

SDU-R/TTL/NET/DC20-DC20



Product Highlights

- | Reliable redistribution of an input TTL signal to up to 16 connected devices
- | Compact 1U chassis, specially constructed for installation in a 19" rack
- | Redundant power supplies and redundant TTL inputs for absolute failsafe operation
- | Network interface for configuration and monitoring using free Meinberg Device Manager software

High-Performance Signal Distribution Unit for TTL Signals

The SDU-R/TTL/NET/DC20-DC20 is designed by Meinberg to allow re-distribution of TTL signals based on redundant input signals. Built to order with 16 TTL outputs, the unit converts an incoming TTL signal delivered via a BNC connector and redistributes it through 16 BNC outputs to be delivered over coaxial cable.

Power supply redundancy is ensured by the integration of two reliable DC20 type power supply units with support for DC power sources of 24 V to 48 V.

Meinberg Funkhuren GmbH & Co. KG
Lange Wand 9
31812 Bad Pyrmont, Germany
✉ sales@meinberg.de
🌐 www.meinbergglobal.com
Phone: +49 5281 9309-0

Meinberg USA Inc.
111 Santa Rosa Ave., Suite 401,
Santa Rosa, CA 95404, USA
✉ info@meinberg-usa.com
🌐 www.meinbergglobal.com
Phone: +1-877-PTP-1588



Chassis Specifications

Form Factor	19" rack-mounted chassis
Dimensions (Only Chassis) [W x H x D]	483 mm x 43.7 mm x 285 mm (19.02 in x 1.721 in x 11.22 in)
Dimensions (including Connectors & Handles) [W x H x D]	483 mm x 43.7 mm x 322 mm (19.02 in x 1.721 in x 12.68 in)
Material	Sheet steel
IP Rating	IP30

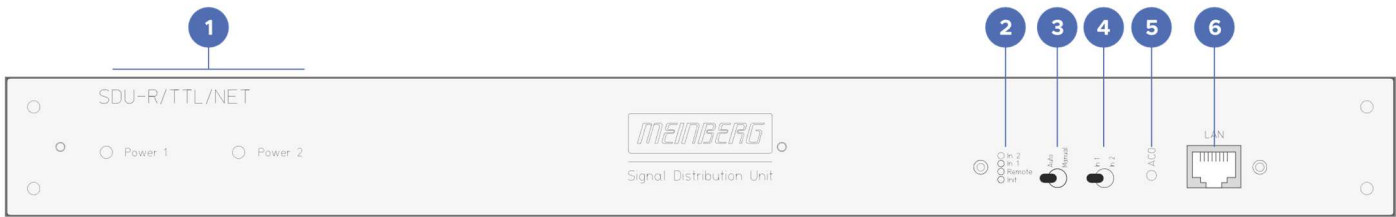
Accessories Included

- Two 5-pin MSTB connectors for assembly of a suitable power cable for DC power sources.

Network Connectivity

Management Software	Meinberg Device Manager, available for free download
IP Network Integration	DHCP or Zeroconf

SDU-R/TTL/NET/DC20-DC20 Front View



1 Power State LEDs

Indicates whether the power supplies are functional and connected to a power source.

2 Status LEDs

Init	Indicates the status of the SDU’s initialization process; is OFF once the system is initialized.
Remote	Indicates that a device is remotely connected to the device via the network.
In 1	Indicates that a valid source is connected to “In 1”.
In 2	Indicates that a valid source is connected to “In 2”.

3 Auto/Manual Switch

Specifies how the input source is selected between inputs “In 1” and “In 2”. Refer to section “Customizable Switching Logic” for more information.

Auto	The input signal is determined automatically based on configurable logic.
Manual	The input signal is determined manually based on the setting of selector switch  .

4 Input Selector Switch

Specifies whether input “In 1” or “In 2” is selected while selector switch  is set to “Manual”.

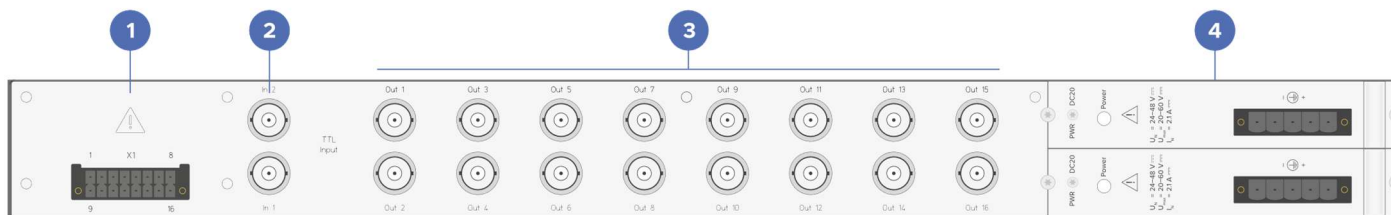
5 ACO Button

When pressed, the SDU is accessible via the network for one minute without the need to enter the password. This is only possible if there is currently no active connection with a Meinberg Device Manager instance.

