

SMP QX.series

DSP controlled power amplifiers

SMP QX.serie

Die aktuelle BELL SMP.QX Serie kombiniert die bewährte SMP Endstufentechnologie mit den Vorteilen des neu entwickelten QX Amplifier Mangement Systems.

Digitales Amplifier Management

Das DSP Management beinhaltet u.a.: **Level, Delay, DSC, Polarität, High-Pass Filter, Low-Pass Filter, White- u. Pink Noise Generator, 8-Band EQ, Peak- u. RMS Limiter, Standby Mode.**

Sämtliche Parameter werden direkt oder mittels BELL QX Audio Remote Control Software editiert und gespeichert.

RS485 Remote Control & Software

Über die RS485 Schnittstelle und die mitgelieferte QX Software werden bis zu 32 SMP-QX Endstufen angewählt und gesteuert.

Switch mode power supply

Während das Gewicht einer herkömmlichen 2000W Endstufe kaum weniger als 30kg beträgt, liegt das einer SMP2000QX mit SMPS Netzteil bei lediglich 12,5kg.

Digital DSC Prozessor on board

Durch den pro Kanal zuschaltbaren digitalen DSC Prozessor erfährt die erlebte Dynamik der SMP.QX Endstufen eine geradezu dramatische Aufwertung.

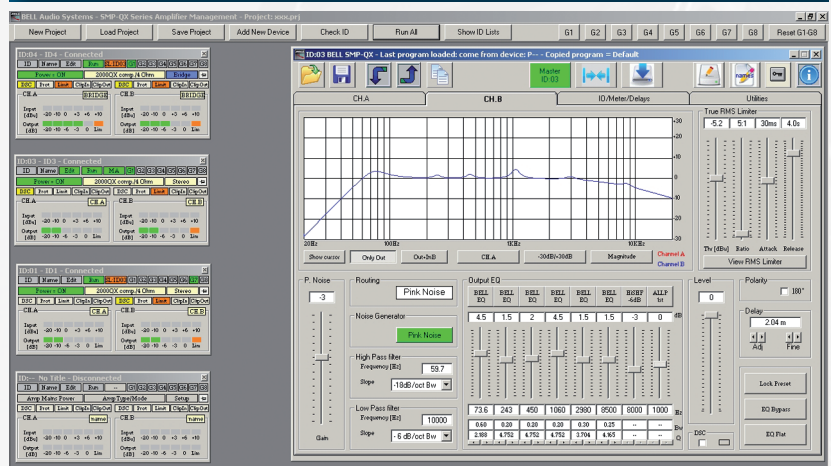
DSC steht für schnelle, trockene Bässe und transparente Höhen.

DSP controlled power amplifiers.

SMP.QX models come with an on-board amplifier management including filter networks to compose and recall settings matching any kind of PA system.

Essential parameters - such as Stand By Mode, Level, Delay, Polarity, HPF, LPF, 8-Band Equalizer, Peak- and RMS Limiter, EQ-Bypass, Pink- and White Noise generator may be configured and controlled 'on board' or via remote Computer

SMP QX.series management software



- Überwachung und Editierung von max. 32 SMP QX Verstärkern. Routing auf bis zu 8 Subgruppen. Abspeicherung kompletter Projekte incl. aller Parameter.
- Supervision and editing of up to 32 SMP QX power amplifiers. Routing via 8 subgroups. Storage of complete projects including all amplifier parameters.

BELL SMP-QX Rear Panel Layout



Temperaturgeregeltes Kühlsystem
Automatic force cooling system

Symmetrische XLR Ein- und Ausgänge
XLR balanced input & output section

QX Audio Management. PC control of up to 32 units via RS485 Digital Remote Control Port



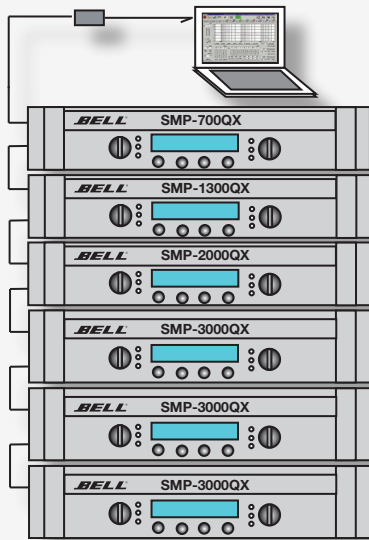
Switch mode power supply

SMP.QX amplifiers combine the well proven BELL Class H technology with today's most advanced SMPS switch-mode power supply.

DSC Processor on board

The Digital DSC processor is designed to create a superb, extremely natural sound quality with tighter bass and crisp transparent highs.

