

APTER POWER PRODUCT MANUAL

# 6DD1600-0BA1

## SIMATIC TDC CPU551 Processor Module, BA1 Revision

The Siemens 6DD1600-0BA1 is the BA1 article revision of the SIMATIC TDC CPU551 processor module. It executes the configured real-time user program and exchanges control data across the TDC backplane.

The module coordinates high-performance drive and process-control calculations, receives backplane and digital-input states, and communicates with engineering or diagnostic equipment through its documented serial interface.

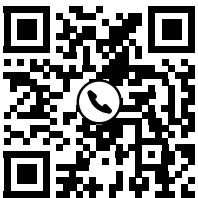
|              |                              |
|--------------|------------------------------|
| Manufacturer | Siemens                      |
| Prepared by  | Apter Power                  |
| Document ID  | AP-SIE-02-6DD1600-0BA1-PM-R1 |
| Revision     | R1                           |
| Issue date   | 2026-08-14                   |

**APTER POWER SALES TEAM**

INDUSTRIAL AUTOMATION PRODUCT SUPPORT

**Preserve the TDC Program Before the Processor Moves.**

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SCAN FOR PRODUCT & QUOTE

6DD1600-0BA1

# 1. Product Overview and Identity

The Siemens 6DD1600-0BA1 is the BA1 article revision of the SIMATIC TDC CPU551 processor module. It executes the configured real-time user program and exchanges control data across the TDC backplane.

The module coordinates high-performance drive and process-control calculations, receives backplane and digital-input states, and communicates with engineering or diagnostic equipment through its documented serial interface.

## Model Configuration

| Field               | Verified information                              |
|---------------------|---------------------------------------------------|
| Complete model      | 6DD1600-0BA1                                      |
| Manufacturer        | Siemens                                           |
| Product description | SIMATIC TDC CPU551 Processor Module, BA1 Revision |

## Key Features

- Exact 6DD1600-0BA1 identity retained
- Manufacturer-source data separated from unconfirmed values
- CPU551
- System context: SIMATIC TDC
- Model-specific lifecycle and installation guidance

## 2. Technical Specifications

Only manufacturer-confirmed information is stated. Values absent from the named Siemens source are marked for nameplate or document verification.

| Parameter                     | Verified value                                      |
|-------------------------------|-----------------------------------------------------|
| Module                        | CPU551                                              |
| Exact revision                | 6DD1600-0BA1                                        |
| Processor                     | 64-bit RISC, 266 MHz for BA1                        |
| Working memory                | 32 MB SDRAM in the documented CPU551 system example |
| Backplane interfaces          | VME bus and PCI bus                                 |
| Digital inputs                | 8; four interrupt-capable                           |
| Engineering interface         | Serial interface for PG/PC communication            |
| Documented successor revision | 6DD1600-0BA3                                        |

### Verification Note

Use the complete 6DD1600-0BA1 identity. Siemens documents 6DD1600-0BA1 as superseded by the BA3 CPU551 revision. Compatibility still depends on firmware, software, and the installed TDC configuration. Values not published in the cited Siemens source are intentionally not inferred.

### 3. Functions, Applications and Components

#### Core Functions

- The module coordinates high-performance drive and process-control calculations, receives backplane and digital-input states, and communicates with engineering or diagnostic equipment through its documented serial interface.
- Maintains the documented SIMATIC TDC system role for this exact identity.
- Provides an exact reference for engineering, maintenance, and quotation review.

#### Application Areas

| Application             | System role                                                        |
|-------------------------|--------------------------------------------------------------------|
| Fast drive coordination | Execute deterministic control calculations for coordinated drives. |
| Dynamic process control | Run time-critical logic in a multi-processor TDC system.           |
| Legacy CPU migration    | Preserve the BA1 project before moving to an approved revision.    |

#### Compatible Components

- SIMATIC TDC rack and backplane approved for CPU551
- D7-SYS project, firmware, and memory configuration recorded for the plant
- Signal and interface modules included in the original hardware configuration

#### Lifecycle Status

Siemens documents 6DD1600-0BA1 as superseded by the BA3 CPU551 revision. Compatibility still depends on firmware, software, and the installed TDC configuration.

## 4. Installation Precautions

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- Archive the complete D7-SYS project before removal
- Record firmware, memory, and rack position
- De-energize the rack and follow ESD controls
- Verify successor compatibility instead of assuming a drop-in exchange
- Commission I/O and synchronized functions in a controlled sequence

STOP - Verify before installation

Use the complete 6DD1600-0BA1 identity. Siemens documents 6DD1600-0BA1 as superseded by the BA3 CPU551 revision. Compatibility still depends on firmware, software, and the installed TDC configuration. Values not published in the cited Siemens source are intentionally not inferred.

Use the physical nameplate and current Siemens documents as the controlling records.

## 5. Official Source and Use Notice

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### Official source

Siemens SIMATIC TDC Hardware System Manual and D7-SYS documentation covering CPU551 article revisions 6DD1600-0BA1/-0BA2/-0BA3.

### Apter Power product page

<https://www.apterpower.com/Siemens/6DD1600-0BA1>

### Use Notice

This is an original Apter Power product-specific reference prepared from the Siemens source named above. It is not a Siemens publication and does not replace the original data sheet, nameplate, certificate, installation drawing, safety instructions, or machine-builder documentation.

### ASK FOR QUOTE

For availability and quotation details, visit [www.apterpower.com](http://www.apterpower.com) or contact [sales13@apterpower.com](mailto:sales13@apterpower.com).