Router

BVRD2M

Certified to BSEN54



The BVRD2M DSP-controlled router is wellestablished and has been installed in many prestigious sites Worldwide.

VIGIL 2

FEATURES:

- DSP control.
- Eight electronically balanced inputs. Inputs one and two are configurable with 'all call' processor bypass and are normally reserved for fire microphone(s). All inputs have both independent priority and level settings.
- Up to fifteen priority levels are available. If two concurrent routes are set at the same priority they will be treated on a 'first come first served' basis. Priorities are changeable.
- Three band parametric plus bass and treble equalisation on all inputs (with limiter/compressor), enhancing the intelligibility of the system.
- 'All call' failsafe emergency message generator (twenty second EPROM).
- Seven electronically balanced audio outputs with ten band parametric equalisation and audio delay of up to one second.
- Fully monitored surveillance at either 30Hz or 20kHz (faults are recorded in the history log). All inputs, outputs and DSP messages can be aurally monitored through a loudspeaker on the front panel.
- Built-in realtime clock enables detailed logging and reporting, including detected faults. Indicates time, date, month and year. Also used for night time volume reduction, timed message trigger and to control external inputs. The history log can be accessed via the USB2 port on the front panel.
- Six flash stored (57 second) messages with independent level, surveillance and timing. (For longer, non-critical messages, up to three can be combined.) Settings and messages are changeable (password protected) via the USB2 port.
- Nine selectable chimes / pre-announcement tones of up to eight seconds in length.
- Expandable with BVRD2S (slave router) and CANBUS modules.

- Up to 126 EVAS routers can be networked using fibre or copper to produce a truly sophisticated digital VA network.
- Message synchronisation, even on a decentralised system.
- Ambient noise sensing.
- Amplifier changeover (one in ten).
- Two RS485 ports for networking, microphones, etc.
- Zone grouping and barring on BVRD voice alarm controller.

HARDWARE FACILITIES:

Audio:

- 8 x electronically balanced line -20dB audio inputs (inputs 1 and 2 with processor bypass).
- 'All call' failsafe emergency message generator (20 second EPROM) in the event of DSP failure.
- 7 x electronically balanced OdBM audio outputs.
- 2 x opto-coupled sounder circuit programmable inputs from the fire detection system.
- 6 x analogue voltage sensing inputs for monitored input access, ambient noise sensors, remote volume controls.
- 3 x contact inputs for unmonitored zone access or PTT.

Control Outputs:

- 6 x NPN collector outputs 40V @ 100mA for busy, etc.
- 1 x volt free relay changeover contact for common fault.

Serial Ports:

- 2 x RS485 half-duplex ports for communicating to control microphones, fire detection systems, network control, fault reporting.
- 1 x front panel USB2 port to configure the system, fault diagnostics, fault reporting, message download, etc.



Specifications:

Audio input and output processing using DSP analogue devices ADSP2116 operating at 100MHz.

AUDIO INPUTS		
Input sensitivity	80mV (-20dB) to 3V (+12dB)	
Frequency response	-3 dB (a) 30Hz and 20kHz	
Signal to noise ratio	Better than 70dB	
Phantom power	12V	
Three band parametric equalisation		
Frequency	50Hz, 63Hz, 80Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz, 6.3kHz, 8kHz, 10kHz, 12.5kHz, 16kHz	
Bandwidth	0.05oct, 0.1oct, 0.2oct, 0.33oct, 0.5oct, 0.66oct, 1oct & 2oct	
Lift and cut	± 12dB in 1dB steps	
Low filter		
Frequency	250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1kHz, 1.2kHz, 1.6kHz, 2kHz, 2.5kHz	
Slope	3dB/oct & 6dB/oct	
Lift and cut	± 12dB in 1dB steps	
High filter		
Frequency	500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz	
Lift and cut	± 12dB in 1dB steps	
High pass filter		
Frequency	100Hz, 150Hz, 200Hz, 250Hz, 300Hz	
Slope	18dB/oct, 12dB/oct, 6dB/oct	
Compressor		
Ratio	1.4:1, 2:1, 4:1, 8:1 & limiter	
Attack	0-99mS	
Release	0-999mS	
Messages flash PROM		
Storage medium flash PROM (non-volatile) 57 seconds		
Frequency response	-3dB (a) 50Hz & 18kHz	
Signal to noise ratio	Better than 65dB	

