MEINBERG

Technical Information

Operating Instructions

Signal Distribution Unit

SDU

Impressum

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The Modular System SDU IRIG/TTL

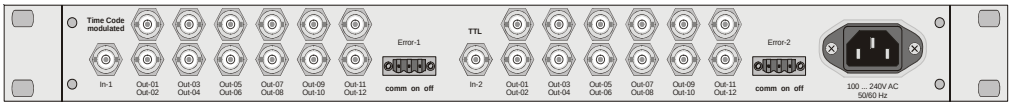
The Signal Distribution Unit SDU is a set of equipment composed of one or two SDU modules (IRIG-B, TTL or FO) and a power supply module, all installed in a metal desktop case MULTIPAC and ready to operate.The input/output signales of the SDU are accessiable via connectors in the back panel of the case.

Details of the components are described below.

SDU in desktop case MULTIPAC

front view

back view



Timecode Distribution SDU/IRIG

The Board SDU/IRIG was designed for the distribution of IRIG-A/B Timecode signals. It is equipped with an adjustable input amplifier as well as twelve output buffers. The signal outputs are available via BNC connectors. By means of signal LED's, the status of the Board is identifiable . Due to the input amplifiers adjustable gain, the boards are cascadable.

The SDU/IRIG contains a error detection for losing signal output, this ERROR state is signed by the Alarm LED on the front panel, and by the ERROR output connector on the back panel.

During "OK" State the connection of the Relay is between: comm - on
During "ERROR" State the connection of the Relay is between: comm - off

The SDU/IRIG is available in two different Modules

Modul TCM: Time Code modulated unbalanced

Modul TCB: Time Code modulated balanced

Specification:

Inputs:	IRIG-A/B Signal or similar timecode with sinusoidal carrier
Input Voltage Range:	$0.5V_{pp}...4V_{pp}$
Input Impedance:	50 Ohm / 600 Ohm, DC-Insulated
Outputs:	balanced or unbalanced 12 x IRIG-A/B Signal (or similar Timecode)
unbalanced	3Vpp (MARK), 1Vpp (SPACE) at 50 Ohm for IRIG common GND for all outputs
balanced	2Vpp at 600 Ohm, with isolated BNC connector
Gain:	adjustable automatic Gain control
Connectors:	
Inputsignal	1 x BNC isolated connector
Outputsignal	12 x BNC isolated connector

TTL Distribution Card SDU/TTL

The Board SDU/TTL was designed for the distribution of TTL signals. The input connection is a BNC connector, the input signal is driven to twelve output buffers, which are capable of driving 50 Ohm loads. The signal outputs are available via BNC connectors.

The SDU/TTL contains a ERROR detection for losing signal output, this ERROR state is signed by the Alarm LED on the front panel, and by the ERROR output connector on the back panel. For correct error detection on a PPS signal, a minimum pulse width of 100ms is required, shorter pulse width signals are possible on request.
The insulated input by opto-coupler device is optional possible.

During "OK" State the connection of the Relay is between: comm - on
During "ERROR" State the connection of the Relay is between: comm - off

Specification:

Inputs:	TTL Signal (IRIG_DC, PPS, 10MHz, ...) Isulation by opto-coupler (option)
Input Voltage Range:	TTL
Outputs:	12 x TTL
Output Voltage Range:	TTL
Output Impedance:	2.5Vat 50 Ohm load common GND for all outputs
Connectors:	1 x BNC- Connector Inputsignal 12 x BNC- Cconnector Outputsignal

FO Distribution Module SDU/FO

The module SDU/FO was designed for the distribution of fiber optic signals. The input signal is connected via a ST type connector, electrically distributed and spread to twelve output buffers. The signal outputs are available via ST type connectors as well.

The SDU/FO contains a signal detection for the input. This ERROR state is signed by the Alarm LED on the front panel, and by the ERROR output connector on the back panel.

