MINI-LINK Management

Product Catalog

MINI-LINK™

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MINI-LINK Management

Product Catalog

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MINI-LINK Management

Product Catalog

Abstract

This Product Catalog covers the MINI-LINK management products
- MINI-LINK Manager 7.1,
- MINI-LINK Connexion R14 and
- MINI-LINK E Mediator 1.4.

Contents

1 Introduction

1.1 General Information

This catalog comprises products within the MINI-LINK product portfolio and describes the MINI-LINK R11 release supplied by Ericsson AB. It is intended to be an aid when compiling an order or just to give an overview of the management products used for microwave networks.

For more information, please contact your Ericsson representative.

You may also contact the sales manager for your country at:

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1.2 Product Portfolio Overview

This Product Catalog describes the orderable objects for MINI-LINK Manager, MINI-LINK Connexion and MINI-LINK E Mediator.

In this document references to the different MINI-LINK products will have the following meaning unless otherwise stated:

MINI-LINK C	Medium capacity Radio Terminals. Not manufactured anymore. MINI-LINK MkII, MINI-LINK C, MINI-LINK C Micro, and SMM
MINI-LINK E	Medium capacity Radio Terminals providing 2x2 to 17x2 Mbit/s capacity using C-QPSK and 16 QAM modulations. MINI-LINK E, MINI-LINK E Micro, and SAU
MINI-LINK TN	Microwave solutions that provide cost-effective and intelligent functionality for cross-connection, multiplexing and protection of traffic on sites with several radio directions. Capacities ranging from 2x2 to 32x2 Mbit/s using C-QPSK and 16 QAM modulations. Basic Node and Radio Terminal
MINI-LINK HC	High capacity Radio Terminals providing 155 Mbit/s capacity using 16 QAM and 128 QAM modulations.
MINI-LINK BAS	Microwave point-to-multipoint solution providing a compact, modular and flexible wireless Broadband Access System with capacities up to 30 Mbit/s. It is built to provide exceptional traffic handling capacity and business-class services.
CityLink	High capacity Radio Terminals providing 155 Mbit/s capacity.
Interlink	SDH Trunk Radio Terminals providing 155 Mbit/s capacity.

1.3   MINI-LINK Management Philosophy

Ericsson can provide management solutions for all management layers: Customized solutions for Business Management, Service Management, and Network Management layers are provided as services. Off-the-shelf products are available for the Network Element Management and Element Management layers.

The MINI-LINK management product portfolio includes software products for **local management**, e.g. LCTs – for installation and maintenance on site, as well as **central management**, e.g. Network Element Management – for everyday network maintenance on national or regional level.

In addition we offer standardized **northbound management interfaces** to include MINI-LINK networks into an operator's existing management system, e.g. Ericsson's OSS-RC.

The **data communications network**, DCN, is based on IP technology.

Adaptations to other, non-Ericsson, network elements as well as **system integration** to other management systems can be offered as services.
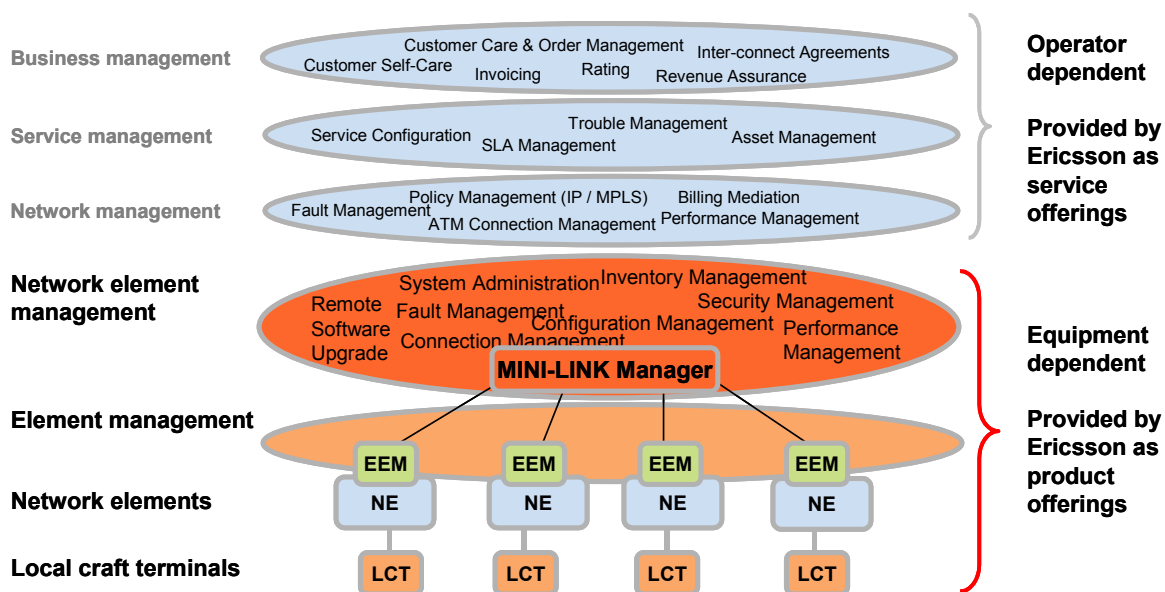
1.4 Local Management Software

The different MINI-LINK products MINI-LINK C, MINI-LINK E, MINI-LINK TN, MINI-LINK HC and MINI-LINK BAS have local management for installation, configuration and field service. Most local management software come as embedded software with the network element, others are applications that need to be purchased and installed separately on a PC.

The following table shows the different MINI-LINK products and their associated local management software. For more information please see Product Catalog or Technical Description of the specific products.

MINI-LINK Product	Local Management Software	Comments
MINI-LINK E MINI-LINK C	MINI-LINK Service Manager	This is a separate software product that has to be purchased. Please refer to MINI-LINK Service Software in the MINI-LINK TN, HC, E ETSI Product Catalog.
MINI-LINK TN	Embedded software	Embedded software that comes with the network element.
MINI-LINK HC	Embedded software	Embedded software that comes with the network element.
MINI-LINK BAS	Embedded software	Embedded software that comes with the network element.
CityLink	NEW Configurator	This is a separate software product that has to be purchased. Please contact Product Management.
Interlink	NEW Configurator	This is a separate software product that has to be purchased. Please contact Product Management.

1.5 Central Management Software

A Network Element Management System is capable of supervising a network of network elements from a centralized point. It provides fault management, performance management, configuration management and inventory management of equipment in the whole network.

MINI-LINK Manager is a network element manager capable of supervising MINI-LINK C, MINI-LINK E, MINI-LINK TN, MINI-LINK HC, MINI-LINK BAS, and our complementary microwave products CityLink, and Interlink.

MINI-LINK Connexion is used for management of the network topology and end-to-end transmission connections in a MINI-LINK network, taking the full advantage of the new traffic handling features in MINI-LINK TN. MINI-LINK Connexion shall be seen as an optional extension to MINI-LINK Manager, which provides the fundamental network element management functionality for a MINI-LINK network.

MINI-LINK E Mediator is essentially an SNMP Proxy Agent, which makes it possible to monitor and control MINI-LINK E terminals from an SNMP-based network manager. (Please note that other MINI-LINK products like MINI-LINK TN and MINI-LINK HC provide embedded O&M interfaces based on SNMP and http, and thus do not need any mediator of this kind.)

IMA is an addition to MINI-LINK Manager with interfaces towards Element Managers for Marconi and Oscilloquarts equipment. It also includes the Element Manager for ERION equipment. For more information about IMA, please contact your Ericsson representative.

