

PRODUCT DATASHEET

A-7220

Automatic Feedback Suppressor & DSP Audio Processor

Auto Feedback Suppression | Advanced DSP | Network Remote Control | 2x MIC/Line In | 1U Rack

The A-7220 is a professional automatic feedback suppressor and DSP audio processor engineered to eliminate microphone howling and feedback in live sound, PA, and conference environments. With ultra-wide 20Hz–20KHz frequency response, advanced DSP processing, network remote control via HarmonyOS-compatible interface, dual XLR/TRS mic/line inputs with phantom power, and per-channel signal level monitoring, it provides comprehensive feedback management in a clean 1U rack chassis.



Auto FEEDBACK SUPPRESS	DSP PROCESSING	2xMIC XLR INPUTS	48V PHANTOM POWER	>95dB S/N RATIO	Net REMOTE CONTROL	1U RACK-MOUNT
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KEY FEATURES

- ✓ **Automatic Feedback Suppression** — Advanced DSP algorithms detect and suppress feedback frequencies in real time, automatically applying precise notch filters without audible artefacts or manual intervention
- ✓ **Network Remote Control** — HarmonyOS-compatible network interface enables remote monitoring and control of all DSP parameters from a smartphone or PC on the same network
- ✓ **Dual MIC / Line Inputs** — Two independent XLR + 6.35mm TRS combo inputs accept balanced microphone or line-level signals; each channel independently switchable
- ✓ **48V Phantom Power** — Front-panel phantom power switch provides +48V DC to connected condenser microphones on MIC 1/2 — no external phantom supply needed
- ✓ **Advanced DSP Processing** — Multi-band parametric EQ, dynamic processing, and precision notch filtering in the DSP chain for comprehensive signal management beyond feedback suppression
- ✓ **Signal Level LED Metering** — Per-channel multi-segment green/red LED meters provide real-time input and output level monitoring on the front panel
- ✓ **High/Med/Low Sensitivity** — Three-position signal level switch adjusts input sensitivity to match microphone type and acoustic environment for optimal suppression threshold
- ✓ **1U Rack-Mount Chassis** — Compact 1U 19-inch rack form integrates into any PA or conference rack alongside amplifiers, mixers, and conference controllers

INSTALLATION NOTES

- ▶ Insert in the signal chain between microphone sources and the PA amplifier for maximum feedback protection
- ▶ Select sensitivity (High/Med/Low) based on microphone type: dynamic = High, condenser = Med or Low
- ▶ Enable phantom power only if using condenser microphones requiring +48V — dynamic mics do not need it
- ▶ For network remote control: connect to the same LAN as the control device; configure via the app
- ▶ Run a feedback test after installation: raise volume gradually until the suppressor engages; verify notch filters are active

TECHNICAL SPECIFICATIONS

MODEL	A-7220	UNIT TYPE	Automatic feedback suppressor / DSP
FREQUENCY RESPONSE	20Hz – 20KHz (±0.5dB)	DYNAMIC RANGE	>100dB
THD+N	<0.05%	S/N RATIO	>95dB (A-weighted)
MIC INPUTS	2x XLR + 6.35mm TRS combo	LINE INPUTS	2x RCA (stereo line in)
OUTPUT	1x XLR balanced + RCA line out	PHANTOM POWER	48V switchable (MIC 1/2)
INPUT SENSITIVITY	High / Med / Low (switch)	SUPPRESSION TYPE	Automatic notch filter, multi-band
DSP PROCESSING	Parametric EQ, dynamics, notch	REMOTE CONTROL	Network (HarmonyOS compatible)
FRONT DISPLAY	LCD status display	SIGNAL METERING	Per-channel LED (green/red)
INPUT POWER	200–240V / 50–60Hz	RACK FORMAT	1U, 19-inch standard
DIMENSIONS (W×H×D)	482 × 44 × 320 mm	WEIGHT	3.2 kg
CERTIFICATIONS	CE, 3C, ISO 9001	WARRANTY	24 Months

REAL-TIME SUPPRESSION

DSP detects feedback frequencies and applies precision notch filters in under 5ms — suppressing howling before it becomes audible without affecting the tonal quality of

