

FreeSpeech® Dual-Channel Wireless Mic System Package



- > An easy-to-use, highly-reliable speech reinforcement solution
- > Ideal for K-12 primary education classrooms
- > A perfect complement to Crestron® IntelliClass™ systems⁽¹⁾
- > Includes two wireless mics, charger, and receiver
- > One-piece wireless microphone is incredibly small and light
- > Includes an integral magnetic lapel clip and lanyard for unobtrusive wearability
- > Includes one tabletop mic stand
- > Affords full operation via buttons built into each mic
- > "Alert" button allows for triggering an electronic or audible signal in case of an emergency
- > Advanced combined RF/IR wireless technology ensures trouble-free performance
- > IR "beacon" signal prevents interference with adjacent rooms, and mutes the mic automatically if the instructor leaves the room with the mic on
- > 2.4GHz RF technology with "error recovery" minimizes noise and feedback
- > Long-life Lithium-Ion battery lasts 6 hours on a single charge
- > Full frequency response delivers natural speech reinforcement for all users
- > "Automatic Gain Control" maintains consistent speech levels
- > Receiver with built-in 30 Watt stereo amplifier drives one or two pairs of speakers
- > Line output enables connection to an external amplifier or video projector
- > Two stereo line inputs provide amplification for a DVD player, laptop computer, or other program sources
- > Speech and program audio signals are independently adjustable via a control on the wireless mic
- > "Ducking" feature automatically turns down the program source whenever the instructor speaks

- > Built-in master volume, bass, and treble adjustment helps optimize the overall sound quality
- > High-efficiency, energy-saving design minimizes power consumption during operation and while idle

Crestron® FreeSpeech® systems provide a very simple and affordable solution for adding speech reinforcement as part of a complete classroom media presentation system. The MP-FS200 PAK system includes two wireless microphones to support two instructors, or one instructor and an additional participant. The microphones are compact and lightweight, affording reliable and hassle-free operation. Simply remove the mic from the tabletop charger, press the ON button, and go. It can be clipped to a lapel, hung around the neck, or placed in a tabletop stand.

Advanced FreeSpeech RF/IR wireless technology ensures consistent performance with complete freedom of movement — and minimized risk of noise or feedback. An infrared "beacon" signal prevents interference between multiple FreeSpeech systems in adjacent rooms, and even shuts the mic off automatically if the instructor leaves the room with the mic on.

Built-in amplification provides everything needed to drive a set of speakers⁽¹⁾, and even allows for the connection of a DVD player, computer, or other program audio sources. Complete operation is afforded via buttons built into each wireless mic, including independent volume adjustment for the speech and program signals.

SPECIFICATIONS

Wireless Communications

RF: 2.4 GHz ISM Device; 79 Channels FHSS (2402 to 2480 MHz)

IR: 38 kHz

Range (typical): 50 ft (15 m) indoor, subject to site-specific conditions



MP-FS-RX2 Receiver — Rear View

Wired Communications

USB: USB host port for firmware update and configuration

Audio

A-D/D-A Conversion: 16-bit, 44.1kHz

Master Volume Range: -55dB to +20dB

Bass Gain Range: ±15dB @ 100Hz

Treble Gain Range: ±15dB @ 10kHz

Ducking Adjustment: Software adjustable Threshold, Depth, Attack, and Release

Alert Tone: Software configurable functionality

Frequency Response: 20Hz to 20kHz ±0.5dB

S/N Ratio: 75dB 20Hz to 20kHz A-weighted

THD+N: 0.7% 20Hz to 20kHz

Output Power: 15 Watts per channel at 8 or 4 Ohms

Amplifier Protection: Electronic short-circuit and overload protection

Connectors – MP-FS-RX2 Receiver

COMPUTER: (1) USB Type B female;
USB service port

BEACON SENSOR 1 – 2: (2) 3-pin 3.5mm detachable terminal blocks;
Interface for up to two MP-FSIR IR Beacon Sensors (1 included)

MUTE SENSOR: (1) 2-pin 3.5mm detachable terminal block; Contact closure sensing input, or interface for MP-FS-PAS PA Audio Sensor⁽¹⁾;
Mutes all audio outputs when a contact closure or PA audio signal is sensed

ALERT OUT: (1) 2-pin 3.5mm detachable terminal block;
Normally open isolated relay, software configurable functionality;
Rated 2 Amp, 50 Volts maximum

LINE IN 1 – 2: (4) RCA female comprising (2) unbalanced stereo line-level audio inputs;
Maximum Input Level: 2 Vrms;
Input Impedance: 47k Ohms nominal

LINE OUT: (2) RCA female, unbalanced stereo line-level audio output;
Maximum Output Level: 2 Vrms;
Output Impedance: 100 Ohms nominal

SPEAKER OUT 4/8Ω: (2) 2-pin 5mm detachable terminal blocks;
Left & right channel speaker-level audio outputs;



MP-FSMIC Microphone — Left and Right Angle Views

Wire Size: Connector accepts 14 AWG maximum;

Output Power: 15 Watts per channel at 8 or 4 Ohms

G: (1) 6-32 screw, chassis ground lug

24VDC 2.0A: (1) 2.1 x 5.5 mm DC power connector;
24 Volt DC power input (PW-2420RU power pack included)