1.6   Northbound Management Interfaces

The following network elements provide northbound management interfaces:

MINI-LINK Product	Northbound Management Interfaces	Comments
MINI-LINK E MINI-LINK C	MINI-LINK E Mediator, Proxy SNMP agent	This product has to be ordered separately. Please refer to the MINI-LINK TN, HC, E ETSI Product Catalog.
MINI-LINK TN	Embedded SNMP agent	Export interfaces are products that have to be ordered separately. Please refer to the MINI-LINK TN, HC, E ETSI Product Catalog.
MINI-LINK HC	Embedded SNMP agent	Export interfaces are products that have to be ordered separately. Please refer to the MINI-LINK TN, HC, E ETSI Product Catalog.
MINI-LINK BAS	Embedded SNMP agent	Export interfaces are products that have to be ordered separately. Please refer to the MINI-LINK BAS Product Catalog.
CityLink	Embedded SNMP agent	Export interfaces are products that have to be ordered separately. Please contact Product Management.
Interlink	Embedded SNMP agent	Export interfaces are products that have to be ordered separately. Please contact Product Management.

1.7   Data Communication Networks (DCN)

For information, guidelines etc. regarding DCN, please refer to document **MINI-LINK DCN, 1/154 43-FGB 101 004/1**.

2 MINI-LINK Manager 7.1

2.1 Product Overview

MINI-LINK Manager is the Network Element Manager for all Ericsson microwave radio products. It can either be integrated with a Network Management System (NMS) or used as a stand-alone system. From a single screen MINI-LINK Manager enables you to manage your entire fixed and mobile microwave transmission networks. It handles functions such as fault management, performance monitoring, configuration management and security management. Several users can access any part of the network through multiple clients and one client can view information of several servers. MINI-LINK Manager provides a user-friendly graphical interface of the network elements with a map as a background.

MINI-LINK Manager handles MINI-LINK C, MINI-LINK E, MINI-LINK TN, MINI-LINK HC and MINI-LINK BAS. It also manages CityLink and Interlink via Nera NEW NMS.

2.2 MINI-LINK Manager 7.1 Structure

This section gives an overview of the sales and product structure for MINI-LINK Manager 7.1.

The MINI-LINK Manager sales structure consists of three kinds of products:

- Software packages with Right-to-Use for one or more servers and software media.

- Licenses for the Right-to-Connect a number of radios in the network to the MINI-LINK Manager.

- Hardware platforms

2.2.1 Software Packages

The MINI-LINK Manager sales structure consists of four basic software media packages:

❑ **The MINI-LINK Manager Server Application**, which is a complete Server Application system as well as a Client application for Ericsson MINI-LINK Networks. This is where the main functionality for the fault management, performance management etc resides.

❑ **The MINI-LINK Manager Client Application** enables the user to view the information available on the server computer from another computer, and thus manage the MINI-LINK network from different locations.

❑ **MINI-LINK Manager Terminal Services Client Support Application** is a server application running on a separate hardware, which enables several users to launch MINI-LINK Manager Client sessions that are accessed via Windows Terminal Services.

❑ **The MINI-LINK Manager centralized database interface** enables the user to have a complete view of the Fault Management and Performance Management historical data from all of the MINI-LINK Manager servers in the Network.

These software media packages combined with different Right-to-Use Licenses form the different software sales objects.

2.2.2 Right to Connect Licenses

There are a number of connection license products that allows the user to connect different types of network elements, such as MINI-LINK E, MINI-LINK TN, MINI-LINK HC, MINI-LINK BAS etc., to the MINI-LINK Manager system.

2.2.3 Hardware Platforms

The hardware platforms are dependent on what role the MINI-LINK Manager will play, either Server or Client. The Servers use Microsoft Windows 2003 operating system and the Clients can use either Windows XP or Windows 2000 Professional operating system.

Ericsson can offer well-proven hardware platforms for the MINI-LINK Manager. The hardware products delivered from Ericsson are industry proven computers from Hewlett Packard. The MINI-LINK Manager Client Hardware Platform available from Ericsson uses a business desktop PC while the MINI-LINK Manager Server has three different PC Server platforms to choose from depending on the size of the managed network. The PC Servers are rack-mounted, but there is also the option for floor standing models.

All the country specific articles for the hardware are delivered from Hewlett Packard based on the information on the order to them. The Supply Center at Ericsson must always specify on the order to Hewlett Packard where the hardware will be delivered thus enabling for Hewlett Packard to deliver the proper screens, cables and connectors for the hardware.

2.3   MINI-LINK Manager Basic Software Packages

2.3.1   **MINI-LINK Manager 7.1 Server Application**

The MINI-LINK Manager Server Application is used as a complete Network Element Management System with Fault Management, Performance Management, Configuration Management and Security Management that can handle one or many different MINI-LINK Networks.

The MINI-LINK Manager Server Application collects and stores alarms and/or performance data from network elements. It has a powerful graphical user interface since the server contains one MINI-LINK Manager client, which the operator can use. That is, the MINI-LINK Manager Server Application includes a MINI-LINK Manager Client Application that runs on the same PC as the server.

The MINI-LINK Manager Server Application also includes MINI-LINK E Adapter software. It is software necessary to act as an interface to MINI-LINK C and MINI-LINK E. This software can due to load distribution reasons be installed either on the same server as the MINI-LINK Manager Server or on separate hardware platforms connected to the MINI-LINK Manager Server.

In large networks several servers might be needed, for guidance on dimensioning please contact your Ericsson representative.

The package includes:

❑ The complete MINI-LINK Manager Server Application software media including:
  ❑ Fault Management Application
  ❑ Performance Management Application
  ❑ Storage of PM data in SQL DB
  ❑ Historical FM logging in SQL DB
  ❑ Security Application
  ❑ Software Download Application

❑ The MINI-LINK Manager Client Application software including:
  ❑ Functionality for animated maps and displays
  ❑ MINI-LINK Manager Network Explorer
  ❑ MINI-LINK Manager Screen Saver with dynamic alarm summary update
  ❑ MINI-LINK Manager Alarm list
  ❑ PM Reports
  ❑ FM Reports (operates on the historical log for post-processing of alarms, events etc)
❑ The MINI-LINK E Adapter software
❑ The User Manuals both printed and on CD
❑ License with the Right to Use the MINI-LINK Manager Server software on one Server
❑ License with the Right to Use the MINI-LINK Manager Client on the same server as mentioned above
❑ License with the Right to Use the MINI-LINK E Adapter software on separate hardware servers connected to, or installed on, the MINI-LINK Manager Server.
❑ Two hardware keys

Description	Product Number
MLM 7.1 Server Appl MINI-LINK Manager 7.1 Server Application	FAB 801 3100/5

Other items to order

You also need to order hardware platform, see section MINI-LINK Manager Hardware Platforms, and monitor, see section MINI-LINK Manager Monitors.

In case you order only software you also need one Windows 2003 Server software per MINI-LINK Manager Server, see section MINI-LINK Manager 3rd Party Software.

2.3.2 MINI-LINK Manager 7.1 Client Application

In many network solutions, the operator wants to operate the network from various places like a Network Management Center or from different Regional Management Centers. In these cases, several clients may be needed, e.g. one client per management center. One instance of this product per physical MINI-LINK Manager Client Application installation needs to be ordered. Up to ten clients can be connected to one server.

The package includes:

❑ The complete MINI-LINK Manager Client Application software media including:

  ❑ Functionality for animated maps and displays

  ❑ MINI-LINK Manager Network Explorer

  ❑ MINI-LINK Manager Screen Saver with dynamic alarm summary update

  ❑ MINI-LINK Manager Alarm list

  ❑ PM Reports

  ❑ FM Reports (that operate on the historical log for post-processing of alarms, events etc)

❑ License with the Right to Use the MINI-LINK Manager Client on one PC

❑ The User Manuals both printed and on CD

❑ A hardware key

Description	Product Number
MLM 7.1 Client Appl MINI-LINK Manager 7.1 Client Application	FAB 801 3100/6

Other items to order

You also need to order hardware platform, see section MINI-LINK Manager Hardware Platforms, and monitor, see section MINI-LINK Manager Monitors.

