PDP601

Exact-model maxDPU MR technical reference

PRODUCT IDENTITY

METSO PDP601 is a maxDPU MR distributed processing unit for the maxDNA control system. It executes process control, data acquisition and Model IOP processing while linking the installed rack to maxNET.

Core specification

Product type	maxDPU MR distributed processing unit
Hardware identifier	LD181585
Control-system family	maxDNA
Operating system	Linux
Control processor	Intel Atom
I/O processing	Dedicated FPGA with 32-bit Altera NIOS processor
SD Flash	Minimum 2 GB industrial-grade removable media

Verified related ApterPower product pages

- METSO IOP301 isolated analog input module
- METSO DPU-MR processing unit
- ABB PM864AK01 processor unit kit
- ABB CMA130 display front panel

Processing architecture

Control execution and dedicated I/O scanning

CONTROL PROCESSOR

An Intel Atom processor runs Linux and executes the configured maxDNA control workload.

I/O PROCESSOR

A dedicated FPGA with a 32-bit Altera NIOS processor scans and manages the Model IOP data path.

SCHEDULING

Configured control objects may be scheduled from 10 ms to 0.5 s.

CONTROL CAPACITY

The documented architecture supports as many as 8,000 control objects.

CONFIGURATION BOUNDARY

Preserve the approved DPU name, IP settings and SD Flash database. Do not transfer a configuration from an unidentified or differently assigned unit.

Verified related ApterPower product pages

- Honeywell FC-IOCHAS-0001R I/O chassis
- HIMA F7131 power-supply monitoring module
- Emerson KJ3222X1-BA1 HART input card
- Schneider Electric 140XBE10000 rack expander

Network and cabinet interfaces

Distinct ports must remain in their documented roles

maxNET Network A	Independent 100Base-T Ethernet control-system network
maxNET Network B	Independent 100Base-T Ethernet control-system network
I/O Link	10/100 Base-T Ethernet port for the documented I/O communication role
Backup	1000 Mbps Ethernet between configured active and inactive DPUs
Backup cable	Category 6 cable LD049228
Rack position	Approved left-most DPU position in the maxPAC rack

CONNECTION HOLD POINT

Do not interchange the I/O Link and backup connections. Preserve the as-found Network A and Network B routing and maintain the specified cable bend radius.

Verified related ApterPower product pages

- Bently Nevada 330180-X1-05 Proximitor Sensor
- General Electric 531X111PSHAPG3 power supply card
- Schneider Electric 140DDM39000 mixed I/O module
- Honeywell SC-UCNN11 ControlEdge RTU controller

Power, media and environment

Documented limits for the installed unit

Supply	24 VDC +/- 4 VDC
Current	1.5 A at 24 VDC
Operating temperature	0 to 60 C
Storage temperature	-25 to 70 C
Relative humidity	5 to 90 percent, non-condensing
Rack placement	One maxPAC slot; use the approved left-most DPU position

SD FLASH CONTROL

The removable industrial SD Flash stores software and configuration. Retain the approved media or prepare replacement media with the controlled setup process before commissioning.

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- METSO IOP301 isolated analog input module
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Acceptance boundary

Identity, diagnostics and traceable release evidence

Release checks

- Preserve the approved SD Flash or prepare the replacement with the correct DPU name, IP settings and controlled configuration.
- Maintain at least a 1 inch cable bend radius and connect the backup and I/O Link cables only to their documented ports.
- After insertion, verify the Linux boot sequence, front-panel diagnostics and absence of unexplained alarms.
- Enable and warm the standby unit as required, then verify network, IOM, I/O, CP and State indications before release.

Manufacturer evidence used

- Model PDP Series 600 maxDPU MR User's Guide, publication 278740 Rev. A7.
- Manufacturer sections for hardware identity, interfaces, installation, replacement and status diagnostics.

Verified related ApterPower product pages

Honeywell FC-IOCHAS-0001R I/O chassis

HIMA F7131 power-supply monitoring module

Emerson KJ3222X1-BA1 HART input card

Schneider Electric 140XBE10000 rack expander

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