



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
- 3 Year Warranty

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	TTL Module TTL signal (PPS, 10MHz, ...)
	TCM Module IRIG A/B modulated (AM)
	TCB Module IRIG A/B modulated (AM)
	FO Module Fiber optic signal, 850nm multi mode (PPS, IRIG-DCLS, 10MHz, ...) optional: TTL input via BNC connector
Signal Delay	TTL: 24ns
	TCM: 3µs
	TCB: 2µs
	FO: rise: 45ns, fall: 45ns
Output signal	TTL Module 12 (24) x TTL (2.5 V at 50 Ohm), common GND for all outputs, BNC connector
	TCM Module 12 (24) x IRIG A/B modulated (3 Vpp [MARK], 1Vpp [SPACE] 50 Ohm) common GND for all outputs, BNC connector
	TCB Module 12 (24) x IRIG modulated (AM) balanced (2 Vpp at 600 Ohm) with isolated BNC connectors
	FO Modul 12 (24) x fiber optic outputs (850nm multi mode) with ST connectors

Output signal	TTL Module 12 (24) x TTL (2.5 V at 50 Ohm), common GND for all outputs, BNC connector
	TCM Module 12 (24) x IRIG A/B modulated (3 Vpp [MARK], 1Vpp [SPACE] 50 Ohm) common GND for all outputs, BNC connector
	TCB Module 12 (24) x IRIG modulated (AM) balanced (2 Vpp at 600 Ohm) with isolated BNC connectors
	FO Modul 12 (24) x fiber optic outputs (850nm multi mode) with ST connectors
Physical dimensions	485mm x 45mm x 305mm
Power supply	85-264VAC (50/60Hz)
Power Supply Unit	Standard PSU: 85 ... 264VAC, 47 ... 63Hz Several other power supply units (even for DC power supply) are available upon request.
Form Factor	19" aluminium case (1U) Schroff Multipac
Ambient temperature	0 ... 50°C / 32 ... 122°F
Humidity	Max. 85%
Technical Support	Meinberg offers free lifetime technical support via telephone or e-mail.
Warranty	Three-Year Warranty
RoHS-Status of the product	This product is fully RoHS compliant
WEEE status of the product	This product is handled as a B2B category product. In order to secure a WEEE compliant waste disposal it has to be returned to the manufacturer. Any transportation expenses for returning this product (at its end of life) have to be incurred by the end user, whereas 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)

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