

## Power consideration when designing MultiTasker based systems

### Introduction

MultiTasker-based modular audio visual system provides numerous benefits for designers, installers and users. The card cage based system allows easy configuration and simplified control.

AV design engineers involved in specifying a MultiTasker should clearly understand power requirements for each type of card and maximum power available for each enclosure.

### Enclosure power

The MultiTasker series of products consists of 4, 8, 12, 19, and 20 slot enclosures. Except for the 4 slot enclosure, each enclosure can be ordered with standard power output or high power output.

MT102-141/142	4 slot	45W
MT102-181/182/184	8 slot	45W
MT102-185/186/188	8 slot	90W
MT102-121/123	12 slot	45W
MT102-122/124	12 slot	115W
MT102-191/192	19 slot	115W
MT102-198/199	19 slot	230W
MT102-201/202	20 slot	115W
MT102-203/204	20 slot	230W

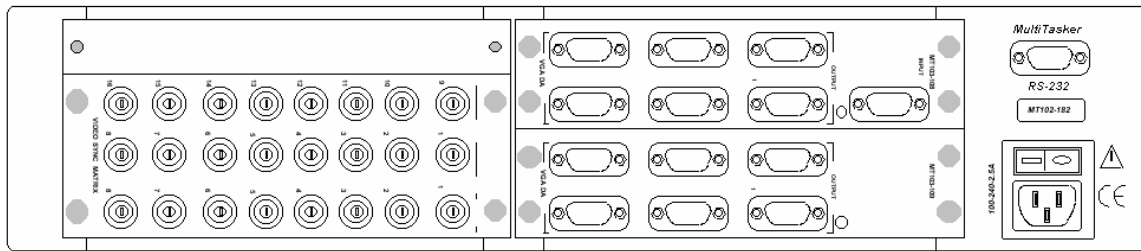
Depending on the card type and number of cards loaded, different enclosures would be selected. All cards can be roughly separated into 4 categories:

VGA/BNC/RCA/S-VIDEO – switchers/distribution amps	Low power consumption
Control Cards	Low power consumption
Matrix switcher cards	Medium power consumption
Twisted Pair products/Video Scaler cards	High power consumption

There are few rules of thumb that can be followed to accurately predict if additional power is required.

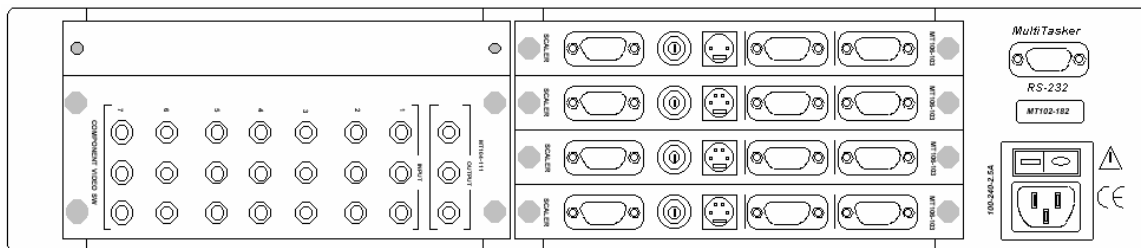
If the number of cards in one enclosure is equal to or less than 50% of the available slots then use standard power. If the number of cards is more than 50% of the available slots, then use high power output enclosure.

Figure 1 below shows an example of an 8-slot enclosure with 3 cards. Since the enclosure has 8 available slots, this configuration needs standard power.



**Figure 1**

The same enclosure with 5 cards would require additional power to operate all cards. The example is shown on Figure 2.



**Figure 2**

As with every rule, there are exceptions. In this case some cards require additional power due to the complexity of a card. This specifically relates to scaler cards and twisted pair cards.

Whenever any of these cards are used, reduce number of cards per enclosure to 40% of the available slots in consideration of either using standard or high power output enclosure.

**\*\*Keep in mind that certain configurations may fall outside of these rules.\*\***

## Conclusion

MultiTasker is a simple to use and simple to design modular AV system. A rule of thumb here can help you to determine power supply requirement for a specific system configuration. Once your MultiTasker design is completed, send it to your Altinex sales representative and they will be happy to assist you with final verification.