1 Integrated Sensor
Integrated high sensitivity infrared diode array.

2 Digital, 3 Speaker 2.1 Array
Two mid-range HF drivers and one woofer provide full, rich stereo sound.

3 LCD touch screen
Lockable full-color touch screen control.

4 Stereo Quick Connect
Easily and quickly connect an MP3 player or other audio device.

5 Table/desk Stand
Sturdy desk stand is easily removed for wall mounting.

6 Additional Sensor Ports
Two ports for additional sensors.

7 Channel Expansion Module Bay
Add the optional Channel Expansion Module to use up to five microphones with the Juno Tower.

8 100mm VESA Wall Mount Screw Taps

9 Transmitter/USB Cable Hook
Hang your transmitters while charging from the tower. When not charging, the USB cable hangs from the center of the hook.

10 Speaker Expansion Module Bay
Optional module for adding extra speakers for expanded audio coverage.

11 Juno Connect™ Module Bay
Optional module for adding software and voice control of AV devices plus, in conjunction with Conductor, two-way communication between classroom and front office.

12 Page Override Module Bay
The optional module mutes all audio whenever an announcement is made over the school’s public address system.

13 Power Jack

14 Power Switch

15 Easy Grip Handle
Integrated ergonomic handle makes carrying or moving the Juno Tower easy.

16 Auxiliary Output
Output with volume control for capturing lectures or to connect personal FM systems.

17 Stereo Inputs for External Audio
Connect other classroom A/V equipment such as a DVD player, television or VCR.

18 Serial Port
Using the included USB cable, connect to a computer running the FrontRow Desktop software application for remote control of the Juno Tower.

19 Integrated Serial Hub
Two ports for charging or programming microphones.

Custom Naming
Name is displayed on the LCD touch screen for easy identification.

Feedback Suppression
The next-generation Adapto™ digital engine actively scans audio 375 times per second to suppress feedback squeal before it starts.

Optimized Speech Clarity
FrontRow’s patented OptiVoice™ technology is designed to emphasize critical speech sounds, so kids comprehend even more.

Easy Lesson Capture
The Juno lesson capture system records screen and audio, then automatically titles and prepares the recordings for upload.

Class2Class
Supports distance learning by removing audio echo when using Skype™ and other tools.

Voice Command
Control Juno and other devices, or control recording by speaking simple voice commands into the teacher microphone.

Teacher Priority
PrioriTeach™ gives priority to the teacher microphone by reducing the volume of all other devices and microphones when the teacher microphone is used.

Advanced Software Control
Volume, 12-band EQ, speaker balancing, and more are controllable via Teacher Edition Software while keeping the daily user interface neat and simple.

SPECIFICATIONS
Transmission type: Infrared
Receiving frequencies: 2.1MHz, 2.4MHz; (2.8MHz, 3MHz, 3.6MHz with Channel Expansion Module)
Frequency response: 50Hz – 20kHz
Signal-to-noise: >70dB
THD: <1% @ 1kHz
Maximum audio output power: 40W, peak program
Power supply: 18VDC @ 3.3AMP
Size (wxhxd):
Tower without base: 19.7 x 68.6 x 16.5cm/7.75 x 27 x 6.5in
Tower with base: 35.6 x 71.8 x 26.7cm/14 x 28.25 x 10.5in
Weight:
Tower without base: 5.7kg/12.5lbs
Tower with base: 6.4kg/14lbs
Operating range: 18.3m/60ft, line of sight (typical)
Reception area: 274m²/900f² (typical)

USER CONTROLS
• Power
• Master volume
• Microphone volume (5)
• Auxiliary audio volume (4)
• Audio out volume
• Tower settings

INPUTS/OUTPUTS
• Input power jack
• (2) RCA jacks for external sensor connection
• 3.5mm audio out jack
• (3) RCA stereo audio in jacks (with stereo sound output)
• (1) 3.5mm stereo audio in jack (with stereo sound output)
• (2) serial microphone charging/programming jacks
• (1) serial communications port

ITR-01 ACCESSORIES
receiver power supply
AC power cord (for power supply)
USB cable
Teacher Edition Software (Windows or Mac OS)
1 **Amazing Sound Quality**
Superb pick-up and audio quality thanks to a high-isolation microphone suspension, broad frequency response, and low-distortion direct digital synthesis.

2 **Mute Indicator**
- OFF ....................... Un-muted
- SOLID RED .................... Muted

3 **Power Indicator**
- SOLID GREEN ............... Power On
- OFF ......................... Standby

4 **One-Touch Button**
Controls all of the features of the Pendant Microphone. Use with voice command to activate the Juno lesson capture software and control your Juno Tower.

When the Pendant Microphone is in standby mode:
- PRESS MOMENTARILY ............ Awaken

When the Pendant Microphone is active:
- PRESS MOMENTARILY ... Mute / Un-mute
- PRESS AND HOLD... Issue Voice Command

5 **Superior Comfort**
Lightweight (just 73.7g/2.6oz) with soft backing that provides comfort and reduces friction noise from contact with clothing, buttons or jewelry. Ergonomic lanyard suspension points keep the mic stable and help keep it from swinging away from the body when leaning over to help a student.