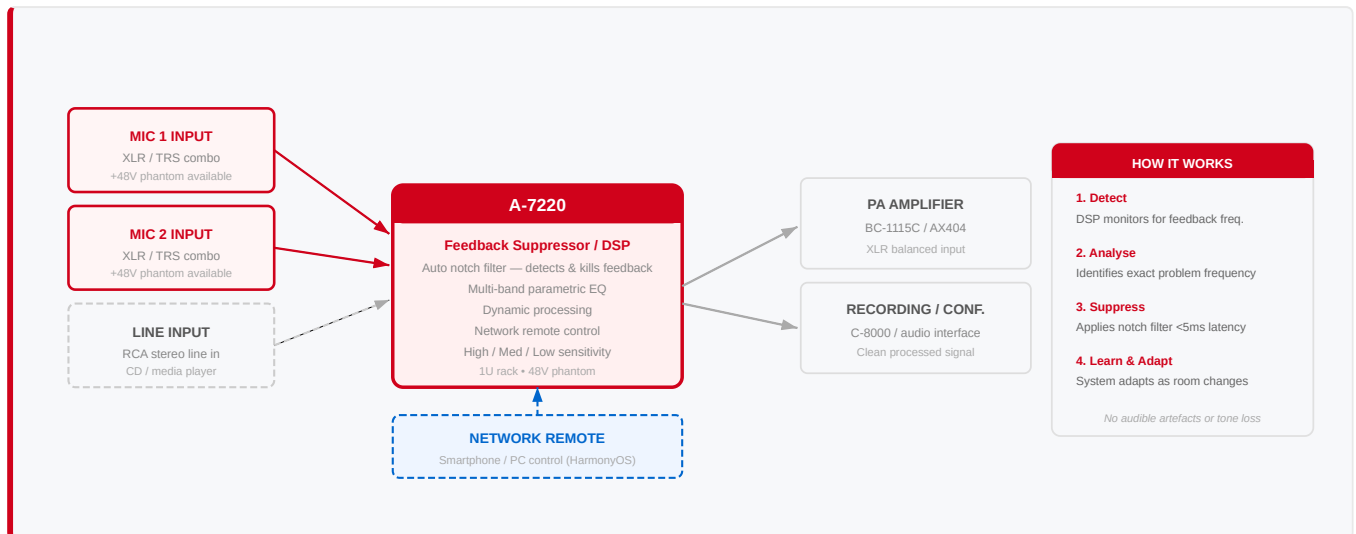
NETWORK REMOTE CONTROL

HarmonyOS-compatible network interface enables full remote control of DSP parameters, EQ, and sensitivity settings from a smartphone or PC — no front-panel access required during live events.

COMPLETE DSP CHAIN

Beyond feedback suppression, the built-in DSP provides parametric EQ and dynamic processing — replacing multiple separate rack units with a single, integrated signal

SIGNAL FLOW & DSP ARCHITECTURE



TYPICAL APPLICATION SCENARIOS

<p>Worship Churches & Mosques</p>	<p>Government Council Halls & Auditoriums</p>	<p>Live Events Stage & Performance</p>	<p>Education Lecture Theatres & Seminar Rooms</p>
<p>Corporate Boardrooms & Conference Halls</p>	<p>Healthcare Clinical Briefing Rooms</p>	<p>Hospitality Ballrooms & Banquet Halls</p>	<p>Industrial PA & Announcement Systems</p>

WHY C-YARK

<p>10+ YEARS IN PA</p>	<p>CE CERTIFIED</p>	<p>ISO 9001 QUALITY</p>	<p>3C COMPLIANT</p>
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<p>ORDERING INFO</p> <p>A-7220 — Feedback Suppressor / DSP Includes: rack ears, power cable Format: 1U 19-inch rack-mount Network cable required for remote control</p>	<p>COMPATIBLE WITH</p> <p>BC-1115C 120W Mixing Amplifier AX404 4-Channel Power Amplifier C-8000 Conference Controller C-859C / C-869D Conference Mics C1002-A1 Wireless Mic System</p>	<p>NOTES</p> <p>Specifications subject to change without prior notice. Insert between mic sources and amplifier for full protection. © C-YARK · Guangzhou Quanzhiyun Electronic Technology Co., Ltd. DS-A-7220-EN-052026</p>
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