

## Fibre Channel GT System

## App Note *GT-J-FICON* FICON Jammer

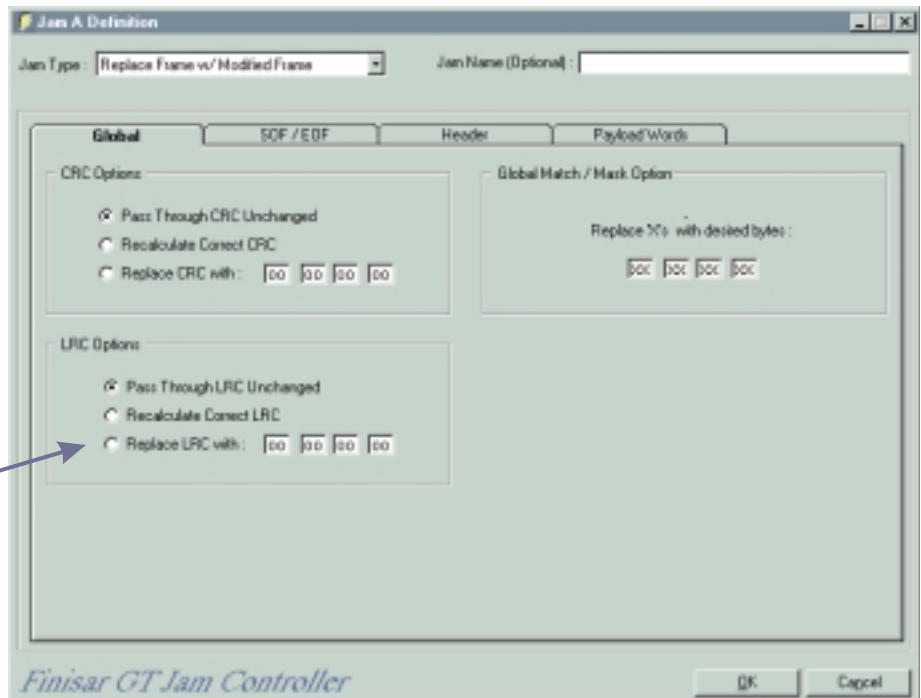
### *Optional Error Injection System for FICON*

- **Controlled, repeatable, realtime data modification of FICON traffic**
- **Corrupt data**
- **Delete frames or ordered sets**
- **Modify bits, bytes, words, or entire frames**
- **Pass, overwrite, or recalculate CRC and LRC**
- **Use the GT-Analyzer to view the modification of the traffic and the system response**

Finisar's GT-Jammer has an option for modifying FICON traffic in real time.

The key difference between FICON traffic and normal Fiber Channel traffic is the introduction of the Longitudinal Redundancy Check (LRC). The LRC is an error checking function, in addition to the CRC, that is used to protect the SB-2 header, the Information Unit (IU) header, and the Device Information Block (DIB) header in an SB-2 IU.

The GT-J FICON includes an LRC generator/checker that can be used to recalculate the correct LRC in modified FICON frames. This is accomplished by initializing the LRC checker/generator with the hex value 'A55AA55A' before the header fields are processed. Processing takes place one full word at a time. The initial value is exclusively ORed with the first word of the header. The result of this is exclusively ORed with the next word of the header. This process is repeated until all words that are covered by the LRC have been processed. The final result obtained is the LRC value that is transmitted.



The FICON Jammer has the added ability to pass the LRC unchanged, recalculate the correct LRC, or replace the LRC with a ser-defined value.