm (3.06") D
Net Weight	64 grams (2.3 oz)
Remote receiver connector	RJ45
Mounting Thread Insert	¼" x 20
Accessories Included	Antennas, AT8690 RU13 holder

## ATW-RC13 Receiver Chassis

Maximum Output Level	XLR, balanced: 0 dBV ¼" (6.3 mm), unbalanced: +6 dBV
Power Supply	100-240V AC (50/60 Hz) to 12V DC 0.5A power supply switched mode external
Dimensions	209.8 mm (8.26") W x 44 mm (1.73") H x 169.3 mm (6.67") D
Net Weight	940 grams (33.2 oz)
Remote receiver connector	RJ45
Accessories Included	AC adapter, Link cable, Rack-mount adapters, Joining plate, Rubber feet

## UniPak® Transmitter

RF Output Power	10 mW
Spurious Emissions	Following federal and national regulations
Input Connection	Four-pin Locking Connector 
Batteries (not included)	Two 1.5V AA
Battery Life	>7 hours (alkaline) <i>Depending on battery type and use pattern</i>
Dimensions	70.2 mm (2.76") W x 107.0 mm (4.21") H x 24.9 mm (0.98") D
Net Weight (without batteries)	100 grams (3.5 oz)

## UniPak® Transmitter

RF Output Power	10 mW
Spurious Emissions	Following federal and national regulation
Batteries (not included)	Two 1.5V AA
Battery Life	>7 hours (alkaline) <i>Depending on battery type and use pattern</i>
Dimensions	254.8 mm (10.03") long, 50.0 mm (1.97") diameter
Net Weight (without batteries)	280 grams (9.9 oz)
Accessory Included	AT8456a Quiet-Flex™ stand clamp

† In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.



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