



Dear iSBC<sup>®</sup> 214 Peripheral Controller Subsystem Customer:

Congratulations! You have just received Intel's iSBC 214 Peripheral Controller Subsystem. The iSBC 214 is a single board, multiple device controller that interfaces to three types of storage media -- Winchester disk, floppy disk, and 1/4-inch streaming tape. Engineered with Intel quality, reliability, and high performance, the iSBC 214 will fulfill your peripheral I/O requirements. This board is fully tested and meets stringent quality criteria.

RELATIONSHIP TO THE iSBC<sup>™</sup> 215G/iSBX<sup>™</sup> 218A/iSBX<sup>™</sup> 217C

The iSBC 214 controller provides, in a single MULTIBUS<sup>®</sup> board, all the services of the iSBC 215G Disk Controller Kit (iSBC 215G Winchester Controller, iSBC 213 Data Separator, and Cable Assembly). Cabling for the iSBC 214 board uses industry standard flat ribbon cable with mass terminated connectors.

The iSBC 214 board firmware emulates the I/O communications protocol of the iSBC 215G board, including the protocol extensions associated with the iSBX 218A Flexible Disk Controller, and the iSBX 217C Tape Controller MULTIMODULES mounted on the iSBC 215G board.

In general, software developed for the iSBC 215G will run, without change, on the iSBC 214 board. The iSBC 214 board operation was fully tested for compatibility with the current iRMX<sup>™</sup> and XENIX\* Operating System drivers for the iSBC 215G, iSBX 218A, and iSBX 217C boards.

As you plan your implementation of this product, the following specific items should be considered:

- The physical format of the Winchester disk when using the iSBC 214 is not the same as that of the iSBC 215G board. To directly substitute the iSBC 214 board for the iSBC 215G board, you must back-up the data from the Winchester disk before removing the iSBC 215G; install the iSBC 214 and reformat the disk; and then restore the data.
- Initialization. The iSBC 214 board performs a peripheral interface initialization in addition to the general Reset operation performed on the iSBC 215G board. Refer to the "Programming Information" chapter in the iSBC 214 Hardware Reference Manual for the cold-start initialization details.

\*XENIX is a trademark of Microsoft Corporation.

- "Control C Abort" and "Back-up After" Tape Commands. These IBMX Operations are not supported by the current ISBC 214 board.
- ISBC 215G Substitution. If the ISBC 214 board is used as a substitute for the ISBC 215G in the SYS310 environment, make certain the System Confidence Test used is version SCT 286 V2.0 and SCT 86 V2.0 or greater.

#### TRACK CACHING

This version of the ISBC 214 board includes track caching of the Winchester disk drive in order to improve overall controller performance.

The algorithms and features of this track caching include the following:

- Parts or all of the three most recently read tracks retained in the on-board cache.
- Read operation that references data stored in the cache will access the cache and not the disk.
- A read operation that references a track not retained in the cache causes replacement of the least recently used track data with data from the currently referenced track.
- All write operations are stored immediately on the disk and concurrently in the cache, if applicable; otherwise, the cache data remains unaltered.

#### WARRANTY AND REPAIR

Standard repair services are available for the ISBC 214 through the Intel Repair Center. Please contact your local salesperson to coordinate the return/repair of defective product.

The standard hardware warranty is in effect.

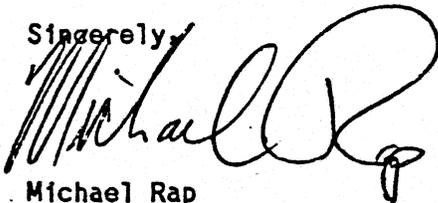
#### HARDWARE SUBSCRIPTION SERVICE AVAILABLE

The ISBC 214 is available as an IBMX product.

Intel offers a hardware subscription service called the IBMX MULTIBUS EXCHANGE. This service provides subscribers with regular publications of engineering changes, product change histories and helpful ancillary notes. For further information regarding Intel's IBMX Hardware Subscription Service, contact your local Intel sales representative.

We thank you for selecting the ISBC 214 to solve your Peripheral I/O needs.

Sincerely,



Michael Rap  
Product Manager  
ISBC 214 Peripheral Controller Subsystem