



BTQ-VM4W / VM8W

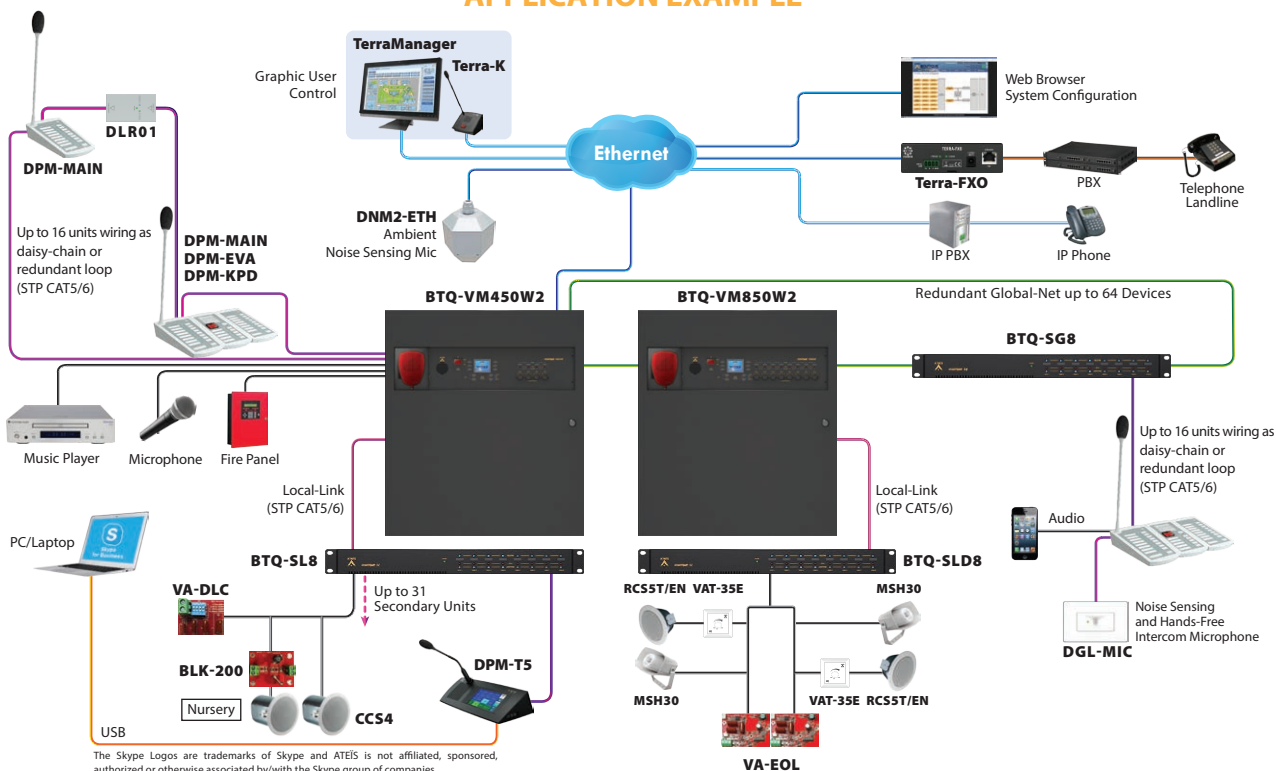


WallMount PAVA Controller

The BTQ-VM4W/VM8W is wallmount PAVA controller with integrated battery charging unit for secured battery backup and power sharing. All components contain within one heavy-duty metal housing with a lockable cover. The BTQ-VM4W/VM8W offers 4 and 8 monitored speaker zones respectively. The controller is integrated with 250W or 500W high efficiency Class-D amplifier built-in and is capable of handling 1000W speaker load per zone and 2000W max. per unit. Each controller can be networkable with up to 64 BTQ-VM4W/VM8W or BTQ-SG8 secondary global unit via global-net. This will then extend as little as 4 monitored A/B speaker zones to a large networked system of up to 16,384 zones. The BTQ-SG8 is linked to the controller via STP CAT5/6 cable with shielded RJ45 connector (max. length 100m between units), multi-mode (2 km) and single-mode (20 km) fibre optics or even longer distance upon request.

