Spectrum[™]

AUDIO AMPLIFIER/RECEIVER/MIXER







Specifications

ModulationWide-band FMReception FrequenciesCh. A: 2.08 MHz Ch. B: 2.54 MHzDeviation10 kHz Nominal, 25 kHz MaximumDe-emphasis50 μsTone Key32.768 kHzInfrared Wavelength850 nmExternal Sensor Input2, RCA, powered portsConnectivity Coverage1,600 sq ft per sensor, up to 3 sensors supportedTotal Harmonic Distortion<1% @ 1 kHzFrequency Response20 Hz - 20 kHz, ± 3 dBLine Level Inputs4: 1 x dual RCA, 3 x 3.5 mmAnti-Hum BalunPresent on 1 Aux input for computerWired Mic Input1 aux input switchable to mic inputLine OutputsConferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panelPage Input2-pin Phoenix; 4 V, 25 V or 70 V normalPage Input Sensitivity51 mV minSecurity AlertContact Closure (COM, N/O, N/C)Fire AlarmContact Closure by fire panel mutes audioOutput ImpedanceRated Load: 4 Ω minimum impedanceEqualization5-band, ±10 dBS/N Ratio65 dBSpeaker Connection4-pin Phoenix ConnectorsCharger Output5 VDC, USB	Amplifier Output Power	100 W RMS, 4 x 25 W channels
Reception Frequencies Ch. A: 2.08 MHz Ch. B: 2.54 MHz Deviation 10 kHz Nominal, 25 kHz Maximum De-emphasis 50 μs Tone Key 32.768 kHz Infrared Wavelength 850 nm External Sensor Input 2, RCA, powered ports Connectivity Coverage 1,600 sq ft per sensor, up to 3 sensors supported Total Harmonic Distortion 71% @ 1 kHz Frequency Response 20 Hz - 20 kHz, ± 3 dB Line Level Inputs 4: 1 x dual RCA, 3 x 3.5 mm Anti-Hum Balun Present on 1 Aux input for computer Wired Mic Input 1 aux input switchable to mic input Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Receiver Input	Infrared FM, 2 wireless mic channels
Deviation 10 kHz Nominal, 25 kHz Maximum De-emphasis 50 μs Tone Key 32.768 kHz Infrared Wavelength 850 nm External Sensor Input 2, RCA, powered ports Connectivity Coverage 1,600 sq ft per sensor, up to 3 sensors supported Total Harmonic Distortion <1% @ 1 kHz Frequency Response 20 Hz - 20 kHz, ± 3 dB Line Level Inputs 4: 1 x dual RCA, 3 x 3.5 mm Anti-Hum Balun Present on 1 Aux input for computer Wired Mic Input 1 aux input switchable to mic input Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Modulation	Wide-band FM
De-emphasis 50 μs Tone Key 32.768 kHz Infrared Wavelength 850 nm External Sensor Input 2, RCA, powered ports Connectivity Coverage 1,600 sq ft per sensor, up to 3 sensors supported Total Harmonic Distortion <1% @ 1 kHz Frequency Response 20 Hz - 20 kHz, ± 3 dB Line Level Inputs 4: 1 x dual RCA, 3 x 3.5 mm Anti-Hum Balun Present on 1 Aux input for computer Wired Mic Input 1 aux input switchable to mic input Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Reception Frequencies	Ch. A: 2.08 MHz Ch. B: 2.54 MHz
Tone Key32.768 kHzInfrared Wavelength850 nmExternal Sensor Input2, RCA, powered portsConnectivity Coverage1,600 sq ft per sensor, up to 3 sensors supportedTotal Harmonic Distortion<1% @ 1 kHzFrequency Response20 Hz - 20 kHz, ± 3 dBLine Level Inputs4: 1 x dual RCA, 3 x 3.5 mmAnti-Hum BalunPresent on 1 Aux input for computerWired Mic Input1 aux input switchable to mic inputLine OutputsConferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panelPage Input2-pin Phoenix; 4 V, 25 V or 70 V normalPage Input Sensitivity51 mV minSecurity AlertContact Closure (COM, N/O, N/C)Fire AlarmContact Closure by fire panel mutes audioOutput ImpedanceRated Load: 4 Ω minimum impedanceEqualization5-band, ±10 dBS/N Ratio65 dBSpeaker Connection4-pin Phoenix ConnectorsCharger Output5 VDC, USB	Deviation	10 kHz Nominal, 25 kHz Maximum
Infrared Wavelength 850 nm External Sensor Input 2, RCA, powered ports Connectivity Coverage 1,600 sq ft per sensor, up to 3 sensors supported Total Harmonic Distortion <1% @ 1 kHz Frequency Response 20 Hz - 20 kHz, ± 3 dB Line Level Inputs 4: 1 x dual RCA, 3 x 3.5 mm Anti-Hum Balun Present on 1 Aux input for computer Wired Mic Input 1 aux input switchable to mic input Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	De-emphasis	50 μs
External Sensor Input 2, RCA, powered ports Connectivity Coverage 1,600 sq ft per sensor, up to 3 sensors supported 70 al Harmonic Distortion 71% @ 1 kHz Frequency Response 20 Hz - 20 kHz, ± 3 dB Line Level Inputs 4: 1 x dual RCA, 3 x 3.5 mm Anti-Hum Balun Present on 1 Aux input for computer Wired Mic Input 1 aux input switchable to mic input Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Tone Key	32.768 kHz
Connectivity Coverage 1,600 sq ft per sensor, up to 3 sensors supported Total Harmonic Distortion <1% @ 1 kHz Frequency Response 20 Hz - 20 kHz, ± 3 dB Line Level Inputs 4: 1 x dual RCA, 3 x 3.5 mm Anti-Hum Balun Present on 1 Aux input for computer Wired Mic Input 1 aux input switchable to mic input Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Infrared Wavelength	850 nm
Total Harmonic Distortion <1% @ 1 kHz Frequency Response 20 Hz - 20 kHz, ± 3 dB Line Level Inputs 4: 1 x dual RCA, 3 x 3.5 mm Anti-Hum Balun Present on 1 Aux input for computer Wired Mic Input 1 aux input switchable to mic input Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	External Sensor Input	2, RCA, powered ports
Frequency Response 20 Hz - 20 kHz, ± 3 dB Line Level Inputs 4: 1 x dual RCA, 3 x 3.5 mm Anti-Hum Balun Present on 1 Aux input for computer Wired Mic Input 1 aux input switchable to mic input Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Connectivity Coverage	1,600 sq ft per sensor, up to 3 sensors supported
Line Level Inputs 4: 1 x dual RCA, 3 x 3.5 mm Anti-Hum Balun Present on 1 Aux input for computer Wired Mic Input 1 aux input switchable to mic input Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Total Harmonic Distortion	<1% @ 1 kHz
Anti-Hum Balun Present on 1 Aux input for computer Wired Mic Input 1 aux input switchable to mic input Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Frequency Response	20 Hz - 20 kHz, ± 3 dB
Wired Mic Input 1 aux input switchable to mic input Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Line Level Inputs	4: 1 x dual RCA, 3 x 3.5 mm
Line Outputs Conferencing: 3.5 mm with gain control - front panel Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Anti-Hum Balun	Present on 1 Aux input for computer
Assistive Listening System: 3.5 mm with gain control - rear panel Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Wired Mic Input	1 aux input switchable to mic input
Page Input 2-pin Phoenix; 4 V, 25 V or 70 V normal Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Line Outputs	Conferencing: 3.5 mm with gain control - front panel
Page Input Sensitivity 51 mV min Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB		Assistive Listening System: 3.5 mm with gain control - rear panel
Security Alert Contact Closure (COM, N/O, N/C) Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Page Input	2-pin Phoenix; 4 V, 25 V or 70 V normal
Fire Alarm Contact Closure by fire panel mutes audio Output Impedance Rated Load: 4 Ω minimum impedance Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Page Input Sensitivity	51 mV min
Output Impedance Rated Load: 4 \(\Omega \) minimum impedance Equalization 5-band, \(\pm \) 10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Security Alert	Contact Closure (COM, N/O, N/C)
Equalization 5-band, ±10 dB S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Fire Alarm	Contact Closure by fire panel mutes audio
S/N Ratio 65 dB Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Output Impedance	Rated Load: 4Ω minimum impedance
Speaker Connection 4-pin Phoenix Connectors Charger Output 5 VDC, USB	Equalization	5-band, ±10 dB
Charger Output 5 VDC, USB	S/N Ratio	65 dB
	Speaker Connection	4-pin Phoenix Connectors
Dower Cumply 10 VDC / 6.2 A CE CCA and III Listed	Charger Output	5 VDC, USB
rower suppry 19 VDC / 0.5 A CE, CSA and UL Listed	Power Supply	19 VDC / 6.3 A CE, CSA and UL Listed
Dimensions 8 1/2"W x 1 3/4" H x 7 1/2"D	Dimensions	8 1/2"W x 1 3/4"H x 7 1/2"D
Weight 1.95 lb	Weight	1.95 lb

