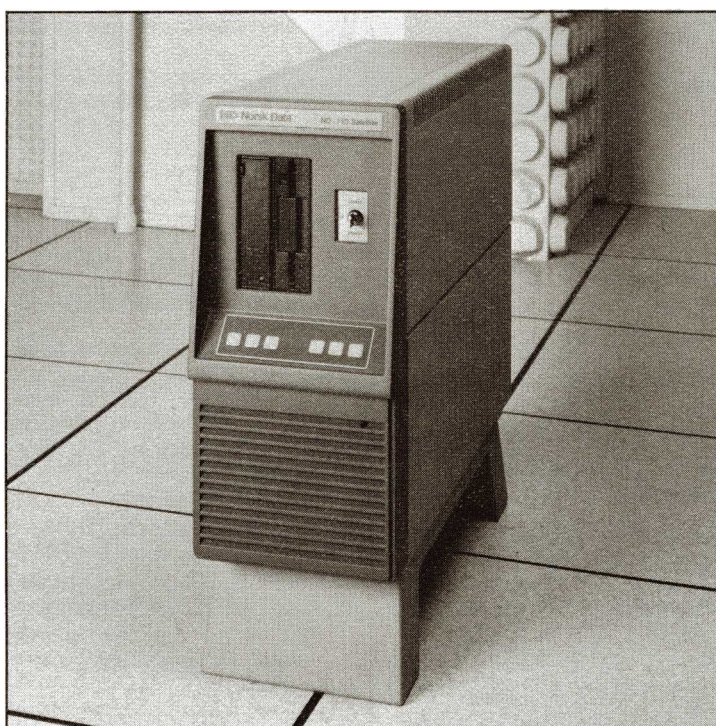


# ND-110 SATELLITE SERIES:

ND 9871, ND 9872, ND 9873, ND 9874, ND 9875



## ND-110 SATELLITE SERIES:

**ND 9871 ND-110 SATELLITE model 11**  
**ND 9872 ND-110 SATELLITE model 12**  
**ND 9873 ND-110 SATELLITE model 13**  
**ND 9874 ND-110 SATELLITE model 14**  
**ND 9875 ND-110 SATELLITE model 15**

### INTRODUCTION

The ND-110 SATELLITE is a family of 16-bit mini-computers that are ideal for use in the office environment. Compact and unobtrusive, they are capable of running the established and sophisticated software developed for the ND-100 family of computers, at the same time combining the friendliness and response of a personal computer. Our communication system, ND-COSMOS, allows the ND-110 SATELLITE to be connected to other computer systems; both ND's and other vendors'.

The ND-110 SATELLITE is available in five models, model 11 through model 15.

### FEATURES

- It automatically restarts after a power failure. This is made possible by a battery system included in the configuration.
- 7-position card rack implemented with standard ND-100 bus system. 5 of these positions are used in a standard basic system, and there are two free positions for memory and for a communications I/O controller (HDLC or Megalink).
- Each user is provided with 128 Kb of logical address-space for programs and another 128 KB for data.
- A full virtual memory system allows shared-code segments.
- Up to 4 Mb of physical memory.
- Both 48-bit and 32-bit floating format are available on the system. 32-bit format is standard.
- There are 16 priority interrupt-levels in the hardware. The time needed to change a level is 5 micro-seconds.
- Single-bit memory errors are corrected, and multiple-bit errors are reported
- Mass-storage devices, such as disk and floppy disk, access the memory via the DMA (Direct Memory Access) bus. This off-loads the CPU significantly.

### PRODUCT DESCRIPTION

#### Basic configuration

ND-110 SATELLITE model 11 (ND 9871)

#### Hardware:

- ND-110 CPU
- 1 Mb Memory

- 28 Mb Fixed Winchester disk drive with controller
- 1.2 Mb 5 1/4" Floppy disk drive with controller
- Interface for 3 terminals/printers
- Two positions are reserved for optional memory and communications interface (HDLC or Megalink)

ND-110 SATELLITE model 12 (ND 9872)

#### Hardware:

- ND-110 CPU
- 1 Mb Memory
- 28 Mb Fixed Winchester disk drive with controller
- 1.2 Mb 5 1/4" Floppy disk drive with controller
- Interface for 3 terminals/printers
- One 60 Mb cartridge streaming tape drive for backup
- Two positions are reserved for optional memory and communications interface (HDLC or Megalink)

ND-110 SATELLITE model 13 (ND 9873)

#### Hardware:

- ND-110 CPU
- 1 Mb Memory
- 45 Mb Fixed Winchester disk drive with controller
- 1.2 Mb 5 1/4" Floppy disk drive with controller
- Interface for 5 terminals/printers
- One 60 Mb cartridge streaming tape drive for backup
- Two positions are reserved for optional memory and communications interface (HDLC or Megalink)