QX.series DSP control



PC Software Features

- Device Link (Master/Slave)
- Copy Data to Device(s)
- Copy Program from Device to Device(s)
- Save Programs from Device to PC
- Load Programs from PC to Device(s)
- Input Level Meters
- Output Level Meters
- Load & Save Channel Preset

Front Panel SMP.QX Series

- Input-Level Control (Chan. A&B) Level-Regler (Kanal A&B)
- Mains switch Netzschalter
- LED indicators Level -20, -10, -6, -3, odB Bridge Mode, DSC, Protect, Limit, Clip

Digital Controls

- Enter - Escape
- Utility - Edit
- Dual Level Navigation Wheels

Rear Panel Features

- Input/Link: XLR (f), XLR (m)
- RS485/Link: XLR (f), XLR (m)
- Speaker-Output Channel A&B
- Speaker-Output Bridge

- RS485 Ground Lift
- Main Ground Lift

Specifications DSP

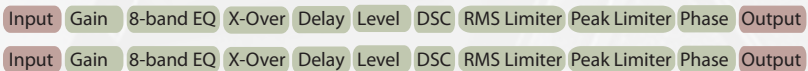
- Latency delay AD-DSP-DA 0.6ms
- Rotary encoders speed sensitive
- Qty of programs 53
- Mains Power ON with Fade in
- Interface RS485
- Pink/White Noise Gen. (HPF variable)

System Utilities

- System Setup (Stereo / Bridge)
- Standby Mode (Main power on/off)
- Level Potentiometer / Amp Type / Mode
- DSC (Dynamic Signal Control)

- Channel Link / Set Default Values
- Delay Units
- Ramp Function
- Software Version

DSP Amplifier Management Block Diagram



Program Utilities

- Program Recall
- Program Save
- Program Delete

Interface Utilities

- Interface Setup

Noise Generator

- White Noise Type / Level
- HPF Frequency / Slope

Security Utilities

- Show Parameters
- Lock Unit
- User Password
- Enable Password

Channel A/B Inputs & Outputs

- Inputs XLR balanced
- Input Level max. 12dBu
- Output Level meter LED
- Noise Generator ON / OFF
- Input Gain -12...+3dB
- Limiter RMS / PEAK
- Delay Time (max) 288 meters
- DSC (Dynamic Signal Control) ON/OFF
- EQ, parametric 8 variable filters
- Output Level -90...odB

Filter types

- LoShelf 1st order LoShelf 2nd order
- HiShelf 1st order HiShelf 2nd order
- BELL Filter
- All pass 1st. order All pass 2nd order
- Shelving filter w/variable Q
- Filter Gain +/-15dB
- Frequency Scale 20Hz - 16kHz
- Bandwidth Bell filter 0.05 - 3.0

Features Power Amplifier

- SMPS power supply network
- Inrush current limiter
- Limiter RMS, Limiter PEAK
- Loudspeaker protection
- DC protection
- Over current protection
- Thermal protection network

Technical Specifications	SMP700QX	SMP1300QX	SMP2000QX	SMP3000QX
Power-Output /Ausgangsleistung	350+350W / 4Ω 175+175W / 8Ω	650+650W / 4Ω 325+325W / 8Ω	1000+1000W / 4Ω 500+500W / 8Ω	1500+1500W / 4Ω 1500+1500W / 2Ω
Power-Output (Mono/BRIDGE)	700W / 8Ω	1300W / 8Ω	2000W / 8Ω	750+750W / 8Ω 3000W / 8Ω
Power Bandwith / Leistungsbandbreite	10Hz-30kHz / 8Ω	10Hz-30kHz / 8Ω	10Hz-30kHz / 8Ω	10Hz-30kHz / 8Ω
Frequency Response (10Vrms)	10Hz-40kHz / 8Ω	10Hz-40kHz / 8Ω	10Hz-40kHz / 8Ω	10Hz-40kHz / 8Ω
Signal to Noise Ratio (SNR)	110dB	110dB	110dB	110dB
THD+N	< 0,05%	< 0,05%	< 0,05%	< 0,05%
Input Sensitivity / Eingangsempf.	1,06Vrms /2,7dBu	1,06Vrms /2,7dBu	1,06Vrms /2,7dBu	1,06Vrms /2,7dBu
Cooling Control System / Kühlung	Automatic Fan	Automatic Fan	Automatic Fan	Automatic Fan
Size wxhxd (mm) / weight (kg)	482x88x445 9,5kg	482x88x445 11,5kg	482x88x445 12,5kg	482x132x445 19kg