Max output level	AUDIO OUTPUTS		
Frequency response -3dB @ 3OHz & 20kHz Output to noise ratio Better than -85dB Ten band parametric equalisation Frequency	Nominal output level	0.775V (OdB)	
Output to noise ratio Ten band parametric equalisation Frequency SoHz, 63Hz, 80Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 118Hz, 1.25kHz, 16kHz, 2kHz, 80Hz, 10kHz, 125kHz, 16kHz, 63kHz, 8kHz, 10kHz, 125kHz, 16kHz Bandwidth O.05oct, O.1oct, O.2oct, O.33oct, O.5oct, O.66oct, 10ct & 2oct Lift and cut ± 12dB in 1dB steps Low filter Frequency SoDHz, 18Hz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz, 2.5kHz 2.5kHz Slope 3dB/oct & 6dB/oct Lift and cut ± 12dB in 1dB steps High filter Frequency SoDHz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz 2.5kHz Lift and cut ± 12dB in 1dB steps High filter Frequency SoDHz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 5kHz 5kHz Lift and cut ± 12dB in 1dB steps Audio delay Selectable from 0 to 1 second Front panel Monitor speaker to listen to inputs or outputs Common fault indicator, sounder and fault accept button LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc.	Max output level		
Ten band parametric equalisation 5OHz, 63Hz, 80Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 11xz, 1.25kHz, 16kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz, 6.3kHz, 8kHz, 10kHz, 125kHz, 16kHz Bandwidth 0.05oct, 0.1oct, 0.2oct, 0.33oct, 0.5oct, 0.66oct, 1oct 8 2oct Lift and cut ± 12dB in 1dB steps Low filter Frequency 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz Slope 3dB/oct 8 6dB/oct Lift and cut ± 12dB in 1dB steps High filter Frequency 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2kHz, 2.5kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz Lift and cut ± 12dB in 1dB steps Audio delay Selectable from 0 to 1 second Front panel Monitor speaker to listen to inputs or outputs Common fault indicator, sounder and fault accept button LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc.	Frequency response	-3dB @ 30Hz & 20kHz	
Frequency 50Hz, 63Hz, 80Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz, 6.3kHz, 8kHz, 10kHz, 12.5kHz, 16kHz Bandwidth 0.05oct, 0.1oct, 0.2oct, 0.33oct, 0.5oct, 0.66oct, 1oct & 2oct Lift and cut ± 12dB in 1dB steps Low filter Frequency 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz Slope 3dB/oct & 6dB/oct Lift and cut ± 12dB in 1dB steps High filter Frequency 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz 1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz Lift and cut ± 12dB in 1dB steps Audio delay Selectable from 0 to 1 second Front panel Monitor speaker to listen to inputs or outputs Common fault indicator, sounder and fault accept button LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc.	Output to noise ratio	Better than -85dB	
Frequency 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz, 6.3kHz, 8kHz, 10kHz, 12.5kHz, 16kHz Bandwidth 0.05oct, 0.1oct, 0.2oct, 0.33oct, 0.5oct, 0.66oct, 1oct \$ 2oct Lift and cut ± 12dB in 1dB steps Low filter Frequency 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 2.5kHz Slope 3dB/oct \$ 6dB/oct Lift and cut ± 12dB in 1dB steps High filter Frequency 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz Lift and cut ± 12dB in 1dB steps Audio delay Selectable from 0 to 1 second Front panel Monitor speaker to listen to inputs or outputs Common fault indicator, sounder and fault accept button LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc.	Ten band parametric equalisation		
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Frequency 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz Slope 3dB/oct & 6dB/oct Lift and cut ± 12dB in 1dB steps High filter Frequency 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz Lift and cut ± 12dB in 1dB steps Audio delay Selectable from 0 to 1 second Front panel Monitor speaker to listen to inputs or outputs Common fault indicator, sounder and fault accept button LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc.	Low filter		
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High filter 500Hz, 630Hz, 800Hz, 1kHz, 1.25kHz, 1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz Lift and cut ± 12dB in 1dB steps Audio delay Selectable from 0 to 1 second Front panel Monitor speaker to listen to inputs or outputs Common fault indicator, sounder and fault accept button LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc.	Slope	3dB/oct & 6dB/oct	
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Frequency 1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz, 5kHz Lift and cut ± 12dB in 1dB steps Audio delay Selectable from 0 to 1 second Front panel Monitor speaker to listen to inputs or outputs Common fault indicator, sounder and fault accept button LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc. POWER	High filter		
Audio delay Selectable from 0 to 1 second Front panel Monitor speaker to listen to inputs or outputs Common fault indicator, sounder and fault accept button LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc. POWER	Frequency	1.6kHz, 2kHz, 2.5kHz, 3.15kHz, 4kHz,	
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Front panel Monitor speaker to listen to inputs or outputs Common fault indicator, sounder and fault accept button LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc. POWER	Audio delay		
Monitor speaker to listen to inputs or outputs Common fault indicator, sounder and fault accept button LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc. POWER	Selectable from 0 to 1 second		
Common fault indicator, sounder and fault accept button LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc. POWER	Front panel		
LCD display 40x2 characters, backlit, Rotary encoder to ease configuration, setting levels, entering text, etc. POWER	Monitor speaker to listen to inputs or outputs		
configuration, setting levels, entering text, etc. POWER	Common fault indicator, sounder and fault accept button		
·			
·	POWER		
		22V-35V @ 500mA	





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