In case you order only software you also need one Windows XP Professional software per MINI-LINK Manager client, see section MINI-LINK Manager 3rd Party Software.

2.3.3 MINI-LINK Manager 7.1 Standby Server Application

The Cold Standby Server Application can be used to protect the main MINI-LINK Manager site from catastrophic failures such as a fire or more simply a total power loss. Another site can be used to host a stand-by MINI-LINK Manager. This stand-by MINI-LINK Manager is activated only in the case of a disaster in the site where the main server is installed. For this reason no watchdog function between the two systems is implemented and the activation of the standby server must take place manually.

Since no continuous replication is made it is important to realize that some data can be lost when switching over to the stand-by MINI-LINK Manager!

It is based on a redundant NMS configuration, providing two servers dedicated to the Application of the same portion of the network. These servers can be installed in different sites and be connected via a DCN.

The package includes:

❑ Same as for the MINI-LINK Manager Application Server

Note! Do <u>not</u> order any Connection License FAB(s) for the MINI-LINK Standby Application Server. The MINI-LINK Manager Standby Application Server gives the right to use the same adaptations and external interfaces that has been ordered for the MINI-LINK Manager Application Server, free of charge. It is important to attach information about the identity of the MINI-LINK Manager Server to be used as master since the licenses for capacity and optional features attached to that server will be duplicated to this server.

Description	Product Number
MLM 7.1 Stby Srv App	FAB 801 3100/8
MINI-LINK Manager 7.1 Standby Server Application	

Other items to order

You also need to order hardware platform, see section MINI-LINK Manager Hardware Platforms, and monitor, see section MINI-LINK Manager Monitors.

In case you order only software you also need one Windows 2003 Server software per MINI-LINK Manager Server, see section MINI-LINK Manager 3rd Party Software.

2.3.4 MINI-LINK Manager 7.1 Inventory application

NOTE! This feature is available for delivery in MINI-LINK Manager 7.1 Service Pack, planned 2005 Q1.

In many network solutions, the operator wants to get an overview of where in the network which equipment is installed. The inventory application facilitates this work by automatically collecting hardware and software data from the network elements and storing them in a database for later viewing or export to other systems. This application is installed on each MINI-LINK Manager server and it is necessary to order one instance per MINI-LINK Manager Server in order to get access to this functionality. The application is available on the MINI-LINK Manager server media.

The package includes:

❑ License with the Right to Use the MINI-LINK Manager 7.1 Inventory application on one MINI-LINK Manager 7.1 Server.

Description	Product Number
MLM 7.1 Inventory MINI-LINK Manager 7.1 Inventory Application, for automatic Inventory collection from MINI-LINK E, MINI-LINK HC, MINI-LINK TN and MINI-LINK BAS.	FAB 801 2495/92

2.3.5 MINI-LINK Manager 7.1 Terminal Services Application

In many network solutions, many operators need part-time access to the network from various places also outside the Network Management Center or different Regional Management Centers. When the number of potential clients is high, the available bandwidth is low and the users only use the clients for a short time per session, then the Terminal Services Application is the solution. This application that runs on a separate server allows up to 5 concurrent client sessions to be accessed from remote PCs that use a Terminal Services client or compatible software. These client sessions allow the user to perform the same actions as if he had MINI-LINK Manager Client software installed on his own PC. The actual client session is however executing on the dedicated Windows TS server and only the GUI is displayed on the remote PC. One instance of this product per MINI-LINK Manager 7.1 TS Application Server needs to be ordered. Up to 5 concurrent client sessions can be executed on one server.

The package includes:

❑ The complete MINI-LINK Manager Client Application software media including:

  ❑ Functionality for animated maps and displays

  ❑ MINI-LINK Manager Network Explorer

  ❑ MINI-LINK Manager Screen Saver with dynamic alarm summary update

  ❑ MINI-LINK Manager Alarm list

  ❑ PM Reports

  ❑ FM Reports (that operate on the historical log for post-processing of alarms, events etc)

❑ License with the Right to Use up to 5 concurrent sessions of MINI-LINK Manager Client on one server under Windows Terminal Services

❑ The User Manuals both printed and on CD

❑ A hardware key

Description	Product Number
MLM 7.1 TS Appl	FAB 801 3100/7
MINI-LINK Manager 7.1 Terminal Services Application for access to the MINI-LINK Manager Client	

Other items to order

You also need to order hardware platform, see section MINI-LINK Manager Hardware Platforms, and monitor, see section MINI-LINK Manager Monitors.

In case you order only software you also need one Windows 2003 Server software per MINI-LINK Manager 7.1 Terminal Services Application Server, see section MINI-LINK Manager 3rd Party Software.

2.3.6 MINI-LINK Manager 7.1 Centralized Database Support

The centralized database support is a product that enables the user to have a complete view of the Fault Management and Performance Management historical data on all of the MINI-LINK Manager servers in the Network. So it is useful if the customer has a large network with several MINI-LINK servers. All the Fault Management historical data and Performance Management historical data will be available at the separate servers, but for a common network view the centralized database is necessary. The centralized database also simplifies the back-up process for the database.

Please observe that Network view, the maps, and active alarm list can be available in a client for the whole network, i.e. for all servers, without the centralized database. It is only the historical data that requires the centralized database to be available on one location.

The package includes:

❑ An export interface from the MINI-LINK Manager server to a centralized database system for FM and PM historical data on all of the MINI-LINK servers in the Network.

❑ License with the Right to Use the MINI-LINK Manager Centralized Database support with the export interface installed on one Server

❑ The software for the complete Centralized DB Application is included on the media for the MINI-LINK Manager Server and in addition to the export interface from the MINI-LINK Manager server it also includes Configuration and administration tools for the Central Database Server.

The "local" MINI-LINK Manager Servers will use their local databases to store the information. The transfer of this data to the centralized MINI-LINK Manager Server Database will take place by scheduling tasks for exporting data between MINI-LINK Manager local databases and the MINI-LINK Manager Centralized Database. These tasks will be completely transparent to the MINI-LINK Manager system, as they work as scheduled jobs that periodically send data from the local database to the centralized one.

The MINI-LINK Manager centralized database will store data automatically synchronized from all the MINI-LINK Manager servers in the network and allow operators to see the merged data from a single view. Historical data for FM, PM at each MINI-LINK Manager server are periodically removed but only after being copied to the MINI-LINK Manager centralized Database

Internal procedures will be provided to ensure data consistency.

Description	Product Number
CTDB support MINI-LINK Manager 7.1 Centralized Database support	FAB 801 321/5

Other items to order

You also need to order hardware platform, see section MINI-LINK Manager Hardware Platforms, monitor, see section MINI-LINK Manager Monitors, and one Microsoft SQL 2000 Server license per centralized database server, see section MINI-LINK Manager 3rd Party Software.

In case you order only software you also need one Windows 2003 Server software per centralized database server, see section MINI-LINK Manager 3rd Party Software.

2.4   MINI-LINK Manager Connection Licenses

This section describes the products for the integration of different MINI-LINK or complementary equipment into MINI-LINK Manager 7.1.

The different MINI-LINK adapters come with the MINI-LINK Manager software. They enable the MINI-LINK Manager server to communicate with the MINI-LINK network elements. There are separate adapters for MINI-LINK E, MINI-LINK TN, MINI-LINK HC and MINI-LINK BAS. The adapter for MINI-LINK E also covers the MINI-LINK C product.

