



Meinberg Radio Clocks

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SDU: Signal Distribution Unit for PPS, 10 MHz and IRIG Signals

Meinberg SDU devices are the simplest and most convenient way to add more buffered timing signal outputs to your distribution rack. The SDU base chassis can be ordered with one or two distribution modules, each providing twelve additional IRIG AM, DCLS, or fiber optic signals.

Key Features

- Maximum of 24 outputs in a 1U chassis (2x 1:12 distribution)
- Status LEDs
- Suitable for modulated (AM) and/or unmodulated (DCLS) IRIG signals
- One or two distribution modules
- Compact 1U housing, even in 24 port version

Description

Each distribution module has one input and 12 or 24 buffered outputs plus an alarm relay to signal a missing input signal or an internal error. The SDU chassis fits in 19" racks and is available with both AC and DC power supply options.

The alarm relay contact and the status LEDs in the front panel indicate to the operator whether an input signal or an internal error has been detected that could affect the output signal.

The following distribution modules are currently available, and either one, or any two of them may be combined together in a single SDU:

TTL

The TTL Module handles TTL signals like 1PPS, 10 MHz or unmodulated IRIG (IRIG DCLS). A single 1PPS or 10 MHz output from your GNSS receiver or frequency standard is buffered and multiplied to 12x or 24x outputs without any modification to your signal source.

TCM

The TCM module provides 12 IRIG AM outputs from a single IRIG input source. The integral automatic gain control (AGC) feature of the TCM allows you to cascade several SDUs for virtually unlimited expansion capability.

FO

The FO module can multiply an optical multi mode signal like 1PPS, 10 MHz or IRIG DCLS to 12x or 24x FO outputs. An option is available for a TTL signal input instead of the FO input.

Characteristics

Input signal	<p>TTL Module TTL signal (PPS, 10MHz, ...)</p> <p>TCM Module IRIG A/B modulated (AM)</p> <p>TCB Module IRIG A/B modulated (AM)</p> <p>FO Module Fiber optic signal, 850nm multi mode (PPS, IRIG-DCLS, 10MHz, ...) optional: TTL input via BNC connector</p>
Signal Delay	<p>TTL: 24ns</p> <p>TCM: 3µs</p> <p>TCB: 2µs</p> <p>FO: rise: 45ns, fall: 45ns</p>
Output signal	<p>TTL Module 12 (24) x TTL (2.5 V at 50 Ohm), common GND for all outputs, BNC connector</p> <p>TCM Module 12 (24) x IRIG A/B modulated (3 Vpp [MARK], 1Vpp [SPACE] 50 Ohm) common GND for all outputs, BNC connector</p> <p>TCB Module 12 (24) x IRIG modulated (AM) balanced (2 Vpp at 600 Ohm) with isolated BNC connectors</p> <p>FO Modul 12 (24) x fiber optic outputs (850nm multi mode) with ST connectors</p>
Operating Voltage	85-264VAC (50/60Hz)
Form Factor	19" aluminium case (1U) Schroff Multipac
Power Supply Unit	<p>Standard PSU: 85 ... 264VAC, 47 ... 63Hz</p> <p>Several other power supply units (even for DC power supply) are available upon request.</p>
Physical Dimensions	485mm x 45mm x 305mm
Supported Temperature	<p>Operational: 0 - 50 °C (32 - 122 °F)</p> <p>Storage: -20 - 70 °C (-4 - 158 °F)</p>
Supported Humidity	Max. 85 % (non-condensing) at 40 °C
Technical Support	Meinberg offers free lifetime technical support via telephone or e-mail.

Warranty	Three-year warranty
RoHS Status of Product	This product is fully RoHS-compliant.
WEEE Status of Product	This product is handled as a B2B (Business to Business) category product. To ensure that the product is disposed of in a WEEE-compliant fashion, it can be returned to the manufacturer. Any transportation expenses for returning this product (at end-of-life) must be covered by the end user, while Meinberg will bear the costs for the waste disposal itself.

Manual

The English manual is available as a PDF file: [1][Download \(PDF\)](https://www.meinbergglobal.com/download/docs/manuals/english/sdu.pdf)

Links:

[1] <https://www.meinbergglobal.com/download/docs/manuals/english/sdu.pdf>