Features
• Real-time software control via USB
• DCM10/10D: Bi-amp configuration up to 3 screen channels
• DCM30/30D: Bi-amp, tri-amp and quad-amp up to 5 screen channels
• Analog inputs or AES/EBU (D models)
• User defined auxiliary outputs
• Provides Monitor and Crossover functions in one box
• Digital Signal Processing for state-of-the-art sound quality (high dynamic range)
• Fast system setup time (especially in megaplexes with similar rooms)
• Simple connections with QSC DataPort connectivity. Only one cable per amplifier needed (contains two signal inputs, two signal returns, power on/standby control and two channels of load monitoring)
• Exclusive “Load Fault” detection indicates speaker system or wiring faults
• Simple crossover adjustments via PC with password control for tamper proof system adjustments
• Lower system cost than existing quad-amp solutions
• Compatible with 5.1/7.1 sound formats
• 3-year warranty plus optional 3-year extended service contract

Introduction
QSC’s Digital Cinema Monitors provide signal processing and monitor functions in a single integrated system. Designed to be used with QSC’s Digital Cinema Amplifiers (DCAs), DCMs optimize loudspeaker performance while simplifying cinema sound system wiring and configuration. The DCM-10 and DCM-10D can be used for cinema systems with up to three bi-amplified screen channels. The DCM-30 and DCM-30D can be used for systems with up to five bi-amp, tri-amp, or quad-amp screen channels.

Digital Signal Processing
The DCM’s digital signal processing capability outperforms traditional analog crossovers for optimized speaker performance. Crossover frequency, parametric equalization, polarity and gain can be precisely adjusted for each speaker in your system. Digital delays, adjustable in 20 μs increments, assure proper acoustical time-alignment of loudspeaker drivers for smooth frequency response, especially critical in 3-way and 4-way systems. An active emergency bypass crossover with redundant power supply is also included for fail-safe operation.

Less wiring, faster setup
DCMs greatly simplify system wiring and set-up, significantly reducing installation time and labor cost. Input to the DCM is provided via a standard DB-25 cable from the cinema processor. Connections to DCA amplifiers for input and monitor signals are made through a single QSC DataPort/VGA-style cable. All traditional XLR and barrier strip terminations are eliminated.

DCMs also simplify set-up by using a menu-driven, PC-based software program for configuration. The program includes a speaker data file that lists default parameters for popular cinema speaker models. Commonly used configurations can also be saved on a disk, allowing you to quickly load them on other DCMs.

Advanced Monitor Functions
In addition to audio monitoring of amplifier inputs and outputs, DCMs include QSC’s exclusive “load fault” detection. DCMs monitor all amplifier outputs and indicate opens and shorts in the speaker system and wiring via LED “load fault” indicators, providing confirmation that all amplifier outputs are functioning properly.
## DCM Details

### Specifications

<table>
<thead>
<tr>
<th>System Details</th>
<th>DCM-10</th>
<th>DCM-10D</th>
<th>DCM-30</th>
<th>DCM-30D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (HxWxD)</td>
<td>5.25” x 19” x 15”</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line voltage requirements</td>
<td>100 VAC – 240 VAC, 50/60 Hz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessories included</td>
<td>(1) 6 ft. (2m) UL/CSA line cord • (1) User Manual</td>
<td>(1) Software CD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Front Panel Controls

- **Power Switch:** (1) Rotary encoder
- **Monitor Mode Select:** (1) Momentary Push Button
- **Monitor Channel Select:** (9 or 11) Momentary Push Buttons
- **Monitor Volume:** (1) Rotary Potentiometer
- **Test Lead Connections:** (2) Test Point Jacks
- **Bypass Mode Select Switch:** (1) Slide Switch