The BTQ-VM4W has 5 monitored EVAC inputs and 4 relay control outputs, while the BTQ-VM8W has 9 monitored EVAC inputs, 8 logic control inputs and 8 relay control outputs, which can be individually programmed for specific message/input routing to all or selected channels. Moreover, the controller has 10 audio sources including two music inputs, one mic/line input, one USB input, SIP call in, one fireman microphone and two digital paging and control interfaces. Each digital paging interface provides 2CH audio inputs to simultaneously transmit bi-directional data communication in digital format. The two digital interfaces can connect up to 8 paging console or remote units for each, and be wired in a daisy chain or redundant loop. The Mic/Line input features VOX function (Voice Activation) and each input is fitted with volume controls and equalizers.

APPLICATION EXAMPLE



The Skype Logos are trademarks of Skype and ATEIS is not affiliated, sponsored, authorized or otherwise associated by with the Skype group of companies.

BTQ-VM4W / VM8W

WallMount PAVA Controller

In accordance with EN54-16 and UL2572, all BOUTIQUE system including paging microphones and loudspeaker lines provides full monitoring and fault reports. In addition, multiple volume attenuators can be installed on monitored speaker lines without loopback cable.

The system can easily setup and replacement from the LCD panel of BTQ-VM4W/VM8W, the advanced settings can be accessed by web browser such as volume, PEQ, audio routing, monitor and control, event and bell scheduler, paging with priority management (1~99 priority level) etc.. Furthermore, the BOUTIQUE system has full digital audio mixing and an internal message storage for up to 90 minutes and a USB interface for configuration backup and play G.711, G.722, G.726, G.727, MP3 and WAV files.

FEATURES

- Integrate with battery charging unit for secured battery backup and power sharing
- Background music and voice announcement can be distributed to different group of zones by using 2 built-in amplifiers
- Internal message storage for up to 90 minutes
- IP based music streaming and paging over LAN/WAN
- Easy integration with Terracom, TerraManager and IP phone via SIP protocol
- Internet radio receiver built-in
- Low cost 2 channel switching amplifier architecture
- Third party control via RS232 or Ethernet

BTQ-VM4W Rear Panel



BTQ-VM8W Rear Panel



CERTIFICATIONS AND APPROVALS

Europe	Voice Alarm	EN54-16 (In process)
Europe	CE/EMI	EN55032: 2015 AC: 2016 Class A (In process)
Europe	CE/EMC	EN61000-3-2:2014 EN61000-3-3:2013 EN55020:2007/A11:2011 (In process)
Europe	CE/LVD	EN60065: 2014 (In process)
USA	Mass Notification Systems	UL2572 (Pending)
USA	Safety	UL60065 (Pending)

CONTROLS AND INDICATORS

- **Front (4/8 zones type)**
 - 2.2" full colour touch screen LCD display
 - 1 evacuation button
 - Reset/route/select button
 - Monitoring speaker
 - 4/8 zone selected buttons and LEDs
 - 4/8 zone EVAC LEDs
 - 4/8 zone alert/page LEDs
 - 4/8 BGM source status LEDs (CD/TUNER, AUX, USB, INTERNET)
 - 4/8 zone volume control knobs
 - 1 all-call and all-call cancel button
 - Status LED (power/fault/fireman MIC active/alert/MSG testing)
- **Back**
 - 2 DIP switches for VOX and phantom power
 - 2 global-net port LEDs

INTERCONNECTIONS

- **Front**
 - Fireman microphone
- **Back (4/8 zones type)**
 - Mains power inlet (euroblock connector)
 - 5/9 monitored EVAC inputs
 - 4/8 speaker zone(A/B) outputs
 - 4/8 relay control outputs
 - 8 monitored logic control inputs (BTQ-VM8W)
 - 1 fault and 1 EVAC relay output
 - 2 remote console ports for paging console and remotes
 - 1 MIC/LINE XLR 3-pin phoenix input and 2 RCA stereo input
 - 1 audio line output
 - 1 set of global-net port (optional)
 - 1 Ethernet port
 - 1 USB 2.0 for configuration backup and message/music file
 - 1 internal amp output (EU type:100V, US type:70V)
 - 24 VDC output
 - RS232 for third party control

ELECTRICAL

- AC power input: 100 ~ 240 VAC ± 10%, 50/60 Hz
- Power consumption (AC)

model	idle	1/2 full power	full power
BTQ-VM425/825W1 BTQ-VM425/825W2	W1/W2: 24VA	W1: 200VA W2: 380VA	W1: 390VA W2: 740VA
BTQ-VM450/850W1 BTQ-VM450/850W2	W1/W2: 24VA	W1: 380VA W2: 740VA	W1: 750VA W2: 1460VA

