

System Site Planning - 2

***High-Performance
Process Manager
Planning***

**HP02-500
Release 530
CE Compliant
3/98**

Section 1 – Introduction

1.1 Overview

Section contents The topics covered in this section are:

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The manual's purpose This manual is intended for planning the installation of a High-Performance Process Manager (HPM) subsystem at a TPS system site. The High-Performance Process Manager subsystem is a device on the Universal Control Network (UCN) that includes the Network Interface Module (NIM). Process Managers (PMs), Advanced Process Managers (APMs), and Logic Managers (LMs) may also be resident on the network.

The manual's contents Planning includes the consideration of the High-Performance Process Manager cabinet layout, process wiring techniques, Division 2 environment equipment approval, conformal coating of the assemblies to protect against a corrosive environment, HPMM and IOP redundancy, and unique hardware features, such as fiber optic I/O Link Extenders, Low Level Analog Input Multiplexer FTAs, Serial Device Interface FTAs, Serial Interface FTAs, and Galvanically Isolated FTAs.

Information not covered Neither installation, power on checkout, or service of the High-Performance Process Manager, nor planning for the Local Control Network (LCN) is addressed in this manual. See the related reference documentation for information about these topics.

Section 7 – CE Compliance

7.1 Overview

Section contents

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Introduction

To meet CE Compliance directives, card files, High-Performance Process Manager Module (HPMM) cards, Field Termination Assemblies (FTAs), Power Systems, and cables, namely IOP to FTA cables, power cables, and I/O Link Interface cables, are available and identified either by model number or by the assembly part number.

Hardware differences

Where applicable, this section describes general differences between the CE Compliant hardware and non-CE Compliant hardware.

Also discussed are the hardware combinations and rules that must be considered for CE Compliance.

CE Compliant hardware identification

Finally, where applicable, each subsection that is devoted to a particular type of hardware identifies the CE Compliant and the non-CE Compliant hardware.

Master Reference Ground

The use of a Master Reference Ground (MRG), which is separate from Safety Ground, is not acceptable for a CE Compliant installation. References to Master Reference Ground must be ignored and a single Safety Ground must be substituted.

CE Compliant installation

Only recommended CE Compliant hardware, cabling, and practices must be considered for a CE Compliant installation. Install only a single ground system.

7.2 Card Files

Introduction

All three card file types are available for CE Compliant applications. The CE Compliant models have three unique features. They are

- Filtered backpanel IOP connectors
- IOP connector ground panel(s)
- Rear backpanel shield

Unlike the non-CE Compliant 7-Slot and 15-Slot card files that are not dedicated HPMM or IOP card files, the CE-Compliant 7-Slot and 15-Slot card files are mechanically either HPMM or IOP card files. 7-Slot or 15-Slot IOP card files will not accept an HPMM card set.

Backpanel ground plane

The backpanel ground panel provides a ground plane for the body of the IOP connectors. The body of the connector in turn provides ground for the IOP to FTA cable shield when mated with the IOP connector.

Rear backpanel shield panel

Like the UCN connector shield enclosure, the backpanel shield panel provides EMI protection at the back of the backpanel.

IOP to FTA cables

Both the model MU-KFTAxx and MU-KFTSxx IOP to FTA cables can be used with both the CE Compliant and non-CE Compliant card files. However, only the CE Compliant card file models and the model MU-KFTSxx IOP to FTA cables together are acceptable as CE Compliant.

Model list

Table 7-1 lists the model numbers of the CE Compliant card files. All models are available without conformal coating (MU) and with conformal coating (MC). The PM/APM technology IOP Only card file is also included because it may exist when a PM or APM is upgraded to an HPM.

Table 7-1 Card Files

Card File Description	Non-Conformally Coated Model Number	Conformally Coated Model Number
Left 7-Slot HPMM	MU-HPFH03	MC-HPFH03
Right 7-Slot HPMM	MU-HPFH13	MC-HPFH13
15-Slot HPMM	MU-HPFX03	MC-HPFX03
Left 7-Slot IOP	MU-HPFI03	MC-HPFI03
Right 7-Slot IOP	MU-HPFI13	MC-HPFI13
15-Slot IOP	MU-HPFI23	MC-HPFI23
IOP Only (PM/APM)	MU-IOFX03	MC-IOFX03

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7.2 Card Files, Continued

Conversion kit	A model MU-ZPFI03 upgrade kit will convert a 7-Slot or 15-Slot HPMM card file to an IOP card file.
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7.3 HPMM Cards

Introduction	The High-Performance Process Manager Module (HPMM) card set is CE Compliant.
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Conformal coating	The HPMM card set is available with and without conformal coating.
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7.4 IOPs

Introduction	Only the model MU-PAOX03 Analog Output IOP is available in a CE Compliant and non-CE Compliant version. All other IOP models are CE Compliant only.
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Conformal coating	All IOP cards are available with and without conformal coating.
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7.4 IOPs, Continued

Nonconformally coated IOPs Table 7-2 lists the model numbers of the CE Compliant and non-CE Compliant IOP cards that are not conformally coated. Model numbers and part numbers identify the assemblies.

Table 7-2 IOPs—Nonconformally Coated

IOP Type	Model Number	Non-CE Compliant Part Number	CE Compliant Part Number
LLAI	MU-PAIL02	N/A	51304481-100
LLMux	MU-PLAM02	N/A	51304362-100
RHMUX	MU-PRHM01	N/A	51404109-125
HLAI	MU-PAIH03	N/A	51304754-100
STIM	MU-PSTX03	N/A	51304516-200
AO	MU-PAOX03	51304672-100	51309152-125
AO	MU-PAOY22	N/A	80363969-100
DI	MU-PDIX02	N/A	51304485-100
DI	MU-PDIY22	N/A	80363972-100
DISOE	MU-PDIS12	51402625-125	N/A
DO	MU-PDOX02	N/A	51304487-100
DO	MU-PDOY22	N/A	80363975-100
PI	MU-PPIX02	N/A	51304386-100
SDI	MU-PSDX02	N/A	51304362-200
SI	MU-PSIM11	N/A	51304362-300

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7.4 IOPs, Continued

Conformally coated IOPs

Table 7-3 lists the model numbers of the CE Compliant and non-CE Compliant IOP cards that are conformally coated. Model numbers and part numbers identify the assemblies.

Table 7-3 IOPs—Conformally Coated

IOP Type	Model Number	Non-CE Compliant Part Number	CE Compliant Part Number
LLAI	MC-PAIL02	N/A	51304481-150
LLMux	MC-PLAM02	N/A	51304362-150
RHMUX	MC-PRHM01	N/A	51404109-175
HLAI	MC-PAIH03	N/A	51304754-150
STI	MC-PSTX02	N/A	51304516-150
STIM	MC-PSTX03	N/A	51304516-250
AO	MC-PAOX03	51304672-150	51309152-175
AO	MC-PAOY22	N/A	80363969-150
DI	MC-PDIX02	N/A	51304485-150
DI	MC-PDIY22	N/A	80363972-150
DISOE	MC-PDIS12	N/A	51402625-175
DO	MC-PDOX02	N/A	51304487-150
DO	MC-PDOY22	N/A	80363975-150
PI	MC-PPIX02	N/A	51304386-150
SDI	MC-PSDX02	N/A	51304362-250
SI	MC-PSIM11	N/A	51304362-350