This MINI-LINK E Adapter software is normally installed on the same server as the rest of the MINI-LINK Manager server software, or could for capacity reasons be installed on one or several additional servers. For further capacity information please contact your Ericsson representative.

All the other adapters are always installed on the MINI-LINK Manager server.

Apart from the MINI-LINK adapters no further equipment or additional software is necessary between MINI-LINK Manager and the MINI-LINK network elements. Of course one or several Terminal Servers are required in the DCN to connect the MINI-LINK C and MINI-LINK E equipment via an IP based LAN/WAN.

For the complementary products from Nera, an integration product towards Nera's Network Element Manager New NMS is available. In order for the MINI-LINK Manager Server application to receive the Fault Management (FM) and Performance Management (PM) data from Nera equipment, the user also needs to purchase the Nera New NMS product. For further information on the Nera New NMS product please see Nera's own product documentation.

Ordering of licenses for more Network Elements on an existing adaptation or new adaptations must be regarded as new orders. Due to the differences in complexity among integrated equipment, the possible combination of adaptations and number of NEs on one single MINI-LINK Manager Application Server varies. When doing an upsizing of an existing installation, please check that the MINI-LINK Manager Application Server has enough capacity left. Please consult your Ericsson representative.

It is generally advisable to allow spare capacity in the MINI-LINK Manager Application Server, in order to avoid that a new MINI-LINK Manager Application Server needs to be added as soon as the network expands.

2.4.1 Connection Licenses for MINI-LINK E and MINI-LINK TN Radio Units

This license allows Network Element Management functionality towards MINI-LINK C, MINI-LINK E and MINI-LINK TN.

There is a Right to Connect License for each radio unit that MINI-LINK Manager shall supervise. Each time a MINI-LINK C radio unit, a MINI-LINK E radio unit or a MINI-LINK TN radio unit is purchased and the user has MINI-LINK Manager, the Right To Connect license for the MINI-LINK radio unit for MINI-LINK Manager 7.1 Server, needs to be purchased as well.

Description	Product Number
MINI-LINK E/TN Cap Connection Capacity License for MINI-LINK E and MINI LINK TN radio units for MINI-LINK Manager 7.1 Server: Connection Capacity License per radio	FAB 801 2490/8

2.4.2 Connection Licenses for MINI-LINK HC Radio Units

This adaptation enables MINI-LINK HC network elements to be managed by MINI-LINK Manager 7.1. No other equipment is necessary between MINI-LINK Manager and the network element. This adaptation is incorporated in the MINI-LINK Manager Server application, and it always executes on the MINI-LINK Manager Server.

There is a Right to Connect License for each radio that MINI-LINK Manager shall supervise. Each time a MINI-LINK HC radio unit is purchased and the user has MINI-LINK Manager, the Right To Connect license for the MINI-LINK HC radio unit needs to be purchased as well.

Description	Product Number
MINI-LINK HC Cap Connection Capacity License for MINI LINK HC radio units for MINI-LINK Manager 7.1 Server: Connection Capacity License per radio	FAB 801 2490/9

2.4.3   Connection Licenses for MINI-LINK BAS Radio Units

There is a Right to Connect License for each radio unit that MINI-LINK Manager shall supervise. Each time a MINI-LINK BAS radio unit is purchased and the user has MINI-LINK Manager, the Right To Connect license for the MINI-LINK BAS radio unit needs to be purchased as well.

Description	Product Number
MINI-LINK BAS Cap	FAB 801 2490/10
MINI-LINK BAS Connection Capacity License for MINI LINK BAS radio units for MINI-LINK Manager 7.1 Server:	
Connection Capacity License per radio	

2.4.4   Nera New NMS integration

For each Nera New NMS system that MINI-LINK Manager shall interface it is necessary to install one Nera NEW NMS adaptation on the MINI-LINK Manager server.

Description	Product Number
Nera Adaptation	FAB 801 202/15
Nera New NMS Adaptation for MINI-LINK Manager 7.1 Server: Right To Use License per Nera New NMS adaptation	

Other items to order

As mentioned above, in order to manage the Nera SDH from MINI-LINK Manager, the Nera New NMS product is necessary in order to get in contact with the Nera network elements. For further information on the Nera New NMS product please see Nera's own product documentation.

If Nera New NMS runs on Windows 2003 Server, no additional software or precautions are needed.

The following applies if Nera New NMS runs on Windows 2000. While using the Nera NEW NMS adaptations and the possibility to launch the Nera NEW NMS Client from the MINI-LINK Manager Client screen, then the MINI-LINK Manager Clients must also run on Windows 2000 Professional, i.e. it is not possible to use Windows XP on these clients. This also means that it is not possible to launch the Nera New NMS clients from the MINI-LINK Manager server when using the client on that machine.

NOTE! The recommended solution is to upgrade Nera New NMS to a version that runs on Windows 2003 Server.

2.4.5 Connection License for DXX Manager and MINI-LINK Connexion

For each DXX Manager or MINI-LINK Connexion system that MINI-LINK Manager shall interface with it is necessary to install one DXX Manager adaptation on the MINI-LINK Manager server.

Description	Product Number
DXX Mgr Adaptation DXX Manager Adaptation for MINI-LINK Manager 7.1 Server: Right To Use License per DXX Manager adaptation	FAB 801 2490/12

Other items to order

For DXX Manager R14 and MINI-LINK Connexion R14 that runs on Windows 2003 Server, no additional software or precautions are needed.

The following applies for DXX Manager R13 and R13A that runs on Windows 2000.

While using the DXX Manager adaptations and the possibility to launch the DXX Manager Client from the MINI-LINK Manager Client screen, then the MINI-LINK Manager Clients must also run on Windows 2000 Professional, i.e. it is not possible to use Windows XP on these clients. This also means that it is not possible to launch the DXX Manager clients from the MINI-LINK Manager server when using the client on that machine.

NOTE! The recommended solution is to upgrade DXX Manager R13 and R13A to DXX Manager R14 that runs on Windows 2003 Server.

2.4.6   Connection License for SAU IP

This adaptation enables MINI-LINK SAU IP network elements to be
managed by MINI-LINK Manager 7.1. No other equipment is
necessary between MINI-LINK Manager and the network element.
This adaptation is incorporated in the MINI-LINK Manager Server
application, and it always executes on the MINI-LINK Manager Server.

There is a Right to Connect License for each SAU IP that MINI-LINK
Manager shall supervise. Each time a SAU IP unit is purchased and
the user has MINI-LINK Manager, the Right To Connect license for the
SAU IP unit needs to be purchased as well.

Description	Product Number
SAU IP Cap Connection Capacity License for SAU IP for MINI-LINK Manager 7.1 Server: Connection Capacity License per SAU IP	FAB 801 2490/11

2.4.7   Connection License for SNMP Manager

The SNMP Manager in MINI-LINK Manager can be used to collect FM
and PM data from SNMP equipment; a typical usage is to supervise
routers in the DCN network.

Description	Product Number
SNMP Mgr Adaptation SNMP Manager Adaptation for MINI-LINK Manager 7.1 Server: Right To Use License per SNMP Manager adaptation	FAB 801 2490/13

2.5 MINI-LINK Manager Export Interfaces

In order to connect the MINI-LINK Manager 7.1 system to higher order management systems there are a number of different export interface licenses available to the MINI-LINK Manager system. There is a selection of different interfaces that can be used. Up to two interfaces can be installed on each MINI-LINK Manager server. Some export interfaces handle Fault Management (FM) data; other interfaces handle Performance Management (PM) data.