During "OK" State the connection of the Relay is between:	comm - on
During "ERROR" State the connection of the Relay is between:	comm - off

Specification:

Input:	Fiber optic signal, 850nm multi mode for GI 50/125µm or GI 62,5/125µm gradient fiber (PPS, IRIG-DCLS, 10MHz, ...) optional: TTL input via BNC connector
optical input level:	min. 3µW
Outputs:	12 x fiber optic outputs, 850nm multi mode for GI 50/125µm or GI 62,5/125µm gradient fiber
Launchable optical output power:	typ. 15µW per output (into GI 62,5/125µm gradient fiber)
Signal Delay:	rise: 70ns fall: 90ns
Connectors:	1 x ST type connector 12 x ST type connectors

Technical Specifications SDU /MP

HOUSING:	Metal desktop case, MULTIPAC Schroff Front panel: 1 U / 84 HP (43.6 mm high / 426.4 mm wide)
PROTECTION RATING:	IP20
PHYSICAL DIMENSIONS:	482,6 mm wide x 43,7 mm high x 280 mm deep

CE Label

This device conforms to the directive 2004/108/EG on the approximation of the laws of the Member States of the European Community relating to electromagnetc compatibility.

Technical Specifications Power Supply MEAN WELL T-60B

LINE INPUT VOLTAGE:	100 ... 240 VAC
FUSE:	electronic
OUTPUT CURRENT LIMITING:	105 - 150% $I_{out\ nom}$
OUTPUT VOLTAGE:	V_{out}: 5V / 5A
CONNECTOR:	screw terminal
MOUNTING FRAME:	Metal housing: 159 mm x 97 mm x 38 mm
AMBIENT TEMPERATURE:	-10 ... +60°C
HUMIDITY:	90% max.
EMC STANDARDS:	CISPR22(EN55022) CLASS B, IEC801-2,3,4, IEC555-2 VERIFICATION

Control LEDs

POWER:	LED green, output voltage OK

Technical Specifications Power Supply SD-25A-5 (DC)

LINE INPUT VOLTAGE:	9 ... 18 VDC
FUSE:	electronic
OUTPUT CURRENT LIMITING:	105 - 150% $I_{out\ nom}$
OUTPUT VOLTAGE:	V_{out}: 5V / 5A
TOTAL LOAD:	25Watt max.
CONNECTOR:	screw terminal
MOUNTING FRAME:	Metal housing: 98.5 mm x 97 mm x 36.5 mm
AMBIENT TEMPERATURE:	-10 ... +60°C
HUMIDITY:	90% max.
EMC STANDARDS:	EN55022 class B EN61000-4-2,3,4,6,8 ENV50204

Control LEDs

POWER:	LED green, output voltage OK

Technical Specifications Power Supply SD-25B-5 (DC)

LINE INPUT VOLTAGE:	19 ... 36 VDC
FUSE:	electronic
OUTPUT CURRENT LIMITING:	105 - 150% $I_{out\ nom}$
OUTPUT VOLTAGE:	V_{out}: 5V / 5A
TOTAL LOAD:	25Watt max.
CONNECTOR:	screw terminal
MOUNTING FRAME:	Metal housing: 98.5 mm x 97 mm x 36.5 mm
AMBIENT TEMPERATURE:	-10 ... +60°C
HUMIDITY:	90% max.
EMC STANDARDS:	EN55022 class B EN61000-4-2,3,4,6,8 ENV50204

Control LEDs

POWER:	LED green, output voltage OK

Technical Specifications Power Supply SD-25C-5 (DC)

LINE INPUT VOLTAGE:	36 ... 72 VDC
FUSE:	electronic
OUTPUT CURRENT LIMITING:	105 - 150% $I_{out\ nom}$
OUTPUT VOLTAGE:	V_{out}: 5V / 2.1A
TOTAL LOAD:	25Watt max.
CONNECTOR:	screw terminal
MOUNTING FRAME:	Metal housing: 98.5 mm x 97 mm x 36.5 mm
AMBIENT TEMPERATURE:	-10 ... +60°C
HUMIDITY:	90% max.
EMC STANDARDS:	EN55022 class B EN61000-4-2,3,4,6,8 ENV50204

Control LEDs

POWER:	LED green, output voltage OK