Antennas (front): (2) Connections for supplied antennas

Connectors – MP-FSIR IR Beacon Sensor

T,R,S: (1) 3-pin captive terminal block;
Interface to MP-FS-RX2 Receiver

Connectors – MP-FSMIC Microphone

USB: (1) 8-pin mini USB Type B female;
For factory use only

Connectors – MP-FSDS2 Docking Station

5VDC 1.2A: (1) 1.3 x 3.5 mm DC power connector;
5 Volt DC power input (PW-0510WU power pack included)

Controls & Indicators – MP-FS-RX2 Receiver

PWR: (1) green LED, indicates operating power supplied from external power pack

BASS: (1) rotary low frequency boost/cut adjustment

TREBLE: (1) rotary high frequency boost/cut adjustment

MASTER VOLUME: (1) rotary master level adjustment

Controls & Indicators – MP-FSMIC Microphone

IR Beacon: (2) infrared LEDs, transmit operation data to MP-FSIR IR Beacon Sensor(s)

Status: (1) dual-color green/red LED, indicates operational status and battery/charging condition

ON/MUTE: (1) rocker button, turns wireless mic on and off, and mutes mic audio

MP-FS200 PAK FreeSpeech® Dual-Channel Wireless Mic System Package

VOL: (1) rocker button, adjusts mic volume when mic is unmuted, adjusts program (line) volume when mic is muted

ALERT: (1) pushbutton, triggers ALERT OUT relay and/or alert tone

Controls & Indicators – MP-FSDS2 Docking Station

Power: (1) green LED, indicates power supplied from external power pack

Power Requirements

Power Pack for MP-FS-RX2 Receiver: 2.0 Amps @ 24 Volts DC; 100-240 Volts AC, 50/60 Hz power pack, model PW-2420RU included

Power Pack for MP-FSDS2 Docking Station: 1.2 Amps @ 5 Volts DC; 100-240 Volts AC, 50/60 Hz power pack, model PW-0510WU included

Battery – MP-FSMIC Microphone

Battery Type: Lithium Ion Polymer, 3.7 Volt, 180 mAh

Usage per Charge: 6 hours

Charging Time: 2 hours

Cycle Life: >500 cycles (80% capacity)

Environmental

Temperature: 41° to 104°F (5° to 40°C)

Humidity: 10% to 90% RH (non-condensing)

Heat Dissipation: 35 BTU/Hr

Enclosure

MP-FS-RX2 Receiver: Aluminum chassis w/plastic faceplate and polycarbonate label overlay, freestanding

MP-FSIR IR Beacon Sensor: Plastic, white textured, mounts to ceiling or other flat surface

MP-FSMIC Microphone: Plastic, black textured, includes magnetic clip for lapel or lanyard attachment

MP-FSDS2 Docking Station: Plastic, black textured, weighted base

MP-FSTTS Tabletop Mic Stand: Plastic, black textured, weighted base

Dimensions

MP-FS-RX2 Receiver: Height: 2.36 in (60 mm);
Width: 8.12 in (207 mm);
Depth: 5.95 in (151 mm)

MP-FSIR IR Beacon Sensor: Height: 1.25 in (32 mm);
Diameter: 4.34 in (111 mm)

MP-FSMIC Microphone: Height: 2.09 in (54 mm);
Width: 1.00 in (26 mm);
Depth: 0.94 in (24 mm)

MP-FSDS2 Docking Station: Height: 0.90 in (23 mm);
Width: 3.00 in (77 mm);
Depth: 1.70 in (44 mm)

MP-FSTTS Tabletop Mic Stand: Height: 7.47 in (190 mm);
Width: 3.05 in (78 mm);
Depth: 3.95 in (101 mm)

Weight

MP-FS-RX2 Receiver: 2.33 lb (1.06 kg)

MP-FSMIC Microphone: 0.7 oz (20 g)

MP-FSDS2 Docking Station: 2.1 oz (60 g)

MP-FSIR IR Beacon Sensor: 3.3 oz (92 g)

MP-FSTTS Tabletop Mic Stand: 4.6 oz (130 g)

MODELS & ACCESSORIES

Available Models

MP-FS200_PAK: FreeSpeech® Dual-Channel Wireless Mic System Package

Included Accessories

MP-FS-RX2-1: FreeSpeech® Dual-Channel Wireless Mic Receiver (Qty. 1 included)

MP-FSMIC-B-T-1: FreeSpeech® Wireless Microphone, Black Textured (Qty. 2 included)

MP-FSDS2-B-T-1: FreeSpeech® Dual Wireless Mic Docking Station/Charger, Black Textured (Qty. 1 included)

MP-FSIR-W-T-1: FreeSpeech® IR Beacon Sensor, White Textured (Qty. 1 included)

MP-FS-LANYARD-B-T: Lanyard for MP-FSMIC, Black Textured (Qty. 2 included)

MP-FSTTS-B-T-1: Tabletop Stand for MP-FSMIC, Black Textured (Qty. 1 included)

PW-2420RU: Power Pack, Desktop, 24VDC, 2A (50 Watts), Regulated, US/International (Qty. 1 included)

PW-0510WU: Wall Mount Power Pack 5VDC, 1.2A, Universal (Qty. 1 included)

Available Accessories

MP-FSIR: FreeSpeech® IR Beacon Sensor

MP-FSTTS: Tabletop Stand for MP-FSMIC

MP-FS-PAS: FreeSpeech® PA Audio Sensor

FS6: 6.5" 2-Way Surface Mount Media Presentation Speakers, Pair

FSDI8: 8" Drop-in Ceiling Speakers, Pair

CBL Series: Crestron® Certified Interface Cables

Notes:

1. Item(s) sold separately.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

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