Description	Product Number
SNMP FM data E/I SNMP External Interface for FM data export from MINI-LINK Manager 7.1 Right to Use License on one MINI-LINK Manager Server	FAB 801 88/4
FTP PM data E/I FTP interface for PM data export from MINI-LINK Manager 7.1 Right to Use License on one MINI-LINK Manager Server	FAB 801 0968/4
TL-1 FM and PM E/I TL-1 External Interface for FM and PM data export from MINI-LINK Manager 7.1 Right to Use License on one MINI-LINK Manager Server	FAB 801 321/4
BNSI FM data E/I BNSI External Interface for FM data export from MINI-LINK Manager 7.1 Right to Use License on one MINI-LINK Manager Server	FAB 801 115/4

2.6   MINI-LINK Manager 3rd Party Software

Please note that the 3rd Party Software described below can only be ordered together with MINI-LINK Manager software. For purchase of separate software and hardware components please contact your local dealer.

2.6.1   Microsoft Software Products

You need to order and install one Microsoft Windows 2003 Server per MINI-LINK Manager server and one Microsoft Windows XP Professional per MINI-LINK Manager Client.

NOTE! When ordering hardware together with the MINI-LINK Manager software, the needed Windows operative systems (but not SQL servers) are included in the hardware platforms and need not be ordered separately.

Description	Product Number
Windows 2003 Server One Microsoft Windows 2003 Server, license and media.	FAB 801 4638
Windows XP Prof One Microsoft Windows XP Professional, license and media.	FAB 801 4639
MS SQL Server 2000 One Microsoft SQL 2000 Server, standard edition, license and media	FAB 801 321/6

2.7   MINI-LINK Manager Software License Upgrades

2.7.1   MINI-LINK Manager 7.1 – License Upgrade Paths

Server RTU Client RTU

Product FAB 801 ..	Netman 4	MLM 5.1 IMA 5.1	MLM 6.1 IMA 6.1	MLM 7.1
.. 3101/10 .. 3101/11	●———————————————————————▶ ●———————————————————————▶			
.. 3101/12 .. 3101/13		●———————————————▶ ●———————————————▶		
.. 3101/12 .. 3101/13			●———————————▶ ●———————————▶	

2.7.2   Netman to MINI-LINK Manager Software License Upgrades

License upgrades from previous Netman versions to MINI-LINK Manager are available according to the table below. Please observe that it is probably necessary to upgrade the hardware as well since the MINI-LINK Manager has higher hardware requirements compared to Netman. Please also observe that MINI-LINK manager is a completely different system compared to Netman.

Description	Product Number
NM 4 upg MLM 7.1 Srv Netman 4.0 start-up package software upgrade to MINI-LINK Manager 7.1 server application	FAB 801 3101/10
NM 4 upg MLM 7.1 Clt Netman 4.0 client software upgrade to MINI-LINK Manager 7.1 client application	FAB 801 3101/11

The customer will have a license to use the Netman software for supervision of a set number of radios for Netman 4.0 These licenses can be upgraded to the MINI-LINK E/TN Capacity license for MINI-LINK Manager. The equal number of MINI-LINK MINI-LINK E/TN Capacity upgrade Licenses for MINI-LINK Manager should be ordered. Please observe that the capacity licenses are per radio unit and not per hop!

NOTE! Since MINI-LINK Manager 7.1 uses software license keys also for the network size that is being managed, i.e. the number of radio units it is managing, it is important to order the right amount of connection licenses.

2.7.3 MINI-LINK Manager to MINI-LINK Manager 7.1 Software Upgrade

Software upgrades from previous versions of MINI-LINK Manager and IMA to MINI-LINK Manager 7.1 are available according to the table below. This is valid for IMA installations where only networks containing MINI-LINK, Nera and DXX equipment is managed from IMA. If the IMA system also interfaces other equipment, please contact your Ericsson representative to discuss your situation.

The Connection Licenses that the customer has for different MINI-LINK network elements for previous versions of MINI-LINK Manager will also have to be upgraded for MINI-LINK Manager 7.1.

NOTE! Since MINI-LINK Manager 7.1 uses software license keys also for the network size that is being managed, i.e. the number of radio units it is managing, it is important to order the right amount of connection licenses.

Description	Product Number
From MINI-LINK Manager 5.1 & 6.1 or IMA 5.1 & 6.1	
MLM 5.1& 6.1 ->7.1 Srv upg MINI-LINK Manager / IMA 5.1 or 6.1 server application software upgrade to MINI-LINK Manager 7.1 server application	FAB 801 3101/12
MLM 5.1& 6.1 ->7.1 Clt upg MINI-LINK Manager 5.1 or 6.1 client application software upgrade to MINI-LINK Manager 7.1 client application	FAB 801 3101/13
MLM 5.1& 6.1 ->7.1 Stby upg MINI-LINK Manager 5.1 or 6.1 stand-by server application software upgrade to MINI-LINK Manager 7.1 server application	FAB 801 3101/14
MLM 5.1& 6.1 ->7.1 CDB upg MINI-LINK Manager 5.1 or 6.1 centralized database application software upgrade to MINI-LINK Manager 7.1 centralized database application	FAB 801 3101/15

2.7.4 Upgrade of Connection licenses to MINI-LINK Manager 7.1

When upgrading from Netman 4 or MINI-LINK Manager/IMA 5.1 and 6.1 it is necessary to order the right amount of upgrades of the connection licenses per server to be able to manage the whole network. Note! If the customer is expanding his network in connection to the upgrade of the management system, then it is important that the new connection licenses, for the new radios, are ordered separately as described in chapter 2.4

Description	Product Number
Upgrade of Connection Licenses	
MINI-LINK E/TN Cap upg Upgrade of Connection Capacity License for MINI-LINK E and MINI LINK TN radio units for MINI-LINK Manager 7.1 Server: Connection Capacity License per radio	FAB 801 2495/83
MINI-LINK HC Cap upg Upgrade of Connection Capacity Licenses for MINI LINK HC radio units for MINI-LINK Manager 7.1 Server: Connection Capacity License per radio	FAB 801 2495/84
MINI-LINK BAS Cap upg Upgrade of Connection Capacity license for MINI-LINK BAS for MINI-LINK Manager 7.1 Server: Connection Capacity License per radio	FAB 801 2495/85
Nera Adaptation upg Upgrade of Nera New NMS Adaptation for MINI-LINK Manager 7.1 Server: Right To Use License per Nera New NMS adaptation	FAB 801 2495/86
DXX Mgr Adaptation upg Upgrade of DXX Manager Adaptation for MINI-LINK Manager 7.1 Server: (When upgrading from IMA) Right To Use License per DXX Manager adaptation	FAB 801 2495/87

2.7.5 Upgrade of Export Interfaces

When upgrading a MINI-LINK Manager system with export interfaces it is necessary to also order the upgrade of the respective export interface per server.

Description	Product Number
SNMP FM data E/I upg Upgrade of SNMP External Interface for FM data export from MINI-LINK Manager 7.1 Right to Use License on one MINI-LINK Manager Server	FAB 801 2495/88
FTP PM data E/I upg Upgrade of FTP interface for PM data export from MINI-LINK Manager 7.1 Right to Use License on one MINI-LINK Manager Server	FAB 801 2495/89
TL-1 FM and PM E/I upg Upgrade of TL-1 External Interface for FM and PM data export from MINI-LINK Manager 7.1 Right to Use License on one MINI-LINK Manager Server	FAB 801 2495/91
BNSI FM data E/I upg Upgrade of BNSI External Interface for FM data export from MINI-LINK Manager 7.1 Right to Use License on one MINI-LINK Manager Server	FAB 801 2495/90

2.8   MINI-LINK Manager Hardware Platforms

In combination with MINI-LINK Manager software product orders, Ericsson provides the following platforms with the MINI-LINK Manager product already pre-installed on the machine.

Please note that the computer hardware described below can only be ordered together with MINI-LINK Manager software. For purchase of separate hardware components please contact your local Hewlett-Packard dealer.

