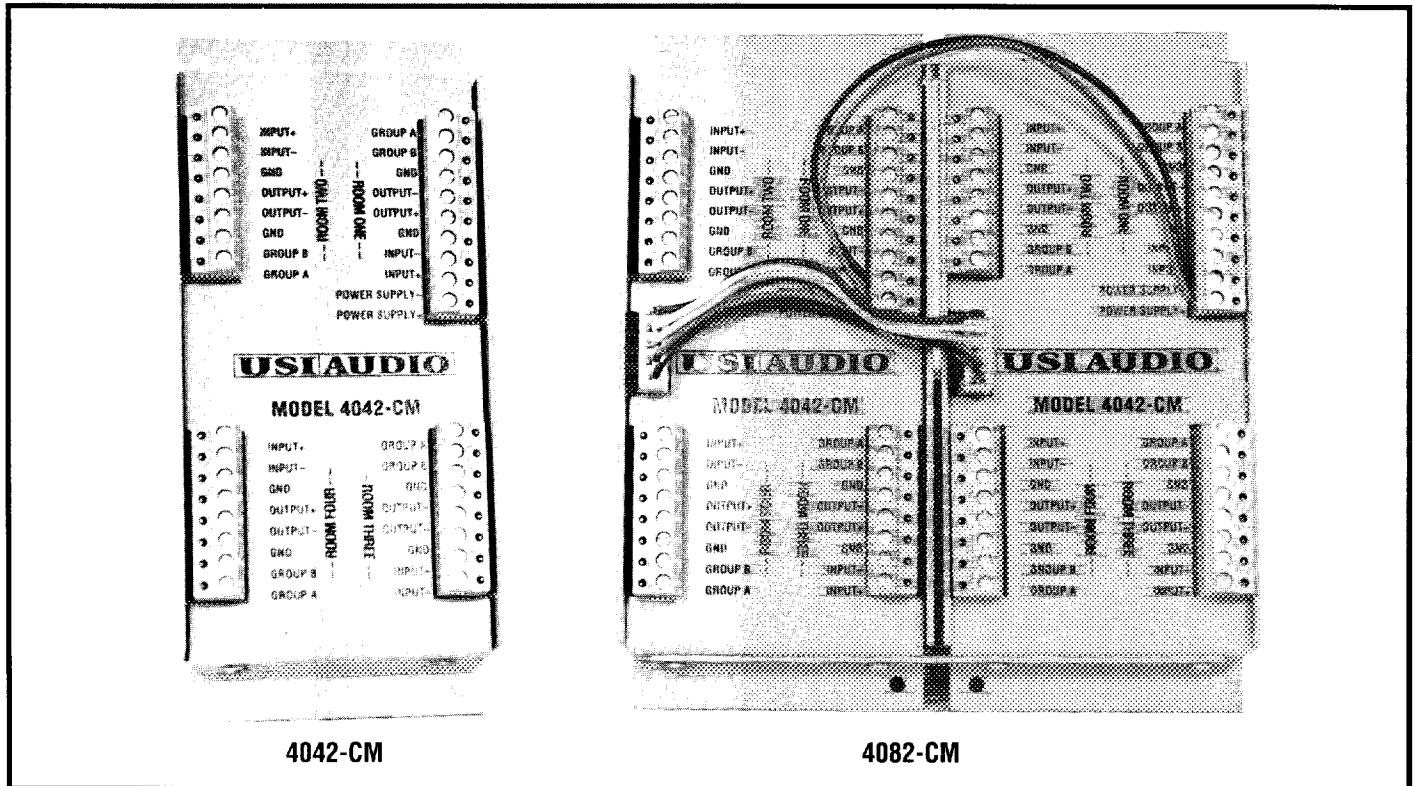


TM

USIA AUDIO

4042-CM/ 4082-CM Room Combining Matrices for ACE-4000 System



Product Data

- Room combining functions are digitally controlled
- Four (4042-CM) or eight (4082-CM) inputs and outputs
- All inputs are balanced
- Two combining groups
- Remote control triggered by simple switch closure.
- All connections made via removable screw terminal blocks
- Non-mechanical solid-state switching prevents pops or clicks when triggered
- No change in signal level when rooms are switched in or out of combining groups

Specifications:

