

The Network to Mic/Line Interface with VCA shall be an RDL FP-NML2V. The unit shall provide a Dante compatible Ethernet interface input and two balanced professional line-level audio outputs. Each output shall be equipped with a voltage-controlled attenuator VCA circuit independently controlled by an external 0 to 10 Vdc ramp. The unit shall provide 10 Vdc for external potentiometers or controls and shall provide 24 Vdc for compatible external rotary encoder remote controls. The unit shall convert two networked Dante digital audio channels to analog audio.

The unit shall provide network connection through an RJ45 type shielded connector equipped with LEDs for Link and Speed. The Speed LED shall illuminate when the unit is connected to a Dante network with a transmission speed of 100 Mbps. The unit shall support a bit depth of 24 bits and sample rates of 44.1 kHz and 48 kHz. The unit shall convert between digital and analog formats at nominal standard professional levels of +4 dBu for a digital audio value of -18 dBFS.

Two audio outputs shall be provided on a detachable terminal block. Each output shall be equipped with a two-position switch for setting the output to mic or line level. In the line-level position, each output shall produce a balanced professional +4 dBu signal level for a nominal network digital audio level of -18 dBFS. The output impedance shall be 150 Ω balanced or 75 Ω unbalanced. The output circuit shall be configured to produce an unbalanced output of proper phase between the positive output leg and ground. In the mic position, the output level shall be attenuated 50 dB nominal below line level. The unit shall, for each output, provide audio frequency response of 20 Hz to 20 kHz (± 0.5 dB) with total harmonic distortion of less than 0.1% and a noise floor exceeding 80 dB below the normal rated output level of +4 dBu, and a minimum of 18 dB of headroom above the normal rated output level of +4 dBu. Crosstalk between any pair shall exceed -90 dB at 1 kHz and -80 dB from 20 Hz to 20 kHz. During the absence of all digital audio inputs, the outputs shall fully mute with a residual noise at least 95 dB below the normal rated output level of +4 dBu.

Connections shall be provided for two 0 to 10 Vdc ramp signals, one to control each VCA. Each audio output level shall be adjusted using an external dc voltage source between 0 and 10 Vdc. The unit shall produce an audio taper attenuation for linear changes in the control voltage. The unit shall provide a 10 Vdc precision reference permitting an external potentiometer to provide the control voltage to the unit. The unit shall be directly compatible with RDL VCA switched and variable wall controls and with external linear taper potentiometers. The unit shall provide 24 Vdc to power remote level controls. In the absence of an input ramp signal, the VCA circuit shall default to maximum, producing an un-attenuated output level. The VCA circuits shall accept separate ramp voltages for the two channels, or a single ramp signal to control both channel simultaneously.

The unit shall measure 4.85" (12.3 cm) W; 1.75" (4.45 cm) H; 3.25" (8.26 cm) D and be compatible with RDL FLAT PAK mounting accessories. The unit's electrical chassis shall be fully constructed of metal, comprised of aluminum and steel members. The chassis shall include an integral provision for surface mounting.

The unit shall be equipped to operate from a 24 Vdc ground-referenced power supply with a maximum current not exceeding 135 mA. The unit shall utilize an external power supply connected through a dc jack. A second dc jack shall be provided for the connection of products requiring 24 Vdc power not to exceed 2 A. The unit shall be engineered, assembled and tested in the U.S.A. and be specified for continuous duty in professional installed systems. The unit shall be specified for operation in an ambient temperature between 0 and 40 degrees C. The unit shall comply with relevant EMC requirements and shall bear the CE marking.

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