6 **Battery Indicator**
- In Use
  - OFF ....................... Battery Charged
  - FLASHING RED ............. Battery Low

When Charging
- SOLID RED ..................... Charging
- SOLID GREEN .................. Fully Charged

7 **Lithium Ion Battery**
3-year life expectancy, lightweight and rechargeable.

8 **Charging/Programming Jack**
For charging via USB cable or for configuring settings.

9 **Portable Audio Interface**
3.5mm audio input jack for wireless transmission from any secondary audio source such as a computer or MP3 player.

10 **Charge Contacts**
For use with the optional IMC-01 microphone charger.

**Adjustable Power**
Factory set to achieve complete coverage in a typical classroom with 7 hours of talk time. Increase talk time or expand coverage for very large rooms with a quick software adjustment.

**Programmable Channels**
Program the switch positions to 2 of 7 available channels.

**Digital Naming**
Assign custom names to microphones for easy identification on the Tower LCD and Desktop Software.

**Data Transmission**
Reports battery status to Desktop Software, visible from an interactive whiteboard.

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**ITM-01 ACCESSORIES**

- Li-Ion battery
- Audio cable
- Micro USB cable

**Teacher Edition Software**
(Windows or Mac OS)

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**SPECIFICATIONS**

- **Transmission type:** Infrared
- **Transmitting frequency:** 2.1MHz, 2.3MHz, 2.4MHz, 2.8MHz, 3.3MHz, 3.6MHz programmable
- **Frequency response:** 70Hz – 8kHz
- **Microphone:** Unidirectional cardioid
- **Battery life:** 7 hours (typical)
- **Battery type:** Li-Ion, 3.7V, 850mAH
- **Operating range:** 18.3m/60ft, line of sight (typical)
- **Size (w×h×d):** 7.4 x 6.6 x 1.3cm/2.9 x 2.6 x 0.5in
- **Weight:** 73.7g/2.6oz (with battery and lanyard)
Amazing Sound Quality
Superb pick up and audio quality thanks to a high-isolation microphone suspension, broad frequency response, and low-distortion direct digital synthesis.

360˚ Emitter Diodes
Lets students hold the Pass-Around Microphone the way it’s most comfortable for them without worry of dropout.

Power Indicator
SOLID GREEN: Power On
OFF: Power Off

Battery Indicator
In Use
SOLID RED: Charging
SOLID GREEN: Fully Charged
When Charging
FLASHING RED: Battery Low
OFF: Battery Charged

Small and Lightweight
At less than 15cm/6in tall and just 2.5 oz, the microphone is much easier for students to use.

Power/Push-to-talk Switch
PRESS AND HOLD ………..Push-to-talk
PRESS AND SLIDE UP …….. Power On

Name Plate
For adding a name or room number for easy identification.

Lithium Ion Battery
3-year life expectancy, lightweight and rechargeable.

Charging/Programming Jack
For charging via USB cable or for configuring settings.

Portable Audio Interface
3.5mm audio input jack for wireless transmission from any secondary audio source such as a computer or MP3 player.

Charge Contacts
For use with the optional IMC-01 microphone charger.

Comfortable Hands Free Option
Easy, comfortable lavaliere clip makes reading in front of class simple and lets the Pass-Around Microphone double as a lightweight teacher microphone.

Adjustable Power
Factory set to achieve complete coverage in a typical classroom with 7 hours of talk time. Increase talk time or expand coverage for very large rooms with a quick software adjustment.

Programmable Channels
Program the switch positions to 2 of 7 available channels.

Digital Naming
Assign custom names to microphones for easy identification on the Tower LCD or in the optional FrontRow Desktop Software.

ISM-01 JUNO PENDANT AND PASS-AROUND MICROPHONE CHARGER

Charging pockets
Both charging pockets can be used to charge either the Juno Pendant Microphone or Pass-Around Microphone

Power jack

IMC-01 ACCESSORIES

SPECIFICATIONS

Size (wxhxd): 8.9 x 4.6 x 11.4cm/3.5 x 1.8 x 4.5in
Weight: 226.7g/8oz
Power supply: 5.9V dc
**EXPANSION MODULES**

**JUNO CONNECT™ COMMUNICATION MODULE**

1. **Onboard Microphone**
   - Communicate with front office even without the Juno mic

2. **Intercom Input (optional)**
   - Connect the CB75 intercom panel ceiling mic for communication with front office when push-to-talk is required (can also be used with CB85)

3. **Serial Control**
   - Send RS232 commands to serial projectors and other AV devices via voice or Teacher Edition Software

4. **Network Connection**
   - Sends commands to IP addressable devices via voice or Teacher Edition Software. Connect to front office via Conductor software. Communicates over standard 10/100Mb/s networks (auto sensing) using either TCP/IP or UDP protocols.

