



Quantum 338 Digital Mixing Console



[Full product information online](#)

Specifications

General Specifications

- Faders: 38 x 100mm touch-sensitive, motorised
- Screens: 3 x 17" LCD high – brightness, high – resolution touch screens
- Input Channels: 128
- Busses: Up to 64 Aux / Group busses with full processing Mono / Stereo / LCR / LCRS / 5.1
- Matrix: Up to 24 Input / 24 Outputs with full processing
- Control Groups: Up to 24, selectable for VCA-style, Moving fader, Mute Group
- Graphic Eq: 24 x 32-band, Gain +/- 12dB
- Internal FX: Up to 24 stereo effects comprising floating point reverbs and delay/chorus/pitch/enhancer
- Spice Rack: 8 mono / 4 stereo Rack Slots
- Mustard Proc: 36 Processing Strips
- Nodal Proc: 64 Nodal Processors
- Local I/O: 8 x 32bit mic/line I/O, 8 x AES I/O
- MADI interface: 6 x interfaces @ 48kHz, 3 interfaces @ 96kHz, BNC connectivity
- Optocore Interface: Optional (dual loop available)
- Sampling rates: 48kHz / 96kHz
- GPI/GPO: 16
- DMI: 2 x DiGiCo Multichannel Interface
- Waves: Optional
- Ext Sync: Wordclock, AES, MADI, Optocore
- Quantum 338 Dimensions: 1595mm (w) x 805mm (d) x 482mm (h)
- Quantum 338 Weight: 70Kg / 154lbs (198Kg / 437 lbs. with flightcase)
- Quantum 338 Flightcase: 1717mm (w) x 642mm (d) x 1144mm (h)
- Power Requirements 100V-240V, 50-60Hz, 295VA

Audio Specification

- Sample Rate: 48kHz or 96kHz
- Processing Delay: 1ms Typical (channel, SD Rack input through L-R Buss to Stage Output @ 96kHz)
- Internal Processing: Up to 40-bit, Floating Point
- A>D & D>A: 32-bit Converter Bit Depth
- Frequency Response: +/- 0.15dB (20Hz – 20kHz)



- THD: <0.002% @ Unity Gain, 0dB Input @ 1kHz
- Channel Separation: Better Than 120dB: (40Hz – 15kHz)
- Residual Output Noise: <100dBu Typical (20Hz – 20kHz)
- Microphone Input: Better Than -128dB Equivalent Noise
- Maximum Output Level: +22dBu
- Maximum Input Level: +22dBu

Processing Channel Specification

Input Channel

- Name: User-Defined / Presets
- Channel Selection: Mono / Stereo / Multi
- Input Routing: Main & Alternate Input
- Analogue Gain: -20 to +60dB
- Phase: Normal / Reverse
- Digital Trim: -40 to +40dB
- Delay: Up to 1.3s
- DiGiTuBe: Drive 0.01 – 50.0
Bias 0 – 6
- LPF: 20 – 20kHz, 24dB/Oct
- HPF: 20 – 20kHz, 24dB/Oct
- Insert A: (Pre EQ/Dyn) On/Off
- Equalisation: 4 Band EQ: Parametric or Dynamic (Low/Lowshelf, Lower-Mid/Lowshelf, Upper-Mid/Hi Shelf, Hi/Highshelf)
On/Off
Freq; 20 – 20kHz
Gain; +/- 18dB
Q: 0.1 -20 (Parametric) / 0.10-0.85 (Shelf)
Dynamic EQ On/Off
Over/Under
Band On/Off
Threshold; -60 – 0dB
Attack; 500us – 100ms
Release; 10ms – 10s
Ratio; 1:1 – 50:1
- Dynamics 1: Single or Multiband (3-Band)Compressor:
On/Off
Threshold; -60 – 0dB
Attack; 500us – 100ms
Release; 10ms – 10s
Ratio; 1:1 – 50:1
Gain; 0 to +40dB with Autogain Option
Link; Any Channel/Buss
Hi Crossover; 20Hz – 20kHz