6 Network Interface

Network Interface	1x RJ45 10/100-BASE-T interface (Fast Ethernet) with link status LEDs
Network Protocols	IPv4 (with DHCP support enabled by default)
Network Services	Meinberg Device Manager access SNMP support

SDU-R/TTL/NET/DC20-DC20 Rear View



1 16-Pin Multi-Purpose “X1” Connector

Pin 1	REL COM	Control contact for error output relay
Pin 2	Not connected	
Pin 3	Not connected	
Pin 4	Not connected	
Pin 5	Not connected	
Pin 6	ERROR IN 1 +	Monitors presence of 5 V DC control voltage for forcing “In 1” into error state
Pin 7	GND	
Pin 8	ERROR IN 2 +	Monitors presence of 5 V DC control voltage for forcing “In 2” into error state
Pin 9	REL NC	Relay contact for Error State if Pin 1 and Pin 9 are connected
Pin 10	REL NO	
Pin 11	GND	
Pin 12	Not connected	
Pin 13	GND	
Pin 14	ERROR IN 1 -	Monitors presence of 5 V DC control voltage for forcing “In 1” into error state
Pin 15	GND	
Pin 16	ERROR IN 2 -	Monitors presence of 5 V DC control voltage for forcing “In 2” into error state

2 TTL Inputs

Input Impedance	50 Ω
Connector Type	BNC, female, for shielded coaxial cable

X TTL Outputs

Signal Level	TTL (5 V with no load, 2.5 V with 50 Ω load)
Gain	0 dB
Rise Time	Typically 2.6 ns
Fall Time	Typically 2.6 ns
Connector Type	BNC, female, for shielded coaxial cable
Deviation Between Outputs	Typically 1 ns

4 DC20 Power Supplies

Connector Type	5-pin MSTB female connector
Nominal Voltage Range (U_N)	24 V – 48 V DC
Rated Voltage Range (U_{max})	20 V – 60 V DC
Nominal Current (I_N)	2.1 A DC
Power Consumption (P_{max})	50 W
Max. Thermal Output (E_{therm})	180.00 kJ/h (170.61 BTU/h)

EU Conformity

Radio Equipment Directive 2014/53/EU	ETSI EN 303 413 V1.2.1 (2021-04)
Electromagnetic Compatibility Directive 2014/30/EU	EN IEC 61000-6-2:2019 EN IEC 61000-6-3:2021 EN 55035:2017/A11:2020 EN 55032:2015 + AC:2016 + A11:2020 + A1:2020 ETSI EN 301 489-1 V2.2.3 (2019-11)
Low-Voltage Directive 2014/35/EU	EN IEC 62368-1:2020 + A11:2020
RoHS Directive 2011/65/EU + 2015/863/EU	EN IEC 63000:2018

UKCA Conformity

Radio Equipment Regulations 2017 (as amended) SI 2017/1206	ETSI EN 303 413 V1.2.1 (2021-04)
Electromagnetic Compatibility Regulations 2016 (as amended) SI 2016/1091	EN IEC 61000-6-2:2019 EN IEC 61000-6-3:2021 EN 55035:2017/A11:2020 EN 55032:2015 + AC:2016 + A11:2020 + A1:2020 ETSI EN 301 489-1 V2.2.3 (2019-11)
Electrical Equipment (Safety) Regulations 2016 (as amended) SI 2016/1101	EN IEC 62368-1:2020 + A11:2020
The Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (as amended) SI 2012/3032	EN IEC 63000:2018

Type Tests

IEC/EN 61000-6-3	Generic standard emission
IEC/EN 55032	Emission requirements
IEC/EN 61000-6-2	Generic standard immunity
IEC/EN 55024	Immunity characteristics

Operating Specifications

Acoustic Noise Emissions	0 dB(A)
Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)
Storage Temperature	-20 °C to 75 °C (-4 °F to 167 °F)
Relative Humidity	Max. 85 % at 30 °C (86 °F), non-condensing
Operating Altitude	Max. 4,000 m (13,123 ft) above sea level

Miscellaneous Support & Compliance Information

Technical Support	Free lifetime support via telephone and email, including firmware updates
Warranty	Three-year warranty, extendable upon request
Firmware Updates	Firmware is field-upgradeable; updates can be installed directly from the unit or via a remote network connection. Software updates are provided free of charge for the lifetime of your Meinberg product.
RoHS Compliance	The product is fully RoHS-compliant.
WEEE Status	The purchase of this product is considered to be a “B2B” transaction (non-household product) for the purposes of the European Union Waste of Electrical and Electronic Equipment Directive; the product falls under Category 6, “Small IT and Telecommunications Equipment”. For disposal, it must be returned to the manufacturer to ensure WEEE compliance. Any transportation expenses for returning this product (at end-of-life) must be covered by the end user, while Meinberg will cover the costs for the waste disposal itself.