

M8K717

The M8K717 is an intelligent ARINC 717 interface module for Excalibur's 8000 family of multiprotocol carrier boards. The module has one receive channel and one transmit channel, and supports HBP or BPRZ encoding.

In transmit mode, the module sends the four subframes from a pre-defined buffer in dual-port RAM. In receive mode, the module stores all subframes with status and Time Tag information appended to each subframe.

General Features

- ◆ One transmit channel, orderable as HBP or BPRZ
- ◆ One receive channel, software selectable as HBP or BPRZ
- ◆ Programmable bit rate: 32, 64, 128, 256, 512, 1024, 2048 or 4096 words per second
- ◆ 128K x 8 dual-port RAM
- ◆ Programmable hardware output trigger
- ◆ IRIG B input (standard IRIG B120 serial time code)
- ◆ Ruggedized and extended temperature options



Transmit Features

- ◆ Programmable slew rate: 1.5, 7.5 or 10 μ sec
- ◆ Large transmit buffers reduce host interaction with the module
- ◆ 32-bit transmit subframe counter per channel
- ◆ Just-in-time data loading
- ◆ User-definable sync words
- ◆ Interrupts available for subframes or full frames

Receive Features

- ◆ Receive buffer of user-selected size per channel
- ◆ 48-bit 1 μ sec Time Tag or 64-bit IRIG B Time Tag
- ◆ 32-bit receive subframe counter per channel
- ◆ Interrupts available for subframes or full frames

Physical Characteristics

- ◆ Dimensions: 46mm x 30mm
- ◆ Weight: 9g

Operating Environment

- ◆ Temperature: 0°–70°C standard temperature
-40° to +85°C extended temperature (optional)
- ◆ Humidity: 5%–90% noncondensing
- ◆ MTBF: 1,163,600 hours at 25°C, G_F, S217F

Host Interface

- ◆ EXC-8000 family of carrier boards
- ◆ Power: 5V @ 340mA (max)

Software Support

- ◆ *ARINC 717 Software Tools*: Intuitive and flexible API with source code
 - ◆ Compatible with 32/64-bit Windows 7/8/10/11 & Linux kernel 3.x/4.x/5.x
 - ◆ Includes application interface for NI LabView & CVI
- ◆ *Exalt Plus*: Excalibur Analysis Laboratory Tools (optional)

Ordering Information

- ◆ **M8K717-N1** ARINC 717 interface module with one HBP transmit channel and one receive channel
- ◆ **M8K717-N2** ARINC 717 interface module with one BPRZ transmit channel and one receive channel
- ◆ Additional Options:
 - E Extended temperature option
 - R Ruggedized option
 - 001 With conformal coating

Note: When ordering this module with a carrier board, use the module code specified 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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