The server platforms are available for three configurations: small, medium and large. Some of them are available both as rack-mounted and tower servers.

NOTE 1! The required Windows operative systems are included in the hardware platforms and need not be ordered separately.

NOTE 2! Monitors must be ordered separately.

For a detailed description on the hardware platform configurations, please refer to MINI-LINK Management Product Catalog Supplement, 1/2135-EN/LZT 712 0212.

Due to the rapid development in computer hardware, Ericsson may have to replace the ordered hardware platform with a newer version than described in this product catalog, if so it will be a platform with equivalent or improved performance in memory size or CPU performance.

2.9   MINI-LINK Manager Server Platform, Small

2.9.1   Rack-mounted model (small)

This configuration is suitable for small networks up to 500 Network identities.

Description	Product Number
MLM/IMA Svr S Platform	FAB 801 06/5
MINI-LINK Manager Small Server Hardware Platform	

2.9.2 Tower model (small)

This configuration is suitable for small networks up to 500 Network identities.

Description	Product Number
MLM/IMA Svr S Tower MINI-LINK Manager Small Server Hardware Platform, Tower model	FAB 801 06/10

2.10 MINI-LINK Manager Server Platform, Medium

The MINI-LINK Manager Server Platforms for medium sized networks are always equipped with dual Network Interface Cards and mirrored disks to secure High Availability. If the customer wants to improve the HA characteristics further, it is possible to add UPS, please see section MINI-LINK Manager Optional Hardware.

2.10.1 Rack-mounted model (medium)

This configuration is suitable for medium sized networks up to 3000 Network identities.

Description	Product Number
MLM/IMA Svr M Platform MINI-LINK Manager Medium Server Hardware Platform	FAB 801 06/6

2.10.2 Tower model (medium)

This configuration is suitable for medium sized networks up to 3000 Network identities.

Description	Product Number
MLM/IMA Svr M Tower MINI-LINK Manager Medium Server Hardware Platform, Tower model.	FAB 801 06/11

2.11 MINI-LINK Manager Server Platform, Large

The MINI-LINK Manager Server Platforms for large networks are always equipped with dual Network Interface Cards and mirrored disks to secure High Availability. If the customer wants to improve the HA characteristics further, it is possible to add UPS, please see section MINI-LINK Manager Optional Hardware.

2.11.1   Rack-mounted model (large)

This configuration is suitable for large networks up to 6000 Network identities.

Description	Product Number
MLM/IMA Svr L Platform MINI-LINK Manager Large Server Hardware Platform	FAB 801 06/7

2.12 MINI-LINK Manager Terminal Server Platform

When using the MINI-LINK Manager TS application this server platform is needed.

Description	Product Number
MLM/IMA TS Platform MINI-LINK Manager TS application Hardware Platform	FAB 801 06/8

2.13 MINI-LINK E Adapter Server Platform

For most of the cases when one or more of the MINI-LINK E Adapters need to run on a separate server one of these platforms is the appropriate and recommended hardware.

If the intention is to co-locate a MINI-LINK E Adapter and a Nera New NMS on the platform, it is recommended to add an additional 512 MB Memory. Please see section MINI-LINK Manager Optional Hardware.

2.13.1 Rack-mounted Model

Description	Product Number
MLEA Rack Platform MINI-LINK E Adapter Server Hardware Platform	FAB 801 06/9

2.13.2 Tower Model

Description	Product Number
MLEA Tower Platform MINI-LINK E Adapter Server Hardware Platform	FAB 801 06/12

2.14 MINI-LINK Manager Client Platform

For MINI-LINK Manager Clients, this is the appropriate and recommended hardware.

Description	Product Number
MINI-LINK Manager Client Hardware Platform	FAB 801 03/4

2.15 MINI-LINK Manager Centralized Database Platform

For MINI-LINK Manager Centralized Database, this is the appropriate and recommended hardware.

NOTE! The Microsoft SQL 2000 software is <u>not</u> included and has to be ordered separately, see section MINI-LINK Manager 3rd Party Software.

Description	Product Number
MLM/IMA CTDB Platform MINI-LINK Manager Centralized Database Platform	FAB 801 2497/3

2.16 MINI-LINK Manager Monitors

Please note that the monitors described below can be ordered only together with MINI-LINK management software.

Description	Usage	Product Number
15" TFT Monitor	Size suitable for rack mounting	FAB 801 747/4
17" TFT Monitor	Standard choice for servers	FAB 801 78/6
19" TFT Monitor	Standard choice for clients, and for servers used as workplaces	FAB 801 78/7
21" CRT Monitor	Low cost alternative for clients, and for servers used as workplaces	FAB 801 85/3

2.17 MINI-LINK Manager Optional Hardware

Please note that the optional hardware described in this chapter can only be ordered together with MINI-LINK Manager hardware platforms. For additional purchase of separate hardware components please contact your local Hewlett-Packard Company.

Description	Product Number
Additional HDD Additional Hard Disk Drive	FAB 801 0805/5
512MB MLM Srv S Rack - MLEA Memory expansion for MLM Server Small Rack and MLEA Server 512MB additional memory, PC2100 DDR SDRAM	FAB 801 101/20
1GB MLM Srv S Rack - MLEA Memory expansion for MLM Server Small Rack and MLEA Server 1GB additional memory, PC2100 DDR SDRAM	FAB 801 101/21
512MB MLM Srv M - L Rack Memory expansion for MLM Server Medium and Large Rack, 512MB additional memory, PC2100 DDR SDRAM	FAB 801 101/22
1GB MLM Srv M - L Rack Memory expansion for MLM Server Medium and Large Rack,1GB additional memory, PC2100 DDR SDRAM	FAB 801 101/23
512MB MLM Srv Tower - MLEA Memory expansion for MLM Server Tower and MLEA Server 512MB memory, REG DDR PC2100 DDR SDRAM	FAB 801 101/24
1GB MLM Srv Tower - MLEA Memory expansion for MLM Server Tower and MLEA Server 1GB additional memory, REG DDR PC2100 DDR SDRAM	FAB 801 101/25
512MB MLM Client Memory expansion MLM Client 512MB additional memory	FAB 801 101/26
UPS Device 110V UPS protects the server against abrupt power failures.	FAB 801 1631/3
UPS Device 230V UPS protects the server against abrupt power failures.	FAB 801 1632/3

3 MINI-LINK Connexion R14

3.1 Product Overview

This product catalog section comprises the products included in the new MINI-LINK Connexion product family.

MINI-LINK Connexion is used for management of the network topology and end-to-end transmission connections in a MINI-LINK network, taking the full advantage of the new traffic handling features in MINI-LINK TN.

MINI-LINK Connexion shall be seen as an optional extension to MINI-LINK Manager, which provides the fundamental network element management functionality for a MINI-LINK network.

A complete MINI-LINK Connexion system is normally configured using:

- A fixed management package
- Monitor(s)
- Applicable network element connection licenses

An alternative is to use:

- Platform components
- User and server functions
- Applicable network element connection licenses

A MINI-LINK Connexion system can be extended with:

- Additional simultaneous users
- Optional functions
- Increased capacity

3.2   MINI-LINK Connexion Fixed Management Packages

The fixed management packages include computer hardware, application software and Right-to-Use license limited to one user.

