

M4K708

The M4K708 is a multichannel ARINC 708/453 interface module for the multiprotocol Excalibur 4000 family of carrier boards. The M4K708 module supports two ARINC 708/453 channels, each programmable as transmit or receive, which provides a complete solution for the development and testing of Weather Radar Display Databases. Each channel implements a 64K x 16 FIFO and supports polling and/or interrupt driven operation.

The M4K708 comes complete with C drivers including source code. In addition, Excalibur produces adapter cables that convert the carrier board I/O Molex™ connector to two twinax Trompeter CJ70 connectors (or equivalent). The cable may be purchased at an additional cost.

General Features

- ◆ Supports 2 ARINC-708/453 channels, each programmable as transmit or receive
- ◆ 64K x 16 FIFO per channel holds up to 655 1600-bit Words
- ◆ Optional bus termination
- ◆ Interrupt and polling modes of operation
- ◆ Loopback test capability
- ◆ Programmable hardware output trigger



Receive Mode

- ◆ Receive features:
 - Word status tagging
 - Word Time Tagging (32-bit)
 - Receive count interval trigger
- ◆ Receive counter – indicates number of words received
- ◆ Polling conditions:
 - FIFO full
 - FIFO half full
 - FIFO empty
 - 'n' Words received
- ◆ Interrupt conditions:
 - FIFO full
 - 'n' Words received

Transmit Mode

- ◆ Transmission modes:
 - One-shot (one 1600-bit word at a time)
 - Continuous (as long as FIFO not empty)
 - Continuous FIFO retransmit
- ◆ Programmable inter word gap time (0–6.5 sec @ 100µsec resolution)
- ◆ Polling conditions:
 - FIFO full
 - FIFO half full
 - FIFO empty
 - 'n' Words transmitted
- ◆ Interrupt conditions:
 - FIFO empty
 - 'n' Words transmitted

Physical Characteristics

- ◆ Dimensions: 67mm x 46mm
- ◆ Weight: 20g

Operation Environment

- ◆ Temperature: 0°–70°C standard temperature
-40° to +85°C extended temperature (optional)
- ◆ Humidity: 5%–90% noncondensing
- ◆ MTBF: 509,810 hours at 25°C, G_F, S217F

Host Interface

- ◆ 4000 family of carrier boards
- ◆ Power: 5V @ 650mA (typ)

Software Support

- ◆ C drivers with source code
- ◆ *Exalt Plus*: Excalibur Analysis Laboratory Tools (optional)
- ◆ Additional software may be available on our website

Ordering Information

- ◆ **M4K708** Standard temperature module
- ◆ Additional Options:
 - E Extended temperature option
 - 001 With conformal coating

Note: When ordering this module with a 4000 family carrier board, use the module code specified in the *Module Ordering Information* on our website, or in the *User's Manual* of the carrier board.



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These specifications are subject to change without notification



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