Idle: pilot tone -36dB, 1/2 full power: alarm tone

- DC power input: 44 ~ 52 VDC
- Power consumption (DC)

model	standby mode	idle	1/8 full power	1/2 full power	full power
BTQ-VM425W1/W2 BTQ-VM825W1/W2	W1/W2: 6.4W	W1/W2: 22W	W1: 46W W2: 86W	W1: 180W W2: 342W	W1: 350W W2: 666W
BTQ-VM450W1/W2 BTQ-VM850W1/W2	W1/W2: 6.4W	W1/W2: 22W	W1: 85W W2: 168W	W1: 342W W2: 666W	W1: 675W W2: 1314W

Idle: pilot tone -36dB, 1/8 full power: speech, 1/2 full power: alarm tone

BTQ-VM4W / VM8W

WallMount PAVA Controller

INTEGRATED BATTERY CHARGER

- Charging
 - Voltage: 54VDC
 - Charging current: 1.5A
- Maximum output current: 30A
- Battery capacity (4 x 12V): 10Ah to 30 Ah
- Recommended brands: Yuasa NPL Series, Power-Sonic GB Series, ABT TM Series, EnerSys VE Series, Eekta BTL Series, Long GB Series

AUDIO CHARACTERISTICS (GENERAL)

- A/D-D/A bit resolution: 24 bit
- Sampling rate: 48k Hz
- Frequency response: 20 Hz ~ 20k Hz (± 1 dB) @ 0 dBu
- SNR: > 80 dB
- THD+N: < 0.02 % @ 30 dB gain, -24 dBu (1k Hz) in
- EIN: < -86 dBra @ 0 dB gain
- Maximum input level (CD/AUX/mic): 17 dBu
- Maximum output level (line out): 17 dBu
- Crosstalk: > 70 dB @ 42 dB gain, 0 dBu (10k Hz) in

AUDIO CHARACTERISTICS (CD/AUX)

- Input impedance: 5k ohm

AUDIO CHARACTERISTICS (MIC)

- EIN: < -112 dBra @ 24 dB gain
- Input impedance : 8k ohm
- Input gain range: 0 ~ 40 dB (adjust with mic/line gain)
- CMRR: < -80 dB @ 40 dB gain, -40 dBu (1k Hz) in
- Phantom power: 48 VDC, 7 mA

AUDIO CHARACTERISTICS (EX. AMP/LINE OUT)

- Output impedance (balanced): 30 ohm

WATTAGE CAPACITY

- BTQ-VM4/8W1: 1000W per zone/2000W (max.) per unit

INTERNAL POWER AMPLIFIER

- Rated output power: 250W/500W (Class-D)
- Frequency response: 50 Hz ~ 18 kHz (± 3 dB) @ 0 dBu
- THD+N: < 0.1 % @ 42 dB gain, 0 dBu (1k Hz) in
- SNR: > 90 dB

NETWORK

- Max. global-net units: 64
- Max. remote units: 16
- Max. distance between global-net units: 100m (STP CAT5/6, shielded RJ45 connector), 2 km (multi mode fiber optic) and 20 km (single mode fiber optic)
- Max. distance between remote units: 250m (metal shielded RJ45 connector, STP CAT5/6)

LOUDSPEAKER OUTPUTS

- Number of zones: 4 or 8
- Number of loudspeaker lines: 8 or 16, A/B speaker lines per zone

model	rated loaded capacitance
BTQ-VM425/825W1 BTQ-VM425/825W2	120 nf (100V); 240 nf (70V)
BTQ-VM450/850W1 BTQ-VM450/850W2	240 nf (100V); 470 nf (70V)

RELAY OUTPUTS

- Maximum voltage: 100 VDC
- Maximum current: 0.5A

EVAC INPUTS

- Voltage mode
 - Maximum voltage: 72 VDC
 - Active voltage: 18 ~ 72 VDC
 - Inactive voltage: < 0.8VDC
- Contact mode
 - Non-isolated analogue interfaces with internal pull-up to +5V by 10k ohm
 - Monitored analogue contact thresholds
 - Open circuit: > 2.7 VDC
 - Inactive voltage: 2 ~ 2.5 VDC
 - Active voltage: 1.35 ~ 1.7 VDC
 - Short circuit: < 0.6 VDC