Features

- Amplifier: digital hybrid class D
- Powers up to eight (8 Ω) classroom speakers
- Video Conference Sync w/ EchoGuard™
- > Front panel "Conference" input & output: connects to host computer to synchronize classroom audio w/ video conference application
- > EchoGuard™ prevents remote audio from being looped back into conference audio
- 4 line inputs:
 - Rear panel: 3.5 mm auxiliary input (mic or line level switch) Rear panel: 3.5 mm computer input w/ anti-hum (On/Off switch) | Front panel: 3.5 mm auxiliary (Conference) input | Rear panel: DVD input, dual RCA
- Assistive Listening System (ALS) output with level control on rear panel (3.5mm)
- · Connection to building paging system
 - > Mutes all audio inputs to allow page to be heard (Page Muting)
 - > Passes page signal to classroom speakers (Page Pass Through)
 - > Feature can be turned off w/ a selector switch. Note: not intended as a lifesafety audio transmission feature
 - Pages pass through to Assistive Listening System and Conferencing outputs
- Supports teacher security alerting function from wireless microphone (IRT-60)
- Fire Alarm connection: mutes all audio sources when fire alarm sounds
- May be controlled by third-party RS-232 devices for all input levels (volume up, down, and mute)
- Digital Feedback Guard (DFG): reduces chances for audio feedback
- Remote teacher control over line inputs (enabled by Sapphire microphone)
- Low-power standby mode (both automatic and manual activation)
- Drop-in microphone charger connection 5 VDC USB