ND-110 SATELLITE model 14 (ND 9874)

#### Hardware:

- ND-110 CPU
- 1 Mb Memory
- 74 Mb Fixed Winchester disk drive with controller
- 1.2 Mb 5 1/4" Floppy disk drive with controller
- Interface for 5 terminals/printers
- One 60 Mb cartridge streaming tape drive for backup
- Two positions are reserved for optional memory and communications interface (HDLC or Megalink)

ND-110 SATELLITE model 15 (ND 9875)

#### Hardware:

- ND-110 CPU
- 1 Mb Memory
- 74 Mb Fixed Winchester disk drive with controller
- 1.2 Mb 5 1/4" Floppy disk drive with controller
- Interface for 9 terminals/printers
- One 60 Mb cartridge streaming tape drive for backup
- Two positions are reserved for optional memory and communications interface (HDLC or Megalink)

#### Software

- SINTRAN III Operating System
- SINTRAN III Backup System
- SINTRAN III Utility Programs
- XMSG for SINTRAN III
- Accounting System
- ND Spooling System
- Subsystem Package
- Symbolic Debugger for ND-100

## ND-110 SATELLITE SERIES:

- Job Execution Control
- Memory to Floppy Dump Program
- USER-ENVIRONMENT
- BRF linker
- Telefix Software

### UPGRADING

All models can be upgraded from their basic configurations.

### OPTIONS

#### Hardware:

- Extra memory
- HDLC (ND 733) or Megalink Communications interface (ND 734) to connect the SATELLITE system to other computers or to the data network.

#### Software:

##### Communications:

- COSMOS allows for communication between ND systems,
- X.21 allows for access to circuit switched networks, eg. the Nordic Public Data Network.
- X.25 Network Option for PSS,TRANSPAC,DATAPAC,-DATEX-P and other public networks,
- X.29 PAD for terminal control through the X.25 Network,
- X.29 SERVER for serving incoming PADs.

##### Compilers & Programming Languages:

- FORTRAN
- PASCAL
- SIMULA
- COBOL
- BASIC
- APL
- C

##### Editors, Word Processors & Information Processors:

- NOTIS-WP Word Processor
- NOTIS-IR Information Storage and Retrieval System
- NOTIS-RG Report Generator
- ACCESS Query-By-Example Database Query and Update System
- NOTIS-BG Business Graphics System
- NOTIS-ID Electronic Mail
- NOTIS-CALC Spreadsheet System
- FOCUS Screen Handling System
- PED Fullscreen Program Editor
- TELEX
- TELETEX

##### Administrative Data Processing Tools & DataBases:

- UNIQUE High-level Application Specification Tool
- MERCUR Financial Modeling
- ABM Application Building & Maintenance for COBOL/FORTRAN Database System
- SIBAS CODASYL Database System
- ISAM Indexed Sequential File Access System

##### Remote Job Entry Terminal Emulators and Concentrators:

- IBM HASP-II
- IBM 2780/3780-II
- Honeywell GRTS-II
- Honeywell VIP-II
- Univac DCT-2000
- Univac NTR
- Univac UTS-400
- CDC 200 User Terminal-Multidrop

### TECHNICAL SPECIFICATIONS

Cabinet height:		64 cm
Cabinet depth:		77 cm
Cabinet width:		23 cm
Cabinet weight:	ca.	35 kg
Power consumption:	ca.	400 Watt
Noise level:	max.	55 dB(A)
Operating temperature:	max.	+ 30 °C

### DOCUMENTATION

ND-100 SATELLITE Operator Guide ..... ND-30.041 EN  
ND-100 SATELLITE Hardware Manual .. ND-05.017 EN



#### CORPORATE HEADQUARTERS

Olaf Helsets vei 5  
P.O. Box 25, Bogerud  
0621 Oslo 6  
Norway  
Tel.: +47-2-626000  
+47-2-627500  
Tlx.: 78284 nd n  
Telefax: 47-2-282494 (A)  
New wing:  
Telefax: 47-2-296796 (A)

#### NORWAY

Oslo, tel. +47-2-309030  
Bergen, tel. +47-5-286150  
Sandnes, tel. +47-4-667580  
Tromsø, tel. +47-83-71766  
Trondheim, tel. +47-7-921222

#### ND COMTEC HEAD OFFICE

Olaf Helsets vei 5  
P.O. Box 25, Bogerud  
0621 Oslo 6  
Norway  
Tel.: +47-2-626000  
Tlx.: 74448 nd n  
Telefax: 47-2-296796 (A)