MECHANICAL

- Dimensions (W x H x D)
 - BTQ-VM4W/VM8W: 653 x 735 x 130 mm (25.7 x 28.9 x 5.1 inch)
- Weight
 - BTQ-VM425W1: 19.3 kg (42.5 lbs)
 - BTQ-VM450W1: 20.9 kg (46.1 lbs)
 - BTQ-VM425W2: 19.6 kg (43.2 lbs)
 - BTQ-VM450W2: 21.2 kg (46.7 lbs)
 - BTQ-VM825W1: 20 kg (44.1 lbs)
 - BTQ-VM850W1: 21.6 kg (47.6 lbs)
 - BTQ-VM825W2: 20.3 kg (44.6 lbs)
 - BTQ-VM850W2: 21.9 kg (48.3 lbs)
- Mounting: Wall-mount
- Colour: RAL 7016

ENVIRONMENTAL

- Operating temperature: -5 °C ~ +55 °C (+23 °F ~ +131 °F)
- Storage temperature: -40 °C ~ +70 °C (-40 °F ~ +158 °F)
- Relative humidity: 20% to 95%
- Air pressure: 600 to 1100 hPa
- Heat dissipation
 - BTQ-VM425/825W1: 478 BTU/hr
 - BTQ-VM450/850W1: 853 BTU/hr
 - BTQ-VM425/825W2: 819 BTU/hr
 - BTQ-VM450/850W2: 1570 BTU/hr

BTQ-VM4W / VM8W

WallMount PAVA Controller

Ordering Information							
Model No.	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Description of Model
BTQ-VM	EOL Driver	Number of Zone	250W/500W	Wall Mount/ Rack Mount	Global Net Card	Region	PAVA Controller
BTQ-SG		8	N/A	N/A		N/A	PAVA Secondary Global Unit
BTQ-SL							PAVA Secondary Local Unit

EOL Driver					
BTQ-VM	BTQ-SG	BTQ-SL			None
✓	✓	✓			
✓	✓	✓		D	EOL Driver
Number of Zone					
✓	–	–		4	4 Zone
✓	✓	✓		8	8 Zone
250W/500W					
✓	–	–		25	250W
✓	–	–		50	500W
Wall Mount or Rack Mount					
✓	–	–		None	Rack Mount Type
✓	–	–		W1	Wall Mount Type(Amp x 1)
✓	–	–		W2	Wall Mount Type(Amp x 2)
Global-Net Card					
✓	✓	–			None
✓	✓	–		RR	RJ45(A)-(B)
✓	✓	–		MR	Fiber Multi Mode(A)-RJ45(B)
✓	✓	–		SR	Fiber Single Mode(A)-RJ45(B)
✓	✓	–		RM	RJ45(A)-Fiber Multi Mode(B)
✓	✓	–		RS	RJ45(A)-Fiber Single Mode(B)
✓	✓	–		MM	Fiber Multi Mode(A)-(B)
✓	✓	–		SS	Fiber Single Mode(A)-(B)
Region					
✓	–	–			220~240 VAC Power, Amp Out 100V/50V/8ohm
✓	–	–		U	100~120 VAC Power, Amp Out 70V/35V/8ohm
✓	–	–		T	100~120 VAC Power, Amp Out 100V/50V/8ohm

Model Examples

- BTQ-VM425W2: WallMount PAVA Controller,4Zone, Amp250Wx2
- BTQ-VMD850W2: WallMount PAVA Controller,8Zone, Amp500Wx2,EOL Drv
- BTQ-VMD425W2RS: WallMount PAVA Controller,4Zone, Amp250Wx2,N-RJ/FS

Network Card

NET2-RR	Netcard,RJ45(A)-(B),excl Ass'y Pillar
NET2-MR	Netcard,Fiber Multi(A)-RJ45(B),excl Ass'y Pillar
NET2-SR	Netcard,Fiber Single(A)-RJ45(B),excl Ass'y Pillar
NET2-RM	Netcard,RJ45(A)-Fiber Multi(B),excl Ass'y Pillar
NET2-RS	Netcard,RJ45(A)-Fiber Single(B),excl Ass'y Pillar
NET2-MM	Netcard,Fiber Multi(A)-(B),excl Ass'y Pillar
NET2-SS	Netcard,Fiber Single(A)-(B),excl Ass'y Pillar