Description	Product Number
Mgnt package MINI-LINK, mini MINI-LINK Connexion R14 **two computer solution** for small MINI-LINK TN networks (maximum number of NE = 25). The package includes: • Basic applications, limited to one user and excluding PM and circuit loop test, • One combined Workstation/Database server on tabletop PC, • One Communication server for MINI-LINK TN, and • MS Win2000 and Sybase SQL. Includes 1/FAB 102 500/2 and 1/FAL 103 102/41	FAB 801 3760/11
Mgnt package MINI-LINK, std MINI-LINK Connexion R14 **three computer solution.** The package includes: • Basic applications, excluding PM and circuit loop test, • One Database server on tabletop version PC, • One Communication server for MINI-LINK TN, • One Workstation on tabletop version PC, and • MS Win2000 and Sybase SQL. Includes 1/FAB 102 500/2 and 1/FAL 103 102/41	FAB 801 3760/3

NOTE! Monitors are not included and have to be ordered separately, see section MINI-LINK Connexion Monitors.

3.3   MINI-LINK Connexion Connection Licenses

Right-to-Connect licenses for MINI-LINK network elements to be managed by MINI-LINK Connexion R14.

One RTC is required for each NE (AMM/subrack) to be connected.

Description	Product Number
MINI-LINK TN Cap. Small Size NE Right to connect for one small size MINI-LINK TN node, e.g. AMM 2p	1/FAL 105 004/20
MINI-LINK TN Cap. Med. Size NE Right to connect for one medium size MINI-LINK TN node, e.g. AMM 6p	1/FAL 105 004/30
MINI-LINK TN Cap. Large Size NE Right to connect for one large size MINI-LINK TN node, e.g. AMM 20p	1/FAL 105 004/40

3.4   MINI-LINK Connexion User Functionality Licenses

3.4.1   Basic Application Functionality Package

Description	Product Number
Basic Function MINI-LINK TN Basic application functionality package for one user including; Network Editor, Network Router, Node manager, Fault Manager, Security Manager, and Macro Manager	1/FAB 102 500/2

3.4.2 Optional User Applications

(NOT included in Basic Application Functionality Package above)

Description	Product Number
Network Partitioning Geographical partitioning (only one per network)	1/FAL 103 102/24
WEB Reporter for MINI-LINK TN WEB Reporter for MINI-LINK Connexion R14 (only one per network) Application software on CD LZY 213 1311/14	3/FAL 103 102/27
APPLIC. DEVELOPMENT TOOLKIT Application Development Toolkit (only one per network) (Requires Macro Manager License)	1/FAL 103 102/28
COMPONENT VIEW FCN, ORG. Customer Circuit and Component View	1/FAL 103 102/29
Network Simulation Function	FAB 102 936/1

3.4.3 Server Application Functions

(The functions will be delivered on a disc. LZY 213 258)

Description	Product Number
MINI-LINK TN Com.Serv. Function MINI-LINK Communication Server function (Traffic node adapter) Required for connection of MINI-LINK TN	1/FAL 103 102/41
MINI-LINK TN Com.Serv.Fcn Copy MINI-LINK Communication Server function, Copy – Used for Network Expansions Required for connection of MINI-LINK Traffic node	2/FAL 103 102/41
SNMP Com. Server Function Generic SNMP Communication Server function for connection of generic SNMP network elements	1/FAL 103 102/39

3.4.4 Server Application Software and Functions

(The functionality/ software is delivered on a CD/ disc. including function for one application)

Description	Product Number
Map Supp. for DXX/MINI-LINK Geographical map support in MINI-LINK Connexion R14	LZY 213 1159/1

3.5 MINI-LINK Connexion Platforms (Hardware, Software and Functions)

3.5.1 Generic Servers for MINI-LINK TN, SNMP, Gateway and WEB Reporter

The Generic Servers include operating system and application software.

NOTE 1! Application **functions** are <u>not</u> included and have to be ordered separately.

NOTE 2! Monitors are <u>not</u> included and have to be ordered separately, see section MINI-LINK Connexion Monitors.

Description	Product Number
Gen.Com.Serv, Tower HW & SW Generic Server; Configuration including MS Windows 2003 Server and application software. Application functions are not included. Tower model	FAB 102 289/5401
Gen.Com.Serv, Rack HW & SW Generic Server; Configuration including operating system, monitor, and application software. Application functions are not included. Rack-mounted model	FAB 102 289/5402

3.5.2 MINI-LINK Connexion Workstations

Description	Product Number
WS 2500 NE incl. OS Workstation including MS Windows 2000 Professional, and functions Monitor is not included.	FAB 102 289/4402

3.6 MINI-LINK Connexion Monitors

To be used together with Fixed Management Packages and Workstations.

Please note that the monitors described below can be ordered only together with MINI-LINK management software.

Description	Product Number
15" TFT Screen 15" Flat screen monitor for server	KDN 860 204/1
19" TFT Screen 19" Flat screen monitor for workstation	KDN 860 205/1
23" TFT Screen 23" Flat screen monitor for workstation	KDN 860 206/1

3.7   MINI-LINK Connexion Upgrades

A MINI-LINK Connexion system can be extended with:

- Additional simultaneous users
- Optional functions
- Increased capacity

NOTE! For upgrade of MINI-LINK Connexion R14 to a DXX 8100
Manager R14 (for mixed MINI-LINK and DXX networks), please refer
to the DXX Product Catalog.

3.7.1   Upgrade – Functions

Please note that the products described below can be ordered only
together with MINI-LINK Connexion software.

Description	Product Number
SYBASE 12.5 Adaptive Server for 16 users, UNIX	FCC 102 102/21604
SYBASE 12.5 Adaptive Server for 3 users, Windows	FCC 102 102/10304
SYBASE 12.5 Adaptive Server for 16 users, Windows	FCC 102 102/11604
SYBASE Adaptive Server for 16 users, upgrade to 12.5, UNIX	1/FCC 102 102/21604
SYBASE Adaptive Server for 3 users, upgrade to 12.5, Windows	1/FCC 102 102/10304
SYBASE Adaptive Server for 16 users, upgrade to 12.5, Windows	1/FCC 102 102/11604
Windows 2003 Server	LXA 119 395/1
Windows 2000 Pro	FCC 102 101/3
Windows NT upgrade to Windows 2000 Pro	1/FCC 102 101/3
Windows XP Pro	LXA 119 041/2

3.7.2　　　Upgrade – Hardware Platforms

Please note that the products described below can be ordered only together with MINI-LINK Connexion software.

NOTE 1! Microsoft Windows/UNIX operating systems are <u>not</u> included.

NOTE 2! Monitors are <u>not</u> included.

Description	Product Number
Server hardware for communication and recovery	
Server, RAID, Hotplug HD and PS, Tower	KDV 127 096/21
Server, RAID, Hotplug HD and PS, Rack mounting	KDV 127 096/22
Database server hardware	
Database server, RAID, Hotplug HD and PS, Tower	KDV 127 095/11
Database server, RAID, Hotplug HD and PS, Rack mounting	KDV 127 095/12
Database Server, Dual processors, UNIX	KDV 127 60/6
Database Server, Single robust version, UNIX	KDV 127 60/7
Workstation hardware	
Workstation, Desktop	KDV 127 097/1

For a detailed description on the hardware platform configurations, please refer to MINI-LINK Management Product Catalog Supplement, 1/2135-EN/LZT 712 0212.

4 MINI-LINK E Mediator 1.4

4.1 Product Overview

4.1.1 Main Features

The MINI-LINK E Mediator is essentially a converter, which makes it possible to monitor and control MINI-LINK E terminals from an SNMP-based network manager.

Everyday operations tasks are performed from the network management system, making the mediator itself running unattended for long periods.

(Please note that other MINI-LINK products like MINI-LINK TN and MINI-LINK HC do not need any mediator of this kind, since they already provide embedded O&M interfaces based on SNMP and http.)

4.1.2 Supported Network Elements

MINI-LINK E Mediator 1.4 supports the following MINI-LINK products:

- MINI-LINK MkII
- MINI-LINK C, including C Micro, and SMM
- MINI-LINK E, including E Micro and SAU

4.1.3 Supported Network Sizes

MINI-LINK E Mediator is intended for networks with not more than 100 MINI-LINK E terminals. For larger networks *MINI-LINK Manager* should be the preferred choice*.