### Indicators

- **Power Indicator:** (1) Green LED
- **Monitor Mode Indicators:** (1) Green LED and (1) Yellow LED
- **Processor Channel Indicators:** 9 or 11 Green LEDs
- **Amplifier Channel Indicators:** 9 or 11 Yellow LEDs
- **Load Fault Indicator:** (1) Red LED
- **Clip Indicator:** (1) Red LED
- **Bypass Mode Indicator:** (1) Flashing Red LED
- **Alt EQ Mode Indicator:** (1) Yellow LED

### Rear Panel Controls

- **Bypass Crossover Level:** (2 or 3) Rotary Trimpots
- **Bypass Crossover Type:** (1) Slide Switch
- **Analog/Digital Input Select:** (0 models only) (1) Slide Switch

### Rear Panel Control Connectors

- **Main Analog Input:** (1) 25-pin female D-sub connector
- **Surround EX Input:** (1) 25-pin female D-sub connector
- **Digital Input (D models only):** (1) 25-pin female D-sub connector
- **Amplifier DataPorts:** (10 or 19) 15-pin female high-density D-sub connectors
- **Control Port:** (1) USB Series-B Receptacle
- **Hearing Impaired Line Output:** (1) 3 position screw-terminal connector
- **Powered Sub Line Output:** (1) 3 position screw-terminal connector
- **External Monitor Speaker Output:** (1) 2 position screw-terminal connector
- **Aux Line Level Input:** (1) 3 position screw-terminal connector
- **ALT EQ Contact Closure Input:** (1) 2 position screw-terminal connector
- **AC Power Inlet:** (1) IEC style

### DCM Inputs

- **Input Stage Type:** Active balanced
- **Input Impedance:** 20k ohms
- **Maximum Analog Input Level:** +14.2 dBu (4.0 Vrms)
- **A/D Conversion:** 24 bit delta-sigma 128x oversampled

### Dataport Outputs - Surround and Subwoofer

- **Output Level Range:** + 6 dB to -18 dB in 0.1 dB steps
- **Dynamic Range:** THD+N AES-17, 20Hz – 20kHz, +12 dB Output Level, All Filters
- **Dynamic Range:** >103 dB
- **Set Flat:** < 0.013% Analog Inputs / < 0.008% Digital Inputs
- **Frequency Response:** 20 Hz – 20 kHz (no filtering)
- **D/A Conversion:** 24 bit delta-sigma 128x oversampled
- **Filter Topology:** 24 bit digital IIR filters
- **Crossover Filters:** Linkwitz-Riley 24 dB/octave digital filters programmable from 20 Hz – 20 kHz
- **Parametric EQ: (3 per channel + 3 per band):** Digital bandpass filter with ±10 dB of boost/cut programmable from 20 Hz – 20 kHz. Q is programmable in 1/10th octave steps from 1/10 to 2 octaves
- **Subsonic (highpass) Filter:** Digital high pass filter programmable from 15 Hz – 50 Hz. Q can be programmed as 0.707 (flat) or 2 (6dB boost)
- **Channel Delay:** Programmable in 1ms steps from 0 – 20 ms
- **Mute:** One mute for all subwoofer outputs, one per surround channel
- **Bass Management:** Weighted sum of surround channels may be low pass filtered and mixed with sub output

### Dataport Outputs - Aux

- **Output Level Range:** + 6 dB to -18 dB in 0.1 dB steps
- **Dynamic Range:** THD+N AES-17, 20Hz – 20kHz, +12 dB Output Level, All Filters
- **Dynamic Range:** >103 dB
- **Set Flat:** < 0.013% Analog Inputs / < 0.008% Digital Inputs
- **Frequency Response:** 20 Hz – 20 kHz (no filtering)
- **D/A Conversion:** 24 bit delta-sigma 128x oversampled
- **Filter Topology:** 24 bit digital IIR filters
- **Crossover Filters:** Linkwitz-Riley 24 dB/octave digital filters programmable from 20Hz–20kHz
- **Parametric EQ: (3 per channel + 3 per band):** Digital high pass filter programmable from 15 Hz – 50 Hz. Q can be programmed as 0.707 (flat) or 2 (6dB boost)
- **Subsonic (highpass) Filter:** Programmable from 0 – 20 ms per output
- **CD Horn EQ:** Digital shelf filter with up to 6 dB of boost programmable from 1kHz – 20 kHz. Available on high frequency band only
- **Screen EQ:** Digital shelf filter with up to 6 dB of boost programmable from 1kHz – 20 kHz
- **Channel Delay:** Programmable from 0 – 20 ms per output
- **Band Delay:** Programmable in 21 μs steps from 0 – 10 ms per output
- **Mute:** Individual mutes on each channel output
- **Surround Bass Management:** Weighted sum of surround channels may be low pass filtered and mixed with aux output