5. **Display Shows Active Page or Intercomm Call**

6. **Clearer, Easier Communication with Front Office**
   - Use the Juno microphone to call the office; hear higher quality paging and intercom audio through the tower

**SPECIFICATIONS**

- **Network Support**: 10/100 Mb/s (Auto Sensing)
- **Baud Rate**: 2400 – 115,000 baud

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**CHANNEL EXPANSION MODULE**

1. **Three additional IR channels**
   - Add up to 3 additional microphones (total of 5)

**SPECIFICATIONS**

- **Receive Frequencies**: 2.8MHz, 3.3MHz, 3.6MHz
- **Signal-to-noise**: >70dB
- **THD**: <1% @ 1kHz

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**PAGE OVERRIDE MODULE (FOR ANALOG PAGING SYSTEMS)**

1. **Time Delay Control**
2. **Sensitivity Control**
3. **Captive Screw Terminal**
4. **Inductive Coupler**

**SPECIFICATIONS**

- **P.A. Input**: Captive screw terminal magnetic coupling
- **Sensitivity**: 70mVrms (minimum)
- **Delay**: <500mSec to >5Sec

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**SPEAKER EXPANSION MODULE**

1. **Captive Screw Terminal**

**SPECIFICATIONS**

- **Frequency response**: 50Hz – 20kHz
- **THD**: <1%
- **Maximum audio output power**: 2 x 8w (8Ω), 2 x 16w (4Ω)
Lesson Capture
Teacher Edition Capture is the basic version of Teacher Edition. It makes lesson capture and sharing effortless so students are always prepared. Records screen and audio, then automatically titles the recording based on instructor’s schedule and saves it to a pre-determined location. Teacher Edition is available with any FrontRow classroom audio system including Juno, Pro Digital, and ezRoom.

AV Control
Teacher Edition Control is a plug-in for Teacher Edition for use with ezRoom or Juno Connect. Teacher Edition Control enables teachers to control projector, audio setup, and lesson capture within the same application. Program up to eight buttons to turn display on and off, change input sources and more.

Juno Control
When used with a Juno system, Teacher Edition also makes controlling Juno settings easy. Control volume and other audio settings right from the desktop.

SPECIFICATIONS
Recording types: Screen and audio, screen only, audio only
File format: mp4, m4a
Recording length: Unlimited

SYSTEM REQUIREMENTS
Windows
• Windows XP SP3, Windows Vista, Windows 7, Windows 8
• 2GHz Processor or faster
• 1 GB of RAM
• 90 MB of hard disk space for the application (recordings will require additional hard disk space)

Mac OS
• Mac OSX - 10.6 (Snow Leopard) or later
• 64-bit Processor (Core 2 Duo or later)
• 150 MB of hard disk space for the application (recordings will require additional hard disk space)
Lesson Capture. Using simple voice commands, Teacher Edition software records screen and audio then automatically titles and prepares recordings for upload so students can review the video at night.

Class2Class. Using FrontRow with tools like Skype® and Adobe® Connect®, you can easily set up a real-time audio/video connection between your class and any location – one that’s clearly heard by everyone without echo.

PrioriTeach. PrioriTeach gives priority to the teacher microphone by reducing the volume of all other devices and microphones when the teacher microphone is used. Control how quickly and to what level the volume is reduced, how quickly the audio resumes, or turn the feature on and off.

VoiceChoice. Increase talk time or expand coverage for very large rooms with a quick software adjustment.

Voice Command. A teacher’s voice is a powerful educational tool – now more than ever. The Juno digital sound system listens as attentively as students do, so teachers can control important functions simply by talking to it.

OptiVoice™ clarity. FrontRow’s patented, powerful tool for test-taking, directions, and ELL instruction. Fragile consonant sounds carry about 75% of the meaning in speech but are easily destroyed by background noise. OptiVoice strengthens these critical sounds, doing the work of a 12-band equalizer with a single switch.

SonicSuffusion™ provides intelligent sound distribution. Juno has three digitally-controlled drivers in a single unit that evenly fills the room with the kind of exciting, multi-layered stereo sound you’d expect from a much larger installed system.

Fast, proper connection to Personal FM systems. Audiologists can quickly and confidently connect students’ personal FM transmitters and maintain excellent transparency. Teacher and fellow-student voices plus media audio are delivered directly to the child’s personal receiver.

Adapto Digital Platform. Faster than the speed of thought — a blistering 375 times per second on the VC5502™ processor, by Texas Instruments — the Adapto platform automatically adjusts sound quality, power usage, and other complex details. Adapto adapts so teachers can teach.

SmartCharge™ peace of mind. The greatest killer of electronics is accidental recharging of alkaline batteries. SmartCevue technology only charges batteries that are safe to charge — protecting your investment for years to come.

Save money (and maybe the planet). FrontRow products use significantly less energy — up to 63% less — than other systems. They’re a smart choice for schools and the environment.

Earth-friendly design. FrontRow’s design and manufacturing practices keep lead, mercury, PBBs and other toxins out of its products — and out of the environment.

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