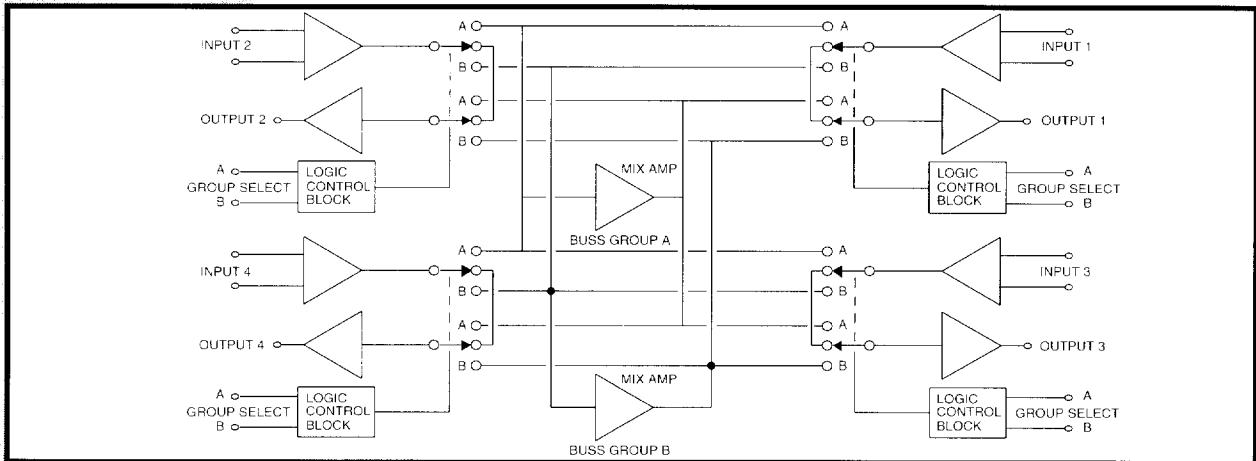
Frequency Response	20 Hz to 20 kHz +0/-1 dB
Distortion	less than 0.1%
Gain	0 dB
Measured Input Impedance	36 K Ω
Measured Output Impedance	100 Ω
Crosstalk	-87 dB (ref 1 VRMS input)
Power Requirements	15 VDC to 30 VDC @ 30 mA
Dimensions	
Height	6.64" (16.9 cm)
Width	2.9" (7.4 cm) (4042-CM) 5.9" (15.0 cm) (4082-CM)
Depth	1.2" (3.0 cm)
Net Weight	0.52 lbs. (0.24 kg) (4042-CM) 1.1 lbs. (0.50 kg) (4082-CM)
Shipping Weight	1 lbs. (0.45 lbs)
Color	Tan

Description

The Model 4042-CM is a four-room, two group, room combining matrix used to electronically combine two to four rooms in either of two groups. The 4082-CM is functionally equivalent to the 4042-CM, but accommodates up to eight rooms between its two combining groups. The 4042-CM has four input and output channels corresponding to the four room connections. The inputs of these channels are normally routed right back to the corresponding output. Each of the four input/output pairs has a GROUP A and a GROUP B terminal. When either of these terminals is shorted to ground, that input is redirected to one of two internal mix busses. The output of this mix buss is then distributed back to the outputs of each of the input/output pairs assigned to that group. Since there are two

of these groups, you can easily have two separate room combinations at the same time. Each of these groups may have any number of rooms assigned to them. This allows you to accommodate any possible combination of rooms. A room may also be assigned to one group at a time. If both group assignment terminals are grounded, the input is directed back to its corresponding output. All inputs are balanced, and all of the outputs are designed to drive balanced lines. This allows you to locate the 4042-CM hundreds of feet away from the mixer/amplifiers that service the room. While the 4042-CM is primarily designed for use with USI Audio's series of in-wall mixer/amplifiers, its standard line level inputs and outputs enable it to be used effectively with other mixer/amplifier combinations.

Block Diagram



Architect's and Engineer's Specifications

[The following applies to the 4042-CM only:]

The room combining matrix shall have four input/output pairs, each of which may be used independently or combined to either of two groups. The unit shall use only solid state components to perform all switching functions. All remote control of combining functions shall be accomplished with simple switch closure. All connections to the unit shall be made on removeable screw terminal blocks. All inputs shall be balanced and all outputs shall drive balanced or unbalanced lines. The unit shall measure 6.6" x 2.9" x 1.2" (16.9 cm x 7.4 cm x 3.0 cm) and weigh 0.52 lbs. (0.24 kg). The unit shall operate from a 15 VDC to 30 VDC, 30 mA supply. The room combining matrix shall be the USI Audio Model 4042-CM.

[The following applies to the 4082-CM only:]

The room combining matrix shall have eight input/output pairs, each of which may be used independently or combined to either of two groups. The unit shall use only solid state components to perform all switching functions. All remote control of combining functions shall be accomplished with simple switch closure. All connections to the unit shall be made on removeable screw terminal blocks. All inputs shall be balanced and all outputs shall drive balanced or unbalanced lines. The unit shall measure 6.6" x 5.9" x 1.2" (16.9 cm x 15.0 cm x 3.0 cm) and weigh 1.1 lbs. (.50 kg). The unit shall operate from a 15 VDC to 30 VDC, 60 mA supply. The room combining matrix shall be the USI Audio Model 4082-CM.

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