4.1.4 Functionality

MINI-LINK E Mediator offers:

- Fault Management
- Performance Management
- Configuration Management, including Remote Software Upgrade
- Security Management

4.2 MINI-LINK E Mediator Basic Software Packages

The Basic Software includes MINI-LINK E Mediator Server software, MINI-LINK E Mediator Client software, database, and SNMP agent for installation on <u>one</u> PC server. The Client software may be installed on any number of external PCs, although not more than three clients can be active at the same time.

MINI-LINK E Mediator 1.4 comes in three basic versions for 20, 50, and 100 network IDs.

Description	Product Number
MINI-LINK E Mediator 20N MINI-LINK E Mediator 1.4 for 20 network IDs	LPY 111 521/1
MINI-LINK E Mediator 50N MINI-LINK E Mediator 1.4 for 50 network IDs	LPY 111 521/2
MINI-LINK E Mediator 100N MINI-LINK E Mediator 1.4 for 100 network IDs	LPY 111 521/3

In most cases *MINI-LINK Manager* should be the first choice for networks larger that 100 IDs. However, MINI-LINK E Mediator supporting network sizes of 200 and 400 IDs can be offered on request; please contact Product Management.

The Basic Software is delivered in a box containing:
- MINI-LINK E Mediator CD
- Installation & Configuration Guide (printed)
- License agreement (printed)

The MINI-LINK E Mediator CD contains:
- Installation & Configuration Guide (pdf file)
- User Guide (pdf file)
- SNMP interface description (pdf file)
- SNMP interface specification (ASN.1 file)
- MINI-LINK E Mediator Server software
- MINI-LINK E Mediator Client software
- SNMP agent software
- MSDE database
- Installation software for server, database and SNMP agent
- Installation software for client

4.3   MINI-LINK E Mediator Connection Licenses

For MINI-LINK E Mediator the connection license fees are included in the price for the basic software package.

4.4   MINI-LINK E Mediator Upgrades

4.4.1   Network Size

A MINI-LINK E Mediator system can be upgraded to support a larger network. Please consult Product Management or your local Ericsson representative.

When a customer places a new order for upgrading, Ericsson returns a new license key code to be entered into the MINI-LINK E Mediator system. No new software has to be installed.

Warning! Unauthorized tampering with the license key code makes the MINI-LINK E Mediator revert to a 20 ID system.

4.5   MINI-LINK E Mediator Platforms

4.5.1   Minimum Performance Requirements

MINI-LINK E Mediator requires a PC hardware platform with the following minimum performance:

- Pentium III, 750 MHz
- 256 MB RAM
- Free disk space:
    - 120 MB for MINI-LINK E Mediator Server (incl. database)
    - 20 MB for MINI-LINK E Mediator Client
- 17 inch monitor (800x600)
- CD-ROM drive
- Network interface (NIC)
- Keyboard and mouse (or other pointing device)
- MS Windows XP Pro, or MS Windows 2000 Pro

4.5.2 MINI-LINK E Mediator Hardware Platforms

Please note that the MINI-LINK E Mediator Platforms described below can only be ordered together with MINI-LINK E Mediator software. For purchase of separate hardware components please contact your local Hewlett-Packard dealer.

NOTE 1! The required Microsoft Windows XP Professional is <u>not</u> included and has to be ordered separately.

NOTE 2! Monitors must be ordered separately.

The following hardware platforms are suitable for the MINI-LINK E Mediator.

Description	Product Number
MINI-LINK E Adapter Server Platform Rack-mounted model, Without MS Windows operating system	KDV 127 25/19
MINI-LINK E Adapter Server Platform Tower Model, Without MS Windows operating system	KDV 127 25/24

For a detailed description on the hardware platform configurations, please refer to MINI-LINK Management Product Catalog Supplement, 1/2135-EN/LZT 712 0212.

4.5.3 MINI-LINK E Mediator Monitors

Please note that the monitors described below can be ordered only together with MINI-LINK management software.

Description	Usage	Product Number
15" TFT Monitor	Size suitable for rack mounting	FAB 801 747/4
17" TFT Monitor	Recommended choice	FAB 801 78/6
19" TFT Monitor	High-end choice	FAB 801 78/7

4.6   MINI-LINK E Mediator 3rd Party Products

Please note that the 3rd Party Products described below can only be ordered together with MINI-LINK E Mediator software. For purchase of separate software and hardware components please contact your local dealer.

4.6.1   Microsoft Software Products

Description	Product Number
Windows XP Prof One Microsoft Windows XP Professional, license and media.	FAB 801 4639

NOTE! The MSDE database is included in the Basic Software Packages and needs not be ordered separately.

4.6.2   Terminal Servers

The connections to the network elements require one or several terminal servers. The terminal servers are used for building communication channels between MINI-LINK E sub-networks and the MINI-LINK E Mediator via a TCP/IP network. The main function of the terminal servers is to convert between V24/RS232 and TCP/IP.

Description	Product Number
Terminal Server Single-port terminal server for RS232 to TCP/IP conversion	NTM 203 31

Multi-port terminal servers are also available. Please refer to the MINI-LINK TN, HC, E ETSI Product Catalog.

5 Documentation

5.1 MINI-LINK Manager

The MINI-LINK Manager User Manual describes how to install, configure, use and maintain the MINI-LINK Manager product. This documentation is included on a CD with the delivery of MINI-LINK Manager 7.1 Server Application and MINI-LINK Manager 7.1 Client Application

Additional paper copies of the User Manual can be ordered.

Description	Product Number
MLM 7.1 User Manual MINI-LINK Manager 7.1 User Manual (CD-ROM and Printed documentation)	FAB 801 2512/3

6 Training

Training courses for MINI-LINK management products can be held at any MINI-LINK Training Center or on customer premises.

More details about the MINI-LINK training courses and applications forms are available from Ericsson via Internet. Please contact your Ericsson representative for information.

7 Services and System Support

Services and system support related to MINI-LINK Manager, MINI-LINK Connexion and MINI-LINK E Mediator are handled according to the Ericsson Business Unit Global Services procedures. Please contact your local Ericsson Service representative for further information.

8 Warranty

8.1 Software Warranty

Please note that there is no warranty by default. **A warranty period must be explicitly stated in the contract.** Software products are typically under warranty during a period of 3 months after delivery.

During this warranty period the customer is entitled to:

1. All existing error corrections (service pack, update, upgrade) for the products under warranty

2. Error corrections to all problems reported in writing during the warranty period that are acknowledged by Ericsson as errors in the product.

A customer is not automatically entitled to an upgrade, unless the upgrade is the error correction to a reported problem in the product under warranty*.*

8.2 Hardware Warranty

The hardware platform products include hardware support from HP for the "first 12 months". The time at which a HP service engineer has to respond depends on where in the world the hardware is located. The time is at best the *next working* day. Please consult the global support help-desk at BTTN for exact details.

HP defines the "first 12 months" as follows:

"12 months starting from the date when the system is accepted by the Ericsson personnel at the customer site. Ericsson shall not later than 3 days after installation at site notify seller when the acceptance occurs by sending the signed acceptance statement (part of integration report) to seller. If acceptance has not occurred within 8 weeks from delivery the equipment shall be deemed as accepted."

9 Order and Delivery

Please note that Ericsson does not sell software, but grants the right to use certain software products under conditions defined in the *Licensing Conditions* document.

Please place your order with your Ericsson representative.

For more information on how to compose your order, offered delivery time, price, etc. please contact your Ericsson representative.

EN/LZT 712 0212 R1A