- Lo Crossover; 20Hz – 20kHz
- Knee : Hard, Med, SoftDe-Esser:
- Threshold : 20us – 20ms
- Release : 1ms – 100ms
- Ratio : 1:1 – 50:1
- Ess-Band : Listen On/Off
- Ess-Band Filter Freq / Width: 20Hz – 20kHz
- Dynamics 2: On/OffGate / Ducker:
 - Threshold; -60 – 0dB
 - Attack; 50us – 100ms
 - Hold; 2ms – 2s
 - Release; 5ms – 5s
 - Range; 0 – 90dB
 - Key; Any Source
 - Key Listen
 - Freq/Width; 20 – 20kHzCompressor:
 - On/Off
 - Threshold; -60 – 0dB
 - Attack; 500us – 100ms
 - Release; 10ms – 10s
 - Ratio; 1:1 – 50:1
 - Gain; 0 to +40dB with Autogain Option
 - Link; Any Channel / Buss
 - Hi Crossover; 20Hz – 20kHz
 - Lo Crossover; 20Hz – 20kHz
 - S/C Source : Any Source
 - S/C Listen : On/Off
 - S/C Filter Freq/Width: 20Hz – 20kHz
- Insert B: (Post EQ/Dyn) On/Off
- EQ/Dyn order: EQ/Dyn or Dyn/EQ
- Mute: Channel Mute / Hard Mute
- Solo: Solo Buss 1 / Solo Buss 2 / Both, Auto Solo
- Channel Safe: Input, EQ, Dyn, Aux, Pan, Fade/Mute, Inserts, Buss, Directs, Full Safe
- Output Routing: Buss, Insert A, Insert B, FX
 - Direct: On/Off, Pre-Mute / Pre-Fade / Post-Fade, Level +/- 18dB
- Fader: 100mm Motorised Fader ∞ to +10dB

Processing Channel Specification

Aux / Group / Matrix Output

- Name: User-Defined / Presets
- Phase: Normal / Reverse
- Digital Trim: -20 to +60dB



- Delay: Up to 1.3 sec
- DiGiTuBe: Drive 0.01 – 50.0
Bias 0 – 6
- LPF: 20 – 20kHz, 24dB / Oct
- HPF: 20 – 20kHz, 24dB / Oct
- Insert A: (Pre EQ/Dyn) On/Off
- Equalisation: 8 Band EQ: 4 band Parametric and 4 band parametric or Dynamic (Low/Lowshelf, Lower-Mid/Lowshelf, Upper-Mid/Hi Shelf, Hi/Hisshelf)
On/Off
Freq; 20 – 20kHz
Gain; +/- 18dB
Q: 0.1 -20 (Parametric) / 0.10-0.85 (Shelf)
Dynamic EQ On/Off
Over/Under
Band On/Off
Threshold; -60 – 0dB
Attack; 500us – 100ms
Release; 10ms – 10s
Ratio; 1:1 – 50:1
- Dynamics 1: Single or Multiband (3-band)Compressor:
On/Off
Threshold; -60 – 0dB
Attack; 500us – 100ms
Release; 10ms – 10s
Ratio; 1:1 – 50:1
Gain; 0 to +40dB with Autogain Option
Link; Any Channel / Buss
Hi Crossover; 20Hz – 20kHz
Lo Crossover; 20Hz – 20kHz
Knee : Hard, Med, SoftDe-Esser:
Threshold: 20us – 20ms
Release: 1ms – 100ms
Ratio: 1:1 – 50:1
Ess-Band: Listen On/Off
Ess-Band Filter Freq/Width: 20Hz – 20kHz
- Dynamics 2: On/OffGate / Ducker:
Threshold; -60 – 0dB
Attack; 50us – 100ms
Hold; 2ms – 2s
Release; 5ms – 5s
Range; 0 – 90dB
Key; Any Source
Key Listen
Freq/Width; 20 – 20kHzCompressor:



On/Off

Threshold; -60 – 0dB

Attack; 500us – 100ms

Release; 10ms – 10s

Ratio; 1:1 – 50:1

Gain; 0 to +40dB with Autogain Option

Link; Any Channel/Bus

Hi Crossover; 20Hz – 20kHz

Lo Crossover; 20Hz – 20kHz

S/C Source : Any source

S/C Listen : On/Off

S/C Filter Freq/Width: 20Hz – 20kHz

- Insert B: (Post EQ/Dyn) On/Off
- EQ/Dyn Order: EQ/Dyn or Dyn/EQ
- Mute: Channel Mute / Hard Mute
- Solo: Solo Buss 1 / Solo Buss 2 / Both, Auto Solo
- Channel Safe: Trim, EQ, Dyn, Fade/Mute, Inserts, Outputs, Full Safe
- Output Routing: Outputs, Insert A, Insert B, FX
- Fader: 100mm Motorised Fader ∞ to +10dB

Mustard Processing

- Preamplifier Tubes:
 - Variable Drive
 - Odd / Even / Overdrive / Distortion / Crunch / Hi Distortion Presets
 - Variable Output Gain
- Preamplifier Amp:
 - Variable Drive
 - Odd/Even 1st stage harmonics
 - Bias & Saturate control
 - Off/Odd/Even 2nd stage harm
 - Variable HF Boost
 - Variable Output Gain
- Equalisation: 4 band EQ: Parametric (lowshelf / bell, lower-mid bell / all-pass, upper-mid bell / all-pass, hishelf / bell)
HPF & LPF 4th order filters
- Dynamics 1: Classic VCA Compressor / Vintage VCA Compressor / Optical Compressor / FET Limiter
- Dynamics 2: Gate / Ducker