Specifications subject to change without notice.
## Specifications

**Amplifier A.C. Control**

<table>
<thead>
<tr>
<th></th>
<th>All amps power on with DCM activation</th>
</tr>
</thead>
</table>

**Emergency Bypass Crossover**

<table>
<thead>
<tr>
<th></th>
<th>2nd order active Butterworth, 2 or 3 way</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attenuation Range (trimpot):</td>
<td>0 dB to -20 dB</td>
</tr>
<tr>
<td>Crossover Frequencies:</td>
<td>(1000 Hz (2-way), 500 Hz and 1500 Hz (3-way))</td>
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</tbody>
</table>

**Powered Subwoofer Output**

<table>
<thead>
<tr>
<th></th>
<th>Single ended (balanced impedance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Stage Type:</td>
<td></td>
</tr>
<tr>
<td>Output Impedance:</td>
<td>50 ohms</td>
</tr>
<tr>
<td>Maximum Output Level:</td>
<td>14.8 dBu (6Vp = 4.25 Vrms)</td>
</tr>
<tr>
<td>Loading Requirements:</td>
<td>RMIN = 2k ohms CMAX = 4 nF</td>
</tr>
</tbody>
</table>

**Monitor Speaker Output**

<table>
<thead>
<tr>
<th></th>
<th>15 watt Class D amplifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amplifier Output Power:</td>
<td></td>
</tr>
<tr>
<td>Frequency Response:</td>
<td>20 Hz – 20 kHz (+2 dB)</td>
</tr>
<tr>
<td>Dynamic Processing:</td>
<td>1.5:1 Compression</td>
</tr>
</tbody>
</table>

**Aux Input**

<table>
<thead>
<tr>
<th></th>
<th>Active Balanced</th>
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</thead>
<tbody>
<tr>
<td>Input Stage Type:</td>
<td></td>
</tr>
<tr>
<td>Input Impedance:</td>
<td>20k ohms</td>
</tr>
<tr>
<td>Maximum Input Level:</td>
<td>+14.2 dBu (4.0 Vrms)</td>
</tr>
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</table>

**Hearing Impaired Output**

<table>
<thead>
<tr>
<th></th>
<th>Single Ended (balanced impedance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Stage Type:</td>
<td></td>
</tr>
<tr>
<td>Output Impedance:</td>
<td>50 ohms</td>
</tr>
<tr>
<td>Nominal Output Level:</td>
<td>-11.8 dBu (200 mVrms)</td>
</tr>
<tr>
<td>Loading Requirements:</td>
<td>RMIN = 2k ohms CMAX = 4 nF</td>
</tr>
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</table>

**Contact Closure Input**

<table>
<thead>
<tr>
<th></th>
<th>TTL Compatible or Dry Contact Closure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Type:</td>
<td></td>
</tr>
<tr>
<td>Operating Mode:</td>
<td>Connection to ground through a maximum impedance of 1.3 k ohms selects all EQ settings</td>
</tr>
</tbody>
</table>

**Internal Monitor Speaker**

<table>
<thead>
<tr>
<th></th>
<th>4” full range driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions:</td>
<td></td>
</tr>
</tbody>
</table>

Specifications subject to change without notice.