Sweden, tel. +46-760-98850  
Denmark, tel. +45-9-157440  
West Germany, tel. +49-211-666388  
United Kingdom, tel. +44-635-35544  
Switzerland, tel. +41-1-426142  
Austria, tel. +43-2266-5335  
Finland, tel. +358-0-848266

#### SWEDEN

ND Norsk Data AB  
Kanalvägen 3  
P.O. Box 721  
194 27 Upplands Väsby  
Sweden  
Tel.: +46-760-98400  
Tlx.: 15255 nordata s  
Telefax: +46-760-86297 (A)  
Gothenburg, tel. +46-31-496760  
Malmö, tel. +46-40-70510

#### ND-SILVIDATA SWEDEN

851 83 Sundsvall  
Sweden  
Tel.: +46-60-154150  
Växjö, tel. +46-470-46020  
Stockholm, tel. +46-760-92000

#### DENMARK

Norsk Data A.S  
Lautruphøj 1-3  
P.O. Box 232  
2750 Ballerup  
Denmark  
Tel.: +45-2-685055  
Tlx.: 35567 nd dk  
Telefax: +45-2-689614 (A)  
Copenhagen, tel. +45-2-685055/681200  
Århus, tel. +45-6-161166

#### SWITZERLAND

Norsk Data (Switzerland) S.A  
Chemin du Viaduc 12  
1008 Prilly-Lausanne  
Switzerland  
Tel.: +41-21-250122  
Tlx.: 26218 ndl ch  
Telefax: +41-21-255594 (A)  
Glattbrugg (Zürich), tel. +41-1-8101033

#### FINLAND

OY Norsk Data AB  
Vapaalantie 8 (Vanda)  
SF01650 Vantaa 65  
Finland  
Tel.: 095-358-0-845-022  
Tlx.: 0057-121 732 papyr sf

#### WEST GERMANY

Norsk Data GmbH  
Thomasstrasse 10-12  
6380  
Bad Homburg v.d.H.  
West Germany  
Tel.: +49-6172-408-0  
Tlx.: 004 141-75053 nd d  
Telefax: 49-6172-22930 (A)  
West-Berlin, tel. +49-30-213-8096  
Hamburg, tel. +49-40-227022-0  
Hannover, tel. +49-511-662082  
Mülheim, tel. +49-208-4844-1  
Stuttgart, tel. +49-7121-3190-0  
Munich, tel. +49-089/92 8007-0  
Münster, tel. +49-251-71028  
Kiel, tel. +49-431-54399

#### THE NETHERLANDS

Norsk Data Nederland B.V  
Brugwal 5  
P.O. Box 500  
3430 AM Nieuwegein  
The Netherlands  
Tel.: +31-3402-72411  
Tlx.: 40940 nd nl

#### FRANCE

Norsk Data s.a.r.l  
«Le Brévent»  
Avenue du Jura  
01 210 Ferney-Voltaire  
France  
Tel.: +33-50-408576  
Tlx.: 385653 nordata fernv  
Telefax: +33-50-428845 (A)

#### UNITED KINGDOM

Norsk Data Ltd.  
Benham Valence  
Newbury  
Berks RG16 8LU  
United Kingdom  
Tel.: +44-635-35544  
Tlx.: 849819 norskd g  
Telefax: +44-635-33647 (A)  
London, tel. +44-1-588-9905  
Manchester, tel. +44-61-941-6787  
Edinburgh, tel. +44-031-558-1661

#### USA

Norsk Data N.A., Inc.  
Westborough Office Park  
1800 West Park Drive  
Suite 150  
Westborough, MA 01581  
USA  
Tel.: +1-617-366-4662  
Tlx.: 921740 norsk well  
Telefax: +1-617-366-0306 (A)  
Los Angeles, tel. +1-714-752-5081

#### HONG KONG

Norsk Data International  
1902 Wing on Centre  
111 Connaught Road  
Hong Kong  
Tel.: +852-5-411912/412053  
Tlx.: 00802-61681 ecshp hx  
Telefax: +852-5-81-51095 (A)

#### REPRESENTED BY AGENT IN:

#### INDIA

Norsk Data (India) Pty. Ltd.,  
Tel.: +91-44-419217/419126  
Tlx.: 417620 carbin

#### THAILAND

Norsk Data Thai. Ltd.,  
Tel.: +66-2-253-6840,  
tlx. 0086-20581 ndscan th

#### FRANCE AND ITALY:

Matra Datasystème S.A. Paris  
Tel.: +33-3-0589800  
Tlx.: 699039 matdata f

Matra Datasystème S.A. Lyon  
Tel.: +33-74-944408,  
Tlx.: 370472 norlyon

Matra Datasystème S.A. Toulouse  
Tel.: +33-61-342020,  
Tlx.: 530980